



SUBJECT: Sweden Denmark Update Report

TO: Development and Infrastructure Committee

FROM: Capital Works

Report Number: CW-62-16

Wards Affected: Not applicable

File Numbers: 210-01

Date to Committee: December 13, 2016

Date to Council: December 19, 2016

Recommendation:

Receive and file capital works department report CW-62-16.

Purpose:

To report on the lessons learned and outcomes of the recent trip to Sweden and Denmark by a recent delegation representing the City and Burlington Hydro.

Link to the Strategic Plan:

A City that Grows - Promoting Economic Growth & Intensification

A City that Moves - Increased Transportation Flows and Connectivity

A Healthy and Greener City - Environmental and Energy Leadership

Background and Discussion:

Staff previously reported to council on the purpose and background for planning a trip to Sweden and Denmark, specifically visiting the communities of Växjö, Malmö, and Copenhagen (refer to report CW-39-16).

Participants on the trip included:

Mayor Rick Goldring	Mayor	City of Burlington
Councillor Paul Sharman	Councillor	City of Burlington
James Ridge	City Manager	City of Burlington
Frank McKeown	Executive Director	Burlington Economic Development Corp.
Allan Magi	Executive Director, Capital Works	City of Burlington
Lynn Robichaud	Sr. Sustainability Coordinator	City of Burlington
Joe Saunders	VP, Regulatory & Asset Management	Burlington Hydro
Rick Tomson	Conservation Officer	Burlington Hydro
Dave Andrews	Director, Water & Wastewater Treatment	Region of Halton
Jim Cotton	Professor	McMaster University

There were a number of reasons for the visit, including discussions on entering into strategic partnerships and learning about community energy initiatives, economic development opportunities, environmental actions and sustainable urban design, among other areas. City staff worked with representatives from the Business Sweden and Danish Consulate offices in Toronto to coordinate the itinerary for the trip. In addition, a suggestion was made to have a bike tour of Copenhagen and presentation by Copenhagenize Design, a consulting firm with international experience in developing cycling master plans and infrastructure. Incidentally, the guide from this consulting firm is originally from Burlington, so had a good understanding of our challenges and opportunities.

A full itinerary and summary report is provided in the report appendix.

Context:

- The Swedish legislative context provides for strong local governments. Legislative authority was described as an hour glass with broad responsibilities for local governments including planning, education, housing, elder care, energy, sewer, water, waste and transportation. Regional responsibilities are limited primarily to health care and federal responsibilities are broad, including fiscal and monetary policy, international issues, and defense including policing.
- Local municipalities derive the majority of their revenue from personal income taxes with a “complicated” transfer system to equalize between the have (generally the larger urban municipalities) and the have nots (smaller and northern municipalities). Federal governments collect corporate income tax and the value-added tax (VAT at 25%).
- Municipalities are major players in the local economy and real estate market. The city of Växjö, population 90,000, owns 63% of the local housing units or 10,500 apartment units, and is in the process of selling 2,000 of these to re-invest in other municipal initiatives. The city has 6,200 employees and serves over 25,000 meals a day (seniors care, schools, etc.). This scale allows for the municipality to have influence over local procurement and sourcing of everything from building retrofits to packaging and food.
- The local political system is complicated where the Växjö city council is made up of over 60 members and is based on a party system and ultimately governed through coalitions. Notwithstanding, there has been broad consensus on high level goals related to environmental targets and energy independence, with very active dialogue on how to achieve these.

Transportation Planning

- Transportation plans integrate all modes of transportation
- Växjö Transportation Master Plan aims at “creating a more efficient and sustainable transportation system, recognizing that more people and freight are to be transported in the same available area, and car traffic is too space-intensive and causes traffic disruption. By enabling those who can switch to more efficient modes of transportation to do so, capacity is freed up to cater to

those who cannot make the switch and rely on private car use. To accomplish this, some of the strategies include (refer to Appendix C for full list)¹:

- Reducing the need for travel and transport (mixed use development, local schools, etc)
- Transferring trips from private car use to walking, cycling and public transport where alternatives exist
- Promoting safer traffic behaviours among road users
- Transitioning to lower impact vehicles and fuels
- Malmö's West Harbour development and the new climate smart 'Hyllie' development are examples where measures to support sustainable transportation choices were incorporated within the land use planning processes. Single occupied vehicles received the least priority.

Integration of Transportation and Land Use Planning

- Although transportation is even a challenge in the municipalities we visited, it appears that they never forgot about planning for and ensuring infrastructure is available to support pedestrians and cyclists.
- Planning for pedestrians and cycling receives high priority in land use planning in the municipalities visited.
- Sustainable urban design and placemaking is important in all communities.
- Växjö is planning a new mixed use hub around its existing train station/transit redevelopment (mobility hub) with a new city hall built to the highest environmental standard.

Cycling Planning & Infrastructure

- People cycle in Copenhagen because they have good cycling infrastructure, travel times are usually shorter by this means, and they feel safe and secure. A survey showed the following results: 56% of Copenhageners cycle because it's quickest; 19% - good exercise; 6% - cheap; 1% - save the planet.

¹ Växjö Municipality Transport Plan (2014)
http://www.vaxjo.se/upload/www.vaxjo.se/Tekniska%20%C3%B6rvaltningen/Gator_trafik/Transportplan_Vaxjo_kommun_eng_k2.pdf

- If safety is not apparent for cycling, Copenhagers will choose another mode of travel.
- Factors noted for safe cycling include sufficient space, more cycle tracks and cycle tracks buffered from traffic.
- The question should be how many people can we move down the street? Not how many cars?
- First priority for snow clearing should be sidewalks and bike paths.
- Use anthropologists to observe 'desire lines' – which way do people want to go?
- Squeezing bicycles into space has no regard for experience, logic or safety; ignores space instead of creating it.

Energy & Waste Management

- In the 1970s, the energy crisis hit Sweden and Denmark hard because of their near absolute reliance on foreign oil, which drove many municipalities to reconsider how they use and generate energy. In response, measures such as car free Sundays were implemented due to restricted supplies at the time.
- In the past, energy supply issues drove their decision making on energy policies, climate change is now a major driver in how and why they take action.
- Energy from waste – is referred to as 'recycled energy'
- Many of the district energy systems (thermal hot water pipes) were legacy systems dating back over 100 years which led to viable fuel substitution options to reduce dependence on foreign oil.
- District energy systems should be planned and implemented with connectability in mind; ensure technologies and standards are consistent.
- There is an increased focus on energy savings in buildings and diversifying energy (renewables and energy from waste).
- Domestic space and water heating utilizes waste heat and other low grade sources first followed by biofuels; high grade fossil fuels (natural gas) would be the last choice.

Environment & Climate Change

- Scandinavia municipalities, residents and businesses have significant pride in their sustainable and environmental accomplishments. And they build on and use this pride.
- Danish and Swedish municipal representatives stress that their economies are healthy and competitive even with a focus on environmental sustainability – decoupled GDP growth from growth in energy/carbon emissions growth.
- Copenhagen wants to be the first carbon neutral capital by 2025.

- Växjö targets:
 - Fossil carbon dioxide emissions per person in the City of Växjö will decrease by 65 per cent between 1993 and 2020. Växjö will be fossil fuel free by 2030.
 - The municipal organization will be fossil fuel free by 2020.
- By as early as 2020, the climate smart Hyllie district in Malmo will be 100 percent sustained by renewable or reused energy.

Follow-up Actions for Consideration:

- The City should explore a membership with ICLEI (International Council for Local Environmental Initiatives) to support its interest in networking with other jurisdictions to share information and knowledge related to sustainability, climate change, economic development, urban design, and sustainable transportation planning, among others.
- Develop presentations to share information with staff, particularly on the planning for the mobility hubs, and Sustainable Development Committee, the Community Energy Plan stakeholders, and others on request.
- Work with developers interested in building within the mobility hubs and ask for an expression of interest – what incentive is required to develop these communities with an integrated energy system? Can we achieve net zero carbon?
- Focus resources on updating an integrated Transportation and Cycling Master Plan (people mobility plan). Need to be **bold** to prioritize active and sustainable transportation options.
- Work with Halton Region on bio-energy alternatives.
- Invite Mikael Colville-Andersen (Copenhagenize Design) to Burlington.
- Invite the Copenhagen Executive for Climate Mitigation to Burlington.
- To build on the several useful contacts made during the trip, develop a central location for international contacts to assist in continuous sharing of information and resources for staff and council.
- Facilitate additional trips with developers and planning staff to learn how they can achieve sustainable integrated community development and energy systems.
- Facilitate updates to the Community Energy Plan and Corporate Energy Management Plans to include analyses of the Strategic Plan net carbon zero targets for city operations and the community, including measures required to meet those targets.

Financial Matters:

The total cost of the trip to the corporation was \$11,158.00.

Connections:

Many of the lessons learned, outcomes and actions resulting from this trip support several plans and strategies either under development or in the implementation stage, including:

- Burlington Community Energy Plan
 - Economic Development
 - Transportation Master Plan (including active transportation)
 - Planning Policy & Development
-

Public Engagement Matters:

Staff will be making presentations on the trip to various groups, including the Sustainable Development Committee, the staff Building Complete Communities team, and the Community Energy Plan Stakeholder Advisory Committee. Sustainability staff will also be preparing a blog on the trip and the Mayor's office is planning an episode of Burlington Matters related to the trip as well as a blog.

Conclusion:

It is difficult to translate the wealth of information and knowledge gathered in one report on this short but intense trip to Sweden and Denmark. The participating delegation members were very engaged and inspired on the wide range of actions and initiatives being undertaken by the three municipalities that were visited, particularly related to energy, climate change, sustainable development, economic development and active transportation. The contacts that were made and the knowledge gained should help Burlington to achieve its strategic directions and principles as outlined in the city's strategic plan.

Respectfully submitted,

Lynn Robichaud

Sr. Sustainability Coordinator

905-335-7600 x7931

Appendices:

- a. Sweden Denmark Summary Report with photos
- b. Sweden Denmark Itinerary
- c. Växjö Transport Plan Summary

Report Approval:

All reports are reviewed and/or approved by Department Director, Director of Finance and Director of Legal. Final approval is by the City Manager.