

Date: May 7, 2009
To: Council
From: Mayor Goldsmith-Jones
Re: **Metro Vancouver / Canadian Delegation to Sweden**

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The Program:

The itinerary is six days of touring southern Sweden by bus and train, to look at ways waste is turned into various forms of energy. I have expressed a particular interest in understanding public attitudes towards conservation and how behaviour needs to change.

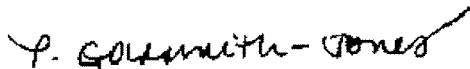
The Benefit:

As a Director, the decisions the Board makes this year will be very significant. This is an excellent opportunity to enhance my ability to make the right decision. I have also committed to participating in the upcoming Metro Vancouver Council to Council meeting on this topic, as it follows our return. As Mayor, I will prepare a report to Council to help inform our views regarding both liquid and solid waste.

Our Council Meetings:

I will be away from May 21 to June 1.

Councillor Lewis is Acting Mayor in May, so will chair the May 25 Council meeting. Councillor Walker is Acting Mayor in June, so will chair the Public Hearing on Childcare Zoning on June 1.



Pamela Goldsmith-Jones
Mayor, District of West Vancouver

GVRD Item Section E 1.3.1



metrovancover

Greater Vancouver Regional District • Greater Vancouver Water District

Greater Vancouver Sewerage and Drainage District • Metro Vancouver Housing Corporation

4330 Kingsway, Burnaby, BC, Canada V5H 4G8 604-432-6200 www.metrovancover.org

GVRD Board Meeting Date March 27, 2009

To: Board of Directors
From: Johnny Carline, Commissioner/Chief Administrative Officer
Date: March 25, 2009
Subject: **Waste to Energy Educational Tour in Sweden, May 23-30, 2009**

Recommendation:

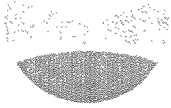
That the Board approve the participation of the following in the Waste to Energy Educational Tour in Sweden, May 23-30, 2009: Directors Linda Hepner, Heather Deal, Pamela Goldsmith-Jones and Councillor Scott Hamilton.

At its March 2009 meetings, the Environment and Energy Committee and the Waste Management Committee considered the report dated February 28, 2009, titled '*Waste to Energy Educational Tour in Sweden, May 23-30, 2009*'. Both Committees supported sending a delegation to the tour. Committee members who are interested in participating as part of this delegation were requested to inform their Committee Chair of their interest and availability.

Staff has consulted with the Chairs of the two committees and as a result recommends a delegation of four, two from each committee, participate in the tour. If the political delegation is approved, one staff member will be assigned to accompany the delegation and assist in preparing the resultant report back to the Board.

As noted in the report to the Committees, the cost of participation is \$6,500 each, which includes airfare, domestic travel in Sweden, hotel accommodation and meals as identified in the program. The participation fee does not include travel to Toronto, meeting fees and per diems.

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GVRD Board of Directors Meeting Date March 27, 2009

To: Board of Directors

From: Environment and Energy Committee

Date: March 10, 2009

Subject: **Waste to Energy Educational Tour in Sweden, May 23-30, 2009**

Environment and Energy Committee Recommendation:

That the Board approve up to three members from Metro Vancouver's Environment and Energy Committee to participate in the Waste to Energy Educational Tour in Sweden, May 23-30, 2009.

At its March 10, 2009 meeting, the Environment and Energy Committee discussed the Waste to Energy Tour in Sweden, May 23-30, 2009.

Committee members expressed considerable interest in participating in the tour given the Committee's role in considering the air quality and energy implications of liquid and solid waste management plans currently under discussion. The Committee subsequently passed a resolution as presented above.

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Environment and Energy Committee Meeting Date: March 10, 2009

Waste Management Committee Meeting Date: March 11, 2009

To: Environment and Energy Committee
Waste Management Committee

From: Toivo Allas, Manager, Policy and Planning Department

Date: February 28, 2009

Subject: **Waste to Energy Educational Tour in Sweden, May 23-30, 2009**

Environment and Energy Committee Recommendation:

That the Environment and Energy Committee consider participation in the Waste to Energy Educational tour in Sweden.

Waste Management Committee Recommendation:

That the Waste Management Committee consider participation in the Waste to Energy Educational tour in Sweden.

1. PURPOSE

To inform the Environment and Energy Committee and Waste Management Committee of an invitation to attend a Waste to Energy Educational Tour in Sweden, May 23-30, 2009.

2. CONTEXT

The Swedish Trade Council and the Embassy of Sweden in cooperation with the Canadian Urban Institute are hosting a Waste to Energy Educational Tour in Sweden. The Tour provides an opportunity to learn firsthand how Swedish municipalities and companies have implemented sustainable systems that use state-of-the-art technologies to recover energy and other resources from urban liquid and solid waste.

Sweden is considered a world leader in Integrated Resource Management (IRM), encompassing both liquid and solid waste, as well as sustainable, non-fossil fuel energy systems. With Metro Vancouver now in the process of updating both its Liquid Waste and Solid Waste Management Plans, this tour can assist in its review of effective management of liquid and solid waste in our growing metropolitan area.

The tour starts in Stockholm with a welcoming reception and briefing to introduce participants to the concepts, environmental policies, regulations and methods to be explored during the tour. Participants will then travel through the southern part of Sweden and visit some of the most sophisticated facilities in the world. Full details of the program are provided in the Attachment to this report, including the following:

- Presentations by the Ministry of Environment, City of Stockholm, and the Swedish Environmental Protection Agency.

Waste to Energy Educational Tour in Sweden, May 23-30, 2009

Environment and Energy Committee Meeting Date: March 10, 2009

Waste Management Committee Meeting Date: March 11, 2009

Page 2 of 2

- A visit to Hammarby Sjöstad – a sustainable brownfield redevelopment of about 10,000 apartments in Stockholm that use district energy from heat recovery and biogas production.
- District energy in the municipality of Oxelösund.
- Linköping biogas production and distribution (garbage trucks, city buses as well as most taxis are fuelled by locally produced biogas), waste-to-energy and district energy.
- Öresundskraft Co-generating Plant, Helsingborg. This plant uses wood pellets imported from British Columbia as one of its fuel sources for generation of electricity and heat.
- Malmö sustainable business hub. A visit to SYSAV, a company owned by 14 municipalities to see their recycling processes, a waste-to-energy facility, and a bio-gas production site.

Participation is anticipated at approximately 20 delegates from across Canada and is expected to include representation from government, private sector, trade unions and universities. The participation fee is \$6,500 and includes:

- Return economy airfare from Toronto to Stockholm
- Domestic travel in Sweden by coach and high-speed train
- Hotel accommodation for 6 nights
- Meals, as identified on the final program.

The participation fee does not include travel to and from Toronto, and if participants prefer to book their own flight to and from Sweden, \$1,000 will be deducted from the participation fee. The deadline to receive applications is Friday, March 13, 2009.

3. ALTERNATIVES

The Waste Management Committee and Environment and Energy Committee may:

- a) Consider participation in the Waste to Energy Educational tour in Sweden,
- Or
- b) Receive the report for information and take no further action.

4. CONCLUSION

Sweden is considered a world leader in Integrated Resource Management (IRM), encompassing both liquid and solid waste, as well as sustainable, non-fossil fuel energy systems. Metro Vancouver is in the process of updating its Liquid Waste and Solid Waste Management Plans. Participation in the tour provides an opportunity to learn firsthand how Swedish municipalities and companies have implemented sustainable systems that use state-of-the-art technologies to recover energy and other resources from urban liquid and solid waste.

ATTACHMENT

Waste to Energy Educational Tour in Sweden, Swedish Trade Council Program (eRIM doc. #004902678).

004902677

ATTACHMENT

Invitation to participate in:

Waste to Energy Educational Tour in Sweden

May 23 – May 30, 2009

Introduction

The Swedish Trade Council and the Embassy of Sweden, in co-operation with the Canadian Urban Institute, invite you to participate in a unique opportunity to travel to Sweden to learn firsthand how municipalities and companies have implemented state-of-the-art technology within the energy and waste to energy sector.

The tour starts in Stockholm with a welcoming reception and classroom briefing to introduce participants to the concepts and methods to be explored during the tour. Participants will then travel through the southern part of Sweden and visit some of the most sophisticated waste to energy facilities in the world. There will also be visits to a bio-gas plant, recycling facility, district energy plant, a steel manufacturer that produces its own energy, and much more. There will be meetings, workshops and presentations arranged throughout the week with experts in the energy sector as well as representatives from all levels of governments, agencies and corporations.

We expect participation from across Canada, and all Canadian companies, organizations and municipalities are welcome to attend.

These are some of the high-lights of this educational opportunity:

- Networking reception hosted by the Canadian Embassy in Stockholm.
- Presentations by the Ministry of Environment, City of Stockholm, Swedish Environmental Protection Agency.
- Visit to Hammarby Sjöstad, a sustainable Brownfield redevelopment of about 10,000 apartments in central Stockholm that demonstrates the sustainable principles of SymbioCity.
- Visit to the City of Södertälje to see a waste collection system based on different coloured garbage bags which are automatically sorted using an optical system in the transfer station.
- Visit to SSAB in the City of Oxelösund. SSAB is a successful and highly productive global producer of high strength steel that has implemented the latest methods in



energy recovery technology. In Oxelösund, SSAB provides the municipality with energy for its district energy system.

- Visit to Tekniska Verken/Usitall, a local utility company owned by the City of Linköping where the city's transit buses, city vehicles and taxis are powered by locally produced bio-gas. There will also be visits to their bio-gas production and distribution facility, their incineration plant and presentation of the district energy system.
- Visit to the City of Helsingborg's waste separation facility, which also produces bio-gas for the local transportation system, based in part on the contribution from the agricultural sector.
- Visit to Öresundskraft Co-generating plant, Helsingborg. The plant is using wood pellets imported from British Columbia as one of its fuel sources.
- Visit to SYSAV in Malmö, a company owned by 14 municipalities in southern Sweden, to see their waste to energy facility, recycling processes and policies and bio-gas production.

If you have any questions or comments please contact Christina Keighren at the Swedish Trade Council in Toronto at christina.keighren@swedishtrade.se or call 416 922 8152 ext 221.

Background

Sweden is considered by many as one of the most modern countries in the world. A well-trained work force, quality oriented way of doing business, high standard of living and a willingness to embrace technological change make Sweden a very interesting market for international companies.

Sweden is also among the world leaders in regards to sustainable developments. A new study conducted by the Sustainable Society Foundation shows that Sweden ranks highest of all countries on the Sustainable Society Index in 2008. Sweden was ranked as #1 in 2006 as well. There is a lot of evidence to support these results: in Sweden, district energy is common in most urban areas and various waste management practices and techniques are used to limit the need for landfills. These techniques include energy from waste and biogas production as well as ambitious recycling programs.

There are several similarities between Canada and Sweden, including the climate, the standard of living, the life-style and the scope of the industrial sectors. Many of Sweden's activities and approaches can be transferred and adapted for use in Canada. At the same time, Sweden offers many opportunities for Canadian firms that wish to compete or partner with some of the leading companies in the world. In general, the Swedish market is very

open to international companies, there is a willingness to try new products and services, English is widely spoken and understood and ethics are very high in any business relationship.

In short, Sweden is a great gateway for North American companies wishing to do business on the European market. Canadian firms will find Scandinavian customers knowledgeable, demanding and quality-oriented but also open to new impressions. And once trust is gained, Swedes are very loyal customers.

Itinerary (Tentative)

Please note that short guides with some history and points of interest to each city we will stop over in on this tour are included at the end of this invitation.

Date	Time	Activity
Saturday, May 23	5:45 pm	Departure from Toronto, flight Toronto (YYZ) – Stockholm (ARN)
Stockholm		
Sunday, May 24	11:20 am	Arrival in Stockholm (ARN)
	1:00 pm	Check-in at hotel Day at leisure
	6:00 pm	Welcome/introduction dinner, including presentation of the program for the week and the participants' expectations
Stockholm		
Monday, May 25	8:30 am	Seminar at Rosenbad Government building about: <ul style="list-style-type: none"> • Swedish public administration – the relationship and the responsibilities of the various levels of Swedish government. • Environmental policies in Sweden – current regulations and plans for the future. • Waste regulations – specific coverage of Swedish waste policies and regulations. • SymbioCity – a holistic approach to sustainable urban development • Sustainable communities – best sustainable practices among five Swedish municipalities



	12:00	Lunch
	2:00 pm	<p>Visit to Hammarby Sjöstad, a sustainable development in central Stockholm consisting of approx. 10 000 apartments:</p> <ul style="list-style-type: none"> • The Hammarby model – sustainable planning • Envac's underground waste collection system • Henriksdals waste treatment plant, biogas production • Heat recovery for district energy system
	6:30 pm	Reception hosted by the Canadian Embassy in Stockholm
Södertälje, Oxelösund, Linköping		
Tuesday, May 26	8:00 am	Departure for Södertälje
	9:00 am	<p>Arrival at Telge Energi where OptiBag will be presented:</p> <ul style="list-style-type: none"> • A visual garbage sorting system with different coloured bags for different types of waste
	11:30 am	Departure for Oxelösund
	12:30 pm	Lunch Oxelösund
	1:30 pm	<p>Visit to SSAB Oxelösund, one of Sweden's largest steel plants, presentation and tour of the facilities including:</p> <ul style="list-style-type: none"> • How the steel plant recovers energy from bi-product gases in steel manufacturing • District energy collaboration with the municipality of Oxelösund through Oxelö Energi
	4:30 pm	Departure for Linköping
	6:00 pm	Arrival at hotel in Linköping
	7:00 pm	Dinner cruise aboard M/S Kind on the Kinda Canal
Linköping, Malmö		
Wednesday, May 27	8:30 am	Departure from hotel
	9:00 am	Visit to Tekniska Verken and Usitall in Linköping, presentation and tour of the facilities including:



		<ul style="list-style-type: none"> • District energy • Energy from waste through incineration • Biogas production and distribution (garbage trucks, city buses as well as most taxis in Linköping are fuelled by locally produced biogas) • Cooperation with local industries
	12:30 pm	Lunch
	2:00 pm	Seminar and workshop at Tekniska Verken about future developments in sustainability and how companies from the region are involved. Presenters come from the University of Linköping, Usitall and companies from the region.
	5:00 pm	Departure from Linköping by X2000 high-speed train to Malmö
	7:46 pm	Arrival in Malmö
	8:00 pm	Check-in at hotel
		Evening at leisure
Helsingborg, Lund, Malmö		
Thursday, May 28	8:00 am	Departure for Helsingborg
	9:00 am	Visit to Norra Skånes Renhållning AB, presentation and tour of the facilities including: <ul style="list-style-type: none"> • Biogas production • Source separation • Visit to public waste separation area • Landfill management
	11:30 am	Lunch
	1:00 pm	Visit to Öresundskraft's co-generating plant, the plant uses wood pellets imported from BC as well as waste heat as some of its fuel sources.
	2:30 pm	Departure for Lund



	3:00 pm	Presentations by Alfa-Laval and TetraPak (TBC), two global Swedish companies with major presence in Canada, about various waste management and waste recovery technologies.
	5:00 pm	Departure for Malmö
	7:00 pm	Dinner
Malmö		
Friday, May 29	8:30 am	Visit to SYSAV (Southern Skåne's Waste Management Company, co-owned by 14 municipalities in Skåne, Sweden's southernmost province), presentation and tour of the facilities including: <ul style="list-style-type: none"> • Swedish waste management philosophy • SYSAV energy from waste plant • Recycling processes and policies • Recovery of electronic waste
	10:30 am	Sustainable business hub – visit to Malmö's sustainable business incubator and Chamber of Commerce. Presentations by companies and organizations at the hub with the latest technologies within the waste to energy sector.
	12:30 pm	Lunch Afternoon at leisure
	7:00 pm	Farewell dinner at Malmo City Hall (TBC)
Malmö, Copenhagen, Toronto		
Saturday, May 30	11:00 am	Departure for Copenhagen Airport
	2:35 pm	Departure from Copenhagen, flight Copenhagen (CPH) - Toronto (YYZ)
	8:15 pm	Arrival in Toronto (YYZ)

About Sweden:

Sweden has 9 million inhabitants and is located in northern Europe. Sweden is a member of the European Union since 1995 but still uses Swedish Krona (SEK) as currency and not the Euro. Sweden has for a long time been one of the most free-market oriented economies in the world and there are more multinational companies per capita in Sweden than anywhere in the world.

The major industrial sectors in Sweden include telecommunications, transportation equipment, forest products, mechanical engineering and machinery, pharmaceuticals and metal works. Some examples of global companies with origin in Sweden are; Ericsson, IKEA, Volvo, SAAB, SKF, Sandvik, Atlas Copco, Alfa Laval, Autoliv, TetraPak, SSAB, Securitas and H&M. Over the last decades, Swedish industry has gradually shifted towards more knowledge-intensive sectors. Sweden is also among the countries that spend the most on R&D in relation to the GDP (around 4%). In addition, the service sector of the economy has expanded rapidly since the Second World War and now represents over 70% of the GDP.



Stockholm:

Stockholm is the capital of Sweden and with approximately 1.3 million inhabitants it is also Sweden's largest city. Stockholm is a city surrounded by water and the city itself consists of 14 islands. Like anywhere else in Sweden, the water is clean and it is safe to swim in it as well as eat fish caught in it, thanks to major investments in wastewater treatment systems. Stockholm is also the site of the national Swedish government, the parliament and the official residence of the Swedish monarch, King Carl XVI Gustaf.

Stockholm has been the cultural, media, political, and economic centre of Sweden since the 13th century. Its strategic location also currently makes it a logical choice for foreign companies wishing to establish a base around the Baltic region.

Famous sights in Stockholm include:

- Gamla Stan (the Old Town), a small island with some of the city's earliest settlements and a medieval street layout.
- Stadshuset (City Hall), architectural landmark where the Nobel prize banquet takes place in December every year.
- The Vasa museum, a museum built around the historic ship Vasa who sank with all her men on her maiden voyage in the Stockholm harbour in 1628.



- Slottet (the Palace), is the official residence of the Royal family located in the Old Town, is neighbour with Riksdagen (the Swedish Parliament). Construction of the palace as it looks now was finished in 1830 after the original palace constructed in the 13th century burned down in 1697.

Linköping:

Linköping is a city with about 140 000 inhabitants situated in the province of Östergötland. Linköping is the center of an old cultural region and celebrated its 700th anniversary in 1987. Nowadays Linköping is known for its university and its high-technology industry including companies such as Saab and Ericsson. Dominating the city's skyline from a far distance is the tower of the Cathedral.

Famous sights in Linköping include:

- Domkyrkan (the Cathedral), in its current appearance was built some 800 years ago but the original cathedral dates back to the 11th century. The Cathedral is the seat for the bishop in the Church of Sweden Diocese of Linköping.
- Stångån and Kinda Canal are the waterways that run through central Linköping, a beautiful section of the canal is situated around the locks in Tannefors.
- Cloetta Centre, sports arena sponsored by the candy company Cloetta-Fazer and home to Linköping Hockey Club (LHC), of the Swedish Elite League.

Malmö:

With over 300 000 inhabitants Malmö is Sweden's third largest city. It is located in the southernmost province of Sweden called Scania (Skåne). The completion of the fixed link – tunnel and bridge – between Malmö and Copenhagen has resulted in tremendous growth for the combined region called the Öresunds region. Many international companies have established their Nordic or Swedish head office or distribution centres in Malmö taking advantage of the easy access to international travel thanks to Copenhagen airport and also the proximity to continental Europe.

Famous sights in Malmö include:

- Turning Torso is with its 190 meters and 54 floors the highest skyscraper in Sweden and the tallest residential building in the EU. The name comes from the 90 degree twist the tower makes around its own axle.
- Västra Hamnen (the Western Harbour), one of Sweden's most famous brownfields where industrial land has been transformed into a new urban area with modern and sustainable housing. Turning Torso is also located in Västra Hamnen.

- Malmöhus (Malmö Castle) is a fortress located in Malmö. The castle is the oldest remaining renaissance castle in Scandinavia and was originally built as a citadel in 1434 by King Eric of Pomerania.

Participation fee

The participation fee is \$6 500 (Canadian) based on 20 participating delegates.

The participation fee includes:

- Economy airfare, Toronto - Stockholm and Copenhagen - Toronto
- Domestic travel in Sweden (coach and high-speed train)
- 6 hotel nights with full breakfast (single occupancy)
- Welcome dinner (Sunday)
- Reception hosted by the Canadian Embassy (Monday)
- Dinner cruise in Linköping (Tuesday)
- Farewell dinner in Malmö (Friday)
- Meals, not including alcohol, as identified on the final program
- An electronic copy of all materials presented during this study trip (will be handed out after the trip)
- Preparation and coordination of the full program
- Work shop and/or briefing session to take place prior to the trip
- Pre-departure contacts to identify participants' goals and expectations for the trip
- A delegate brochure including photograph and corporate/personal bio
- Post-tour follow-up, including pictures and contact information to the presenters and others met during the tour

The participation fee does not include:

- Own travels to and from Toronto

Please note that if you would prefer to book your own flight to and from Sweden \$1000 will be deducted from the participation fee.

Application

Please fill out the enclosed application form which is to be returned no later than Friday, March 13, 2009.

Yours sincerely,

Magnus Andersson
Trade Commissioner
Swedish Trade Council

Ingrid Iremark
Ambassador of Sweden
Embassy of Sweden

Glenn Miller
Director
Canadian Urban Institute

Organizers:

EXPORTRÅDET
SWEDISH TRADE COUNCIL



Canadian
URBAN
institute

Institut
URBAIN
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Organizing partners:


EMBASSY OF SWEDEN
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