

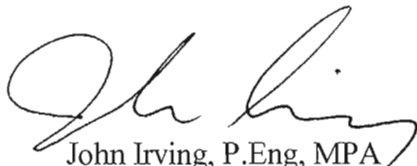


To: General Purposes Committee **Date:** June 6, 2013
From: John Irving, P.Eng, MPA **File:** 10-6000-01/2013-Vol
 Director, Engineering 01
Re: **Site Evaluation Criteria for New Waste to Energy Capacity for Metro
 Vancouver**

Staff Recommendation

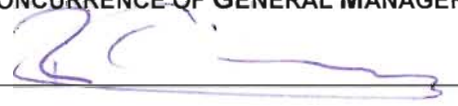

That the following proposed criteria in the “Site Evaluation Criteria for New Waste to Energy Capacity for Metro Vancouver” report from the Director of Engineering, dated June 6, 2013, be forwarded to Metro Vancouver for consideration for Phase 2 (Potential Site Identification Process) of the regional waste-to-energy procurement process:

- a. Selected sites should be compatible with Metro Vancouver’s 2040 Regional Growth Strategy and land use designations and policies in the City of Richmond’s 2041 OCP;
- b. Selected sites must not be within City of Richmond’s designated environmentally sensitive areas (ESAs) and Ecological Network; and,
- c. Selected sites must not be within the Agricultural Land Reserve in the City of Richmond.



John Irving, P.Eng, MPA
 Director, Engineering

(604-276-4140)

REPORT CONCURRENCE			
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER	
Policy Planning	<input checked="" type="checkbox"/>		
REVIEWED BY DIRECTORS	INITIALS: DW	REVIEWED BY CAO	INITIALS: 

Staff Report

Origin

On May 25, 2010, Council endorsed Metro Vancouver's *Integrated Solid Waste and Resource Management Plan* (ISWRMP). The purpose of this report is to provide an update on the procurement process for the waste-to-energy component of the ISWRMP.

Background

Metro Vancouver is completing an eight phase procurement process for increasing regional waste-to-energy capacity. Waste-to-energy means any process that converts waste material to energy and heat, including the production of fuel which is subsequently combusted for these purposes. Metro Vancouver set the new waste-to-energy maximum capacity at 370,000 tonnes per year for managing solid waste remaining after recycling which will be provided by one or more Metro Vancouver owned facilities. The following phases define the procurement process:

- Phase 1: Request for Qualification: Technology
- Phase 2: Potential Site Identification Process (**in progress**)
- Phase 3: Request for Qualification 2: Technology and Sites
- Phase 4: Request for Proposal: Short-listed Proponents and Sites
- Phase 5: Regulatory and Environmental Assessment Processes
- Phase 6: Detailed Design / Construction
- Phase 7: Commissioning and Operation
- Phase 8: Monitoring

Metro Vancouver completed the first request for qualifications regarding technology (Phase 1) and reported to the MV Board with recommended shortlisted technologies at the June 6th Zero Waste Committee meeting. To set the stage for identifying potential host sites, Metro Vancouver developed draft high-level site evaluation criteria for review and comment (**Attachment 1**). Once criteria have been confirmed by the Zero Waste Committee, Metro Vancouver will issue a Request for Proposal (RFP) to allow public and private landowners to propose candidate sites for evaluation. The target date for issuance of the RFP is July 2013, pending Zero Waste Committee approval.

Public and private landowners located in the City of Richmond are eligible to propose candidate sites for consideration and evaluation as part of the Phase 2 process. If a site(s) is identified in the City of Richmond, consultation activities will take place after the potential sites are shortlisted.

At this stage, Metro Vancouver is seeking suggestions and input on the proposed criteria from stakeholders as well as accepting additional site identification criteria for consideration. Ensuring that Council has input prior to broad public consultation and prior to proponents committing to potential sites is critical to the success of the procurement process.

Proposed Additional Site Evaluation Criteria

Staff recommend including the following criteria for consideration by Metro Vancouver:

- a. Selected sites should be compatible with Metro Vancouver's 2040 Regional Growth Strategy and land use designations and policies in the City of Richmond's 2041 OCP;
- b. Selected sites must not be within City of Richmond's designated environmentally sensitive areas (ESAs) and Ecological Network; and,
- c. Selected sites must not be within the Agricultural Land Reserve in the City of Richmond.

Impacts

None at this time. As part of Metro Vancouver's procurement process for waste-to-energy facilities, impacts will be considered as part of every phase. Phase 5 (Regulatory and Environmental Assessment Processes) will identify specific impacts related to environmental issues for sites and technologies identified through previous phases.

Conclusion

Ensuring that Council has input into the site identification process prior to broad public consultation and prior to proponents committing to potential sites will be critical to a successful process. The above proposed criteria address the City of Richmond's priorities for evaluating candidate sites for waste-to-energy facilities.



Peter Russell MCIP, RPP
Sr. Manager, Sustainability and District Energy
(604-276-4130)

TTC:ji

Attachment #1 New Waste-to-Energy Capacity for Metro Vancouver – Potential Site Identification Memo to Mayor and Councillors.



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

TO: MAYOR & EACH
COUNCILLOR
FROM: CITY CLERK'S OFFICE

PC: Robert Gonzalez -
for appropriate action
Executive offices

Tel. 604-432-6215 Fax 604-451-6614

May 15, 2013

Mayor Malcolm Brodie and Members of Council
City of Richmond
6911 No. 3 Road
Richmond, BC V6Y 2C1

PHOTOCOPIED

File: CP-16-02-032

JUN 3 2013

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Dear Mayor Brodie and Members of Council:

Re: New Waste-to-Energy Capacity for Metro Vancouver – Potential Site Identification

Metro Vancouver is preparing to enter the potential site identification phase of the new waste-to-energy (WTE) capacity procurement process and has developed draft high-level site evaluation criteria which are now available for review and comment. Metro Vancouver is also seeking suggestions and input on additional site identification criteria.

Metro Vancouver and its municipalities manage garbage in a way that aims to avoid waste in the first instance, facilitates recycling and reuse where practical, recovers materials and energy where possible, and uses the most environmentally and economically responsible means of dealing with what remains.

Even after achieving an ambitious waste diversion goal of 70% in 2015 and striving for 80% by 2020, approximately 700,000 tonnes of waste will still remain and need to be managed each year.

To more effectively manage the region's residual waste remaining after diversion, Metro Vancouver and its municipalities have determined that additional waste-to-energy capacity is the best solution – a decision that was supported by provincial approval of the region's Integrated Solid Waste and Resource Management Plan. As a condition of this approval, the Minister of Environment requires Metro Vancouver, in developing new WTE capacity, to consider "the full range of possible options both in and out of region in an equal and fair manner."

In March 2012, the Metro Vancouver Board directed staff "to recommend a procurement process for new WTE capacity that ultimately:

- (a) considers all WTE technology options within one procurement process;
- (b) allows proposals that include a site or sites along with proposed technology solution; and
- (c) allows owners of potential sites to self-identify."

In October 2012, Metro Vancouver outlined a multi-phase process to develop new WTE capacity. Phase 1 of the process is nearing completion with evaluation of responses to the first request for qualifications (RFQ1), focused on technology only, underway.

Phase 2, the potential site identification (PSI) process, will identify potential sites for new WTE capacity both inside and outside the region, either brought forward by site owners and made available to all proponents, or brought forward by proponents available exclusively to them.

For more information on the potential site identification process and the new WTE capacity development process, visit www.metrovancouver.org and search for “Developing New-Waste-to-Energy Capacity.”

As part of the PSI process, Metro Vancouver is inviting comments from stakeholders regarding the draft high-level criteria that will be used to evaluate and develop a shortlist of possible sites, during a comment period extending to June 14, 2013. Refer to the attachment for a list of the draft high-level criteria.

Considering all input received, a recommended list of high-level evaluation criteria will be reported to Metro Vancouver’s Zero Waste Committee and Board. Following Board approval, the final criteria will be used to evaluate and shortlist proposed sites. Additional detailed criteria will be developed to evaluate project proposals at subsequent phases of the new WTE capacity procurement process.

Additional consultation activities, including public events in the jurisdictions of the potential sites identified, and in both Metro Vancouver and the Fraser Valley Regional District, will take place after the potential sites are shortlisted.

If you have any comments on these initial high-level evaluation criteria, suggestions for additional criteria, or any questions or comments regarding the new WTE capacity development process, please contact Paul Henderson, General Manager, Solid Waste Services:

Email: paul.henderson@metrovancouver.org
Please note in subject line: New Waste-to-Energy

Mail: Paul Henderson, General Manager
Solid Waste Services
Metro Vancouver
4330 Kingsway
Burnaby, BC V5H 4G8

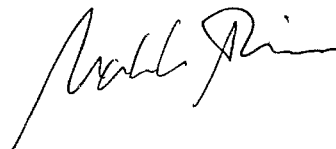
We look forward to hearing from you regarding the development of new WTE capacity for Metro Vancouver.

Yours truly,



Greg Moore
Chair, Metro Vancouver Board

GM/MB/PH/ts



Malcolm Brodie
Chair, Zero Waste Committee

Attachment: Draft - High-level potential site evaluation criteria for new Waste-to-Energy capacity for Metro Vancouver (7302248)

Attachment:

DRAFT**High-level potential site evaluation criteria for new Waste-to-Energy capacity for Metro Vancouver**

The following initial high level criteria were identified in Metro Vancouver's Integrated Solid Waste and Resource Management Plan and in the October 2012 Zero Waste Committee report on the new WTE capacity procurement process:

1. Site size
 - Required site size for a WTE facility depends on a number of variables including: technology, waste quantity processed, number and type of vehicles received at the facility, residual processing requirements, and, buffer areas.
 - The existing WTE facility in Burnaby processes approximately 285,000 tonnes per year of waste delivered by garbage trucks (no small vehicles) on an approximately 2 hectare site. This site is considered small based on the amount of waste processed with limited buffer area and space for upgrades and ancillary activities.
2. Air quality implications
 - A screening-level air quality analysis will be conducted of the proposed sites for their suitability to host a WTE facility up to the maximum size considered in the procurement process (370,000 tonnes/year). The analysis will include consideration of any direct emissions from the facility, as well as emissions associated with transportation of materials to and from the facility.
3. Allowed and neighbouring land uses
 - In North America, WTE facilities are typically located in heavy industrial areas. In Europe and Asia, WTE facilities are often located adjacent to commercial and residential areas to minimize transportation requirements and maximize opportunities for heat use.
4. Transportation logistics and impacts
 - Waste is typically delivered to WTE facilities by truck, but could be delivered by rail or barge. For transportation purposes, if WTE facilities are located close to waste generators, the waste may be delivered directly from source to facilities without requiring transfer facilities. Sites will be evaluated for transportation logistics as well as community impacts of transportation systems.
5. Suitability for district energy
 - Depending on the technology, locating a WTE facility near potential heat customers may provide the opportunity to develop a district energy system. A district energy system could provide economic opportunities for the host community, and reduce the overall environmental impact of the WTE facility and district energy system by displacing natural gas normally combusted for heat by those customers.
6. Cost/option cost (the cost to Metro Vancouver to option a potential site to ensure its availability)
 - Landowners will have the opportunity through a public process to offer sites for potential use for new WTE capacity. Offers will be based on options to purchase by Metro Vancouver. The cost/option cost of the potential sites will be included in the evaluation criteria to determine which sites to shortlist for subsequent procurement stages.