

COMMITTEE OF THE WHOLE JUNE 21, 2004

VAUGHAN LANDFILL GAS COLLECTION

Recommendation

The Commissioner of Engineering and Public Works recommends that a By-law be enacted to authorize the existing Vaughan landfill gas collection system to be connected to the City of Toronto's Keele Valley Landfill gas collection system, and to provide that:

1. The Ministry of Environment shall approve the connection of the two systems
2. The City of Toronto shall approve the connection between the two systems,
3. The landfill gas collection system serving the former Vaughan Landfill shall not be expanded beyond its current physical size and form without approval by the City of Vaughan,
4. Engineering and Legal Services Departments be authorized to prepare any conditions or agreements necessary to protect the City of Vaughan's interests; and
5. The Mayor and City Clerk be authorized to execute said agreements when to the satisfaction of the Commissioner of Engineering and Public Works and the Commissioner of Legal and Administrative Services.

Purpose

To seek approval to connect the Vaughan landfill gas collection system to the existing City of Toronto's landfill gas collection system at the Keele Valley landfill site.

Background - Analysis and Options

The Vaughan Public Works Department operates a landfill gas collection system at the City's former landfill site on the north side of Teston Road. The landfill gasses are collected along the southern boundary of the landfill site to prevent migration of the gasses to the nearby industrial area. These gasses are then flared (burned). The existing operation requires staff to inspect and monitor the flare daily and also requires annual expenditures of funds to keep the flare system operational. In addition, Vaughan retains consultants to monitor the gas collection wells and prepare semi-annual reports for submission to the Ministry of Environment.

The City of Toronto's Keele Valley landfill gas collection operates on the south side of Teston Road. Gas collected in their system is sent to Eastern Power where it is burned and used to produce electricity. At the time the Keele Valley system was built, discussions between the City and Metropolitan Toronto took place, and consideration was given to hooking up the Vaughan landfill gas collection system to the Keele Valley system. A connection "T" was incorporated into Toronto's system for this connection; however, an agreement between the two municipalities could not be reached and the connection across Teston Road between the two systems was never made.

Recently, both Toronto and Eastern Power have expressed an interest in connecting the Vaughan system into the Keele Valley system. Staff have met with representatives from Toronto and Eastern Power to discuss the details. City of Toronto staff have indicated verbally that they would pay for the connection across Teston Road if the City paid for the design work.

Connecting the two systems would provide additional landfill gas to Toronto, and ultimately Eastern Power. This additional gas would benefit Eastern Power's current generating capability

and may extend the number of years that the operation would be able to produce electricity. In turn, this would benefit both Toronto and Vaughan. Vaughan currently receives a portion of the revenue provided to the City of Toronto from Eastern Power. Connecting Vaughan's system to the Keele Valley system may provide additional revenue from the additional power that could be produced, and/or extend the amount of time the plant could continue to generate electricity. However, and more importantly, this connection would save thousands of dollars in staff time and future maintenance and repair costs Vaughan's existing flare.

Although there are some financial benefits to this connection, the environmental benefits cannot be ignored either. As was stated earlier, the Vaughan landfill gasses that are currently collected are simply flared off. Connecting into the Keele Valley gas collection system would ensure that the landfill gasses *are used*, not simply wasted. Electricity production from landfill gasses is considered to be Green Energy, which is a significant environmental benefit.

Notwithstanding that there are financial benefits to all parties and to the environment, the Ministry of Environment must approve any change to the way the City collects and utilizes landfill gas from its landfill. Both the City of Toronto and the City of Vaughan would need to receive approval from the Ministry to proceed with this project.

Since the Vaughan landfill forms part of the Maple Valley plan, it is recommended that if this project receives both Council and Ministry of Environment approval, the existing gas collection system not be expanded unless Council approves such an expansion.

Given that this project would involve another municipality, it is recommended that Engineering and Legal Services staff be authorized to meet with Toronto staff and any other necessary parties to finalize any agreement necessary to ensure that Vaughan's interests are protected.

Relationship to Vaughan Vision 2007

Connecting the two landfill gas collection systems would comply with Vaughan Vision 4.4.4, which states, "Ensure that municipal operations are undertaken in an environmentally responsible manner." This report recommends a change from the priorities previously set by Council and the necessary resources have been included in the approved budgets.

Conclusion

Connecting the City's landfill gas collection system to Toronto's Keele Valley landfill gas collection system would provide both financial and environmental benefits. Providing the Ministry of Environment and the City of Toronto approve such a connection, it is recommended that staff be authorized to move ahead with this project. Further reports to Committee would be prepared as necessary for information and approved purposes.

Attachments

None

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Respectfully submitted,

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