

To: Zero Waste Committee

From: Brent Kirkpatrick, Lead Senior Engineer, Solid Waste Services

Date: April 4, 2019 Meeting Date: April 12, 2019

Subject: **Waste-to-Energy Facility 2018 Financial Update**

RECOMMENDATION

That the GVS&DD Board receive for information the report dated April 4, 2019, titled “Waste-to-Energy Facility 2018 Financial Update”.

PURPOSE

The purpose of the report is to provide the Zero Waste Committee and GVS&DD Board with a 2018 financial update for the Metro Vancouver Waste-to-Energy Facility located in Burnaby.

BACKGROUND

On an annual basis, results of the operation of the Waste-to-Energy Facility and contract with Covanta Burnaby Renewable Energy, ULC (Covanta), including tonnages, expenditures, revenues, service level and performance, and unit costs, are provided to the Zero Waste Committee and Board for information.

2018 WASTE-TO-ENERGY FACILITY FINANCIALS

Table 1 provides the past three years of expenditures for the Waste-to-Energy Facility.

Table 1: 3-Year Expenditures for the Waste-to-Energy Facility

	2016	2017	2018
Operating Cost	\$20,437,204	\$20,575,965	\$19,617,423
Debt Charges *	\$1,629,151	\$1,700,248	\$879,800
Total Expenditure	\$22,066,355	\$22,276,213	\$20,497,223
Tonnage	254,256	259,748	253,123
Unit Cost / Tonne **	\$86.79	\$85.76	\$80.98

* Debt charges are payments for principles and interests on long term financing.

** Includes debt servicing costs.

Operating costs include operations and maintenance of the Waste-to-Energy Facility and ash management (additional information on ash management provided below in table 2). Cost reductions were primarily the result of reduced debt servicing costs with the completion of debt payments for the turbo generator and reduced ash management costs.

Table 2: Metro Vancouver’s Bottom Ash and Fly Ash Disposal costs for the Waste-to-Energy Facility

	2016	2017	2018
Fly Ash Disposal	\$1,655,102	\$1,368,291	\$1,385,142
Bottom Ash Disposal	\$1,349,498	\$1,211,348	\$257,461
Disposal Costs / Tonne of Incoming Waste	\$11.82	\$9.93	\$6.49

Ash management costs have decreased over the last two years with the beneficial use of bottom ash in the construction of the replacement Coquitlam Transfer Station starting in October 2017. In 2018, all bottom ash was used as part of the transfer station construction. Metro Vancouver has also benefitted from reduced fly ash disposal costs following a 2017 tender and contract award for fly ash hauling and disposal.

Table 3 below outlines Metro Vancouver’s portion of offsetting electrical revenues. Electrical revenue in 2018 was similar to 2016 and 2017. The metal revenue in 2018 reflected higher recycled metal prices.

Table 3: Metro Vancouver’s Portion of Electrical and Metal Revenues for the Waste-to-Energy Facility

	2016	2017	2018
Electrical Revenue	\$5,796,681	\$5,642,942	\$5,584,341
Metals Revenue	\$156,371	\$140,325	\$191,495
Tonnage	254,256	259,748	253,123
Unit Revenue / Tonne	\$23.41	\$22.26	\$22.82

Table 4 shows net cost per tonne for the Waste-to-Energy Facility from 2016 to 2018. A 6% reduction in net costs was achieved from 2017 to 2018.

Table 4: 3-Year Net Unit Cost for Operation and Maintenance of the Waste-to-Energy Facility (including debt servicing)

	2016	2017	2018
Unit Cost / Tonne (from Table 1)	\$86.79	\$85.76	\$80.98
Unit Revenue/ Tonne (from Table 3)	\$23.41	\$22.26	\$22.82
Net Unit Cost/ Tonne	\$63.37	\$63.50	\$58.16

ALTERNATIVES

This is an information report, therefore no alternatives are presented.

FINANCIAL IMPLICATIONS

Waste-to-Energy Facility costs decreased in 2018 primarily through reduced costs for ash management with the beneficial use of bottom ash in the construction of the replacement Coquitlam Transfer Station. Metro Vancouver continues to work with Covanta to minimize facility costs and overall, the Waste-to-Energy Facility continues to be a low-cost regional disposal option.

SUMMARY / CONCLUSION

Expenditures in 2018 for the Waste-to-Energy Facility totaled \$20.5 million, including \$0.88 million in debt charges, resulting in an expenditure of \$80.98 per tonne. Metro Vancouver’s portion of electrical and metals revenues totaled \$5,775,836 or \$22.82 per tonne. Based on the plant processing 253,123 tonnes of municipal solid waste, the net unit cost per tonne for operation and maintenance of the Waste-to-Energy Facility in 2018 was \$58.16 per tonne. Tipping fee revenues are accounted for separately and are not included in this analysis.

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