

To: Zero Waste Committee

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

Date: September 2, 2025

Meeting Date: September 11, 2025

Subject: **Waste-to-Energy Facility 2024 Financial Update**

RECOMMENDATION

That the Zero Waste Committee receive for information the report dated September 2, 2025, titled "Waste-to-Energy Facility 2024 Financial Update".

EXECUTIVE SUMMARY

This report provides the annual financial update for the Metro Vancouver Waste-to-Energy Facility. The facility continues to be an environmentally sound, cost-effective disposal option. In 2024 the Waste-to-Energy Facility processed 243,168 tonnes of municipal solid waste at an overall net unit cost of \$99 per tonne for operation, maintenance and debt service. Waste-to-Energy Facility electrical revenues in 2024 continued to be impacted by the 2023 generator failure because the generator was not back in service until July 2024. Insurance claims related to the generator failure were resolved in 2024 with the insurance recoveries roughly balancing out the combination of the cost of the generator repair plus lost electrical revenue.

Waste-to-Energy Facility unit costs are consistent with the cost of managing waste at the Vancouver Landfill and roughly half the cost of managing waste through Metro Vancouver's contingency disposal contracts. Waste-to-Energy Facility costs are funded through garbage tipping fees paid by all solid waste system users.

PURPOSE

The purpose of this report is to provide the Zero Waste Committee with the annual financial update for the Metro Vancouver Waste-to-Energy Facility located in Burnaby.

BACKGROUND

Annually, 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 for information.

2024 WASTE-TO-ENERGY FACILITY FINANCIALS

Table 1 provides the past three years of expenditures for the Waste-to-Energy Facility. Total expenditures include operations and maintenance of the Waste-to-Energy Facility, ash management costs, and capital project debt service costs. 2024 operating costs include the cost of the generator repair, equal to \$3.9 million. Total ash management costs in 2024 were comparable to 2023. Capital project debt service costs have increased as a result of new capital projects. The majority of the capital costs from the past three years have been associated with the feed hopper construction project, fly ash silo refurbishment and the primary economizer replacement project.

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

	2022	2023	2024
Operating Cost	\$20,226,031	\$21,932,040	\$27,301,951
Fly Ash Disposal Costs	\$1,455,819	\$1,514,159	\$1,873,316
Bottom Ash Disposal Costs	\$1,767,871	\$2,219,025	\$1,752,556
Capital Project Debt Service Costs	\$859,075	\$1,021,203	\$2,689,123
Total Expenditure	\$24,308,868	\$26,686,427	\$33,616,947
Tonnage	233,052	236,278	243,168
Unit Cost / Tonne	\$104.31	\$112.95	\$138.25

Table 2 outlines Metro Vancouver's portion of offsetting revenues. Electrical revenue in 2024 continued to be reduced due to the generator failing in September 2023, with approximately \$2 million less electrical revenue compared to 2022. The generator has now been repaired and back in service as of early July 2024. Insurance claims related to the generator failure have been resolved with the insurance providers. Metal revenues are tied to the commodity value of the metal at any given time. Incremental revenue associated with Special Handle Waste destruction has been included in 2024. The majority of this waste is international marine and airline waste designated by the Canadian Food and Inspection Agency designates for destruction.

Table 2: Metro Vancouver's Portion of Electrical and Metal Revenues for the Waste-to-Energy Facility

	2022	2023	2024
Electrical Revenue	\$5,705,028	\$4,597,068	\$3,649,146
Metals Revenue	\$360,428	\$309,482	\$291,476.77
Special Handle Waste Increment	Not Included	Not Included	\$1,620,343
Tonnage	233,052	236,278	243,168
Unit Revenue / Tonne	\$26.03	\$20.77	\$22.87

Table 3 shows the net cost per tonne for the generator repair, including repair costs and insurance claim settlements for business interruption insurance and property insurance.

Table 3: Generator Repair Costs Settlement

Generator Repair Costs	(\$3,940,867)
Business Interruption Insurance	\$5,015,317
Property Insurance	\$2,902,474
Net Generator Repair Revenue	\$3,976,924
Net Generator Repair Revenue / Tonne	\$16.35

For 2024, the overall financial impact of the generator failure is approximately cost neutral in that electricity revenue loss plus the cost of the generator repair was approximately \$6 million, and the insurance recovery was \$7.9 million.

Table 4 shows net cost per tonne for the Waste-to-Energy Facility from 2022 to 2024. An approximate \$7 per tonne increase in net costs was observed between 2023 and 2024.

Table 4: 3-Year Net Unit Cost for Operation and Maintenance of the Waste-to-Energy Facility

	2022	2023	2024
Unit Cost / Tonne (from Table 1)	\$104.31	\$112.95	\$138.25
Unit Revenue / Tonne (from Table 2)	\$26.03	\$20.77	\$22.87
Generator Repair Revenue / Tonne (Table 3)			\$16.35
Net Unit Cost / Tonne	\$78.28	\$92.18	\$99.02

Comparative Disposal Costs

Garbage is disposed primarily at the Waste-to-Energy Facility or the Vancouver Landfill. Garbage in excess of the local disposal capacity is managed through contingency disposal contracts where garbage is shipped to remote landfills. Table 5 shows disposal costs associated with the three disposal options. Each of the costs include disposal along with recycling and waste centre and transportation costs. Recycling and waste centre and transportation costs are different for each option because of the differences in the relative amount of garbage initially received at a recycling and waste centre. The Waste-to-Energy Facility has low relative cost because the facility is located close to the urban core, and a large portion of the garbage received at that facility is direct hauled there. Comparatively, all garbage sent to contingency disposal is initially received at a recycling and waste centre.

Vancouver landfill costs include all operating and capital costs allocated to Metro Vancouver, estimated closure and post closure costs, and royalties along with recycling and waste centre and transportation costs. The Waste-to-Energy Facility costs are as noted above with the addition of recycling and waste centre and transportation costs. Contingency disposal costs are average contingency disposal contract costs plus recycling and waste centre costs.

Looking into the future, Waste-to-Energy Facility capital projects over the next five years are expected to add approximately \$55 per tonne in debt service costs by 2030. District energy and biosolids capital are not included in that calculation given those projects will be funded through new revenues. Capital and operating costs will continue to be reviewed with the goal of minimizing costs wherever possible.

Table 5: Metro Vancouver Disposal Costs

	Vancouver Landfill	Metro Vancouver Waste-to-Energy Facility	Contingency Disposal
Total Costs / Tonne	\$123.1	\$122.9	\$230.6

ALTERNATIVES

This is an information report. No alternatives are presented.

FINANCIAL IMPLICATIONS

The net cost per tonne of operation, maintenance and debt servicing for the Waste-to-Energy Facility for 2024 was \$99.02 per tonne. Comparing the Waste-to-Energy Facility unit cost for 2024 to 2023 is challenging due to the implications of the generator repair and associated insurance recoveries. Additionally, incremental revenues for Special Handle Waste (difference between the amount charged for Special Handle Waste such as international waste and the amount charged for regular garbage) have not previously been included in the revenue calculations for the Waste-to-Energy Facility.

The Waste-to-Energy Facility continues to be a cost-effective disposal option. Unit costs are comparable to managing garbage at the Vancouver Landfill and approximately half the cost of managing garbage through contingency disposal contracts, where garbage is shipped to remote landfills for disposal. Both the Waste-to-Energy Facility and the Vancouver Landfill are operated to their maximum annual capacity.

Consistent with rest of the solid waste system, Waste-to-Energy Facility costs are funded through garbage tipping fees paid by all solid waste system users.

CONCLUSION

Expenditures in 2024 for the Waste-to-Energy Facility totaled \$30.9 million, resulting in an expenditure of \$138.25 per tonne. Metro Vancouver's portion of electrical revenue, metals revenues, and Special Handle Waste incremental revenue totaled \$5.6 million or \$22.87 per tonne. Based on the plant processing 243,168 tonnes of municipal solid waste in 2024, the net unit cost was \$99.02 per tonne for operation and maintenance of the Waste-to-Energy Facility.

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