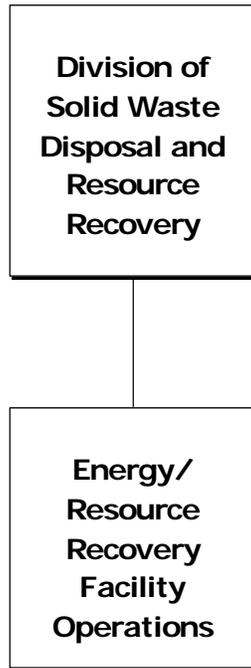


Fund 40160

Energy/Resource Recovery Facility



Mission

To serve Fairfax County residents by providing effective and environmentally-sound solid waste disposal by converting waste-to-energy; by reducing the need for landfill space through volume reduction of solid waste; by reducing the greenhouse gas emissions both by not landfilling waste and by generating renewal energy; and by recovering ferrous and non-ferrous metal from the ash and recycling them; and by managing the operational contract in the best interests of the residents.



Aerial view of the I-95 Energy/Resource Recovery Facility

Focus

Fund 40160 (formerly Fund 112) supports the management of the contract for the I-95 Energy/Resource Recovery Facility (E/RRF), owned and operated by Covanta Fairfax, Inc. (CFI). Under the terms of the Service Agreement, the County delivers municipal solid waste (MSW) for which it pays a disposal fee to CFI. With the approval of its Title V (Air) Permit in January 2007, the facility has the flexibility to operate at a level above its nameplate rating of 3,000 tons per day. Pursuant to an agreement between Dominion Virginia Power and CFI, signed in 1987 and amended in 1996, Dominion Virginia Power purchased up to 80 megawatts of electricity, enough to power about 75,000 homes annually. An amendment approved in FY 2008 allows CFI to generate and sell additional electricity over 80 megawatts; this additional electricity revenue further keeps the rate paid to Covanta low and benefits County residents.

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The County charges a disposal fee to all users of the E/RRF and subsequently pays the contractual disposal fee to CFI. Revenues from the sale of electricity and recycled ferrous metals are used to offset the cost of the disposal fee charged by CFI. In FY 2012, over 75 tons of ferrous metal were recovered each day and almost 4 tons per day of nonferrous metal. This additional recycling helps support the County's excellent overall recycling rate of 47 percent. Starting in January 2013, the County will also begin receiving a 10 percent share of the recovered nonferrous metal revenue. Further, the County receives a fee for certain merchant waste processed by CFI when capacity is available; during FY 2012, over 19,500 tons of merchant waste came into the facility.

When the E/RRF is not able to handle the amount of waste available, some waste is diverted to Virginia landfills. During FY 2012 there were only 12,880 tons of diverted waste, a 75 percent reduction in bypassed waste from the previous year.

County staff must be constantly vigilant in balancing waste as a commodity to ensure that it is disposed of efficiently, cost-effectively and with minimal environmental consequences. Careful management of the Service Agreement with CFI, revenues from electricity sales, increasing metals recycling, and final payment of the construction bonds have allowed the County to hold down disposal fees charged to customers. In FY 2014, the rate will remain at \$29 per ton. Funding from the Rate Stabilization Reserve will be used to buffer against any long term adjustments to the tip fee.

The June 2012 annual stack test indicated that the overall air emissions reductions from the E/RRF, resulting from the Clean Air Act retrofits in 2000, remained well below permit limits with a further reduction in particulate matter from FY 2010.

Energy/Resource Recovery Facility Emissions Results ¹ -- June 2012		
Constituent	Permit Limit	Average E/RRF Result
Sulfur Dioxide (SO ₂)	29 ppm	5.25
Carbon Monoxide (CO)	100 ppm	3.75
Nitrogen Oxides (NO _x)	205 ppm	181.0
Hydrochloric Acid (HCL)	29 ppm	3.97
Particulate Matter (PM)	27 mg/dscm	2.61
Mercury (Hg)	0.080 mg/dscm	.0013
Lead (Pb)	0.44 mg/dscm	.01

ppm = parts per million

mg = milligram

ng = nanogram

Dscm = dry standard cubic meter

¹ Covanta Fairfax Inc. Annual Determination of Compliance with Permitted Emission Limits and 40 CFR, Subpart Cb Report, (COV Report No. 3640 Volumes 1), pages 12-15 for testing conducted May 28-June 8, 2012.

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Ash testing, performed by an independent laboratory during May 7-13, 2012, characterized the ash from the E/RRF as non-hazardous waste. This means that the ash can continue to be disposed at the I-95 Ashfill under its permit for non-hazardous materials. The ash conditioning system that was added to the E/RRF in FY 2005 is providing stabilization for the ash that is placed in the I-95 Ashfill.

The E/RRF has helped reduce the overall Fairfax County waste system carbon emissions by about one ton of carbon for every ton of waste processed. This calculation includes the reduction in overall carbon dioxide generated by the waste management system, due to emission reductions that are realized by not transporting waste to a landfill, the actual carbon dioxide that would be generated at the landfill as well as the carbon dioxide that would be emitted to produce electricity using a fossil fuel.

**The Energy/Resource Recovery Facility supports
the following County Vision Elements:**



Maintaining Safe and Caring Communities



Creating a Culture of Engagement



Practicing Environmental Stewardship



Exercising Corporate Stewardship

CFI and the County have negotiated an innovative project that allows the E/RRF to use reclaimed water from the Noman Cole Wastewater Treatment Plant as the cooling water at the E/RRF, saving millions of gallons of potable water each year. The project will become operational in FY 2013. The County is always exploring new technology to ensure that the E/RRF continues to provide the required environmental service of waste processing while having the least environmental impact possible.

The Fairfax County and Covanta Fairfax, Inc. agreement extends through February 1, 2016. Currently the County is exploring all the options available for waste disposal after that time.

The Household Hazardous Waste (HHW) program, the three Conditionally Exempt Small Quantity Generator events, rechargeable battery collection, eleven “Electric Sundays,” and other programs continue to remove significant amounts of materials with hazardous properties from the waste stream of the E/RRF. These measures contribute to the facility maintaining a low environmental impact for the amount of waste disposed by County residents.

Performance measures for Solid Waste are displayed at a program-wide level. Please refer to the Solid Waste Management Program Overview in Volume 2 of the [FY 2014 Advertised Budget Plan](#) for those items.

Fund 40160

Energy/Resource Recovery Facility

Budget and Staff Resources

Category	FY 2012 Actual	FY 2013 Adopted	FY 2013 Revised	FY 2014 Advertised
FUNDING				
Expenditures:				
Personnel Services	\$852,655	\$850,043	\$850,043	\$916,309
Operating Expenses	15,925,742	18,817,550	18,817,550	20,535,512
Capital Equipment	31,108	0	0	0
Total Expenditures	\$16,809,505	\$19,667,593	\$19,667,593	\$21,451,821
AUTHORIZED POSITIONS/FULL-TIME EQUIVALENT (FTE)				
Regular	12 / 12	12 / 12	12 / 12	12 / 12
1 Management Analyst III		1 Heavy Equipment Operator	1 Administrative Assistant II	
1 Management Analyst II		1 Administrative Assistant IV	5 Weighmasters	
1 Engineering Technician II		1 Administrative Assistant III		
TOTAL POSITIONS				
12 Positions / 12.0 FTE				

FY 2014 Funding Adjustments

The following funding adjustments from the FY 2013 Adopted Budget Plan are necessary to support the FY 2014 program:

- ◆ **Employee Compensation** **\$65,811**
 An increase of \$7,370 in Personnel Services reflects the full year impact of the FY 2013 2.5 percent performance-based scale and salary increase, effective January 2013, for non-uniformed employees. It should be noted that no funding is included for additional employee compensation for this department in FY 2014. In addition, an amount of \$58,441 is included to support extra pay and part time non-merit salaries based on actual experience in previous years.
- ◆ **Other Post-Employment Benefits** **\$455**
 An increase of \$455 is required to reflect increased costs associated with providing Other Post-Employment Benefits (OPEBs) to retirees, including the Retiree Health Benefits Subsidy. Before FY 2011, costs related to these benefits were paid solely by the General Fund; however, these annual costs are now spread across funds in order to more appropriately reflect benefit-related expenses for the employees within each fund. For more information on Other Post-Employment Benefits, please refer to Fund 73030, OPEB Trust Fund, in Volume 2 of the FY 2014 Advertised Budget Plan.
- ◆ **Increased Contractor Costs** **\$1,717,962**
 An increase of \$1,717,962 in Operating Expenses is primarily due to an increase in disposal payments to Covanta Fairfax, Inc. based on actual experience and requirements associated with operations and maintenance.

Fund 40160 Energy/Resource Recovery Facility

◆ **Transfer to the General Fund for Indirect Costs**

It should be noted that \$42,000 is included as a transfer to the General Fund beginning in the FY 2014 Advertised Budget Plan to partially offset central support services supported by the General Fund which benefit Fund 40160, Energy/Resource Recovery Facility. These indirect costs include support services such as Human Resources, Purchasing, Budget and other administrative services.

Changes to FY 2013 Adopted Budget Plan

The following funding adjustments reflect all approved changes in the FY 2013 Revised Budget Plan since passage of the FY 2013 Adopted Budget Plan. Included are all adjustments made as part of the FY 2012 Carryover Review, and all other approved changes through December 31, 2012:

◆ **Carryover Adjustments**

\$0

As part of the *FY 2012 Carryover Review*, the Board of Supervisors made no adjustments to this fund.

Fund 40160

Energy/Resource Recovery Facility

FUND STATEMENT

Fund 40160, Energy/Resource Recovery Facility (E/RRF)

	FY 2012 Actual	FY 2013 Adopted Budget Plan	FY 2013 Revised Budget Plan	FY 2014 Advertised Budget Plan
Beginning Balance	\$22,395,866	\$35,455,269	\$36,396,132	\$48,622,139
Revenue:				
Disposal Revenue	\$30,699,462	\$31,193,600	\$31,193,600	\$31,193,600
Other Revenue:				
Interest on Investments ¹	72,087	200,000	200,000	100,000
Miscellaneous ^{1,2}	38,222	500,000	500,000	125,000
Subtotal Other Revenue	\$110,309	\$700,000	\$700,000	\$225,000
Total Revenue	\$30,809,771	\$31,893,600	\$31,893,600	\$31,418,600
Total Available	\$53,205,637	\$67,348,869	\$68,289,732	\$80,040,739
Expenditures:				
Personnel Services	\$852,655	\$850,043	\$850,043	\$916,309
Operating Expenses ¹	15,925,742	18,817,550	18,817,550	20,535,512
Capital Equipment	31,108	0	0	0
Total Expenditures	\$16,809,505	\$19,667,593	\$19,667,593	\$21,451,821
Transfers Out:				
General Fund (10001) ³	\$0	\$0	\$0	\$42,000
Total Transfers Out:	\$0	\$0	\$0	\$42,000
Total Disbursements	\$16,809,505	\$19,667,593	\$19,667,593	\$21,493,821
Ending Balance⁴	\$36,396,132	\$47,681,276	\$48,622,139	\$58,546,918
Tipping Fee Reserve ⁵	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000
Rate Stabilization Reserve ⁶	24,896,132	36,181,276	37,122,139	47,046,918
Operations and Maintenance Reserve ⁷	10,000,000	10,000,000	10,000,000	10,000,000
Unreserved Ending Balance	\$0	\$0	\$0	\$0
Disposal Rate/Ton	\$29	\$29	\$29	\$29

Fund 40160

Energy/Resource Recovery Facility

¹ In order to account for revenues and expenditures in the proper fiscal year, an audit adjustment in the amount of \$433.58 has been reflected as an increase to FY 2012 Interest on Investments revenue, an audit adjustment in the amount of \$1,915.00 has been reflected as a decrease to FY 2012 Miscellaneous revenue, and an audit adjustment in the amount of \$1,032,855.25 has been reflected as an increase to FY 2012 Operating Expenses expenditures. These audit adjustments have been included in the FY 2012 Comprehensive Annual Financial Report (CAFR). Details of the audit adjustments will be included in the FY 2013 Third Quarter package.

² Miscellaneous Revenue is generated by the excess amount that Covanta Fairfax, Inc. (CFI) charges for the disposal of Supplemental Waste.

³ Funding in the amount of \$42,000 is transferred to the General Fund to partially offset central support services supported by the General Fund which benefit Fund 40160. These indirect costs include support services such as Human Resources, Purchasing, Budget and other administrative services.

⁴ Ending balance fluctuations are a result of operating and revenue requirements that change annually. Funding is carried forward each fiscal year to provide flexibility given the uncertainty of market conditions, tipping fee negotiations, and expenditure requirements.

⁵ The Tipping Fee Reserve is used to buffer against sharp annual changes in tip fees. Potential changes could result from issues such as tax changes regarding energy sales, power deregulation, state or EPA environmental fees, and/or contract changes.

⁶ The Rate Stabilization Reserve (RSR) is used to buffer against long term adjustments to tip fees. Although tipping fees are maintained at the current rate, future disposal needs are undetermined, therefore, this reserve continues to rise to prevent sharp rate increases in the future.

⁷ The Operations and Maintenance Reserve is maintained for ongoing improvements and enhancements to the E/RRF including emissions control efforts. Future projects may include additional retrofits to the air pollution control systems for reductions in nitrogen oxides. The reserve will fund the County's share of the initial capital expenditures on the improvements.