

*San Francisco Rate Application*

FIXED VERSUS VARIABLE COST ANALYSIS



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*Prepared by:*

Armanino LLC

*On behalf of:*

Recology Sunset Scavenger, Recology Golden Gate and Recology San Francisco

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## **I. Introduction**

In conjunction with the 2013 rate application, Recology Sunset Scavenger and Recology Golden Gate (the Companies) engaged Armanino LLP to examine the Companies' cost structure to determine, in our professional opinion, which costs, and in which proportions, should be categorized as fixed costs or variable costs. The analysis included on Tables I and II continues that examination of fixed and variable costs for the 2017 rate filing.

It is our understanding that the Companies will continue to include a base charge in their proposed rate application, representing fixed costs of the refuse system. Based on our analysis, a significant portion of the cost structure of the Companies is fixed and could therefore be reasonably reflected in a base charge.

## **II. Fixed versus Variable Cost**

The costs of services provided in the waste industry, as in most industries, are made up of both fixed and variable costs. Fixed costs are those costs not generally impacted by incremental changes in service levels. Variable costs are those that vary directly with incremental changes in service levels. The characterization of each individual cost line item as fixed or variable requires some judgment as most costs will vary with large services changes and most will remain constant with small incremental changes.

We used Schedule D expenses as presented in the 2017 rate application as the basis for our analysis. Table II includes the allocation percentages between fixed and variable. It should be noted that several expense line items have an allocation split between fixed and variable. This was done to acknowledge that many costs, although predominately fixed in nature, will have some component that can vary from year to year. These allocation splits are based on our understanding of the companies and experience working with other collection companies throughout the greater bay area. Specific explanations of these split allocations are as follows:

- Payroll & Related (90% fixed / 10% variable). A majority of payroll related costs for drivers & helpers, repairmen and all the general and administrative staff will not change due to incremental changes in service volumes and hence are considered primarily fixed for rate setting purposes. A variable component of approximately 10% of payroll costs has been included as payroll does have some direct correlation to service changes, especially with respect to overtime.
- O/S Billing Services (90% fixed / 10% variable). The cost associated with customer billing does not change with incremental changes in service volumes and is considered fixed. A variable component of approximately 10% has been included to account for any unexpected billing requirements.
- Truck Maintenance (90% fixed / 10% variable). A majority of parts, repairs and maintenance, tires and supplies costs are incurred in a planned truck maintenance management system and will not change due to incremental changes in service volumes. A variable component of 10% of these costs has been included to account for unexpected repairs, unusual tire wear and related issues that can occur throughout the year.

- Postage (90% fixed / 10% variable). The postage split allocation is similar to O/S billing in that the cost is tied to collection service and will not change due to changes in service. A 10% variable component was included for special mailings.
  
- Telephone (90% fixed / 10% variable). Consistent with O/S billing and postage, telephone costs will not vary materially throughout the year and are considered fixed for rate setting purposes. A variable component of 10% has been included as telephone usage would have some small impact with service level changes.

Expense line items that have been allocated a majority of the cost to variable include disposal fees and recycling and composting processing. 20% of these costs have been allocated to fixed to account for the fixed components of these fees including building and equipment infrastructure, administrative and special programs that would not be tied to changes in tonnages. Diesel costs were allocated at 100% variable as fuel costs will vary directly with in use truck hours.

The remaining costs, primarily general and administrative costs that were not specifically identified as split costs, have been allocated 100% fixed as these costs will not vary materially given incremental changes in customer service levels.

Table I use the allocation percentages from Table II and applies those percentages to the applicable expense line items to allocate actual Schedule D expenses between fixed and variable. Based on the allocators as represented, approximately 62% of costs associated with collection services are fixed and 38% variable. These represent a 1% decrease in the fixed allocation and corresponding 1% increase in variable costs compared to the 2013 rate filing.

### **III. Conclusion**

Many costs associated with collection service will not vary materially when customers make small incremental changes in service levels. This specifically holds true for general and administrative costs and the costs of the actual collection efforts. The exceptions to this are fuel, disposal and processing charges which will vary predicated on customer usage decisions and the fluctuation in vehicle operations. Table I provides an initial presentation of the allocation of collection costs between fixed and variable components. Using the methodology as employed, a minimum of 62% of total collection costs are considered fixed in nature. Continuing and increasing the fixed component of the rate structure continues developing a rate structure that maintains a sustainable revenue stream as the City moves toward their zero waste goals.

**Recology Sunset Scavenger/Recology Golden Gate  
Schedule D Expenses  
Table I - Fixed/Variable Cost Calculation**

Item Description	Total Costs RY 2016	Fixed Costs RY 2016	Variable Costs RY 2016
Payroll	\$ 69,746,753	\$ 62,772,077	\$ 6,974,675
Payroll Taxes	5,285,936	4,757,343	528,594
Pension	8,134,483	7,321,034	813,448
Health Insurance	19,009,422	17,108,480	1,900,942
Workers Compensation	9,919,456	8,927,510	991,946
<b>Total Payroll &amp; Related</b>	<b>112,096,049</b>	<b>100,886,444</b>	<b>11,209,605</b>
Bad Debt	292,535	-	292,535
Bridge Tolls		-	-
Building & Facility Repair	203,805	203,805	-
Contract Services	896,960	896,960	-
Corporate Accounting Services	1,752,254	1,752,254	-
Corporate Management	1,816,124	1,816,124	-
Depreciation	300,591	300,591	-
Environmental Compliance	567,237	567,237	-
Fuel	3,757,277	-	3,757,277
Hauling Charge	67,213	67,213	-
Human Resources	717,399	717,399	-
I/C Disposal Expenses	41,476,565	8,295,313	33,181,252
Recycling Processing	62,741,858	12,548,372	50,193,487
IT Services	2,347,116	2,347,116	-
Lease expenses	13,187,320	13,187,320	-
Liability Insurance	2,714,608	2,714,608	-
Licenses & Permits	1,592,394	1,592,394	-
O/S Billing Services	314,470	283,023	31,447
O/S Disposal Charges	39,462	39,462	-
O/S Equipment Rental	211,650	211,650	-
Office Expense	376,851	376,851	-
Parts	2,264,467	2,038,020	226,447
Postage	317,266	285,540	31,727
Professional Services	605,712	605,712	-
Property Rental	1,448,191	1,448,191	-
Repairs & Maintenance	1,230,658	1,107,592	123,066
Security & Janitorial	468,234	468,234	-
Supplies	2,391,896	2,152,706	239,190
Sustainability	289,192	289,192	-
Taxes	1,448,722	1,448,722	-
Telephone	427,506	384,755	42,751
Tires & Tubes	813,490	732,141	81,349
Utilities	446,376	446,376	-
T&G Fuel Allocation		-	-
T&G Maintenance Allocation	(13,750)	(13,750)	-
New Project Costs		-	-
Other Expenses	1,702,900	1,702,900	-
<b>Total Operating Expenses</b>	<b>261,310,601</b>	<b>161,900,469</b>	<b>99,410,131</b>

Total Cost Allocation Percent

61.96%

38.04%

**Recology Sunset Scavenger / Recology Golden Gate  
Table II - Fixed and Variable Allocation**

<b>Item Description</b>	<b>Fixed</b>	<b>Variable</b>
Payroll	90%	10%
Payroll Taxes	90%	10%
Pension	90%	10%
Health Insurance	90%	10%
Workers Compensation	90%	10%
<b>Total Payroll &amp; Related</b>		
Bad Debt		100%
Bridge Tolls		100%
Building & Facility Repair	100%	
Contract Services	100%	
Corporate Accounting Services	100%	
Corporate Management	100%	
Depreciation	100%	
Environmental Compliance	100%	
Fuel		100%
Freight (Hauling) Charge	100%	
Human Resources	100%	
I/C Disposal Expenses	20%	80%
Recycling Processing	20%	80%
IT Services	100%	
Lease expenses	100%	
Liability Insurance	100%	
Licenses & Permits	100%	
O/S Billing Services	90%	10%
O/S Disposal Charges	100%	
O/S Equipment Rental	100%	
Office Expense	100%	
Parts	90%	10%
Postage	90%	10%
Professional Services	100%	
Property Rental	100%	
Repairs & Maintenance	90%	10%
Security & Janitorial	100%	
Supplies	90%	10%
Sustainability	100%	
Taxes	100%	
Telephone	90%	10%
Tires & Tubes	90%	10%
Utilities	100%	
T&G Fuel Allocation		100%
T&G Maintenance Allocation	100%	
New Project Costs	100%	
Other Expenses	100%	