

# **2017 Refuse Rate Application Summary of Assumptions**

Recology Sunset Scavenger  
Recology Golden Gate



**February 10, 2017**

This summary describes the projected revenues and expenses for Recology Sunset Scavenger and Recology Golden Gate (“RSS and RGG,” together “the Collection Companies”), the assumptions underlying those projections, and the calculation of collection charges.

## **I. Programs**

### **A. Overview**

In Rate Year 2008 (RY 2008), the Collection Companies propose to modify and expand their trash, recycling, and composting collection programs to help facilitate greater diversion within the City.

Since the passage of the Mandatory Recycling and Composting Ordinance in June 2009, composting and recycling participation has increased in the City. To better serve this positive trend, and to encourage further progress toward the City’s goal of zero waste, the Collection Companies propose several operational changes. The principal proposals for RY 2018 include the following:

1. Repurpose the RGG and RSS single-chamber collection trucks, which now collect only compostables, to collect recyclables only; and repurpose the split-chamber trucks, which now collect recyclables and trash, to collect trash and compostables. The result will be increased collection capacity for recyclables.
2. Redesign the collection routes and add trucks as necessary to accommodate the increase in recycling.
3. Accept additional categories of recyclable materials in customers’ blue bins.
4. Encourage customers to use smaller bins for trash and larger bins for recyclables.
5. Install a new Route Management System (RMS) in collection vehicles to enable real-time recordkeeping and monitoring of service.
6. Initiate an Apartment Diversion Program at select buildings, with the goal of decreasing the amount of material sent to the landfill, reducing contamination, and increasing recycling and composting tonnage.
7. Increase outreach and education to promote greater participation in diversion programs.

The assumptions associated with the collection programs, including the proposed changes, are described below.

The projections of tonnage collections by RSS and RGG for RY 2018 are based on the tonnages for the 12 month period that ended on June 30, 2016.

### **B. Additional Recyclables**

Recology San Francisco (RSF) has completed an upgrade to the sort lines and equipment at the Recycle Central MRF at Pier 96, increasing the throughput capacity and recovery of recyclables. Further details on these improvements are available in the Summary of Assumptions for Recology San Francisco.

With these improvements at Recycle Central, RSS and RGG will be able to accept additional recyclables in customers’ blue bins, including aseptic containers, gable-topped cartons, bagged textiles, bagged film plastic, small pieces of metal, and unpainted wood.

### **C. Diversion-Focused Service Level Adjustments**

In support of zero waste initiatives, single-family, multi-family, and commercial customers will be encouraged to divert more material through targeted adjustments to their service levels, with a focus on downsizing trash and increasing recycling and composting.

Currently, single-family homes can choose from 96-gallon, 64-gallon, 32-gallon, or 20-gallon bins. The most commonly chosen size in each stream is 32-gallons.

Under the proposed new service levels, single family homes will receive a 16-gallon default trash bin, with the option of requesting a 32-gallon or 64-gallon bin instead. Customers will also be encouraged to receive a 64-gallon default recycling bin, with the option of requesting a 32-gallon or 96-gallon bin. Composting bins will continue to be available in 64-gallon and 32-gallon sizes. These adjustments are designed to encourage greater participation in the recycling and composting programs. The single-family service level changes are expected to occur on a rolling basis between July 2017 and June 2019.

Recology will also encourage multi-family and commercial customers to downsize their trash service, while increasing the size of their recycling and composting bins.

### **D. Fantastic 3 Trash, Recycling and Composting Route Changes**

Presently, RSS and RGG use split-chamber vehicles to collect trash and recyclables; compostables are collected using single-chamber vehicles. However, as use of the blue recycling and green composting bins has increased, the volume of recyclables has outgrown the capacity of the split-chamber vehicles. RSS and RGG are therefore proposing to redesign the existing routes using single-chamber trucks to collect recyclables and split-chamber trucks to collect composting and trash.

With this change, a total of 189 Fantastic 3 collection routes will be necessary, an increase of 23 collection routes in total. More routes will be needed because currently composting collection trucks need to stop at only one out of approximately every three residences, whereas the new collection system would require split-chamber composting/trash trucks and single-chamber recycling trucks to stop at almost every residence.

Collecting recyclables in single-chamber vehicles will not only address current capacity constraints, but also provide additional capacity to handle the increase in recycling anticipated from the distribution of larger recycling bins, as discussed above. Since the repurposed recycling trucks will be able to travel directly to Recycle Central without needing to stop at the Tunnel Avenue Transfer Station, as is currently required of the split-chamber recyclable/compostable vehicles, transportation efficiencies also will be achieved. Additionally, since Recology proposes that trash and compostable materials now be collected by a single split-chamber vehicle, both materials can be offloaded at the Tunnel Avenue facility, thereby eliminating a trip to Recycle Central. Recology expects that these routing changes will reduce the number of truck trips to Recycle Central by approximately 30%.

### **E. Commercial Recycling**

RSS and RGG currently operate 14 commercial recycling routes per day. Commercial customers are, and will continue to be, encouraged to increase their subscriptions to diversion services. Therefore, RSS and RGG anticipate additional commercial migration towards recycling services. However, ongoing routing efficiencies should allow RSS and RGG to manage these changes without the need to add commercial recycling routes in RY 2018.

### **F. Commercial Composting**

RSS and RGG currently operate 18 commercial composting routes per day. That volume is expected to grow as composting subscription levels rise as shown by a 9.8% increase in commercial composting tonnage over the past three years. Therefore, the Collection Companies propose to add one additional commercial composting route for RY 2018.

### **G. Route Management Systems**

RSS and RGG propose to install onboard Route Management Systems (RMS) in all collection vehicles. This system, which is now being tested in some pilot vehicles in San Francisco and is currently used successfully by other Recology subsidiaries, electronically processes and records service data, including details on individual stops. The system eliminates the need for manual data entry and manual processing of service tickets and allows for real-time tracking of collection activity.

The RMS consists of a tablet-based onboard computer system providing electronic route lists, GPS guidance, and cameras. Drivers are able to view stop-by-stop service comments, including special service requests. Dispatch and management are able to view live route service information.

The RMS allows drivers, dispatchers, and customer service to communicate in real-time. Critical information concerning schedule changes, missed pickups, and extra collections can be shared through the RMS.

The RMS archives service record data by customer, allowing RSS and RGG to access detailed historical collection records. Information available includes service times and relevant photo documentation. This will enable RSS and RGG to better monitor customer compliance with diversion programs. For example, if a driver identifies a customer with improperly sorted material, the customer's information is available to Recology's Customer Service Representatives, who can then follow up with additional customer education.

### **H. Apartment Diversion Program**

Apartments, defined as buildings with six or more dwelling units, are one of the lowest-performing sectors for diversion. A number of reasons can be cited, including lower tenant participation, container inaccessibility, and quality control challenges. There are approximately 9,500 apartment building accounts (some qualify as commercial) in the City, making these customers an important segment to achieve the City's zero waste goal.

During RY 2018, RSS and RGG propose to commence an Apartment Diversion Program with the goal of decreasing the amount of material sent to the landfill, reducing contamination, and increasing recycling and composting tonnage.

The program proposes to focus on new apartment buildings (2010 and newer) with 50 or more units, as well as buildings with large volumes of potentially divertible material. The City has seen rapid growth in the number of properties that fall in these categories, providing a significant opportunity to encourage more diversion.

RSS and RGG will work closely with San Francisco Environment (SFE), the Professional Property Management Association of San Francisco (PPMA), and the San Francisco Apartment Association (SFAA) to implement the initiative. The proposed program consists of two categories of activities:

1. Tenant Engagement & Education, including:
  - Outreach material, including a welcome packet for tenants addressing move-in and move-out.
  - Delivery of composting pails with instructions on pail usage.
  - Email blasts and postal mailings for property management to distribute to tenants.
  - Waste Zero Ambassadors at each building, responsible for motivating their neighbors to sort properly. The ambassadors will be eligible for a monthly stipend or donation to a charity and, if they agree, will be highlighted on the Recology website.
  - Implementation of a social media group platform to facilitate tenant discussion and engagement. The platform could be used to offer incentives for diversion, encouraging friendly competition among tenants.
  
2. Facility Management and Infrastructure, including:
  - Commencing appropriate service levels at new buildings, to provide ample capacity for diversion.
  - Communicating the requirements of the Mandatory Recycling and Composting Ordinance to property management.
  - Installing signage and internal bins to improve resident access, where necessary.
  - Where applicable, closing trash chutes or converting the chutes.
  - Conducting training for facility and maintenance staff, focusing on contamination identification and the importance of proper labeling.

This rate application includes all program costs, including any necessary structural modifications (such as extra bins), tenant incentives, education and outreach, social media group platform development, and one full-time employee.

**I. Outreach and Education**

Customer education is essential to the successful implementation of the new collection practices. Residents and businesses need to be aware of the changes, understand why they are important to achieve zero waste, and know how to properly engage with their new services.

Recology therefore proposes to offer additional outreach and education materials to facilitate participation and create a sense of excitement around customers’ diversion services. Additional staff will be assigned to distribute the new information. Educational material will include introductory letters, follow-up postcards, cart hanger notices, website information, and potentially other resources.

**J. Bulky Item Recycling**

The Bulky Item Recycling (BIR) program is available to single family households, multi-family building owners, and tenants. The program accepts appliances, electronics, mattresses, furniture, scrap metal, wood, and other large items. Over 60% of the material collected under this program is diverted.

In RY 2014 the program was operating with eight drivers/trucks. During RY 2016, approximately 59,000 stops were made, collecting about 7,000 tons of material. This represents a 40% increase in stops from RY 2014. During October 2016, two additional trucks and drivers were added to keep up with the increased demand. RSS and RGG continue to provide extensive outreach to promote use of the program along with the addition of a new smartphone app making scheduling a BIR appointment far more convenient. To make the service effective and useful, most service appointments are scheduled within 48 hours of the initial customer contact.

The BIR program continues to be a very popular and well utilized programs. During RY 2018, two additional trucks and drivers are proposed, for a total of 12 trucks and drivers needed to meet expanding program demands.

<b>Bulky Item Recycling (BIR)</b>	<b>Rate Year 2013</b>	<b>Rate Year 2014</b>	<b>Rate Year 2015</b>	<b>Rate Year 2016</b>	<b>Rate Year 2017 (Estimate)</b>
BIR Customer Appointments	36,626	42,065	51,706	59,262	67,382
Increase (%)	-	15%	23%	15%	14%
Tonnage	4,345	4,732	5,714	6,793	8,142
Increase (%)	-	9%	21%	19%	17%
Tons Diverted	2,912	2,893	3,621	4,146	4,885
Diversion %	67%	61%	63%	61%	61%
FTE	6.8	7.5	9.3	10.2	13.2

### **K. District and Event Clean-Up**

This program features compost giveaway events for residents in each District. In addition, RSS and RGG are periodically asked to provide extra support for community clean-up activities (such as coastal clean-up, Arbor Day, etc.).

In an effort to work closer with event producers to ensure successful planning and execution of zero waste events in the City, RSS and RGG propose to add one full-time employee as a Waste Zero Specialist (WZS) dedicated to events. The WZS would provide pre-event consultation and outreach, along with post-event compliance audits. The WZS would consult with event producers on increasing diversion, decreasing contamination, and ensuring program compliance. The WZS would also create and manage an event database, generate revenue where appropriate, collaborate with SFE, and support groups that facilitate zero waste at events known as “greeners.”

### **L. Abandoned Materials Collection**

In collaboration with Public Works, the Collection Companies collect abandoned materials identified through the City’s 311 reporting system and by RSS and RGG personnel.

The program operates similarly to and in coordination with the Bulky Item Recycling program. RSS and RGG use five rear-loading packer trucks, five box vans (for mattresses, electronics, appliances, etc.), and one pickup truck. Generally, each crew consists of two drivers, a packer truck, and a box van.

Drivers are assigned to a specific service area. All stops and collections are documented, and material is diverted as appropriate.

The Abandoned Materials Collection program also provides support for City events, such as parades, festivals, and holidays. This rate application includes all program costs, including 10 drivers each weekday, eight drivers on Saturday, and six drivers on Sunday. Supervision, administrative support, vehicle costs, and disposal costs corresponding to projected tonnage are also included.

For RY 2018, the Collection Companies propose two additional collection routes and drivers to support increased 311 service requests, and to provide additional support for Public Works’ Bureau of Street and Environmental Services (BSES) division in Litter Patrol as Recology receives requests for support both from Public Works and from the Cesar Chavez radio room operations.

Further discussion of the Abandoned Materials Collection program may be found in section L of this application.

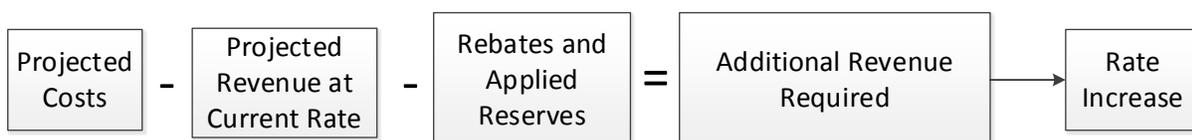
<b>Abandoned Materials Collection (AMC)</b>	<b>Rate Year 2014</b>	<b>Rate Year 2015</b>	<b>Rate Year 2016</b>	<b>Rate Year 2017 (Estimate)</b>
Requests	99,892	93,784	95,758	110,060
Increase (%)	-	-6%	2%	15%
Tonnage	3,986	3,802	4,297	4,432
Increase/Decrease (%)	-	-4%	11%	3%
Tons Diverted	2,437	2,409	2,622	2,644
Diversion %	61%	63%	61%	60%
Public Works Litter Patrol Transfer of Materials Requests	1,804	1,622	3,090	3,270
Increase (%)	-	-10%	91%	6%
Public Works Radio Room Service Requests	4,819	6,621	7,620	8,896
Increase (%)	-	37%	15%	17%
Response Time (Avg. Hrs.)	4.54	4.20	4.87	5.54
Response Compliance Business Hours (Avg. %)	94%	91%	95%	98%
FTE	10.6	11.6	12.1	12.0

**M. Poaching from Recycling Bins**

While limited progress has been made in reducing poaching from recycling bins, some improvement has been seen as a result of routing changes in the commercial areas. Where possible, commercial routes have been changed from early morning collection to evening collection in an effort to service the bins before poachers scavenge them. Laws against poaching and enforcement efforts have unfortunately had little effect.

**II. Rate-Setting Methodology**

The figure below illustrates the process for calculating the required increase in the collection rates charged by Recology Sunset Scavenger and Recology Golden Gate. Each of the components in the rate calculation is described in greater detail in the following sections.



### **III. Expenses**

<b>Expense Category</b>	<b>Recology Golden Gate and Recology Sunset Scavenger</b>
Labor and Benefits	135,813,998
Truck Operations	30,189,566
Disposal & Processing	125,508,310
Facility Operations and Maintenance	3,717,750
Other	14,980,917
<b>TOTAL</b>	<b>310,210,541</b>

#### **A. Wages**

Union wages are based on ratified collective bargaining agreements that run through December 31, 2021. The union wages included in the rate application reflect a \$0.50 per hour increase, effective as of July 1, 2017. Future increases will be included in the Cost of Living Adjustment (COLA) described in the Narrative Summary.

#### **B. Payroll Taxes**

Payroll taxes are projected based on current city, state, and federal tax rates.

#### **C. Health and Welfare (including post-retirement)**

Health and welfare programs are offered to Recology employees through several service providers. Programs include medical, prescription drug, dental, vision coverage, and long-term disability and life insurance.

During the last several years, RSS and RGG, like other employers, have experienced significant increases in the cost of health care coverage. The current cost of coverage is over \$2,224 per employee per month and is expected to be \$2,311 per employee per month in RY 2018.

RSS and RGG have implemented changes to the health benefits provided to non-union employees in an effort to control costs, including increased co-payments and benefit reductions. Union programs are governed by collective bargaining agreements.

The projected health and welfare benefit costs contained in this rate application is based on anticipated calendar year 2017 costs, inflated by 2.8% for the second half of the year (health insurance rates are set on a calendar year basis and adjusted for the rate years). The inflation factor was developed by RSS and RGG's outside actuaries and is based on historical cost increases.

Post-retirement costs in this rate application reflect the cost of participation in the Retirement Security Plan (RSP), sponsored by the Teamsters Benefit Trust. The RSP provides post-retirement medical benefits to union members who qualify under the terms of the applicable collective bargaining agreements. The RSP cost is paid monthly for each eligible employee. These costs have increased approximately 8.2% per year over the last few years. The current

monthly cost of the base program is \$677 per eligible employee per month, and is expected to increase 8.2% to \$733 per eligible employee per month as of July 1, 2017.

#### **D. Pension**

Pension costs are based on projected contributions to meet Employee Retirement Income Security Act (ERISA) pension plan funding requirements, as determined by RSS and RGG's pension plan actuary.

RSS and RGG's contributions are expected to be \$12,712,000 in RY 2017 and \$14,855,250 in RY 2018. Analysis from Recology's third-party actuaries show that future contributions are projected to be stable at approximately \$14,900,000 per year based on current expectations for discount rates, returns on assets, and relatively static employment levels.

#### **E. Workers' Compensation**

Workers' compensation expense covers the costs associated with workers injured on the job. These costs arise from temporary and permanent disability, medical care and medical evaluation, claims administration, insurance premiums, legal fees, and ancillary administrative functions. RSS and RGG participate in a risk pool with the other Recology operating companies. Workers' compensation rates and allocations are established based on the specific historic experience of each company as prepared by a third-party administrator. See section L of this application for additional information regarding efforts to reduce and contain workers' compensation costs.

#### **F. Liability Insurance**

RSS and RGG participate in a risk pool with all other Recology operating companies to effectively manage premium costs. Liability insurance premium projections are based on information provided by RSS and RGG's insurance brokers and actuaries, along with projected claims costs associated with fleet operations. Claims costs are allocated to RSS and RGG based on their individual claims experience. Other costs are allocated based on a series of measures developed to reflect each participating company's relative size and risk profile.

#### **G. Disposal Costs**

Disposal costs are determined based on the estimated disposal tonnage and the projected RSF tip charge at the Tunnel Avenue Transfer Station. The estimated disposal tonnage is based on current tonnage collected, with disposal tonnage adjusted downward to account for projected increases in recycling and composting services as well as the initiation of trash processing. See the RSF Summary of Assumptions for more details on disposal costs.

#### **H. Repairs and Maintenance**

The projected costs related to the repair and maintenance of vehicles are based on the actual costs from RY 2016, inflated by 3.0% for the rate application period.

#### **I. Fuel**

Fuel costs continue to be volatile and have fluctuated (up and down) over the last several years. Fuel costs for the rate application period are based on the average actual costs for three years. Fuel costs are based on \$2.61 per gallon for renewable diesel, \$2.76 per gallon for unleaded

gasoline, \$1.24 per gallon equivalent for liquefied natural gas (LNG), and \$2.88 per gallon equivalent for compressed natural gas (CNG).

### **J. Licenses and Permits**

Licenses and permits include costs for Department of Motor Vehicle registrations, Department of Public Health license fees, and San Francisco Public Works debris box permits. Costs for the Department of Public Health license fees are based on the actual amount paid in 2016. RSS and RGG have reduced the projected Department of Public Health license fees to account for the anticipated changes in the collection fleet. Costs for other licenses and permits for RY 2017 and RY 2018 are expected to increase with inflation (3.0% per year) from 2016 levels.

### **K. Recycling and Composting Processing**

The projected processing costs for recyclables are based on the tip charge and estimated tonnage processed. The projected processing costs for compostables are based on the tip charge and estimated tonnages.

### **L. Professional and Contract Services**

Professional service costs for legal fees and general services are based on three year average costs. Costs associated with the rate application and rate implementation are included in this application.

### **M. Corporate Services**

The Collection Companies are subsidiaries of Recology Inc. The parent company provides various services to all its subsidiaries. As appropriate, a portion of those corporate expenses are allocated to RGG and RSS as described in this section.

Human Resources (HR) provides benefits, employment law, employee training, and employee management support services. The cost projections for HR are based on RY 2016 costs for Recology Inc.'s HR Department, adjusted for inflation. These costs are allocated to RSS and RGG based on the percentage of their employees relative to the total Recology employee headcount.

Corporate Management provides general operations and corporate support services. Corporate Management cost projections are based on RY 2016 costs of management services provided by the Corporate Office, adjusted for inflation. These costs are allocated to RSS and RGG based on their percentage of Recology Inc.'s total revenue.

Environmental Compliance provides planning, permitting, and compliance support services. Environmental Compliance costs are based on RY 2016 costs of Recology Inc.'s Environmental Compliance Department, adjusted for inflation. These costs are allocated to RSS and RGG based on their percentage of Recology Inc.'s total revenue.

Information Technology (IT) provides systems development support for all technologies. IT costs are based on the RY 2016 costs of Recology Inc.'s IT Department, adjusted for inflation. These costs are allocated to RSS and RGG based on a series of measures that approximate

computer usage: the percentage of Recology Inc.'s checks written and customer counts that are attributable to RSS and RGG.

Corporate Accounting provides audit, internal audit, treasury, and other financial services. Accounting costs are based on RY 2016 costs of Recology Inc.'s Finance Department, adjusted for inflation. These costs are allocated to RSS and RGG based on their percentage of Recology Inc.'s total revenue.

Technology provides support for sustainability issues including emerging technologies; green energy; water initiatives; regulatory support related to sustainability; and air, water, and land issues. Sustainability costs are based on RY 2016 costs, adjusted for inflation. These costs are allocated to RSS and RGG based on their percentage of Recology Inc.'s total revenue.

**N. Office, Telephones, and Supplies Expense**

Costs related to telephone and office expenses are based on the RY 2017 year-to-date actual costs, adjusted for inflation at 3.0% annually plus additional ongoing costs associated with the route management system. The supplies expense is also based on the RY 2017 year-to-date actual costs, inflated 3.0% for rate years 2017 and 2018.

**O. Property Rental**

Property rental costs are included for leasing off-site office space for customer service and administrative operations.

**P. Other Expenses**

Other expenses include community outreach, medical expenses, shoes and uniforms, bank service charges, and other miscellaneous items. Community outreach costs include the costs of working with community groups to promote zero waste initiatives, and promote Recology and City recycling and composting programs.

**Q. Capital Expense**

Capital requirements for trucks, equipment, and leasehold improvements are projected based on the replacement schedule and anticipated facility and program needs. Costs are added as equipment is acquired and leased over specified lease years. Generally, lease terms are assigned as follows:

Trucks and rolling equipment:	7 years
Stationary equipment:	10 years
Facility improvements:	15 years

The lease rates are calculated based on the asset lives shown above utilizing an implicit interest rate of 1.7%. The interest rate is reset on a monthly basis, based on the cost of Recology Inc.'s capital. RSS and RGG believe adequate financing will be available for all capital expenditures from Recology Inc.'s line of credit, lease lines with third party lessors, and/or California Pollution Control Financing Authority financing.

### **R. Impound Account**

Contributions to the Impound Account, deposited monthly by RSS and RGG, are based on the program requirements for SFE and Public Works. Recology does not earn OR on impound account deposits.

### **S. Operating Ratio**

The rate application uses a base operating ratio (OR) of 91%, along with Zero Waste Incentives up to 2% OR.

## **IV. Customer Rebates and Use of Special Reserve Funds**

As described in the Narrative Summary, Recology is proposing to use Tier 1 and 2 Zero Waste Incentive (ZWI) funds from prior rate years to help offset the first year of rate increases for customers. In addition, Recology is proposing to apply some of the funds remaining in the Special Reserve Fund to reduce the proposed rate increase over the next three years, as described in greater detail below.

### **A. Altamont Special Reserve Fund**

The 1987 Agreement in Facilitation of Waste Disposal Agreement (Facilitation Agreement) between the City and Sanitary Fill Company (now Recology San Francisco), for the disposal of up to 15 million tons of the City's trash at the Altamont landfill, required the creation of a Altamont Special Reserve Fund (ARF), to be used to pay for extraordinary expenses that could arise under the Facilitation Agreement. The ARF was funded by a 1.3% surcharge on volumetric billings to residential and commercial customers. Over time, the fund balance grew to nearly \$30 million. In September 2010, the Rate Board approved an application by Public Works to redirect the 1.3% surcharge to the Impound Account to offset costs by Public Works for prevention and management of litter and illegal dumping on City streets. In July 2013, the Rate Board discontinued the surcharge altogether.

In January 2016, the City reached the contractual disposal limit at the Altamont Landfill and the Facilitation Agreement expired. At that time, Recology began sending trash to its Hay Road landfill in Solano County under a new disposal contract entered into with the City in July 2015 after competitive bidding. The ARF at that time held a balance of \$29.6 million. In December 2015, the Rate Board approved the transfer of \$12 million from the ARF to cover the incremental cost of hauling and disposing of City trash at the new landfill for 18 months. The Rate Board also approved, in 2015 and 2016, the transfer of \$3.75 million to fund a new Special Reserve Fund (as described below), leaving a balance of \$13.85 million in the ARF.

As part of this rate application, Recology San Francisco proposes that the remaining balance in the ARF be used to bring the new Special Reserve Fund balance up to \$10 million, and to reduce the rate increase over the next three years.

### **1. Transfer to New Special Reserve Fund**

The Landfill Disposal Agreement (Disposal Agreement) between the City and Recology San Francisco (dated July 22, 2015) requires the creation of a new Special Reserve Fund (SRF) to be maintained throughout the term of the Disposal Agreement. The Disposal Agreement specifies

that this SRF may be funded from a 1% surcharge on solid waste generated in the City and delivered to the Transfer Station or landfill, and/or by reallocating funds from the old ARF. The Disposal Agreement specifies that the SRF must be funded at a minimum of \$10 million within four years (that is, by January 2020).

In December 2015, the Rate Board approved the transfer of \$1.25 million from the ARF to the SRF to provide initial funding of the SRF, equal to the amount of funding required over six months, assuming a straight-line buildup to \$10 million over four years. In 2016, the Rate Board approved an additional transfer of \$2.5 million from the ARF to the SRF, equal to another 12 months of straight-line funding.

Recology proposes continuing to build up the SRF with periodic transfers from the ARF, in lieu of a 1% surcharge. Specifically, Recology proposes the transfer of \$2 million at the beginning of each rate year for the next three years (that is, July 1, 2017, 2018 and 2019). These transfers, together with accrued earnings, would continue the buildup of the SRF to the required \$10 million minimum over four years, as follows:

Current balance (excluding interest earnings)	\$3.75 million
Balance on July 1, 2017 (first transfer of \$2 million)	\$5.75 million
Balance on July 1, 2018 (second transfer of \$2 million)	\$7.75 million
Balance on July 1, 2019 (third transfer of \$2 million)	\$9.75 million (plus interest)

## 2. Offset Revenue Requirement

After the proposed transfers to the SRF, the ARF would retain a balance of \$7.85 million. As described under section “D. Zero Waste Incentive Funds,” Recology proposes that the remaining balance benefit ratepayers by offsetting \$2.5 million of the Collection Companies’ revenue requirement in each of the next three rate years (i.e., RY 2018, RY 2019, and RY 2020). The effect of the offset is to reduce the required rate increase by a little under 1%. This offset is reflected in the RSS/RGG Schedule B.1.

Recology proposes applying the ARF balance to rate reduction over a three-year period for two reasons. First, it reduces and levels over time the rate increase required. Second, it retains a positive balance in the ARF to protect against any unanticipated claims.

Action/Date	Amount	ARF Balance
Beginning ARF Balance (6/30/17)	\$13.85 million	\$13.85 million
Transfer to SRF (7/1/17)	(\$2.0 million)	\$11.85 million
Offset Revenue Requirement (RY 2018)	(\$2.5 million)	\$9.35 million
Transfer to SRF (7/1/18)	(\$2.0 million)	\$7.35 million
Offset Revenue Requirement (RY 2019)	(\$2.0 million)	\$5.35 million
Transfer to SRF (7/1/19)	(\$2.0 million)	\$3.35 million
Offset Revenue Requirement (RY 2020)	(\$2.0 million)	\$0.35 million

As the table above illustrates, the ARF would retain a positive balance for the next three years. Recology and the City agree that there is a diminishing risk of claims as time passes; as such, the declining balance in the ARF should be sufficient to protect against unanticipated claims.

## V. Rate Calculation

The table below shows the calculation of the rate increase for residential collection services. While the collection rates for commercial customers are not governed by the 1932 Ordinance, and therefore are not set in these rate hearings, the Collection Companies anticipate a similar rate increase for commercial customers.

	<b>RY 2018</b>	<b>RY 2019</b>	<b>RY 2020</b>	<b>RY 2021</b>
<b>Revenue at Current Rates</b>	\$ 264,280,618	\$ 307,631,006	\$ 322,964,140	\$ 322,964,140
<b>Cost-of-living-adjustment</b>	N/A	TBD	TBD	TBD
<b>Revenue Requirement</b>	324,964,140	324,964,140	324,964,140	324,964,140
<b>Zero Waste Incentive Rebate</b>	(11,587,896)	-	-	-
<b>Special Reserve Fund Rebate</b>	(2,500,000)	(2,000,000)	(2,000,000)	-
<b>RY 2018 Tier 3 &amp; 4 Pier 96 Improvement Reimbursement</b>	(3,245,238)	-	-	-
<b>Net revenue requirement</b>	307,631,006	322,964,140	322,964,140	324,964,140
<b>Change (\$)</b>	\$ 43,350,388	\$ 15,333,134	\$ -	\$ 2,000,000
<b>Increase (%)</b>	16.40%	4.98%	0.00%	0.62%

## VI. Rate Structure

### A. Residential Rates

Recology proposes to transition single family residential customers to new default service levels that include a 16 gallon trash bin, 64 gallon recycling bin, and a 32 gallon composting bin.

Recology's proposed rate structure continues the current practice of base and volumetric charges. For residential customers, the unit charge will increase from \$5.16 to \$20.00 to cover some of the fixed system costs, such as capital, administrative, and regulatory costs.

In addition, the proposed rate structure increases the charge related to volumetric service from \$2.06 to \$5.22 per 32-gallons of capacity for the recycling and composting streams, and from \$25.90 to \$10.44 per 32 gallons of trash. The rate increase for individual residential customers will vary depending on their service levels.

These changes are not expected to negatively impact recycling and composting subscription levels. To the contrary, customers should be incentivized to migrate towards diversion services because the volumetric charge for recycling and composting will continue to be less than the proposed volumetric charge for trash service. Residential rates are projected to generate 16.47% additional revenue in RY 2018.

The table below is an example of current rates and the proposed rates.

Component	Current Default Service Level and Rates		Current Default Service Levels with New Rates		Proposed Default Service Levels with New Rates	
	Volume (gallons)	Charge	Volume (gallons)	Charge	Volume (gallons)	Charge
<b>Unit Charge</b>	N/A	\$5.16	N/A	\$20.00	N/A	\$20.00
<b>Trash (black)</b>	32	25.90	32	10.44	16	5.22
<b>Recycling (blue)</b>	32	2.06	32	5.22	64	10.44
<b>Composting (green)</b>	32	2.06	32	5.22	32	5.22
<b>Monthly charge</b>	--	\$35.18	--	\$40.88	--	\$40.88

**B. Apartment Rates**

RSS and RGG propose to continue the discounted volumetric apartment rate structure, which was adopted in 2013 and patterned after the commercial rates structure. The rate structure includes a base unit charge and equal volumetric charges for all service volumes, irrespective of the type of service. These charges are partially offset by discounts for recycling and composting services. Due to the widely varying levels of service, a specific customer may experience an increase that is more or less than the average increase.

The proposed rate structure includes a \$5.00 per dwelling unit charge and is intended to cover some of the fixed system costs associated with providing service to apartment customers (including capital costs, administrative costs, and regulatory costs).

The proposed structure includes volumetric charges equal to \$24.50 per 32-gallons of weekday service, irrespective of the type of service.

The resulting calculated gross revenue is partially offset by the discounts available for diversion services. Discounts are calculated from each customer’s diversion percentage as a percentage of total volume, less 25%. The first 25% of diversion is not eligible for a discount to match to the level of diversion service required by the Mandatory Recycling and Composting Ordinance.

For example, a customer with three equal size bins (one for each of the black, blue and green streams) receives a 67% gross volumetric discount rate. The discount on their volumetric charges is 42% (67% minus 25%). If the customer adds another recycling bin, the discount increases to 50% (75% minus 25%).

	<b>Current Service Levels and Rates</b>		<b>Current Service Levels with New Rates</b>	
	<b>Gallons / Units</b>	<b>Monthly Charge</b>	<b>Gallons / Units</b>	<b>Monthly Charge</b>
Trash	192	\$ 155.40	192	\$ 147.00
Recycling	96	77.70	96	73.50
Composting	96	77.70	96	73.50
Diversion Discount	N/A	(124.32)	N/A	(73.50)
Unit Charge	6	30.96	6	30.00
Estimated Total Monthly Charge		\$ 217.44		\$ 250.50

Due to the diversion-focused rate structure, RSS and RGG anticipate continued migration from trash service to diversion services. RSS and RGG have included a revenue reduction related to migration in this rate application at 1% of existing apartment revenue after rate adjustments. The annual, system-wide migration from collection of trash to collection of compostables and recyclables on a per gallon bases since the 2013 rate application has averaged .2%. However, given the economic, outreach, and service changes being proposed, migration results for apartments is anticipated to achieve 1%, as seen for commercial customers since 2013.

**C. Disabled Service**

This rate application continues the disabled service program. The program provides a waiver of access, distance, and elevation charges for disabled and elderly infirm persons, if no able-bodied person resides at the residence.

**D. Low Income Discounts**

This rate application continues the low income discount program. The program will charge low income customers 75% of the regular service rates, based on their service configuration. Eligibility documentation for customers and verification procedures for RSS and RGG will remain the same.

**E. Commercial Rates**

Under the Refuse Collection and Disposal Ordinance, commercial rates are not set in these rate proceedings and, instead, are subject to contract between the Collection Companies and commercial customers. RSS and RGG are implementing some minor changes to the commercial rate structure. The changes are designed to maintain a sustainable revenue stream while moving towards zero waste. The new rate structure also creates new incentives to drive further diversion by commercial customers.

Commercial revenues are expected to increase as a result of the structural changes and are included in the rate model as a reduction of the requirements for residential and apartment revenue. Recology expects to adjust commercial rates by percentages approximately equal to those approved in these rate proceedings for residential and apartment customers.

The fixed base charge for commercial customers, now set at 10% of volumetric charges, is being eliminated. Fixed costs will now be recovered through the increase in the diversion not eligible for a discount as described below.

Discounts on the variable component of the commercial billings will still be available, but they will now be based on the proportion of diversion service in excess of 25% instead of 10%. The first 25% of diversion volume will not be eligible for a discount to match the level of diversion service required by the Mandatory Recycling and Composting Ordinance.

For example, if a commercial customer has one 96-gallon bin for trash, one for recycling, and one for composting (all collected weekly), their total diversion volume is 67%. The discount in that case would be 42% (67% minus 25%). If a customer has a two-cubic yard bin for trash, a one-cubic yard bin for recycling, and a one-cubic yard bin for composting (all collected once per week), their total diversion volume is 50%. The discount on the variable portion of that customer's bill would be 25% (50% minus 25%).

As a result of this adjustment, RSS and RGG anticipate that commercial customers will further move from trash service to diversion services to manage costs. RSS and RGG have included a revenue deduction for migration in this application, estimated at 1% of existing commercial revenue after rate adjustments. This projection equates to the annual, system-wide migration from collection of trash to collection of compostables and recyclables on a per gallon bases since the 2013 rate application.

#### **F. Debris Box Service**

Debris box revenue projections are based on the latest 12 months of revenue (January 2016 through December 2016) with a planned 10% increase for changes to disposal costs.

#### **G. Other Revenues**

RSS and RGG offer compactor and related equipment sales and maintenance for the San Francisco region. Customers wishing to acquire specialized refuse equipment have the option of purchasing, renting, or leasing the necessary equipment. RSS and RGG also provide maintenance services for refuse equipment, at the customer's expense. These revenues are shown separately and provide an offset to the revenue requirement for residential service.

### **VII. Rate Schedules**

See Section K, Supporting Documents for an overview of the linkages between the rate schedules.