



Date: March 19, 2018  
To: Interested Parties  
From: Candace Cannistraro, Office of Management and Budget Director  
Subject: Fiscal Year 2018/2019 Utility Rate Recommendations

The following information has been compiled and placed on file with the Mesa City Clerk in Compliance with Arizona State statute.

The attached information outlines recommended electric, natural gas, solid waste, wastewater and water utility rates, components, fees and/or charges to be presented to the City Council in association with the introduction of the utility ordinances on May 7, 2018. This will be followed by the public hearing on May 21, 2018 as stated in the Notice of Intention to Adjust Utility Rates to be published on April 19, 2018.

Discussions of these proposals with the Audit, Finance & Enterprise Committee are scheduled for March 22, 2018 and the full City Council at the study session on April 5, 2018. Subsequently, the results of these discussions will be available online at the City of Mesa website, [Mesaaz.gov](http://Mesaaz.gov), under City Hall, council agendas and minutes.

The purpose of this report is to provide staff recommendations for utility rate adjustments. The rate adjustments are recommended to be effective July 1, 2018 and are consistent with the revenue requirements of the Proposed Budget Plan for Fiscal Year 2018/19.

The forecasted expenses for each utility are compared to the forecasted revenues based on the current rates. The increases in FY 2018/19 revenues needed to accommodate the increased costs for each utility are:

<u>Utility</u>	<u>Revenue</u>
Electric	\$252,000
Natural Gas	\$474,000
Water	\$3,935,000
Wastewater	\$2,680,000
Solid Waste	\$1,672,000

The method of implementation of rate adjustments can vary from year to year based on the needs and goals of the individual utilities. The impact on individual customers can vary based on the method of implementation and the customer consumption.

The comparison of the average costs incurred by homeowners in several cities throughout the Valley is presented in Attachment 1. The average charges for the current fiscal year for various cities are compared with the average costs for the current fiscal year in the City of Mesa. While some neighboring municipalities have a different resource mix than the

City, bringing them all together allows for comparison to ensure that the City remains an affordable place to live, work, and play.

For FY 2018/19, the following rate adjustments are being recommended (see Attachment 2 for more detail):

**Solid Waste:**

All residential rates, bulk item pick-up and appliance collection: 3.5% increase

Front-load rates: Overall 3.4% increase

Roll-Off rates: Overall 3.0% increase

**Electric:**

Residential customers: system service charge increase of \$1.75 per month

Residential customers: no adjustment to the energy usage charge

Non-residential customers: no adjustment to any components

**Gas:**

All customers: system service charge increase of \$0.75 per month

All customers: no adjustment to the usage charge

**Water:**

3.5% increase across most customer classes and rate components

Interdepartmental (Large Turf): no adjustment

Continue with planned residential water usage tier adjustment

**Wastewater:**

4% increase across most customer classes and rate components

Interdepartmental: no adjustment

## **BACKGROUND AND DISCUSSION**

Each utility is operated as a separate business center. As such, rate schedules are adjusted annually in a manner consistent with costs of capital, as well as the fixed and variable costs of operation and maintenance within each utility. Reserve balances are combined in the Enterprise Fund and are managed to maintain a targeted ending reserve balance of at least 8-10% of the following year's estimated expenditures throughout the forecast period. The reserve balance allows for the smoothing of rate adjustments. This smoothing avoids large rate increases and minimizes the impact to customers in any single year.

The Enterprise Fund Cash Flow Projection (Attachment 3) includes projections of growth. The Water, Wastewater, and Solid Waste utilities have a citywide service area and are expected to grow by an average of about 1.6% per year during the forecast. With the inclusion of the Magma service area, the Natural Gas utility is expected to grow by 900 accounts next fiscal year. The Electric utility, with a smaller and largely built out service area when compared to the other utilities, is expected to grow by 80 accounts next fiscal year.

The Enterprise Fund Cash Flow Projections also include expenditures that are increased by inflationary factors in future years. Some inflationary factors are unique to the individual utilities, such as those used for chemicals or purchased water. Other citywide expenditure pressures that are included in the forecast are listed below.

### *Capital Investment*

The City continues to place a high priority on infrastructure investment to attract and service future development. The proposed capital improvement program (CIP) includes the planning for an expansion of a water reclamation plant and the continued construction of a new water treatment plant and associated distribution infrastructure. The bond funding authorization for these projects was approved by Mesa voters in November 2014. The debt service on utility revenue bonds is funded through the utility rates paid by customers. The City issues bonds on an as-needed basis in order to minimize the interest cost. Anticipated future debt service has been included in the forecast and rate recommendations.

### *Review of the transfer to the General Fund*

Based on direction from the City Council, the transfer to the General Fund is reviewed annually. The amount of the transfer throughout the forecast period is adjusted based on a consumer price index (CPI) inflation. The estimated adjustment for FY 2018/19 is an increase of \$1.9 million, moving from \$106.5 million to \$108.4 million.

## SOLID WASTE UTILITY

Solid waste services are charged flat monthly rates for the various services provided.

### *Residential Rates*

Staff recommends a 3.5% increase on all residential rates. The standard black barrel refuse service includes a blue barrel recycling service.

90-gallon Black Barrel: increase of \$1.01 per month, from \$28.76 to \$29.77

60-gallon Black Barrel: increase of \$0.90 per month, from \$25.68 to \$26.58

Currently there are over 7,000 customers who receive two or more black barrels. The proposed increase is to help fund landfill disposal fee increases.

Additional Black Barrel: increase of \$0.48 per month, from \$13.58 to \$14.06

As an incentive for customers to recycle, a green waste barrel may be obtained for half the cost of an additional black barrel and additional blue barrels are provided at no additional cost.

Green Barrel Service: increase of \$0.24 per month, from \$6.79 to \$7.03

There are currently over 41,000 customers participating in the green waste recycling program. The recommended increase will fund new barrel purchases, expansion and increases to processing costs.

The projected residential increase in FY 2018/19 residential revenues is \$1,410,000.

#### *Bulk Item and Appliance Collections*

Increasing bulk item and appliance pick-up rates by 3.5%.

Bulk Item Service: increase of \$0.79 per load, from \$22.59 to \$23.38.

Appliance Pick-Up: increase of \$0.68 per appliance, from \$18.63 to \$19.28.

“Not Out” Fee for both Bulk Item and Appliance: increase of \$0.40, from \$11.56 per occurrence to \$11.96 per occurrence.

The projected increase in FY 2018/19 revenues is \$5,000 for both bulk item and appliance pick-up services for City of Mesa customers.

#### *Commercial Front-Load*

There are various rate factors related to Front-Load service. The Front-Load program serves customers in competition with private waste collection companies. Staff recommends increasing the bin rates, multi-day factor, multi-bin factor and out-of-zone fees.

Increase 2-Yard Bin from \$75.00 to \$75.98

Increase 3-Yard Bin from \$82.00 to \$82.98

Increase 4-Yard Bin from \$89.00 to \$89.98

Increase 6-Yard Bin from \$99.98 to \$101.98

Increase 8-Yard Bin from \$112.98 to \$114.98

Increase in-zone multi-day factor from a multiplier of 0.79 to 0.80

Increase out-of-zone fee by \$2.00 from \$12.00 to \$14.00

Increase 6-yard Multi-Bin Factor from a multiplier of 0.628 to 0.643

Increase 8-yard Multi-Bin Factor from a multiplier of 0.640 to 0.658

The projected increase in FY 2018/19 revenue is expected to be \$198,000.

#### *Commercial Front-Load Recycling*

In order to provide commercial customers with recycling options, both commingled and cardboard recycling programs are offered.

Staff is recommending an increase to the base rate, multi-day factor and multi-bin factor for commercial cardboard customers.

Increase base rate for cardboard by 16.7% from \$24.00 to \$28.00

Increase multi-day factor for cardboard from a multiplier of 0.79 to 0.80  
Increase multi-bin factor cardboard from a multiplier of 0.628 to 0.650

Staff is recommending an increase to the base rate and multi-bin factor for commercial commingled customers.

Increase base rate for commingled by 28.6% from \$28.00 to \$36.00  
No change in the multi-day factor for commingled multiplier  
Decrease multi-bin factor commingled from a multiplier of 1.00 to 0.85

The projected increase in FY 2018/19 revenue is expected to be about \$7,000.

### *Commercial Roll-Off*

Staff recommends increases to Commercial Roll-Off services averaging 3.0% overall for FY 2018/19. The Roll-Off program serves residents and business customers in competition with private waste collection companies.

The projected roll-off increase in FY 2018/19 revenue is approximately \$52,000.

A recommendation for an increase to initial set charges, haul rates, and the trash per ton fee.

Increase initial set fee by 3.6% from \$55.00 to \$57.00  
Increase haul fees between 2.4% and 3.6% additional charge of \$3.00 to \$5.00 per haul  
Increase trash per ton fee by 4.5% from \$32.50 to \$33.95 and from \$36.75 to \$38.40 for overweight containers over 10 tons  
Increase the green waste per ton fee by 6.9% from \$23.80 to \$25.45

Solid waste rates across Arizona range from \$10.00 to \$40.00 a month. Costs to provide this service varies depending on many factors such as, but not limited to, distance to the landfill from collection location and landfill costs. An informal survey of private hauler service for county island residents within the City of Mesa resulted in costs comparable to those proposed by staff for FY18/19, but the private haulers do not provide blue recycling service.

### ELECTRIC UTILITY

Rates for electric service are comprised of three major components: System Service Charge with a flat monthly rate, Energy Usage Charge based on units of consumption, and the Electric Energy Cost Adjustment Factor (EECAF) which passes the cost of the purchase of the electric commodity to the customer.

The electric program is experiencing normal inflationary pressures. For residential customers, staff is recommending a nominal rate increase of \$1.75 to the system

service charge and no increase to the energy usage charge for FY 2018/19. Staff is not recommending a rate increase for non-residential accounts.

Residential System Service Charge: increase of \$1.75, from \$10.75 to \$12.50, 16.3%

Average residential bill with customer charge, energy usage charge, and EECAF: from \$93.41 to \$95.16, 1.9%

As the recommended increase is a flat amount, the dollar impact would be equal on each bill but the percentage impact would vary based on consumption. The higher the consumption, the lower the percentage impact would be.

Adjustments to the system service charge component of the electric rate allows for a more stable revenue source for the program and insulates customers from higher energy costs during peak demand periods such as the summer. Currently only 20% of the revenues (excluding EECAF) from residential electric customers are fixed revenues. The program is heavily reliant on consumption to cover fixed expenses. Rate adjustments applied to the system service charge allows for a movement toward a more balanced rate structure.

Salt River Project (SRP) comparison:

Service Charge: \$20.00 per month \$7.50 more than Mesa's proposed)

Mesa's average residential customer:

Monthly bills during calendar year 2017 (at FY 2018/19 Mesa rates) were approximately \$18.93 less per month (\$227.16 less per year) than SRP.

The proposed increase results in an annual cost approximately 18.4% percent less than if served by SRP. Lower use customers' bills (i.e. first quartile with an average consumption of 327.03 kWh per month) would be almost 25.6% less than if they were served by SRP.

The EECAF is adjusted monthly to "pass-through" the cost of electric energy supplies acquired to meet customers' needs. This rate component has varied between \$0.04554 and \$0.05282 per kWh in the most recent twelve months and is \$0.04660 for February 2018.

The projected increase in FY 2018/19 revenue is approximately \$252,000.

NATURAL GAS UTILITY

Rates for natural gas service are comprised of three components: System Service Charge with a flat monthly rate, Usage Charge based on units of consumption, and the Purchased Natural Gas Cost Adjustment Factor (PNGCAF) which passes the cost of the purchase of the natural gas commodity to the customer. Those customers that reside in the Magma service area also have a Magma adjustment factor rate

component. The adjustment factor benchmarks the City's rates to the rates of Southwest Gas to ensure market equity.

The natural gas program is experiencing normal inflationary pressures. For all customers, staff recommends a rate increase of \$0.75 to the system service charge and no increase to the natural gas usage charge for FY 2018/19.

System Service Charge –summer: increase \$0.75, from \$13.86 to \$14.61, 5.4%

System Service Charge –winter: increase \$0.75, from \$16.79 to \$17.54, 4.5%

Average monthly Mesa resident bill with customer charge, usage charge, and PNGCAF: from \$32.92 to \$33.67, 2.3%

As the recommended increase is a flat amount, the dollar impact would be equal on each bill but the percentage impact would vary based on consumption. The higher the consumption, the lower the percentage impact would be.

Adjustments to the system service charge component of the natural gas rate allows for a more stable revenue source for the program and insulates customers from higher natural gas costs during peak demand periods such as the winter. Currently only 42% of the revenues (excluding PNGCAF) from natural gas customers are fixed revenues. The program is heavily reliant on consumption to cover fixed expenses. Applying the rate adjustments to the system service charge allows for a movement toward a more balanced rate structure.

The Purchased Natural Gas Supply Adjustment component has been adjusted monthly to “pass-through” increases and decreases in the costs of natural gas supplies acquired to meet our customers' needs. This rate component has varied between \$0.18982 and \$0.40565 per therm in the most recent twelve months and is \$0.27770 for February 2018.

Southwest Gas (SWG) comparison:

Service Charge: \$10.70 per month (\$3.91 less than Mesa's proposed summer system service charge and \$6.84 less than Mesa's proposed winter system service charge)

Mesa's average residential customer:

Monthly bills during calendar year 2018 (at FY 2018/19 Mesa rates) were approximately \$1.56 more per month (\$18.72 more per year) than if served by SWG.

The projected increase in FY 2018/19 revenue is approximately \$474,000.

## WATER UTILITY

Rates for water service are comprised of two components: Service Charge, with a flat monthly rate based on the water meter size and Usage Charge, based on units of water consumption.

The water utility forecast includes debt service associated with the new Signal Butte Water Treatment Facility, start-up costs, and annual operations started in FY 2017/18. Significant costs within the utility are the cost of purchasing water, chemicals, and electricity, and the agreement with the City of Phoenix for the operation of the Val Vista Water Treatment Facility. Staff reviews and forecasts all costs each year to ensure rates are sufficient to keep up with expenses.

Over the last few years the City has concentrated on aligning its fixed revenues with fixed costs. The goal is to achieve revenues from the service (fixed) charge at 35% to 40% of overall revenues. This was achieved in FY 2016/17, when revenues from the service charge component came in at 36.30% of total costs. For FY 2017/18, revenues from the service charge component rate are forecast at 36.09% of total estimated costs. This trend is scheduled to continue into FY 2018/19, with revenues from the service charge component forecast to come in at 35.96% of total estimated costs.

The variable rate component is based on water consumption rounded to 1,000 gallon increments. There are currently four tiers (or levels of usage). Each tier has a different rate. The tier structure allows for a demand based rate as customers with higher usage patterns create a greater demand for infrastructure and service capacity.

For FY 2018/19, staff recommends continuing with the planned residential water tier adjustment. Below are the current and recommended changes to the residential rate structure:

#### *Current Tier Structure*

The first 3,000 gallons are included in the service charge  
Tier 1: \$3.13 per 1,000 gallons, 4,000 – 10,000 gallons;  
Tier 2: \$4.70 per 1,000 gallons, next 10,000 gallons;  
Tier 3: \$5.57 per 1,000 gallons, next 4,000 gallons;  
Tier 4: \$6.07 per 1,000 gallons, all additional 1,000 gallons;

#### *Recommended FY 2018/19 Tier Structure*

The first 3,000 gallons are included in the service charge  
Tier 1: \$3.24 per 1,000 gallons, 4,000 – 9,000 gallons;  
Tier 2: \$4.86 per 1,000 gallons, next 9,000 gallons;  
Tier 3: \$5.77 per 1,000 gallons, next 6,000 gallons;  
Tier 4: \$6.28 per 1,000 gallons, all additional 1,000 gallons;

Across most customer classes, the City's water customers would see a 3.5% increase to their water service and usage charges. The only exception being a zero percent increase (for both the service and usage charges) to the interdepartmental water rates.

#### *Residential Water Consumer Impact:*



Service Charge: \$0.96 increase per month, from \$27.55 to \$28.51  
Usage Charges (average monthly consumption of 9,000 gallons): \$0.66 per month, from \$18.78 to \$19.44  
Total average monthly bill impact: \$1.62 per month, from \$46.33 to \$47.95

Arizona Water Company comparison:

Service Charge: \$22.24 per month  
Usage Charges (average monthly consumption of 9,000 gallons): \$28.03  
Total average monthly bill: \$50.37

*Excess Water Surcharge*

For most non-residential customers (commercial, multi-unit dwelling, and public authorities), the excess water surcharge is currently operative nine months of the year (March through November). For these customers, staff is proposing to establish consistency with its winter water average which operates twelve months a year and would further promote conservation. The excess water surcharge will be added to December, January, and February over a three year period, beginning with February in FY 2018/19, January in FY 2019/20, and December in FY 2020/21. The financial impact of this action is projected to increase FY 2018/19 water revenues by an additional \$92,000.

*Water Hydrant Meter Service Charge*

Staff is proposing to eliminate the provision of 3,000 gallons of water as a part of the water hydrant meter rate service charge. The provision of 3,000 gallons of water for the City's customers as a part of their rate service charge is meant to sustain life or business. Hydrant meters are utilized for temporary water use such as construction projects, therefore the provision of 3,000 gallons should not apply to the hydrant meter rate. The financial impact of this action is projected to increase FY 2018/19 water revenues by an additional \$30,000.

The total projected increase in annual water revenue for FY 2018/19 is approximately \$3,935,000.

WASTEWATER UTILITY

Rates for residential wastewater service are comprised of two components: Service Charge with a flat monthly rate, and Usage Charge based on wastewater demand volume. Wastewater volume is calculated for each customer based on 90% of the average monthly water use for the three lowest water usage months from December through March (also known as the "winter water monthly average"). This approximates indoor household usage and the resulting demand on the wastewater system. A City-wide winter water monthly average is used for new customers until an individual customer average can be determined.

The wastewater utility forecast includes debt service associated with the expansion of the Greenfield Water Reclamation Facility, with start-up costs and annual operations starting in FY 2019/20. Significant costs within the utility are the cost of chemicals, electricity, and the cost of ownership, operation, and maintenance of the 91st Avenue Wastewater Treatment Facility, a joint venture with the cities of Glendale, Phoenix, Scottsdale, and Tempe. Staff reviews and forecasts costs each year to insure rates are sufficient to keep up with expenses.

Across most customer classes, staff recommends a 4% increase to the service charge and the usage charge for residential and non-residential customers.

*Residential Wastewater Consumer Impact:*

Service Charge: \$0.75 increase per month, from \$18.80 to \$19.55  
Usage Charges (based on winter water average consumption): \$0.40 increase per month, from \$10.25 to \$10.65  
Total average monthly bill impact: Approximately \$1.15 per month, from \$29.05 to \$30.20

Liberty Utilities comparison:

Service Charge: \$52.40 per month  
Usage Charges: \$3.69  
Total average monthly bill: \$56.09

Johnson Utilities comparison:

Service Charge: \$40.98 per month  
Usage Charges: \$0.00  
Total average monthly bill: \$40.98

Interdepartmental wastewater rates are recommended to be held constant for FY 2018/19.

The total projected increase in annual wastewater revenue for FY 2018/19 is approximately \$2,680,000.

**Attachments:**

1. Average Homeowner's Charges Comparison
2. FY 2018/19 Utility Rate Adjustment Recommendation Summary
3. City of Mesa Enterprise Fund Cash Flow Projections