



Date: November 4, 2019  
To: Interested Parties  
From: Candace Cannistraro, Office of Management and Budget Director  
Subject: Fiscal Year 2019/2020 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 January 13, 2020. This will be followed by the public hearing on January 27, 2020 as stated in the Notice of Intention to Adjust Utility Rates to be published on November 4, 2019.

Discussions of these proposals to the full City Council occurred at the study sessions on October 7, 2019, October 10, 2019 and October 31, 2019. Subsequently, the results of these discussions are 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 March 1, 2020.

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

<u>Utility</u>	<u>Revenue</u>
Electric	\$72,000
Natural Gas	\$765,000
Water	\$2,166,000
Wastewater	\$1,556,000
Solid Waste	\$451,000

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.

For FY 2019/20, the following rate adjustments are being recommended (see Attachment 1 for more detail):

**Solid Waste:**

- All residential rates, bulk item pick-up and appliance collection: No increase
- Front-load Trash Rates: 3.8% increase
- Front-Load Recycle Rates: 80% increase
- Roll-Off rates: Overall 2.4% increase

**Electric:**

- Residential customers: service charge increase of \$0.25 per month
- Residential customers: no adjustment to the energy usage charge
- Non-residential customers: service charge increase of \$1.00 per month
- Non-residential customers: no adjustment to the energy usage charge

**Natural Gas:**

- Residential customers: system service charge increase of \$0.75 per month
- Residential customers: no adjustment to the energy usage charge
- Non-residential customers: system service charge increase of \$2.00 per month
- Non-residential customers: no adjustment to the energy usage charge
- Create voluntary green tariff with additional \$0.01/kWh usage charge
- Large Commercial CNG customers: system service charge increased to \$100.00 per month
- All Commercial CNG customers: \$0.05 per therm increase to the energy usage charge

**Water:**

- Residential customers: no rate adjustment
- Non-residential customers: 6% increase on usage rates, no adjustment to the fixed service charge
- Interdepartmental: no rate adjustment
- Continue with planned residential water usage tier adjustment to align necessary with discretionary use

**Wastewater:**

- Residential customers: no rate adjustment
- Non-residential customers: 4.35% increase to all components
- Interdepartmental: no adjustment

## **BACKGROUND AND DISCUSSION**

Each utility is operated as a separate business center. As such, rate schedules are reviewed annually and if needed, adjusted 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 2) 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 1.3% 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 110 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 capital improvement program (CIP) includes the planning for increased customer demand, maintaining system reliability and satisfying contractual obligations. The debt service on utility revenue bonds to fund projects is provided by 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 adjustment for FY 2019/20 is an increase of \$2.2 million, moving from \$108.4 million to \$110.6 million.

## SOLID WASTE UTILITY

Staff is recommending an increase to the barrel pullback fee from \$2.21 to \$10.00 per barrel

### *Commercial Front-Load Trash*

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

- Increase 6-Yard Base Rate from \$99.98 to \$101.98
- Increase 8-Yard Base Rate from \$112.98 to \$115.98
- Increase in-zone multi-day factor from a multiplier of 0.80 to 0.81
- Increase out-of-zone fee by \$1.00 from \$14.00 to \$15.00
- Increase 6-yard Multi-Bin Factor from a multiplier of 0.645 to 0.650
- Increase 8-yard Multi-Bin Factor from a multiplier of 0.670 to 0.680

The projected annualized increase in revenue is expected to be \$264,000.

### *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 and multi-bin factor for commercial cardboard customers. Additionally, staff is recommending removing the multi-day factor for commercial cardboard customers.

- Increase 2-yard base rate for cardboard from \$28.00 to \$36.00
- Increase 3-yard base rate for cardboard from \$28.00 to \$39.36
- Increase 4-yard base rate for cardboard from \$28.00 to \$42.72
- Increase 6-yard base rate for cardboard from \$28.00 to \$53.03
- Increase 8-yard base rate for cardboard from \$28.00 to \$63.09
- Remove the multi-day factor discount
- Increase multi-bin factor for all cardboard bins from a multiplier of 0.645 to 0.650

Staff is recommending an increase to the base rate for commercial commingled customers.

- Increase 2-yard base rate for cardboard from \$36.00 to \$36.00
- Increase 3-yard base rate for cardboard from \$36.00 to \$39.36
- Increase 4-yard base rate for cardboard from \$36.00 to \$42.72
- Increase 6-yard base rate for cardboard from \$36.00 to \$53.03

Increase 8-yard base rate for cardboard from \$36.00 to \$63.09  
Multi-bin factor for all commingled bins to 0.650

The projected annualized increase in revenue is expected to be about \$133,000.

### *Commercial Roll-Off*

Staff recommends increases to Commercial Roll-Off services averaging 2.4% increase for FY 2019/20. The Roll-Off program serves residents and business customers in competition with private waste collection companies.

The projected annualized roll-off increase in revenue is approximately \$54,000.

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

Increase initial set fee from \$55.00 to \$58.00  
Increase haul fees for 15-, 20-, and 30-yard boxes by \$3.00 per haul  
Increase trash per ton fee for boxes and compactors by \$0.80 from \$32.50 to \$33.30  
Increase the green waste per ton fee by \$6.85 from \$25.45 to \$32.30  
Increase the trash fee for weight above the limit from \$38.40 to \$39.90  
Increase the green waste fee for weight above the limit from \$26.89 to \$38.90

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 FY 2019/20, 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 rate increase of \$0.25 to the system service charge and no increase to the energy usage charge for FY 2019/20. Staff is also recommending a rate increase of \$1.00 to the non-residential system service charge.

Residential System Service Charge: increase of \$0.25, from \$11.75 to \$12.00, 2.1%

Average residential bill with service charge, energy usage charge, and EECAF: from \$86.93 to \$90.92, 4.6% increase due to higher EECAF costs

Commercial System Service Charge: increase of \$1.00

Current average commercial bill with service charge, energy usage charge, and EECAF: from \$370.59 to \$389.91, 5.2% increase due to higher EECAF costs

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, excluding EECAF effects.

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 24% 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 (\$8.00 more than Mesa's proposed)

Mesa's average residential customer:

Monthly bills during calendar year 2018 (at FY 2018/19 Mesa rates) were approximately \$14.65 less per month (\$175.80 less per year) than SRP.

The proposed increase results in an annual cost approximately 12.8% percent less than if served by SRP. Lower use customers' bills (i.e. first quartile with an average consumption of 309.85 kWh per month) would be almost 22.5% 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 \$0.03951 and \$0.05533 per kWh in the most recent twelve months and is \$0.05339 for October 2019.

The projected increase in FY 2018/19 revenue is approximately \$72,000.

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 2019/20.

Residential System Service Charge –summer: increase \$0.75, from \$14.31 to \$15.06, 5.2%

Residential System Service Charge –winter: increase \$0.75, from \$17.24 to \$17.99, 4.3%

Average monthly Mesa resident bill with customer charge, usage charge, and PNGCAF: from \$36.07 to \$34.90, 3.2% decrease due to PNGCAF reductions

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, excluding PNGCAF effects.

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 \$0.10000 and \$0.34954 per therm in the most recent twelve months and is \$0.21379 for October 2019.

Southwest Gas (SWG) comparison:

Service Charge: \$10.70 per month (\$4.36 less than Mesa’s proposed summer system service charge and \$7.29 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 \$0.87 less per month (\$10.44 less per year) than if served by SWG.

*Non-residential and Commercial CNG*

Staff recommends increasing the following system service charges and energy usage charges.

Non-residential: increase system service charge \$2.00, from \$33.66 to \$35.66 (summer) and from \$43.34 to \$45.34 (winter)

Current average non-residential bill with customer charge, energy usage charge, and PNGCAF: from \$420.66 to \$389.47, 7.4% decrease due to PNGCAF reductions

Large Commercial CNG: increase system service charge to \$100 from \$33.66 (summer) and \$43.34 (winter)

Commercial CNG: increase energy usage charge from \$0.0879 to \$0.1379 per therm

Due to PNGCAF reductions, all CNG customers forecast to see a decrease in bills from 2.7% to 4.6%

The projected increase in FY 2018/19 revenue is approximately \$765,000.

## 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 projects that address customer demand and system reliability that was presented to City Council on October 7, 2019. 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. For FY 2018/19, revenues from the service charge component rate were 37.18% of total estimated costs. This trend is scheduled to continue into FY 2019/20, with revenues from the service charge component forecast to come in at 36.07% of total estimated costs.

### *Non-Residential Water*

Consistent with the direction of the Drought Management Plan and furthering conservation efforts, the City is focused on identifying necessary and discretionary water use. Staff recommends separating non-residential landscape accounts from general non-residential accounts. Additionally, FY 2018/19 non-residential water usage was higher than residential water usage for the first time. The impact of increased non-residential water usage impacts the amount of water and infrastructure needed to serve these customers.

Staff recommends a 6% rate increase to the usage and excess usage charges. Currently, the non-residential usage rate is aligned with the necessary usage tier. The 6% proposed increase moves the non-residential usage rate closer to the discretionary usage tier. There will be no increase to the service charges. As the recommended increase is only on usage rates, the monthly bill increase will be decreased for customers that consume less water.

General Commercial typical monthly bill (consumption of 11,000 gallons): \$84.90 to \$86.53, 1.9% increase

Landscape Commercial typical monthly bill (consumption of 44,000 gallons): \$215.77 to \$225.25, 4.4% increase

The projected increase in annualized revenues is approximately \$1,950,000.

### *Excess Water Surcharge*

For most non-residential customers (commercial, multi-unit dwelling, and public authorities), the excess water surcharge is currently operative ten months of the year (February through November). For these customers, staff is continuing the implementation of establishing consistency with its winter water average which operates twelve months a year and would further promote conservation. The excess water surcharge was added to February beginning in FY 2018/19. The next step of this implementation will add January in FY 2020/21, and December in FY 2021/22.

The projected increase in annualized revenues is approximately \$216,000.

### *Residential Water*

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 2019/20, staff recommends continuing with the planned residential water tier adjustment with no adjustment to rates. 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: \$3.19 per 1,000 gallons, 4,000 – 9,000 gallons;  
Tier 2: \$4.79 per 1,000 gallons, next 9,000 gallons;  
Tier 3: \$5.77 per 1,000 gallons, next 6,000 gallons;  
Tier 4: \$6.46 per 1,000 gallons, all additional 1,000 gallons;

*Recommended FY 2019/20 Tier Structure*

The first 3,000 gallons are included in the service charge  
Tier 1: \$3.19 per 1,000 gallons, 4,000 – 8,000 gallons;  
Tier 2: \$4.79 per 1,000 gallons, next 8,000 gallons;  
Tier 3: \$5.77 per 1,000 gallons, next 8,000 gallons;  
Tier 4: \$6.46 per 1,000 gallons, all additional 1,000 gallons;

The monthly bills for a typical residential customer will not see an increase due to the adjustments in the tier structure, however high-usage residential customers may see slight increases to their monthly bills. 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: \$28.10, no increase  
Usage Charges (typical monthly consumption of 6,000 gallons): \$9.57, no increase  
Total typical monthly bill impact: \$37.67, no increase

Arizona Water Company comparison:

Service Charge: \$22.34 per month  
Usage Charges (typical monthly consumption of 6,000 gallons): \$16.66  
Total typical monthly bill: \$50.37

Interdepartmental water rates are recommended to be held constant for FY 2019/20.

The total projected increase in annual water revenue for is approximately \$2,166,000.

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 projects that address customer demand and system reliability that was presented to City Council on October 7, 2019. 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 ensure rates are sufficient to keep up with expenses.

For residential customers, staff recommends no increase to the service charge and the usage charge.

*Residential Wastewater Consumer Impact Comparison:*

Service Charge: \$19.27, no increase  
Usage Charges (based on winter water average consumption): \$6.52, no increase  
Total typical monthly bill impact: \$25.79

Liberty Utilities comparison:

Service Charge: \$52.40 per month  
Usage Charges: \$3.16  
Total typical monthly bill: \$55.56

Johnson Utilities comparison:

Service Charge: \$39.24 per month  
Usage Charges: \$0.00  
Total typical monthly bill: \$39.24

*Non-Residential Wastewater*

Rates for non-residential wastewater service are comprised of two components: Service Charge with a flat monthly rate, and Usage Charge based on water delivered. Similar to the Water utility, increased non-residential water usage also impacts infrastructure and the cost needed to serve non-residential customers. Staff recommends a 4.35% increase to the service and usage charges.

Interdepartmental wastewater rates are recommended to be held constant for FY 2019/20.

The total projected increase in annual wastewater revenue is approximately \$1,556,000.

**Attachments:**

1. FY 2019/20 Utility Rate Adjustment Recommendation Summary
2. City of Mesa Enterprise Fund Cash Flow Projections