City Council Report

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To: City Council

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Subject: Fiscal Year 2015/2016 Utility Rate Recommendations

Strategic Initiatives

PURPOSE AND RECOMMENDATION

The purpose of this report is to provide staff recommendations for utility rate adjustments. The rate adjustments are recommended to be effective July 1, 2015 and are consistent with the revenue requirements of the Proposed Budget Plan for fiscal year 2015/16.

The forecasted expenses for each utility are compared to the forecasted revenues based on the current rates. The increase in revenues needed to accommodate the increased costs for each utility and the Enterprise Fund as a whole are:

Utility	Revenue	Increase
Electric	$210,000	1.3%
Natural Gas	$770,000	2.9%
Water	$6,201,000	5.2%
Wastewater	$3,673,000	5.2%
Solid Waste	$2,099,000	4.2%
Total	$12,953,000	

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 15/16, staff recommends the following rate adjustments:

Solid Waste:
- All residential rates, bulk item pick-up and appliance collection: 5% increase
- Mesa Green and Clean rate: $0.09 increase per month
- Front-load rates: 1.2% increase
- Roll-off rates: no adjustment

Electric:
- Residential customers: service charge increase of $1.50 per month
- Residential customers: no adjustment to the energy usage charge
- Non-residential customers: no adjustment to any components

Gas:
- All customers: service charge increase of $1.29 per month
- All customers: no adjustment to the usage charge

Water:
- All non-interdepartmental rates: 5% increase on all rate components
- Restructure the service demand tiers: implement year one of a five-year plan
- Interdepartmental rates: no adjustment to any components

Wastewater:
- All non-departmental rates: 5% increase on all components
- Interdepartmental rates: no adjustment to any components

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 8-10% of the following years estimated expenditures. 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 Forecast Analysis Model (Attachment 4) includes projections of growth in the number of accounts for each utility based on their unique service area. The Water, Wastewater, and Solid Waste utilities have a citywide service area and are expected to grow by an average of 1,200 accounts per year during the forecast. With the inclusion of the Magma service area, the Natural Gas utility is expected to grow by 759 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 Forecast Analysis Model also includes 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 design and 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 anticipated inflation. The adjustment for FY15/16 is an increase of $4.0 million, moving from $95.7 million to $99.7 million.

SOLID WASTE UTILITY

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

Residential Rates

Staff recommends a 5% increase on all residential rates. The standard black barrel refuse service includes a blue barrel recycling service.

90 gallon black barrel: increase of $1.27 per month, $25.45 to $26.72
60-gallon black barrel: increase of $1.14 per month, $22.72 to $23.86

Additional black barrel: increase of $.60 per month, $12.02 to $12.62

Currently there are over 6,200 customers who receive two or more black barrels. The proposed $0.60 per month increase is to help fund landfill disposal fee increases.

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 $0.30 per month, $6.01 to $6.31

There are currently over 39,000 customers participating in the green waste recycling program. The recommended increase will fund new barrel purchases, expansion and increases to processing costs.

The projected increase in annual revenue is approximately $1,945,000.

Mesa Green and Clean

Staff recommends an increase of $0.09 per month, from $0.65 to $0.74.

The Mesa Green and Clean fee funds both the Household Hazardous Waste (HHW) program administered by the Development and Sustainability Department and Clean Sweep/Green Sweep (CS/GS) program administered by Solid Waste.

The HHW portion of the fee funds four HHW collection events each year, at which residents can safely dispose of hazardous materials. The Development and Sustainability Department uses contractors with expertise in hazardous material collection and handling to participate in the events and ensure that materials are properly disposed of. Contractor costs have risen, and the recommended $0.05 is needed to cover the increased costs. The HHW share of the fee would increase from $0.30 per month to $0.35 per month. The Clean Sweep/Green Sweep share also needs to increase $0.04 per month from $0.35 to $0.39 per home per month.

The projected increase in annual revenue is approximately $75,000 for the HHW portion and $60,000 for the Clean Sweep/Green Sweep portion.

Bulk Item and Appliance Collections is also recommended to increase by 5%.

Bulk item service: increase of $1.00 per load, from $19.99 to $20.99
Appliance pick-up: increase of $0.82 per appliance, from $16.49 to $17.31
"Not Out" Fee for both bulk item and appliance: increase of $0.51, from $10.23 per occurrence to $10.74 per occurrence

The projected increase in annual revenues is $6,500 for both bulk item and appliance pick-up service.

Commercial Front-load

There are various rate factors related to Front-load service. Staff recommends increases averaging 1.2% overall. The Front-load program serves customers in competition with private waste collection companies. The Solid Waste Management Department has established a net income target of 10% of revenue, after fully allocated costs. The FY 15/16 projection falls to 8.7% of revenue if rates remain unchanged. The rate was last adjusted in FY 14/15. Prior to that, front-load rates were not adjusted since August, 2008.

The projected increase in annual revenue is approximately $87,000.

Commercial Roll-off

Staff recommends not adjusting Roll-off rates for FY15/16. The Roll-off program serves residents and business customers in competition with private waste collection companies. The Solid Waste Management Department has established a net income target of 10% of revenue, after fully allocated costs. The FY 15/16 projection falls to 8.6% of revenue if rates remain unchanged. The Roll-off program is expected to experience an increase in net income as the existing fleet is converted from diesel to CNG with an anticipated reduction in fuel costs. Therefore, a rate increase is not being recommended at this time. The rate was last adjusted in FY 14/15. Prior to that, roll-off rates were not adjusted since August, 2008.

ELECTRIC UTILITY

Rates for electric service are comprised of three components: 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 $1.50 to the service charge and no increase to the energy usage charge for FY 15/16. Staff is not recommending a rate increase for non-residential accounts.

Residential service charge: increase $1.50, from $6.50 to $8.00, 23.1%

Average residential bill with energy usage charge and EECAF:
from $89.78 to $91.28, 1.7%

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 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 15% 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 service charge allows for a movement toward a more balanced rate structure.

Salt River Project (SRP) comparison:

Proposed service charge – summer: $18.50 per month
($10.50 more than Mesa's proposed)
Proposed service charge - winter: $20.00 per month
($12.00 more than Mesa's proposed)

<u>Mesa's average residential customer:</u>

Monthly bills during calendar year 2014 were approximately $8.97 less per month ($107.64 less per year) than if served by SRP.

The proposed increase results in an annual cost approximately ten percent less than if served by SRP. Lower use customers' bills (i.e. first quartile with an average consumption of 451 kWh per month) would be more than sixteen percent 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 $0.03910 and $0.06493 per kWh in the most recent twelve months and is $0.05917 for March 2015.)

The proposed adjustment is only the second rate adjustment to Mesa's residential customers' Electric System Service Charge since FY03/04.

The projected increase in annual revenue is approximately $210,000.

<u>NATURAL GAS UTILITY</u>

Rates for natural gas service are comprised of three components: 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 Mesa'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 is recommending a rate increase of $1.29 to the service charge and no increase to the natural gas usage charge for FY 15/16.

Service charge - summer: increase $1.29, from $10.82 to $12.11, 11.9%
Service charge – winter: increase $1.29, from $13.75 to $15.04, 9.4%

Average Mesa resident bill with energy usage charge and PNGCAF:
from $33.55 to $34.84, 3.8%

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 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 37% 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 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 $0.40915 and $0.65060 per therm in the most recent twelve months and is $0.41411 for March 2015.)

The projected increase in annual revenue is approximately $770,000.

WATER UTILITY

Rates for water service are comprised of two components: Service Charge with a flat monthly rate based on the water service line size and a Usage Charge based on units of water consumption. The purchase cost of water is incorporated into the rate structure.

The water utility forecast includes minimal debt service associated with the new Signal Butte Water Treatment Facility but does include start-up costs and annual operations in FY 16/17, FY 17/18 and FY 18/19. Significant costs within the utility are the cost of purchasing water 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 insure rates are sufficient to keep up with expenses.

Over the last few years, the City concentrated on a better alignment of fixed revenues with fixed costs. The goal was achieving revenues from the service charge to be within 35-40% of the overall costs. When rate adjustments were implemented, the service charge was increased at a greater percentage than the variable rate. For FY 15/16, the estimated revenues from the service charge component are 36.3% of the estimated costs. Staff recommendation is the maintenance of this ratio in FY 15/16, so the service charge would be adjusted in the same manner as the variable rate.

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

Across the country, cities and towns have noted a steady decline in water consumption per household. Many factors have contributed to this change in usage: more widespread use of water saving appliances, smaller number of people per household, less landscaping and more water conservation awareness. Staff analysis shows that the water usage for Mesa households has changed from a typical consumption of 10,000 gallons a month to a typical consumption of 7,000 gallons a month.

Further analysis revealed that there are four or five standard levels of residential water usage. Each level follows a seasonal pattern but at different consumption volumes and magnitudes. Accounts with the highest summer water consumption have the greatest deviation from their winter water consumption. These accounts create a greater demand on infrastructure than the annual consumption supports. The peak water consumption of the highest level is almost three times the volume of the peak consumption of the lowest demand level customers.

Staff recommends adjusting the tier structure to better align the charges for providing service with the demand for service. Attachment 1 illustrates the standard levels of demand against the current tier structure and the same standard levels of demand against the staff recommended tier structure. The levels of demand are average consumption of similar accounts. Actual consumption would fall above and below the line illustrated.

Current Tier Structure:

- The first 3,000 gallons are included in the service charge
- 4,000 – 12,000 gallons
- 13,000 – 24,000 gallons
- 25,000 gallons and greater

Recommended Tier Structure at full implementation:

- The first 3,000 gallons are included in the service charge
- 4,000 – 7,000 gallons
- 8,000 – 15,000 gallons
- 16,000 – 24,000 gallons
- 25,000 gallons and greater

Staff recommends transitioning to the new tier structure over a period of five years. While the data supports moving to the new structure next year, some customers would experience a significant increase in the monthly bill during the peak months. A five year phased approach results in two major benefits. It gives customers time to assess their water usage and apply water conservation techniques if possible. A phased approach also allows customers to ease into the financial impact of the new structure.

Staff recommends a 5% increase on the service charge and the consumption rates. Implementing a five-year phase in of the new tier structure allows for a FY 15/16 rate increase less than anticipated last year at this time. Staff originally forecasted that a 7% rate increase would be needed.

Recommended FY 15/16 Tier Structure:
The first 3,000 gallons are included in the service charge
4,000 – 11,000 gallons
12,000 – 22,000 gallons
23,000 – 24,000 gallons
25,000 gallons and greater

Attachment 2 illustrates the impact of a five-year phase-in of the new tier structure and the assumption of a 5% per year rate increase. It is important to note that all customers pay the same amount for the same volume. A high demand consumer only pays the higher tier rate on the incremental volume.

In summary for FY 15/16, staff recommends implementing the first year of a five-year phased implementation for restructuring the service demand tiers and increasing all rate components across the board by 5%.

Residential Water Consumer Impact:

Service Charge: $1.21 per month, from $24.14 to $25.35
Consumption Charges (average monthly consumption, 9,000 to 10,000 gallons):
$1.87 per month
Total monthly bill impact: $3.08, from $41.95 to $45.03

The projected increase in annual revenue is approximately $6,201,000.

A large turf facility supplemental reclaimed water interdepartmental rate is being reformatted and introduced. All other Interdepartmental water rates are recommended to be held constant for FY15/16.

WASTEWATER UTILITY

Rates for residential wastewater service are comprised of two components: Service Charge with a flat monthly rate and a Usage Charge based on demand volume.

Wastewater volume is not measured directly. The volume is calculated for each customer based on 90% of the average monthly water use for the three lowest months from December through March. This approximates indoor household usage and the resulting demand on the wastewater system. The amount is used as a flat monthly volume for the customer for the following twelve months. 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 minimal debt service associated with the expansion of the Greenfield Water Reclamation Facility but does include start-up costs and annual operations in FY 17/18, FY 18/19 and FY 19/20. Significant costs within the utility are the cost of chemicals and electricity and the agreement for the use of the 91st Avenue Wastewater Treatment Facility. Staff reviews and forecasts all costs each year to insure rates are sufficient to keep up with expenses.

Staff recommends a 5% increase to the service charge and the usage charge for all customers.

Residential Wastewater Consumer Impact:

Service Charge: $0.82 per month, from $16.40 to $17.22

Consumption Charges (based on average monthly water consumption): $0.51 per month.

Total monthly bill impact: $1.33, from $26.26 to $27.59

The projected increase in annual revenue is approximately $3,673,000.

Interdepartmental wastewater rates are recommended to be held constant for FY15/16.

ALTERNATIVES

Modify the FY15/16 utility rate adjustment proposal.
Examples include but are not limited to: increase, reduce or eliminate a recommended percentage, change method of implementation (across-the-board versus directed) or modify the phase-in plan of the revised water rate structure.

The budgetary impact would need to be calculated by staff based on the modification requested.

FISCAL IMPACT

The projected increase in FY15/16 revenues in the Enterprise Fund from the recommended utility rate adjustments is $12,953,000. The projected increase by individual utility is as follows:

Utility	Amount
Electric	$210,000
Natural Gas	$770,000
Water	$6,201,000
Wastewater	$3,673,000
Solid Waste*	$2,099,000
Total	$12,953,000

* Household Hazardous Waste Revenue not included

The City's financial policies call for an ending reserve balance target of 8-10%. The projected ending reserve balance for the Enterprise Fund with similar adjustment to rates each year is 11.3% for FY 15/16, 11.2% for FY 16/17 and 10.0% for FY 17/18.

The projected increase on the typical residential customer for FY 15/16 by individual utility is:

Utility	Monthly	Annual
Solid Waste	$1.36	$16.32
Water	$3.08	$36.96
Wastewater	$1.33	$15.96
Total	$5.77	$69.24
Electric	$1.50	$18.00
Natural Gas	$1.29	$15.48

The average financial impact of the rate adjustments on residential customers is included in an overall comparison with other cities in the valley (Attachment 3). The impact of property taxes, city sales tax, and utility rates (excluding electric and natural gas) on the municipality's typical resident was calculated. Comparison results revealed Mesa's overall cost for the average resident is currently the fifth lowest city. Mesa would maintain this ranking if the rate recommendations are approved as presented and the other municipalities do not make any adjustments to their rates.

Attachments:

1. Residential water consumer: Demand Patterns and Recommended Tier Realignment
2. Residential water consumer: Recommended Demand Rate Implementation
3. Average Homeowner's Charges Comparison
4. Forecast Analysis Model