



# COUNCIL MINUTES

April 13, 2017

The City Council of the City of Mesa met in a Study Session in the lower level meeting room of the Council Chambers, 57 East 1st Street, on April 13, 2017 at 7:30 a.m.

## COUNCIL PRESENT

John Giles  
David Luna  
Mark Freeman  
Christopher Glover  
Kevin Thompson  
Jeremy Whittaker  
Ryan Winkle

## COUNCIL ABSENT

None

## OFFICERS PRESENT

Christopher Brady  
Dee Ann Mickelsen  
Jim Smith

1. Review items on the agenda for April 17, 2017 Regular Council meeting.

All of the items on the agenda were reviewed among Council and staff and the following was noted:

Conflict of interest: None.

Item removed from the consent agenda: 8-b.

Planning Director John Wesley provided an explanation on item 8-b **(Z17-005) (District 6) the 9700 through 9800 blocks of East Southern Avenue (south side) and the 9700 through 9800 blocks of East Hampton Ave (north side). Located west of Crismon Road and south of Southern Avenue (19.4± acres)** on the Regular Council Meeting agenda.

Item placed back on the consent agenda: 11-a.

Assistant City Manager Kari Kent informed Council that an additional item may be added to the April 17, 2017 Council Agenda regarding a water connection issue outside the City, but within Maricopa County.

2-a. Hear a presentation and discuss the Fiscal Year 2018-2022 Capital Improvement Program with a focus on utilities.

Budget Coordinator Scott Butler introduced City Engineer Beth Huning who displayed a PowerPoint presentation **(See Attachment 1)** related to Fiscal Years 2018-2022 Capital Improvement Program (CIP) with a focus on utilities.

Mr. Butler presented the funded project summary of the CIP voter approved utility revenue bonds, the FY 2017/18, and five-year proposed CIP. He explained that a significant portion of the utilities makes up the overall CIP including improvements, addressing customer demand needs, service reliability of aging infrastructure, and contractual obligations. (See Pages 2 through 4 of Attachment 1)

Ms. Huning displayed the November 2014 utility bond programs allocation funding based on categories for water, wastewater, gas, and electric as follows (See Page 6 of Attachment 1):

- Lifecycle Replacement/Reliability
- Contractual Obligations
- Customer Demand in SE Mesa
- Customer Demand Citywide
- System Reinforcement

Ms. Huning displayed information reflecting the five major water projects making up approximately 61% of the total bonds which is due to the construction of a new water treatment plant. She explained that treatment plants are unique, due to the fact that prior to construction of a subdivision or an industrial development, water and wastewater must be available. She added that treatment plants must be designed with specific equipment to treat the water for quality and capacity and takes up to four to five years to complete. (See pages 7 through 11 of Attachment 1)

Ms. Huning highlighted wastewater bonds, and said that customer demand in Southeast Mesa is the largest funding section, due to the fact that the City partners with the Town of Gilbert and the Town of Queen Creek on one wastewater treatment plant. She stated that construction begins in 2018 to expand the wastewater capacity for the City by 10-million gallons, and the Town of Gilbert by 4-million gallons, as well as standard upgrading. She explained that Queen Creek is participating in the standard upgrades but not as part of the capacity upgrade. She added that project completion is set for the end of 2020 and that the Greenfield Water Reclamation Plant project utilizes 74% of the bonds funds. (See Page 13 of Attachment 1)

In response to a question posed by Councilmember Thompson, Ms. Huning replied that the Town of Queen Creek does not feel a need to expand their wastewater capacity, however, participation is required due to the fact that modifications and upgrades to the existing plant must be completed.

Ms. Huning displayed the Greenfield Water Reclamation Plant allocation percentages, indicating the City's increase after the expansion as well as an overview of the area of the wastewater projects. (See Page 14 and 15 of Attachment 1)

Ms. Huning briefly highlighted the energy resources, electric and gas bond program allocations. She pointed out that the gas service area has two locations, one located in the City of Mesa covering 90 square miles and 236 square miles located in Pinal County, which is referred to as the Magma Service Area. (See Pages 16 through 21 of Attachment 1)

Ms. Huning explained that electric and gas projects are unique due to the fact that they are driven by other factors, such as joint trenching for gas and water lines to reduce costs. She added that during project review of the utilities, staff will assess whether electric lines should be placed underground, in addition to replacement of gas and water lines. She stated that another factor is customer demand, which drives electric and gas projects for service connections to new companies. (See page 22 of Attachment 1)

In response to a question posed by Vice Mayor Luna, Ms. Huning responded that it depends on the project and project area whether or not fiber or conduit is placed in the ground.

City Manager Christopher Brady pointed out that a project is being worked on by the Information Technology Department and the Communications Department where staff is strategically looking at future projects due to the fact that conduit or fiber has already been installed throughout the City.

In response to a question posed by Vice Mayor Luna, Ms. Huning reported that the City has private/public partnerships with some dark fiber vendors where the vendors lease the City's conduits to complete any gaps within the City.

Ms. Huning provided the link for the online active CIP project map located on the City of Mesa's website. (See Page 23 of Attachment 1)

Mayor Giles thanked staff for the presentation.

2-b. Hear a presentation, discuss and provide direction on department budgets and Utility Rate recommendations for the following:

Office of Management and Budget Deputy Director Brian Ritschel displayed a Power Point presentation (**See Attachment 2**) related to Utility Departments rate recommendations and Enterprise Fund summary.

Mr. Ritschel highlighted the Enterprise Operations as follows (See Page 2 of Attachment 2):

- Each utility is operated as a separate business center
- Combined ending reserve balance adheres to the adopted financial policy of at least 8-10% over the forecast period
- Reserve balance is used to smooth rate adjustments year-to-year
- Reserve balance can be used to phase in new programs or changes in operations

Mr. Ritschel explained that the FY 2017/18 revenue target is approximately \$9.4 million and should assist with smoothing out the rate adjustments to stay above the 8-10% reserve balance. (See Page 3 of Attachment 2)

Mr. Ritschel pointed out that the methods for implementation for rate adjustments vary from year to year based upon needs and goals of the individual utilities. He stated that with the adjustments, impact on individual customers vary based on the method of implementation and the customer's consumption of services.

Mr. Ritschel presented the FY 2017/18 proposed rate changes to help reach revenue targets and confirmed that the proposed rates are less than the projection presented last year for FY 2017/18. He added that this is due in part to a refund in utility bonds with an approximate \$12 million debt service savings. (See Page 5 of Attachment 2)

In response to a question posed by Mayor Giles, City Manager Christopher Brady responded that one of the components for the rate adjustments is the refinancing of bonds as well as contractual obligations and growth in the number of accounts.

## 1. Environmental Management and Sustainability

Environmental Management and Sustainability Director Scott Bouchie introduced Senior Fiscal Analyst Sheri Collins who displayed a PowerPoint presentation (**See Attachment 3**) related to Environmental Management and Sustainability rate recommendations.

Mr. Bouchie highlighted the department's vision through performance metrics for FY 2016/17 as follows (See Pages 2 through 6 of Attachment 3):

- Energy Conservation - \$369,000 in savings
- Renewable Energy - \$48,273 in savings
- Solid Waste – 89% customer retention in apartment communities
- Recycling Rate – 30% diversion rate

In response to a question posed by Vice Mayor Luna, Mr. Bouchie responded that when Senate Bill 1079 passed it opened up competition between solid waste providers for commercial, industrial, and multi-family residential properties.

Mr. Bouchie explained the following accomplishments for FY 2016/17 (See Page 7 and 8 of Attachment 3):

- Condensed Natural Gas (CNG) Station and Fleet Conversion
- Household Hazardous Waste (HHW) Facility

In response to question posed by Councilmember Freeman, Mr. Bouchie remarked that natural gas is not provided to the private sector at the CNG Station due to the low demand for natural gas at that station.

Discussion ensued relative to natural gas, investment, and capital costs.

In response to questions posed by Councilmember Freeman, Mr. Bouchie explained that the cost for the Clean and Green fee is .84 cents per residential customer, which pays for both the Clean Sweep/Green Sweep program for neighborhood clean-ups and HHW events. He clarified that the associated fees and revenues covers the cost of the programs. He stated that proof of residency during HHW events are not verified, however, once the HHW Facility is open, proof of residency will be required.

In response to a question from Councilmember Whittaker, Mr. Bouchie commented that all solar installations are in the Salt River Project (SRP) territory. He stated that the City has partnered with Solar City in an agreement and they design, own, operate, and maintain the systems while the City pays a fixed rate per kilowatt-hour (kWh) for a 20-year period.

Discussion ensued relative to the Solar City agreement, the risk on the locked rate, pursuing more solar installations, and solar system production.

Mr. Bouchie listed the rate pressures within the utility as follows (See Page 9 of Attachment 3):

- Growth; over 5,600 new customers or 4.4% over 4-years
- Personal Services and Employee Compensation; \$300,000
- Tipping Fee Increases; \$300,000
- Recycling Contracts expiring in one to two years; processing fees with new contracts

- Recycling Program Contamination

In response to a question posed by Mayor Giles, Mr. Bouchie stated that a tipping fee is the price per ton for the disposal of solid waste at the landfill or transfer station.

Mr. Bouchie pointed out a significant budget decrease for FY 2017/18, as a result of the department's adjusted fleet replacement allocation by using the New Vehicle Replacement Model.

Mr. Bouchie displayed a chart showing the breakdown of barrels, customers, and rates for the residential and commercial services for Solid Waste. (See Page 11 of Attachment 3)

Mr. Bouchie listed the Solid Waste Utility Rate recommendations for FY 2017/18 with a residential rate increase on barrel rates of 3.5%, increase on bulk item and appliance collection of 3.5%, larger commercial customers front load rates increase of 2.5%, and an increase on Commercial Roll Off Green Waste per ton fee of 4.9%. (See Pages 12 and 13 of Attachment 3)

In response to a question posed by Councilmember Thompson, Mr. Bouchie responded that the front load rates are competitive with the private sector and that the department values customer service, which has been recognized by our customers.

In response to a question from Vice Mayor Luna, Mr. Bouchie replied that he anticipates a \$300,000 increase in the tipping fees for FY 2017/18, however, the increase is consistent with prior years.

Mayor Giles thanked staff for the presentation.

## 2. Energy Resources

Energy Resources Director Frank McRae introduced Senior Fiscal Analyst John Petrof and displayed a PowerPoint presentation (**See Attachment 4**) related to Energy Resources Department and rate recommendations.

Mr. McRae remarked that the utility industry is one of the most capital intensive industries that there is, followed by the rail industry. He stated that this means decisions made in the past have a significant impact on the decisions made today.

Mr. McRae explained the history of the Energy Resources Department and pointed out that the department is small, however, they overcome those challenges by outsourcing, providing excellent service and keeping costs low. He stated that 2017 marks the 100<sup>th</sup> year the City of Mesa has owned and operated a gas and electric utility.

Mr. McRae displayed a chart of FY 2016/17 totals for Electric and Natural Gas (See Page 2 of Attachment 4):

- Residential and Non-Residential Customers
- Annual revenues
- Annual sales
- Annual expenditures
- General Fund transfer
- Net sources and uses

Mr. McRae remarked that the priorities, mission, and goal for the Electric Utility is to provide reliable, safe energy utility services at a reasonable cost in order to support the City's ability to enhance the sustainability of our economy. (See Page 4 of Attachment 4)

Mr. McRae added that the department relies on the Institute of Electronics and Electrical Engineers to measure the reliability of service in a standardized way across the industry, and received the American Public Powers Association Certificate of Excellence and Reliability. (See Page 5 of Attachment 4)

Mr. Petrof displayed a residential electric bill comparison of the proposed 2017 rate with the 2016 consumption. He explained that the chart breaks down the low-use customers (1<sup>st</sup> quarter), medium-use customers (2<sup>nd</sup> quarter), and the high-use customers (3<sup>rd</sup> quarter) compared to the City of Mesa and SRP rates and that each quarter displayed indicates that the City's rates are lower than SRP. (See Page 6 of Attachment 4)

Mr. Petrof stated that in 2015 the department began a program to assist low-income customers during the summer months (June, July, and August) to reduce billings. He pointed out that participation was low in 2015 due to minimal marketing and planning, however, in 2016 the participation increased. He indicated that for FY 2016/17 customers saved approximately \$40 per month and for FY 2017/18 the anticipated savings is \$43.75 per month. (See Page 7 of Attachment 4)

Mr. McRae reported that the department manages the costs and rate adjustments to ensure sustainable financial support to the City. He explained that the energy supply cost for both electric and gas are the largest single cost item within the cost structure. He stated that in 2016 the City replaced one of the largest contracts that supplied 39% of the City's energy over the course of the year by reducing the cost of the prior contract by 20%. He added that those savings are passed on to customers through the electric energy cost adjustment factor mechanism.

Mr. McRae mentioned that the department is in the process of issuing a Request for Proposals (RFP) specific to solar facilities and will seek Council approval in the future for a contract to install a solar parasol at the Mesa Art Center (MAC), similar to the one located at Arizona State University (ASU). He explained that the structure would be 24 ft. high, shade about 102 parking spaces at the south parking lot, provide 40,000 square feet of shaded space for special events, with a capacity at 512 kilowatts and produce 875,000 kWh per year, which is equivalent to 2% of City's buildings and facilities that are served by the Energy Resources Department in the downtown area or 30% of the maximum annual energy supply.

In response to questions posed by Councilmember Whittaker, Mr. McRae responded that the size of the parking lot restricts the amount of solar panels that can be added. He stated that the solar panels would be from a facility that will be contracted, not City owned, and that Solar City is not on the list of bidders for the MAC project, however, the department is exploring all options.

In response to a question posed by Vice Mayor Luna, Mr. McRae explained that the solar panel structure at the MAC is a parasol approach versus a canopy, stating that the structure covers the entire parking lot including the drive-ways between the parking spaces. He added that the parasol structure adds additional opportunities such as LED lighting (colors and dimming), promotional signs, and use of a sound system.

Mr. Petrof highlighted the following electric funding sources (See page 9 of Attachment 4):

- Rate Revenues – Customers billed for account management and electricity usage
- Non-rate Revenues – Fees and charges and up-front payments from developers/customers to extend/expand electric infrastructure

Mr. Petrof mentioned the significant budget changes for FY 2017/18, and that one of the departments goals is to ensure the anticipated needs are in line with minimizing the cost of delivering services to customers. He reported that the electric utility rate recommendations are to increase the service charge by \$1.25 per month to \$10.75, which is \$9.25 per month less than SRP's. (See Pages 10 through 12 of Attachment 4)

City Manager Christopher Brady stated that due to time constraints, he would recommend that Council review the Gas Utility budget presentation provided, and if Council has questions to direct them to City staff. (See Pages 13 through 33 of Attachment 4)

Mayor Giles thanked staff for the presentation.

### 3. Water Resources

Water Resources Director Jake West introduced Water Enterprise Services Deputy Director Seth Weld who displayed a PowerPoint presentation (**See Attachment 5**) related to the Water Resources Department and rate recommendations.

Mr. West reported that Water Resources provides reliable, safe, economical, and environmentally responsible water and wastewater services to the community. He pointed out that the water system services approximately 148,000 residential and commercial connections and 124,000 connections to the wastewater collection system. He added that water pipes cover 2,300 miles in addition to the 1,700 miles of wastewater pipes. (See Pages 2 and 3 of Attachment 5)

Mr. West pointed out that one of the FY 2016/17 accomplishments for the department was receiving the Platinum Award for Utility Excellence from the Association of Metropolitan Water Agencies (AMWA). (See Page 4 of Attachment 5)

Mr. West reviewed the following FY 2017/18 areas of emphasis (See Page 5 of Attachment 5):

- Southeast Mesa Infrastructure Planning
  - Signal Butte Water Treatment Plant (WTP) construction
  - Greenfield Water Reclamation Plant (WRP) expansion
- Waterline replacements
- Succession planning
- Recruitment

Mr. West addressed the Council regarding the settlement with the City of Mesa and the White Mountain Apache Tribe Community on an agreement for water rights where the City purchased 3,600 acre feet of water. He explained that the City of Mesa is to pay approximately \$7.8 million for the water, which is the City's portion in assisting the White Mountain Apache Tribe Community with the construction of a dam. He clarified that the work is not completed, due to the fact that the agreement is at the Federal level for authorization, however, the monies are placed in the program annually so once authorized, the funds are accessible to meet the obligation.

In response to a question posed by Councilmember Freeman, Mr. West responded that the agreement for the water is in addition to the 100-year water supply designation by the Department of Water Resources.

Mr. West highlighted the performance measurements for wastewater as follows (See Page 7 of Attachment 5):

- Number of miles of sewer lines cleaned
- Number of miles of sewer lines inspected
- Number of sanitary sewer overflows (SSO's)

Mr. West reported on the performance measurements for water as follows (See Page 9 of Attachment 5):

- Water meter read error rate
- Percentage of groundwater pumped
- Number of leaks and breaks per 100 miles of pipe

In response to a question posed by Councilmember Thompson, Mr. West responded that damage to pipes typically occurs when the pipe location is not verified prior to digging. He stated that in general the City's pipes are newer, however, the pipes located in downtown Mesa date back to the 1960's and older and that a risk assessment tool is in place to determine when to replace aging pipes.

In response to a question from Vice Mayor Luna, Mr. West reported that the department is partnering with the Energy Services Department by putting together an RFP to look at the systems since the City is unique and has water, gas and electric systems. He confirmed that meter reading can be done without going to the individual residences, however, there are certain components that need to be completed to ensure it is the right fit for the City.

Mr. West stated that 89% of the funding source is from the Enterprise Fund, and the remaining 11% is from the Restricted Funds that is made up of the Greenfield Water Reclamation Plant joint venture, utility replacement extension and renewal, and the Environmental Compliance Fee.

Mr. West listed the following significant budget changes for FY 2017/18 (See Page 11 of Attachment 5):

- Water commodity - \$1.2 million
- Greenfield WRP (Mesa's share) - \$207,000
- Chemicals - \$85,000
- New Positions – Signal Butte WTP and Greenfield WTP

In response to a question posed by Mayor Giles, Mr. West responded that the water at the Signal Butte WTP will also be from the Central Arizona Project (CAP) and with the same costs, however, a second tap will be built into it. He added that currently the water comes from the Brown Road Treatment Plant.

Mr. Brady explained that the water pipes are pressurized to push the water down, so in adding another WTP, it elevates the pressure on the pipes. He added that costs for water will continue to rise as more WTP's are installed.



Mr. West displayed the water commodity costs for the CAP projected out over the next six years for the municipal and industrial (M&I) water rates per acre foot and costs based on CAP flow projections, both indicating increases. He reported that the water commodity costs for SRP will have an increase over the next six years based on the flow projections. (See Pages 12 and 13 of Attachment 5)

Mr. West listed the water utility rate structure in detail and stated that the rate recommendations call for an increase of 3.5% for all customers and the residential service charge to increase by \$0.93 per month, from \$26.62 to \$27.55. (See Pages 14 and 15 of Attachment 5)

Mr. West presented the water utility rate structure comparison chart on the residential tier structure for FY 2016/17 to the proposed FY 2017/18. (See Page 16 of Attachment 5)

Mr. West reported that the wastewater utility rate recommendations call for all rate components to increase by 4% for all customers, the residential service charge will increase by \$0.72 per month, from \$ 18.08 to \$18.80, and that wastewater rates are not subject to seasonality, but are based on the winter water average usage of the individual customers. (See Page 17 of Attachment 5)

In response to a question posed by Councilmember Whittaker, Mr. Ritschel replied that the net sources and uses for water in FY 2017/18 is a 4.9 million loss, and that wastewater is breakeven.

In response to a question from Mayor Giles, Mr. Ritschel confirmed that current FY 2016/17 total net revenue for water and wastewater is a \$18.3 million gain.

Mr. Brady clarified that the City has a significant amount in the reserve for FY 2017/18 of just under 20% and stated that the net revenue fluctuates.

Mayor Giles thanked staff for the presentation.

3. Information pertaining to the current Job Order Contracting projects.

(This item was not discussed by the Council.)

4. Acknowledge receipt of minutes of various boards and committees.

4-a. Economic Development Advisory Board meeting held on April 4, 2017.

4-b. Historic Preservation Board meeting held on March 7, 2017.

It was moved by Councilmember Glover, seconded by Councilmember Thompson, that receipt of the above-listed minutes be acknowledged.

Carried unanimously.

5. Hear reports on meetings and/or conferences attended.

There were no reports on meetings and/or conferences attended.

6. Scheduling of meetings and general information.

City Manager Christopher Brady stated that the schedule of meetings is as follows:

Monday, April 17, 2017, 4:00 p.m. – Study Session

Monday, April 17, 2017, 5:45 p.m. – Regular Council Meeting

Thursday, April 20, 2017, 7:30 a.m. – Study Session

7. Adjournment.

Without objection, the Study Session adjourned at 9:34 a.m.

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JOHN GILES, MAYOR

ATTEST:

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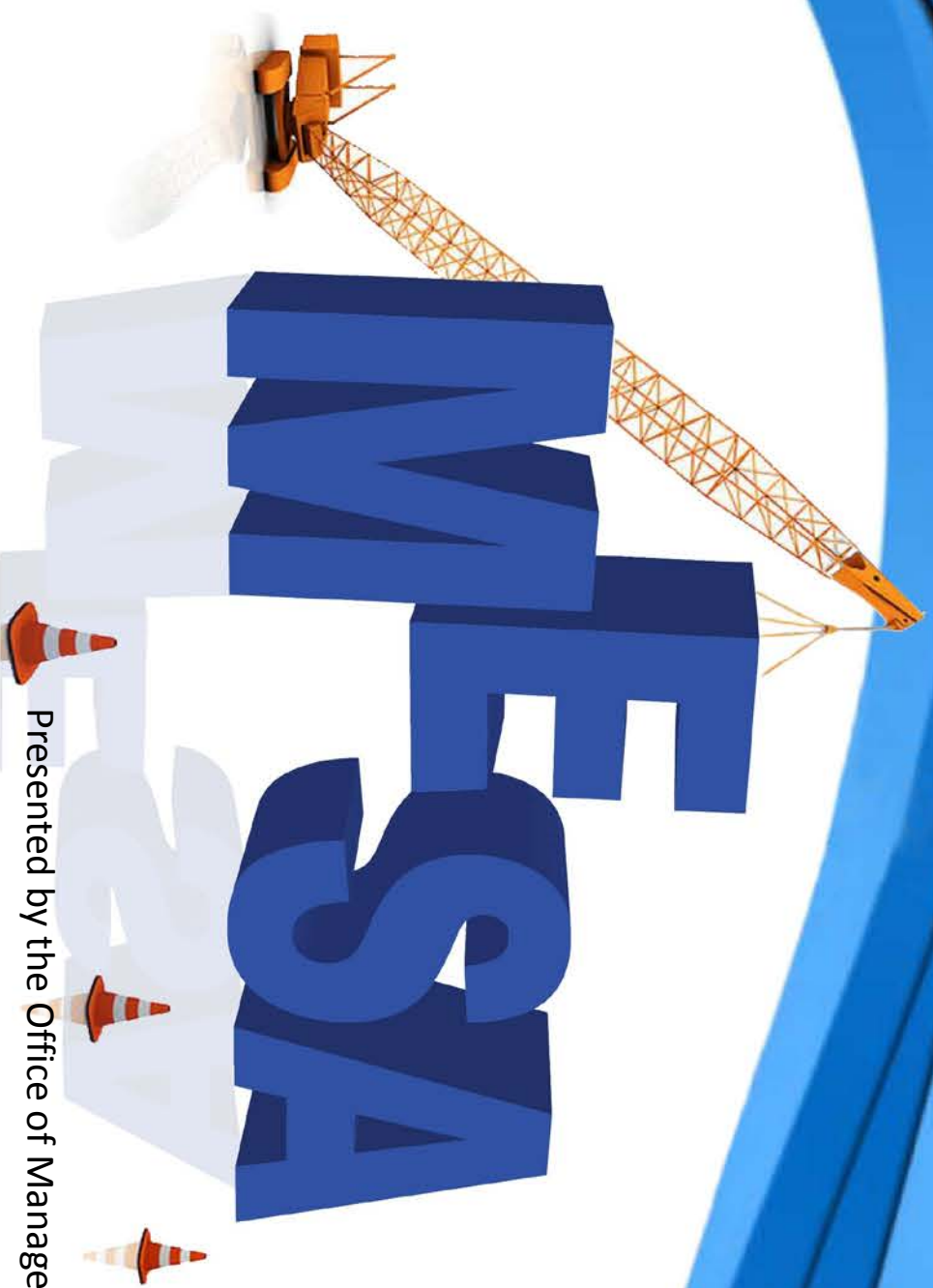
DEE ANN MICKELSEN, CITY CLERK

I hereby certify that the foregoing minutes are a true and correct copy of the minutes of the Study Session of the City Council of Mesa, Arizona, held on the 13<sup>th</sup> day of April, 2017. I further certify that the meeting was duly called and held and that a quorum was present.

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DEE ANN MICKELSEN, CITY CLERK

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(Attachments – 5)



FY 2018 - 2022

UTILITIES CIP OVERVIEW

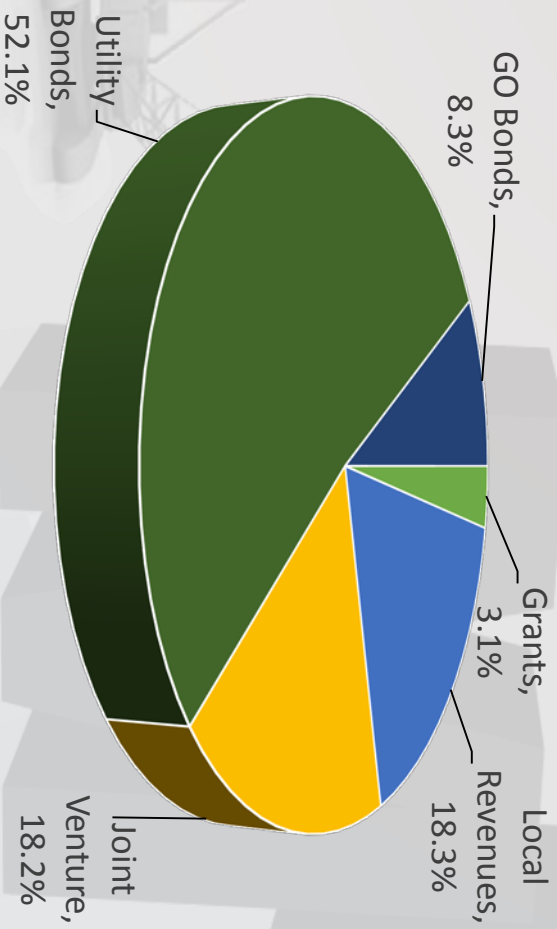
CITY COUNCIL STUDY SESSION

APRIL 13, 2017

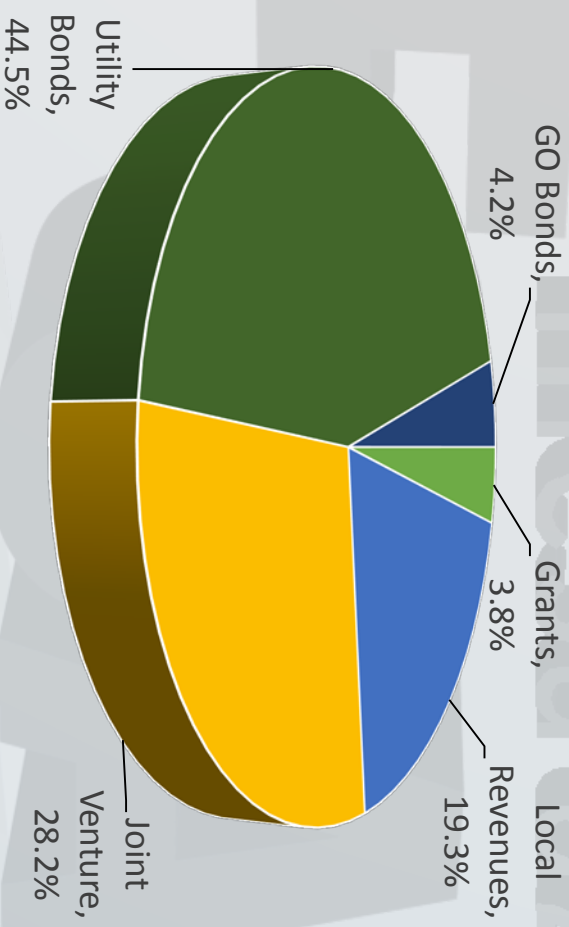
Presented by the Office of Management and Budget and the Engineering Department

# Funded Project Summary Proposed Five-Year CIP\*

FY 17/18



Five-Year



\*Does not include potential future bond elections

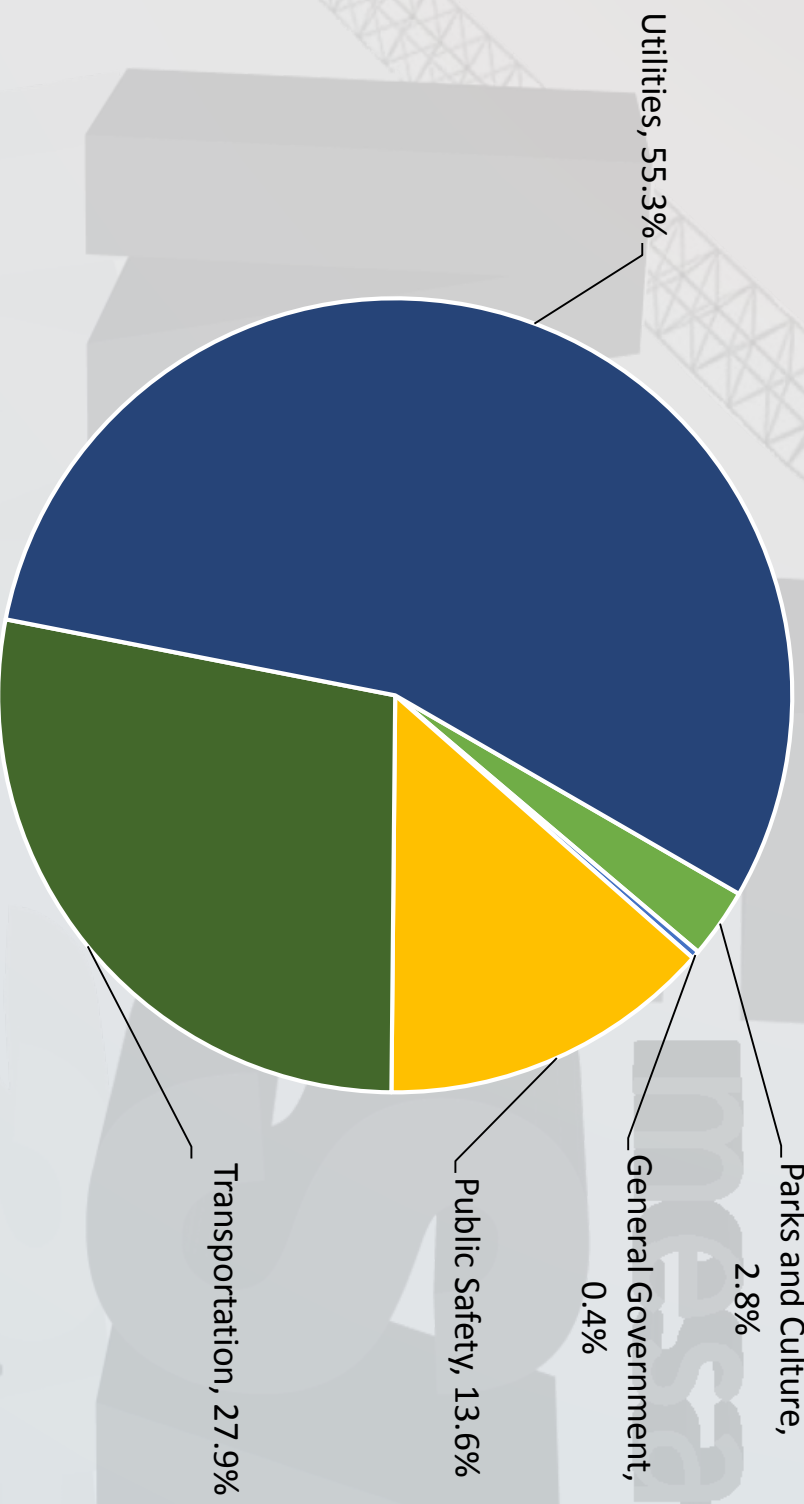
# Funded Project Summary

## Proposed Five – Year CIP\*

Funding Source	FY 17/18	Five-Year
General Obligation Bonds	\$24.2M	\$31.5M
Utility Revenue Bonds	\$151.8M	\$336.0M
Local Revenues	\$53.2M	\$145.1M
Joint Ventures	\$52.9M	\$212.4M
Grants	\$9.0M	\$28.7M

\*Does not include potential future bond elections

# Five-Year Category Funding\*



\*Does not include potential future bond elections

# Major Capital Projects



# 2014 Utility Bond Programs Water, Wastewater, Gas & Electric

	Water	Wastewater	Gas	Electric
Lifecycle Replacement/Reliability	\$63.3M	\$24.4M	\$19.2	\$7.2M
Contractual Obligations	\$46.5 M	\$20.4M	-----	-----
Customer Demand in SE Mesa	\$197.3M	\$131M	-----	-----
Customer Demand Citywide	\$8.6M	\$2.4M	\$27.5	\$2.9
System Reinforcement	-----	-----	\$12.4	\$16.9
<b>Total</b>	<b>\$315.7M</b>	<b>\$178.2M</b>	<b>\$59.1</b>	<b>\$27M</b>



# Water Resources

## 2014 Utility Bonds

- Water
- Wastewater

\$315.7M

\$178.2M



# Water

## Lifecycle Replacement

\$63.3M

- 10 Quarter Section Waterline Replacement Projects
- 4 Well Projects
- Brown Rd. Water Plant Misc. Improvements

## Contractual Obligations

\$46.5 M

- Val Vista Pipeline Phases II & III
- Val Vista Water Plant Contract w/Phoenix
- Water Settlement Contract

## Customer Demand in SE Mesa

\$197.3M

- Signal Butte Water Plant
- CAP Raw Water Main
- 3 Transmission Main Projects
- 8 Well Projects
- 8 Pipeline Projects
- Gateway Infrastructure

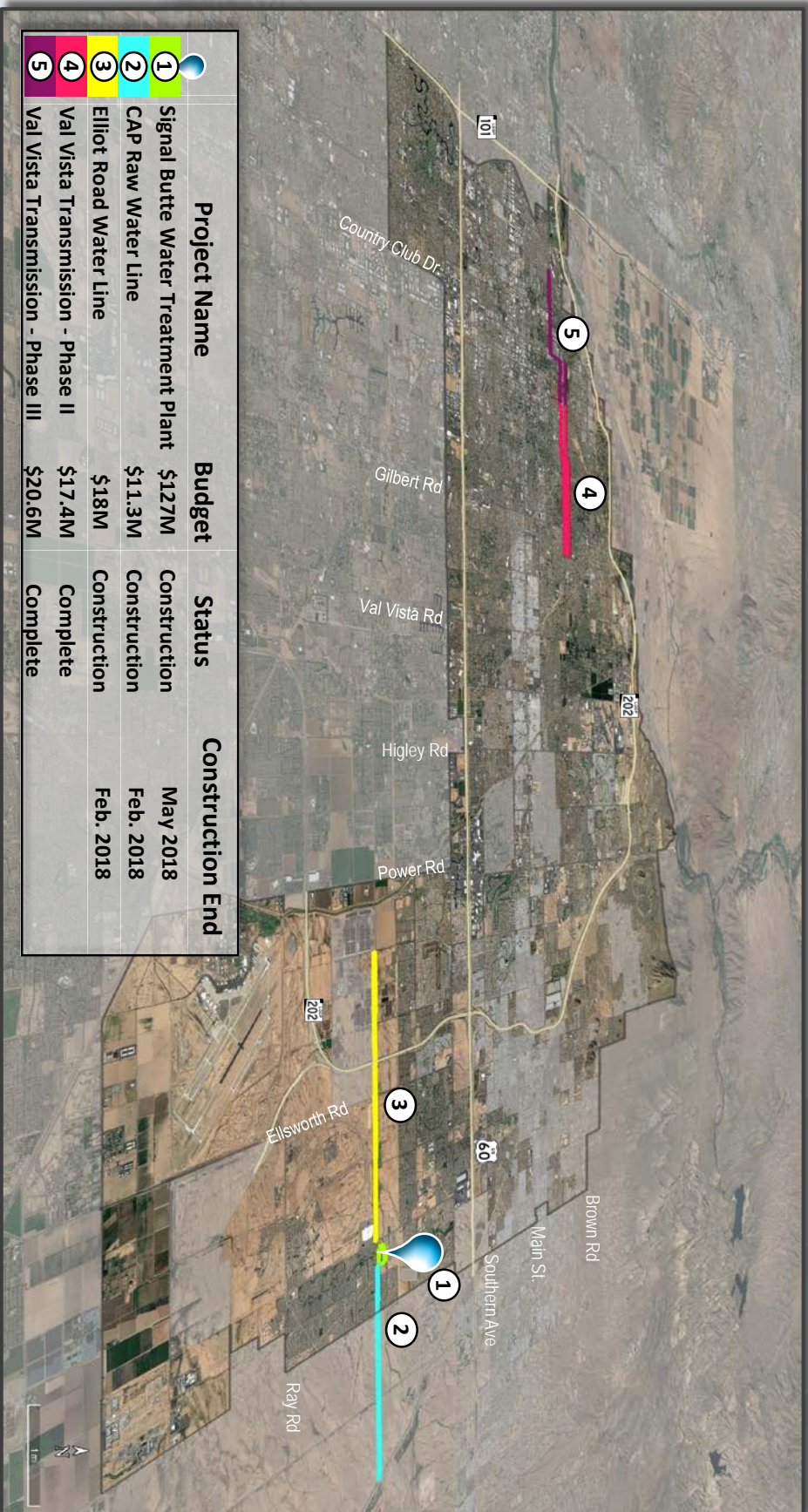
## Customer Demand-Citywide

\$8.6M

- Transfer Station 3 Upgrade
- Misc. Waterlines

**Total \$315.7M**

# 5 Major Water Projects = 61% of Total Bonds



Project Name	Budget	Status	Construction End
1 Signal Butte Water Treatment Plant	\$127M	Construction	May 2018
2 CAP Raw Water Line	\$11.3M	Construction	Feb. 2018
3 Elliot Road Water Line	\$18M	Construction	Feb. 2018
4 Val Vista Transmission - Phase II	\$17.4M	Complete	
5 Val Vista Transmission - Phase III	\$20.6M	Complete	

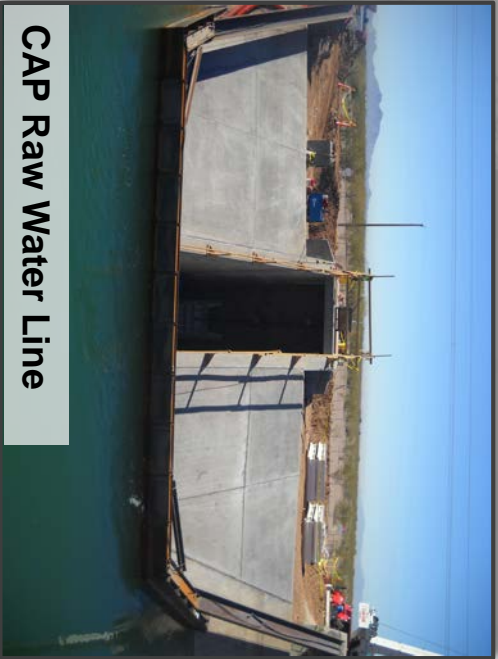
# Major Water Projects



Val Vista Pipeline (Phases II & III)



Elliot Road Water Line



CAP Raw Water Line



Signal Butte WRP

# All Water Projects



# Wastewater

Lifecycle Replacement	\$24.4M	<ul style="list-style-type: none"> <li>Misc. Greenfield Water Rec Plant Improvements</li> <li>Lift Station, Pipeline &amp; Manhole Projects</li> <li>SE Plant Rehabilitation Projects</li> </ul>
Contractual Obligations	\$20.4M	<ul style="list-style-type: none"> <li>91<sup>st</sup>. Ave. WW Plant Mesa Share</li> </ul>
Customer Demand in SE Mesa	\$131M	<ul style="list-style-type: none"> <li>8 Sewer Projects</li> <li>Greenfield WRP Expansion</li> </ul>
Customer Demand-Citywide	\$2.4M	<ul style="list-style-type: none"> <li>Septic to Sewer Program</li> </ul>
<b>Total</b>	<b>\$178.2M</b>	

# One Major Wastewater Project = 74% of Total Bonds Greenfield Water Reclamation Plant



## Status

Partners: Town of Gilbert

Town of Queen Creek

In Design Phase

Est. Construction Start:

1<sup>st</sup> Quarter 2018

Est. Construction End:

3<sup>rd</sup> Quarter 2020

# Greenfield Water Reclamation Plant Allocation Percentages

## Current

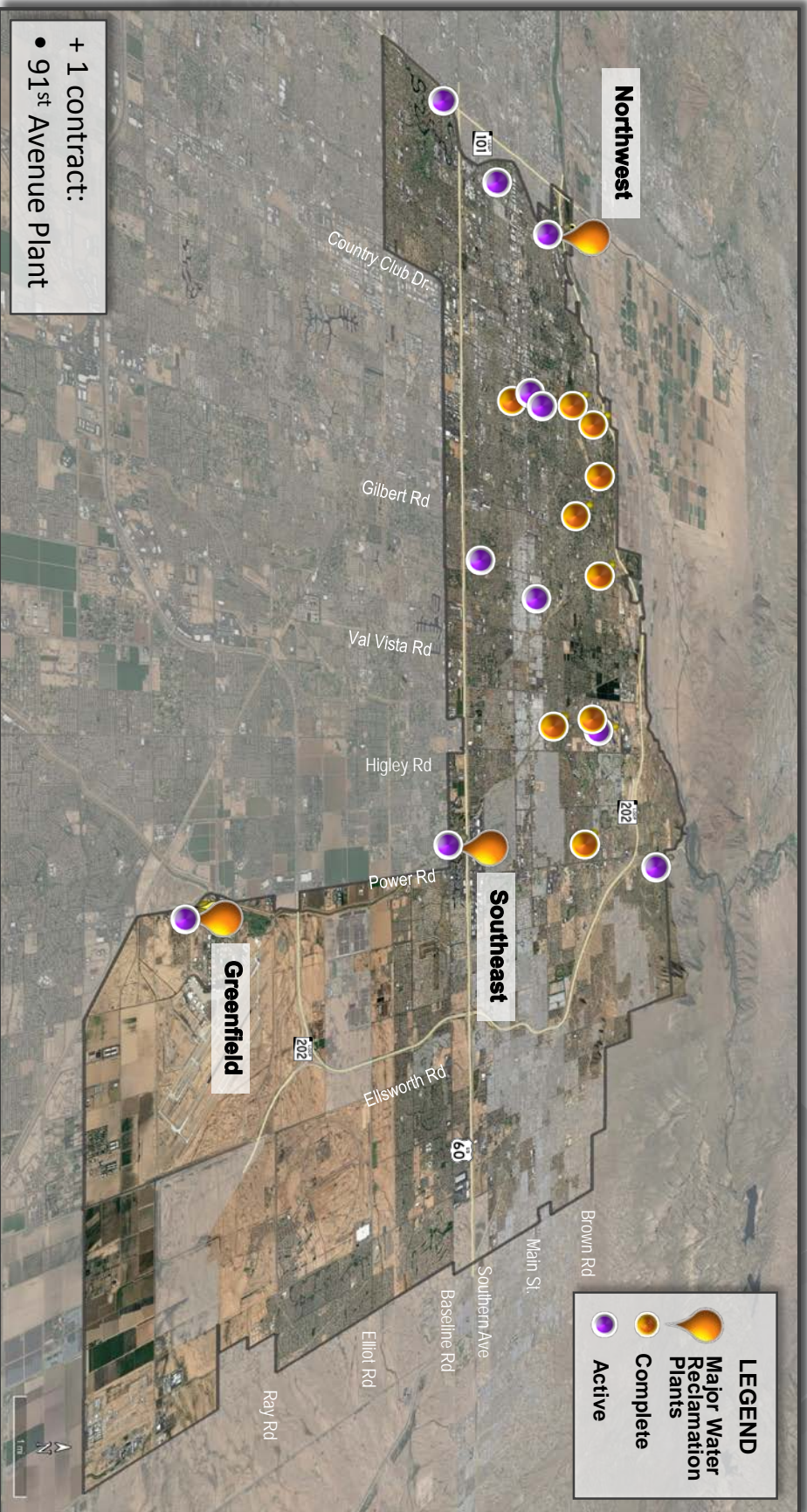
Mesa	41.8%
Gilbert	39.8%
Queen Creek	18.4%

## After Current Expansion

Mesa	62.2%
Gilbert	31.8%
Queen Creek	6.0%



# Wastewater Projects



# Energy Resources

## 2014 Utility Bond

- Electric
- Gas

\$227M

\$59.1M



# Electric

## Lifecycle Replacement

\$7.2M

- Distribution – Overhead
- Transmission
- Substation Improvements
- Metering

## System Reinforcement

\$16.9M

- Mesa Drive Phase II
- Distribution-Underground
- Generation
- Horne Utility Replacement
- Gilbert Road Light Rail Extension

## Customer Demand

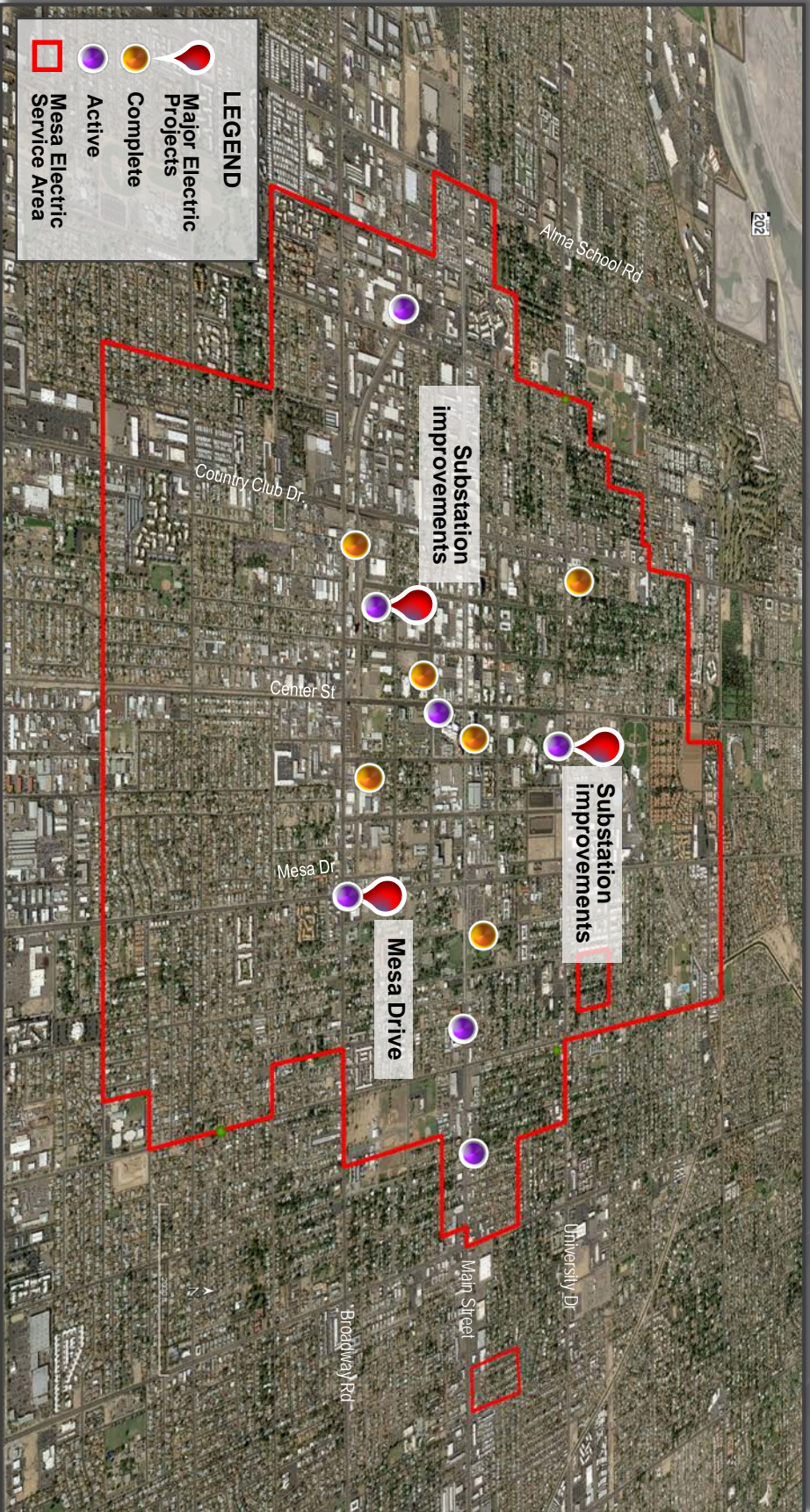
\$2.9M

- New Services
- Substation to Park Conversion

**Totals \$27M**



# Electric Projects



# Gas

## Lifecycle Replacement

\$19.2M

- Coordinated Projects
- Main Replacements
- Service Replacements
- Meter Replacements

## System Reinforcement

\$12.4M

- Mains
- HP Mains
- Pressure Regulation Stations
- SCADA
- Cross Ties

## Customer Demand

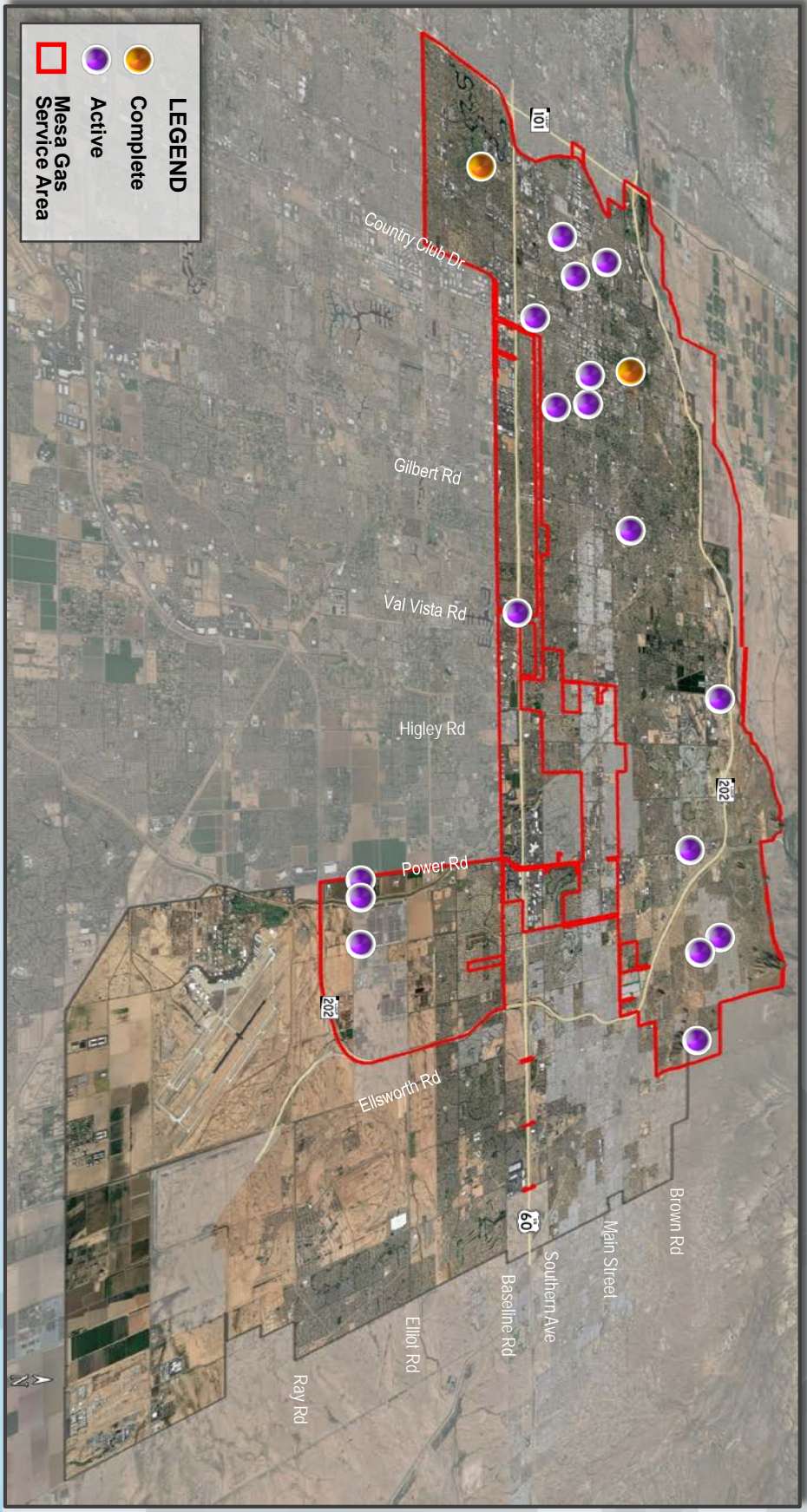
\$27.5M

- New Mains
- New Meters
- New Service

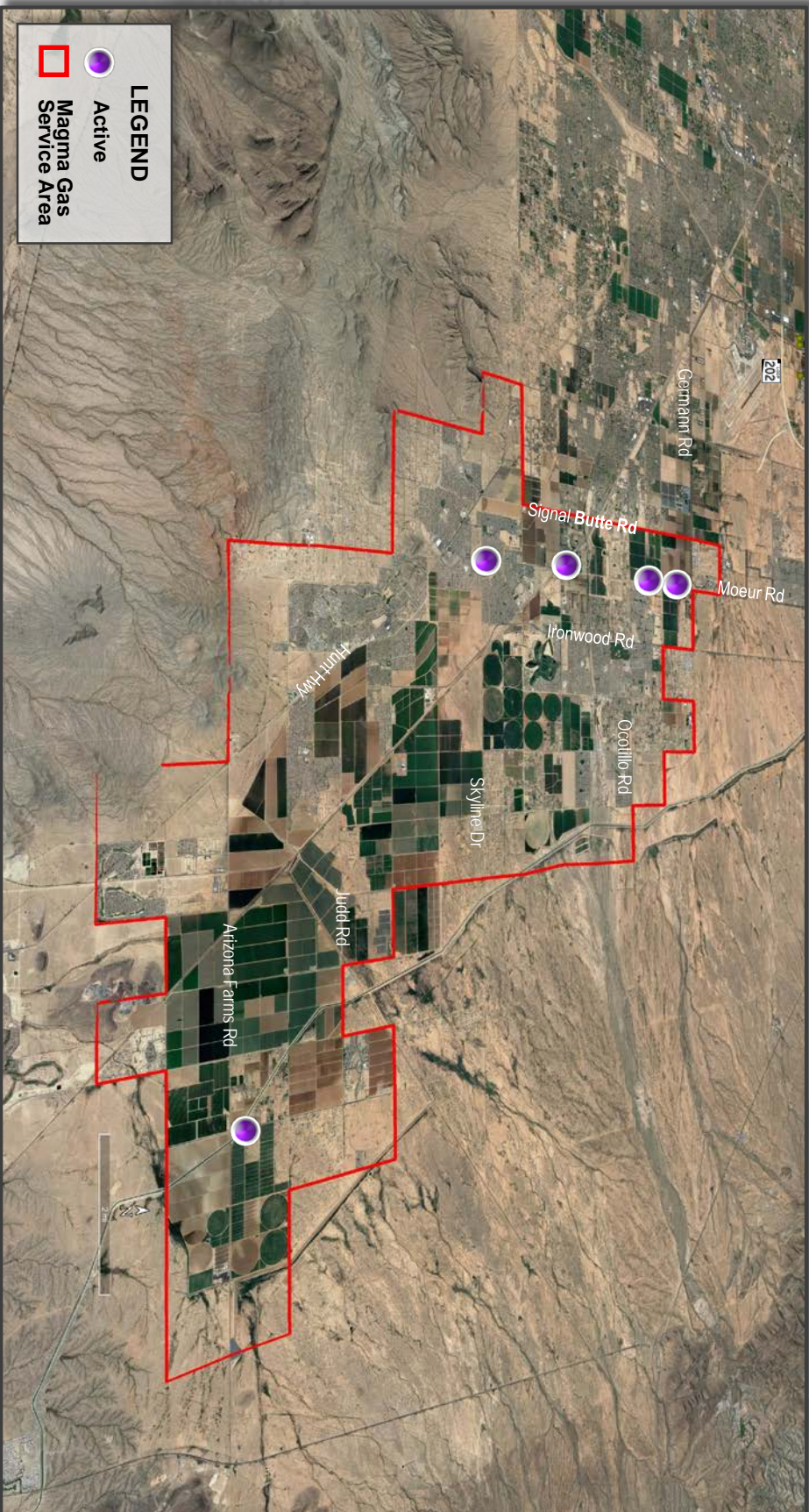
**Totals \$59.1M**



# Gas Projects in Mesa Service Area



# Gas Projects in Magma Service Area



# Nature of Electric and Gas Projects

## PROJECT SCHEDULE DRIVERS:

- Gas & Many Electric are Under Streets + Gas Joint Trenched with Water:

**\$20M or 23% of Program**

- Customer Demand +New Customers:

**\$30M or 35% of Program**





**There's more . . .**

# **Online Active CIP Project Map**

[Mesa Active CIP Map](#)

# Discussion

mesa-az

# City of Mesa

FY 2017/18

## Utility Departments Rate Recommendations and Enterprise Fund Summary

City Council

April 13, 2017

Presented by the Office of Management and Budget





# Enterprise Operations

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- Each utility is operated as a separate business center
- Combined Ending Reserve Balance adheres to the adopted financial policy of at least 8-10% over the forecast period
- Reserve balance is used to smooth rate adjustments year-to-year
- Reserve balance can be used to phase in new programs or changes in operations

# Revenue Targets

Forecasted expenses are compared with forecasted revenues based on current rates and projected customer growth  
In FY 2017/18, the following increases in revenues are needed to accommodate the estimated costs

Utility	Revenue
Electric	\$180,000
Natural Gas	\$467,000
Water	\$4,491,000
Wastewater	\$2,846,000
Solid Waste*	\$1,490,000
<b>Total</b>	<b>\$9,474,000</b>

\* Green and Clean Revenue not included



# Rate Adjustment Implementation

Methods of implementation of rate adjustments can vary from year to year based on needs and goals of the individual utilities

Impact on individual customers can vary based on the method of implementation and the customer consumption of services

# Proposed Changes to Reach Revenue Targets

	Prior Year FY 2017/18 Projection	FY 2017/18 Proposal
Electric	\$1.50	\$1.25
Gas	\$1.00	\$0.75
Water	4.5%	3.5%
Wastewater	5.0%	4.0%
Solid Waste	4.0%	3.5%

# Average Residential Customer Impact

<u>Utility</u>	<u>Monthly</u>	<u>Annual</u>
Solid Waste	\$0.97	\$11.64
Water	\$1.57	\$18.84
<u>Wastewater</u>	<u>\$1.12</u>	<u>\$13.44</u>
Total	\$3.66	\$43.92
Electric	\$1.25	\$15.00
Natural Gas	\$0.75	\$9.00



# Rate Adjustment Forecast for the Next Five Years

	FY 16/17	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22
	Estimate	Forecast	Forecast	Forecast	Forecast	Forecast
Ending Reserve Balance Percent*	<b>22.1%</b>	<b>19.4%</b>	<b>17.3%</b>	<b>16.0%</b>	<b>14.7%</b>	<b>13.6%</b>
<b>*As a % of Next Fiscal Year's Expenditures</b>						
ELC Residential (Customer Charge/Fixed Rate only)	\$1.25	\$1.75	\$2.25	\$2.50	\$2.50	\$2.50
ELC Non-Residential	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GAS Residential (Customer Charge/Fixed Rate only)	\$0.75	\$0.75	\$0.75	\$0.75	\$0.75	\$1.00
GAS Non-Residential (Customer Charge/Fixed Rate only)	\$0.75	\$0.75	\$0.75	\$0.75	\$0.75	\$1.00
WTR All Rate Revenue	3.5%	3.5%	3.5%	3.5%	3.5%	3.0%
WW All Rate Revenue	4.0%	4.0%	4.0%	4.0%	4.0%	3.5%
SW Residential	3.5%	3.5%	3.5%	3.5%	3.5%	3.0%
SW Commercial	2.5%	2.0%	2.0%	2.0%	2.0%	2.0%
SW Rolloff	0.0%	2.0%	2.0%	2.0%	2.0%	2.0%

# Enterprise Fund Reserves

	Actuals FY 15/16	Estimate FY 16/17	Forecast FY 17/18	Forecast FY 18/19	Forecast FY 19/20
<b>Beginning Reserve</b>					
Balance	\$47.0	\$68.7	\$82.1	\$74.7	\$68.4
<b>Total Sources</b>					
	\$334.8	\$351.8	\$364.3	\$377.9	\$393.3
<b>Total Uses</b>					
	\$313.1	\$338.4	\$371.7	\$384.2	\$395.6
<b>Ending Reserve</b>					
Balance	\$68.7	\$82.1	\$74.7	\$68.4	\$66.1
<b>Ending Reserve</b>					
Balance Percent*	<b>20.3%</b>	<b>22.1%</b>	<b>19.4%</b>	<b>17.3%</b>	<b>16.0%</b>

\*As a % of all Next Year's uses of funding

in millions



# Downtown Small Business Attraction Utility Rates

## Downtown Small Business Attraction Utility Rates

- Designed to attract new City utility customers to downtown Mesa and increased economic activity
- Offers reduced electric and water rates (25% reduction)
- The incentive will last 3 years
- Includes annual financial cap of \$75,000 for electric and \$10,000 for water

# Downtown Small Business Attraction Utility Rates

## Eligibility Requirements

- Small business as defined by U.S. Small Business Administration
- Located within adopted Town Center RDA and Central Business District
- Maintain minimum and maximum utility consumption
  - Electric: 12,000 – 800,000 kWh annually
  - Water: 10,000 – 200,000 gallons annually
- Create and maintain at least two full time equivalent positions

# Schedule for FY 2017/18 Utility Rate Consideration

May 8

Introduce Utility Rate Ordinances

May 22

City Council Action on Utility Rates

July 1

Effective date for Utility Rate changes

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# City of Mesa

FY 2017/18

Environmental Management &  
Sustainability Department

Presentation and

Rate Recommendations

City Council

April 13, 2017

Presented by

Environmental Management &  
Sustainability





# Environmental Management & Sustainability Department

*Encourage efficient use of natural resources, protect the community from environmental hazards, and ensure excellence in the delivery of solid waste services through waste reduction, reuse, recycling, innovative technology, and education.*





# Measuring Success Energy Conservation

*kWh saved through energy conservation*

➤ \$369,900 savings in 2016 (4,623,099kWh)



*Lighting levels before LED conversion*



*Lighting levels after LED conversion*



# Measuring Success Renewable Energy

- *kWh generated from city installed solar energy*
- \$48,273 solar savings in 2016 (2,094,768 kWh)





# Measuring Success

## Solid Waste

### *Apartment Community Customer Retention*

- Current Customer Retention = 89%

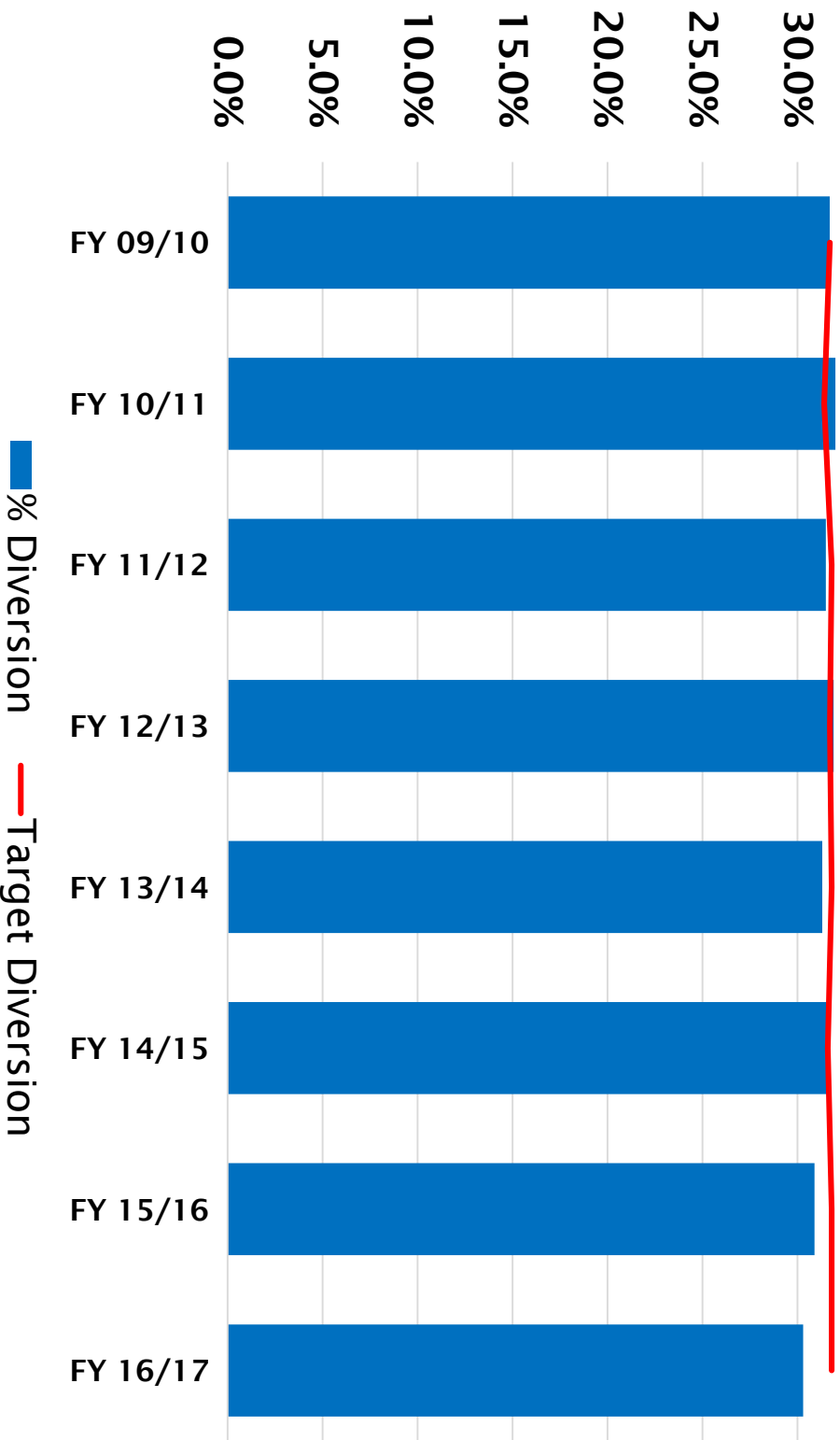




# Measuring Success

## Solid Waste

### Overall Blue & Green Barrel Recycling Diversion Rate





# Accomplishments

## CNG Station and Fleet Conversion





# Accomplishments

## Household Hazardous Waste Facility





# Pressures

- Growth; over 5,600 new customers or 4.4% over 4 years
- Personal Services and Employee Compensation  
\$300,000
- Tipping Fee Increases \$300,000
- Recycling Contracts expiring in one to two years
  - Processing fees with new contracts
- Recycling Program Contamination





# Significant Budget Decreases for FY17/18

- ~\$1.0M Capital Savings
- Adjusted department's fleet replacement allocation by using the New Vehicle Replacement Model



# Solid Waste Services

Residential Services			Commercial Services		
	Number of Customers	Rate		Number of Customers	Rate
Black (trash) barrel	134,330	\$27.79/ month for 90 gal 1xwk	Front Load bin service	2,481	Varies with size & quantity of bin and frequency of service
Blue (recycle) barrel	130,369	Included with trash service	Rolloff boxes	1,212	Varies with size of rolloff box
Green (yard waste) barrel	41,082	\$6.56/ month for 90 gal 1xwk			



# Solid Waste Utility Rate Recommendations

3.5% increase on all residential rates

- Residential 90 gallon barrel rate: \$0.97 per month, from \$27.79 to \$28.76
- Residential 60 gallon barrel rate: \$0.87 per month, from \$24.81 to \$25.68
- Additional black barrel rate: \$0.46 per month, from \$13.12 to \$13.58
- Residential green barrel service: \$0.23 per month, from \$6.56 to \$6.79



# Solid Waste

## Utility Rate Recommendations

- Mesa Green and Clean Fee: no adjustment recommended
- Average residential customer increase: \$0.97 from \$28.63 to \$29.60
- 3.5% increase on bulk item and appliance collection for City of Mesa refuse customers
- Commercial Front Load rates: Overall 2.5% increase
  - Front Load Commingled
  - Front Load Cardboard
- 4.9% increase on Commercial Roll Off Green Waste per ton fee

# Environmental Management & Sustainability Department

## Questions?





  
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# City of Mesa

FY 2017/18

## Energy Resources Department Presentation and Rate Recommendations

City Council

April 13, 2017

Presented by

the Energy Resources Department



# Background

Electric & Gas utilities purchased from Dr. A.J Chandler in 1917

122 FTES

	<b>ELECTRIC</b>	<b>NATURAL GAS</b>
RESIDENTIAL CUSTOMERS	14,050	58,825
NON-RESIDENTIAL CUSTOMERS	2,555	2,477
TOTAL ANNUAL REVENUES (INCL EECAF & PNGCAF)	\$31,637,753	\$41,401,228
ANNUAL SALES	322,367,254 kWh	33,890,152 Therms
TOTAL ANNUAL EXPENDITURES	\$30,817,742	\$37,987,535
GENERAL FUND TRANSFER (FY1617)	\$6,493,000	\$7,760,000
NET SOURCES AND USES (FY1617)	\$820,011	\$3,413,693



# Electric Utility

# Electric Utility

## Priorities

- Safety
- Reliability
- Cost-Effective

## Mission

- Provide safe, reliable and cost-effective power to Mesa Electric customers

## Desired Outcomes

- Electric energy is acquired and transmitted to Mesa's electric distribution system reliably and at the lowest possible costs
- Electric energy is distributed safely and reliably to our customers
- Our customers' electric energy consumption is accurately and safely measured

1,147 days without Lost  
Time Accidents (as of  
3.31.2017)

Outage Duration - 73%  
better than target (2016)

1<sup>st</sup> quartile Residential bills  
14.9% less than SRP & 3<sup>rd</sup>  
quartile Residential bills  
9.4% less

142 customers participated  
in summer electric  
assistance program saving  
\$35.80 on average per  
customer in 2016

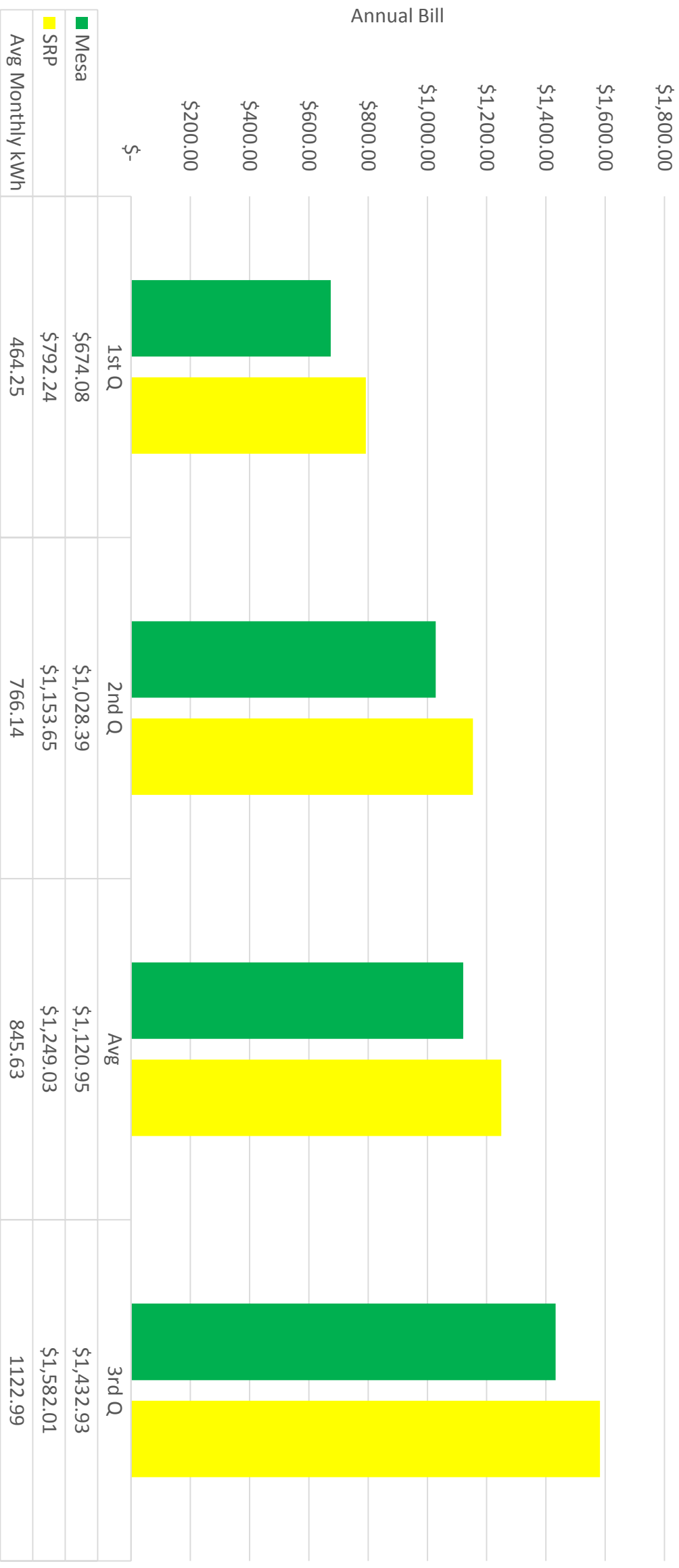
O&M costs 20% or \$3.14  
per customer below target  
(2016)

Green/Renewable supply  
20% of annual energy  
requirements

American Public Power  
Association/Reliable Public  
Power Provider (RP3)

# Measuring Success

## Residential Electric Bill Comparison Proposed 2017 Rate with 2016 Consumption



# Summer Electric Assistance (SEA) Pilot Program

- Pilot offered during 2015 and 2016
- Special rate effective during June, July, and August
- Available to low-income Mesa Electric utility customers only
- Waives the monthly service fee and provides first 80 kWh for free
- Participants saved an average of \$13 per month
- 28 participants in 2015 saved a total of \$742
- 142 participants in 2016 saved a total of \$5,084

# Recent Accomplishments

## Safety

No Lost Time Accidents since February 8, 2014

## Reliability

2016: below target by 15 outages (55 VS 40)  
Frequency Index: 40.6% below target

## Cost-Effectiveness

Added 41 residential & 33 non-residential customers  
Electric Energy Supplies (EECAF)  
Base contract replaced, starts deliveries 4/1/2017  
Solar RFP (w Water Resources & Env Management & Sustainability)  
MAC Solar  
Customer owned solar: 22 res., 17 comm.; 8 Pending



# Electric Funding Sources

- Rate Revenues
  - Customers billed for account management & electricity usage
- Non-rate revenues
  - Fees & charges – connect, disconnect, reconnect, etc.
  - Up-front payments from developers/customers to extend/expand electric infrastructure



## Significant Budget Changes for FY17/18

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Department expenses were reviewed to ensure that anticipated needs were in line with minimizing the cost of delivering services to customers. Examples include:

- Reduced professional services for Electric Pre-Design (\$17,500)
- Reduced temporary services for Electric Substation Operations (\$13,200)





# Electric Utility Rate Recommendations

- Rate/Bill spikes are avoided by changing rates in small increments over multiple years
- Adjusting system service charge component of the electric rate allows for a more stable revenue source for the program & bills for customers
  - Currently only 20% of the revenues (excluding EECAF) from residential customers are fixed revenues.
- Rate adjustments applied to the system service charge allows for a movement toward a more balanced rate structure

# Electric Utility Rate Recommendations Cont.

- Residential System Service Charge component: \$1.25 per month, from \$9.50 to \$10.75
- Consumption component of rate: No adjustment recommended
- Average residential customer: \$1.25 per month, from \$92.16 to \$93.41, 1.4% (Including commodity pass-through cost)
- Non-residential rates: No adjustment recommended
- Proposed System Service Charge of \$10.75 is \$9.25 per month less than SRP's monthly service charge of \$20.00
- Monthly bills during calendar year 2016 (at FY 2017/18 Mesa rates) would be approximately \$10.67 or 10.3% less per month than if served by SRP (\$128.04 less per year)





# Gas Utility

# Gas Utility

## Priorities

- Safety
- Reliability
- Cost-Effective

## Mission

- Provide safe, reliable and cost-effective natural gas to Mesa Energy Resources Gas customers

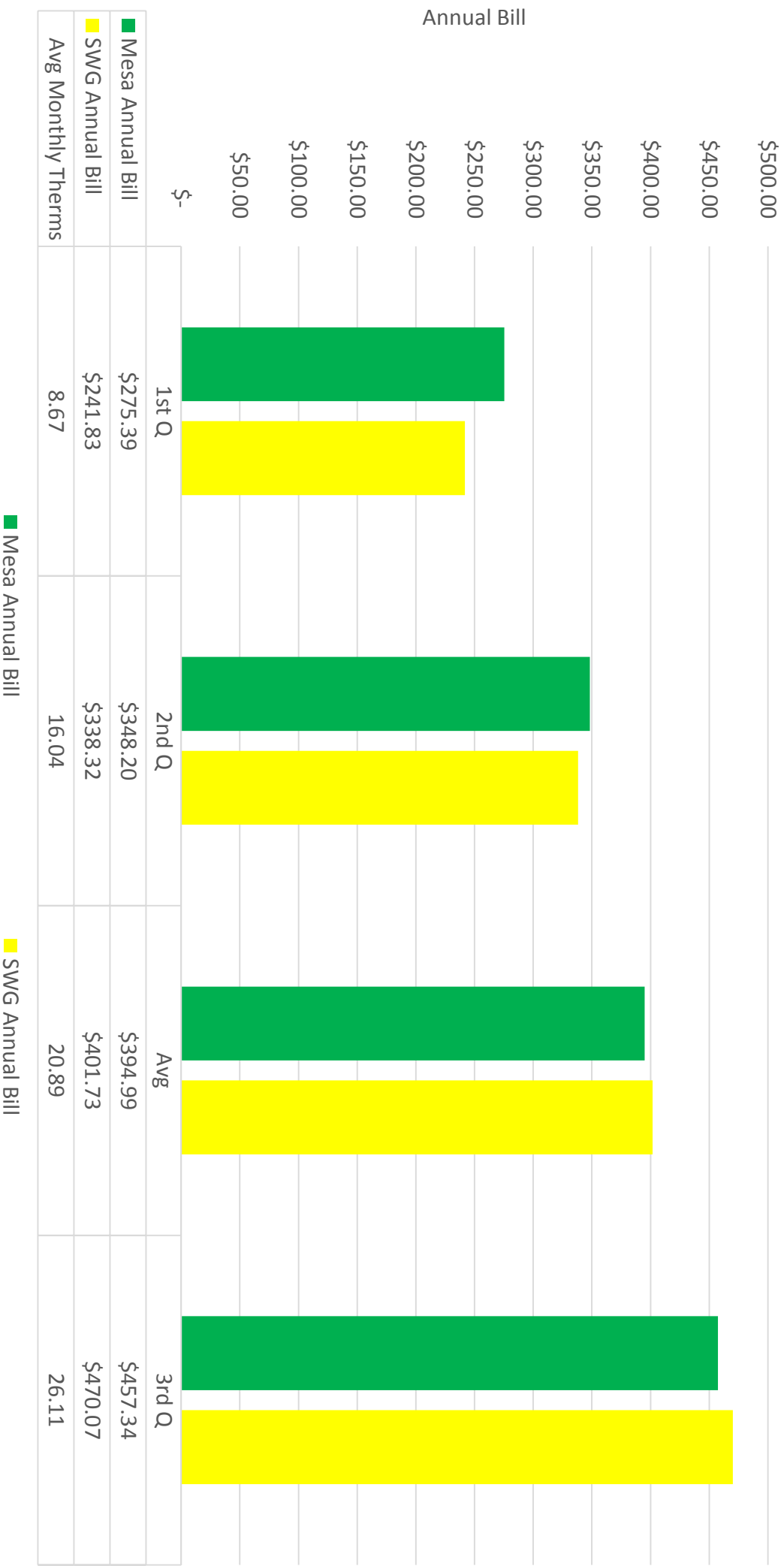
## Desired Outcomes

- Natural gas supplies are acquired and transported to Mesa's natural gas distribution system reliably and at the lowest possible costs
- Natural Gas is distributed safely and reliably to our customers
- Our customers' natural gas consumption is accurately and safely measured



# Measuring Success

## Residential Gas Bill Comparison Proposed 2017 Rate with 2016 Consumption - Mesa



# Recent Accomplishments

## Safety

No Lost Time Accidents since September 22, 2015  
Underground damage prevention program (Blue Stake/811)

## Reliability

Frequency Index: 92% below target  
Average emergency response time 18.7 minutes

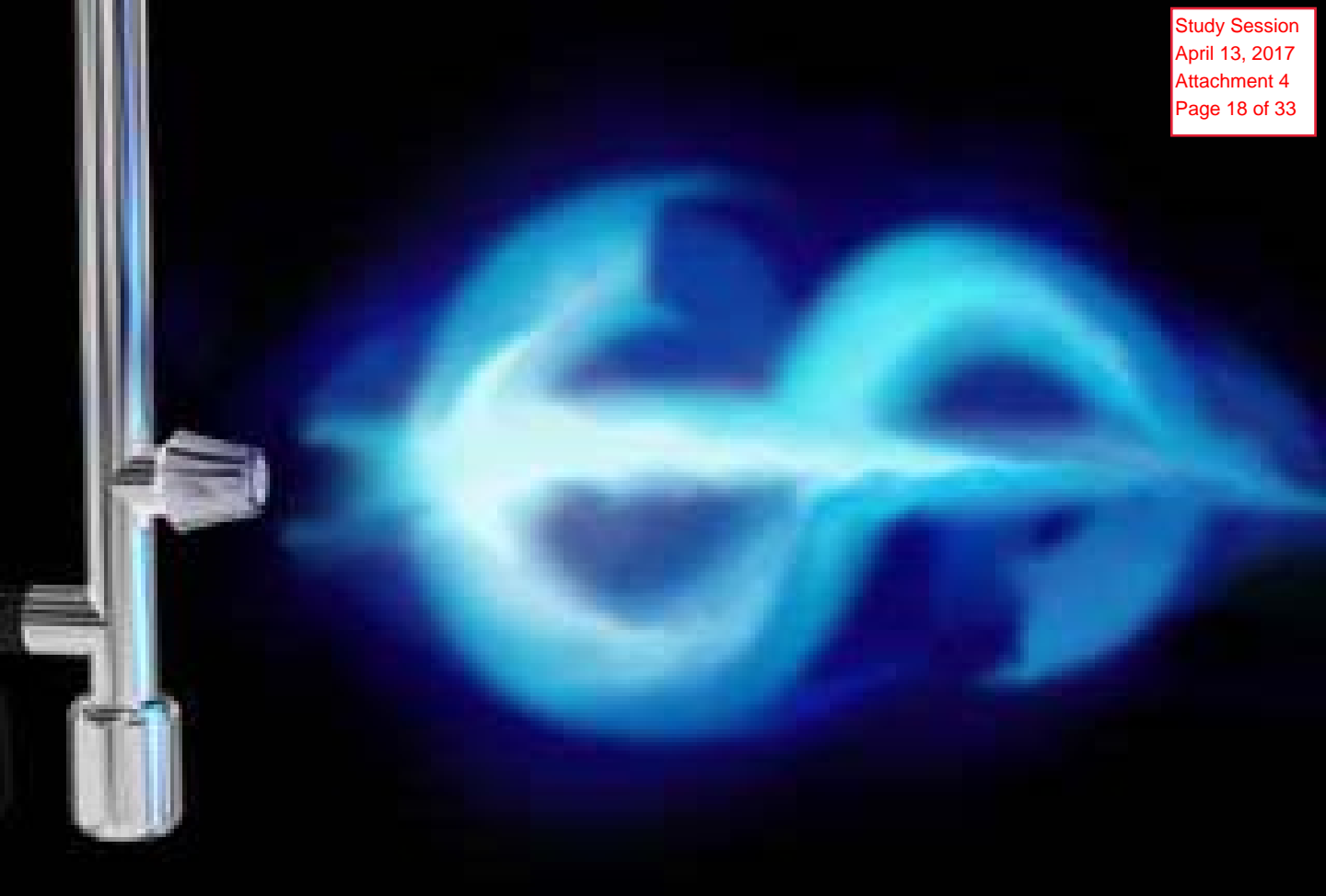
## Cost-Effectiveness

O&M Costs consistently below target for calendar 2016 (18%)  
Natural gas supply costs below neighboring utilities  
CNG Station completed November 2016  
Gas Engineering team recognized by APGA

# Gas Funding Sources

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- Rate Revenues
  - Customers billed for account management & electricity usage
- Non-rate revenues
  - Fees & charges – connect, disconnect, reconnect, etc.
  - Up-front payments from developers/customers to extend/expand gas infrastructure





# Significant Budget Changes for FY17/18

Department expenses were reviewed to ensure that anticipated needs were in line with minimizing the cost of delivering services to customers. Examples include:

- Reduced rents/leases (\$20,000)
- Reduced Warehouse supplies for Gas System Maintenance (\$87,000)
- Reduced outside materials in Gas System Operations (\$23,000)

# Natural Gas Utility Rate Recommendations

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- Rate/Bill spikes are avoided by changing rates in small increments over multiple years
- Adjusting system service charge component of the natural gas rate allows for a more stable revenue source for the program
  - Currently only 41% of the revenues (excluding PNGCAF) from natural gas customers are fixed revenues.
- Rate adjustments applied to the system service charge allows for a movement toward a more balanced rate structure

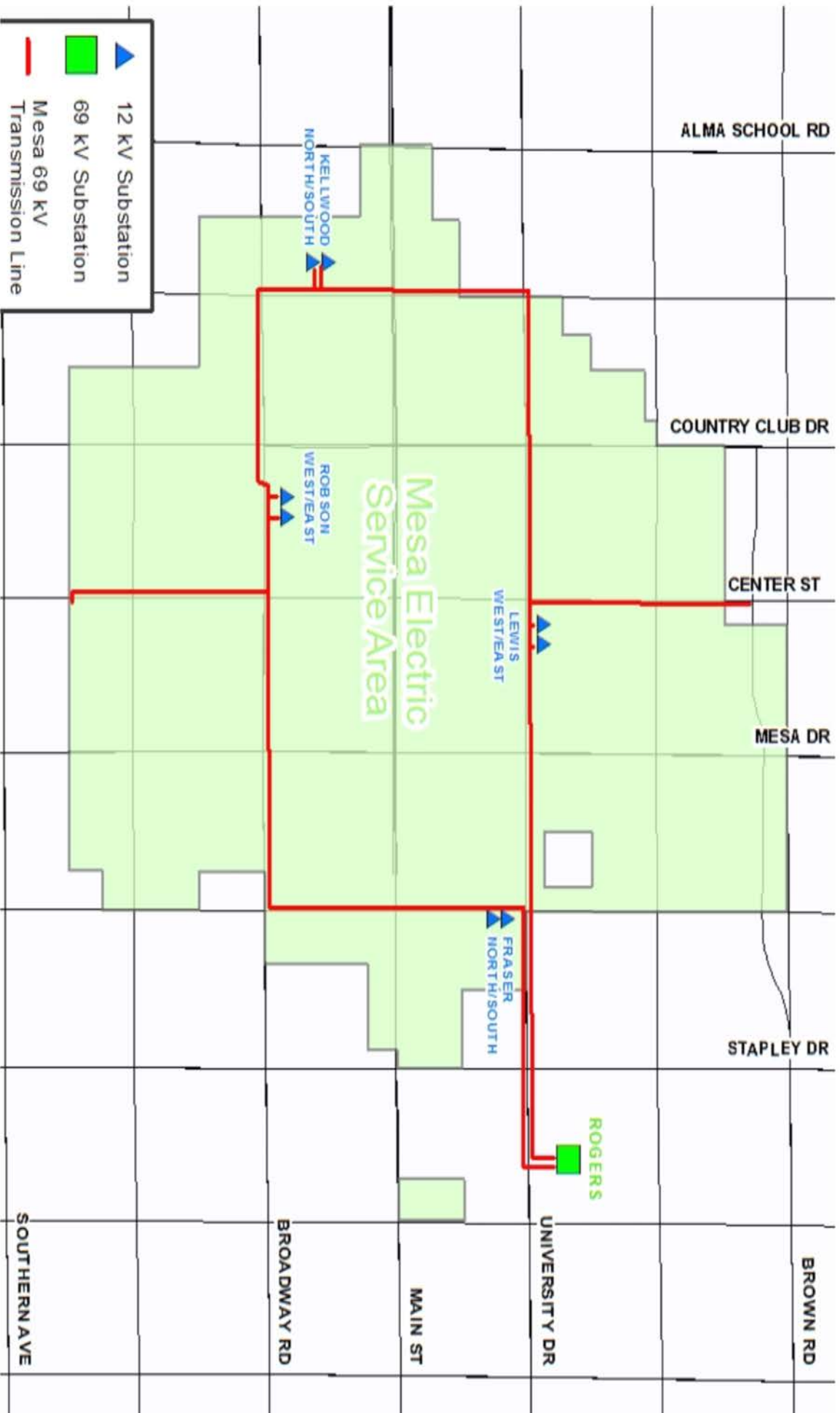
# Natural Gas Utility Rate Recommendations Cont.

- All customers System Service Charge: increase \$0.75 per month
  - Residential customers summer: from \$13.11 to \$13.86 per month
  - Residential customers winter: from \$16.04 to \$16.79 per month
- Average residential customer monthly bill: from \$32.17 to \$32.92, 2.3% (Including commodity pass-through)
- Monthly bills during calendar year 2016 (at FY 2017/18 Mesa rates) would be approximately \$0.56 or 1.7% less per month than if served by SW Gas (\$6.72 less per year)

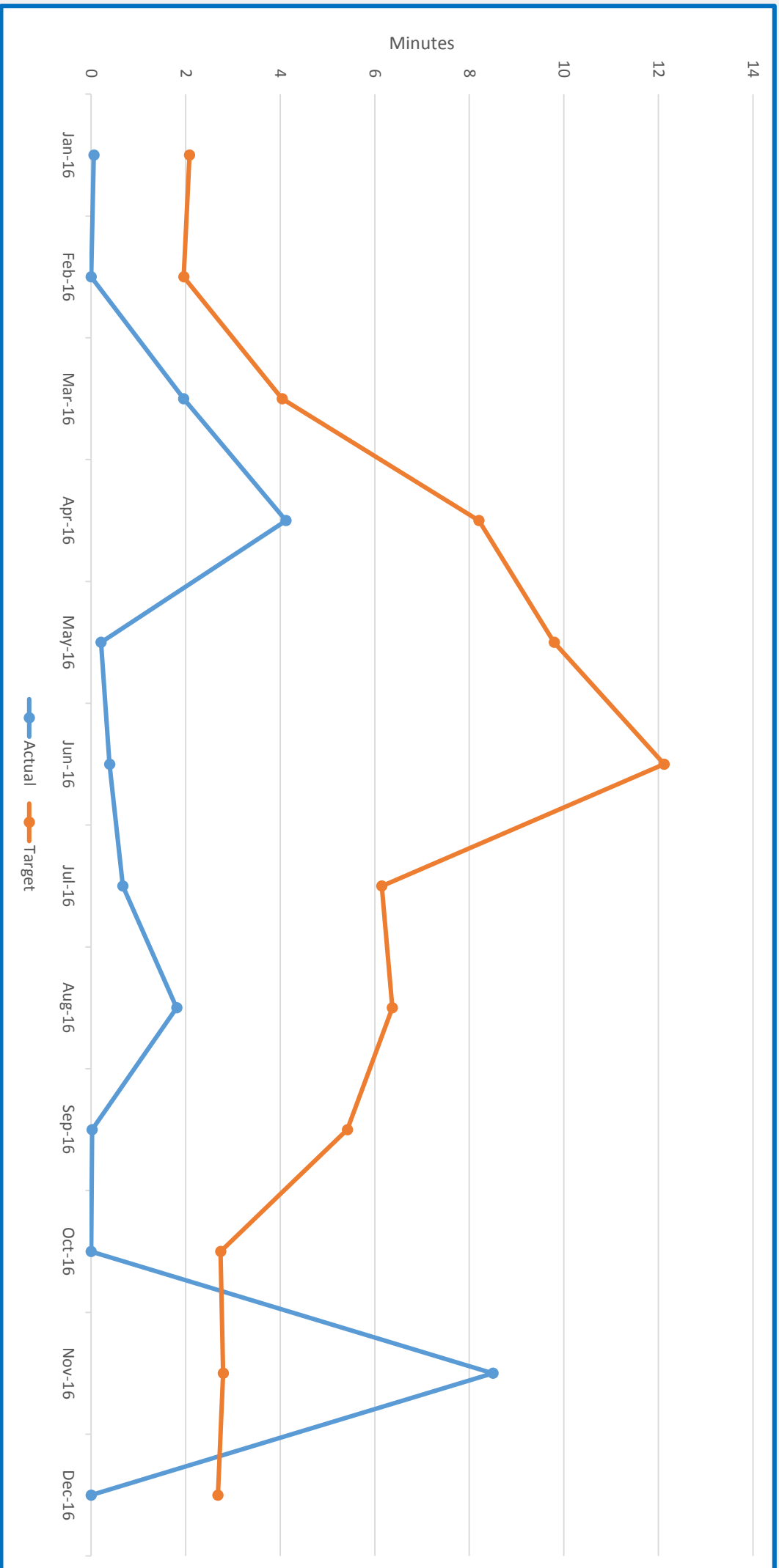




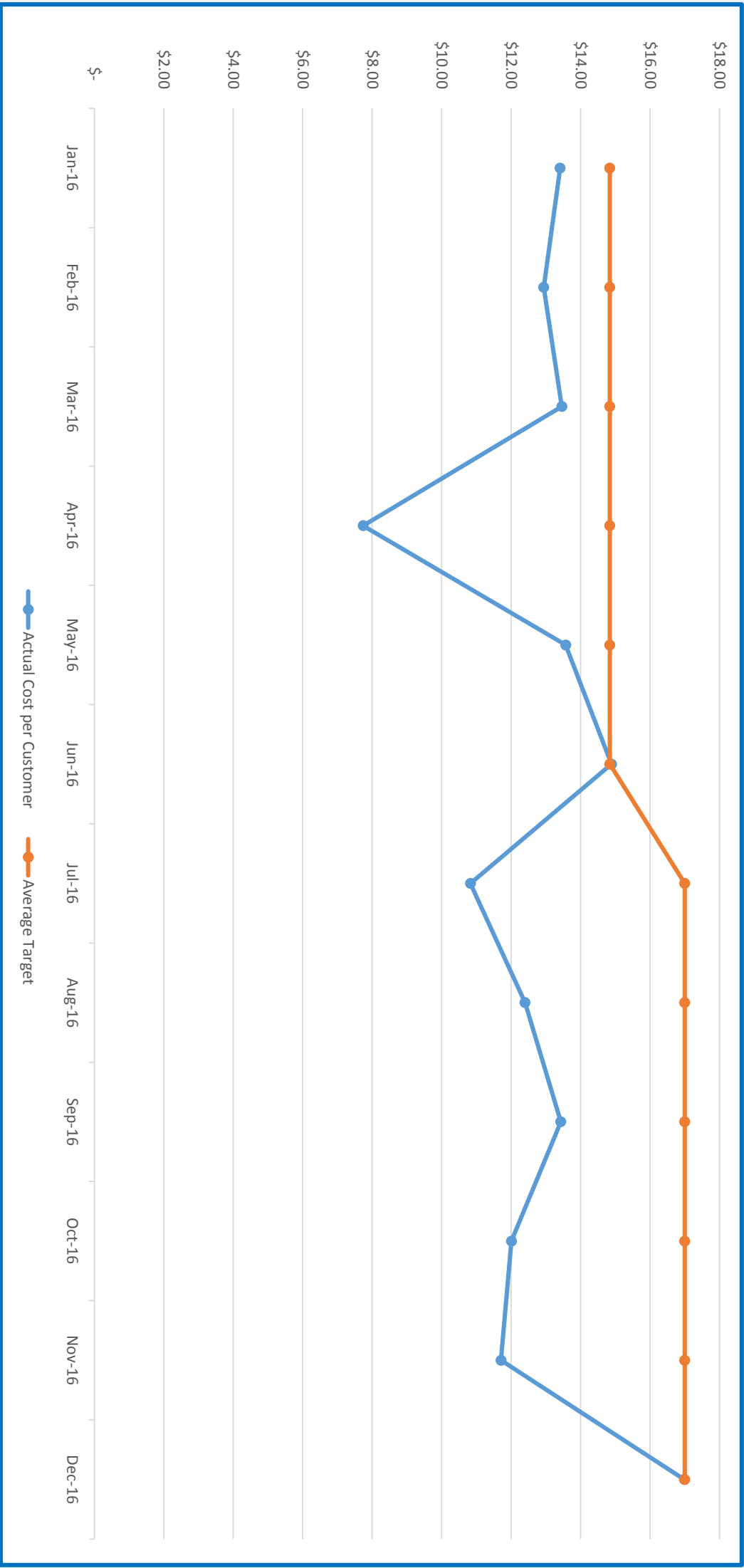
# Electric Utility Service Area



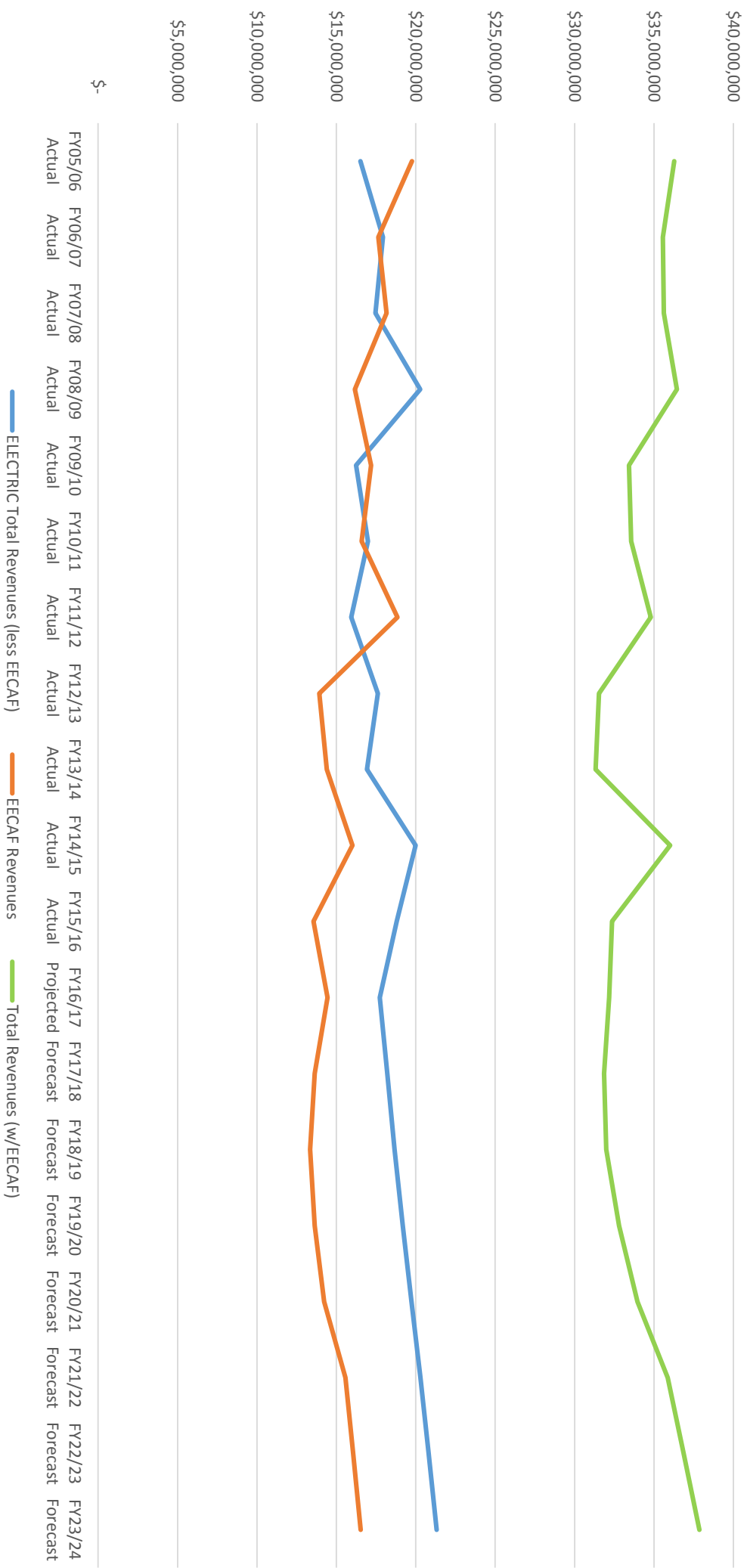
# Electric Reliability-Outage Duration



# Electric O&M per Customer

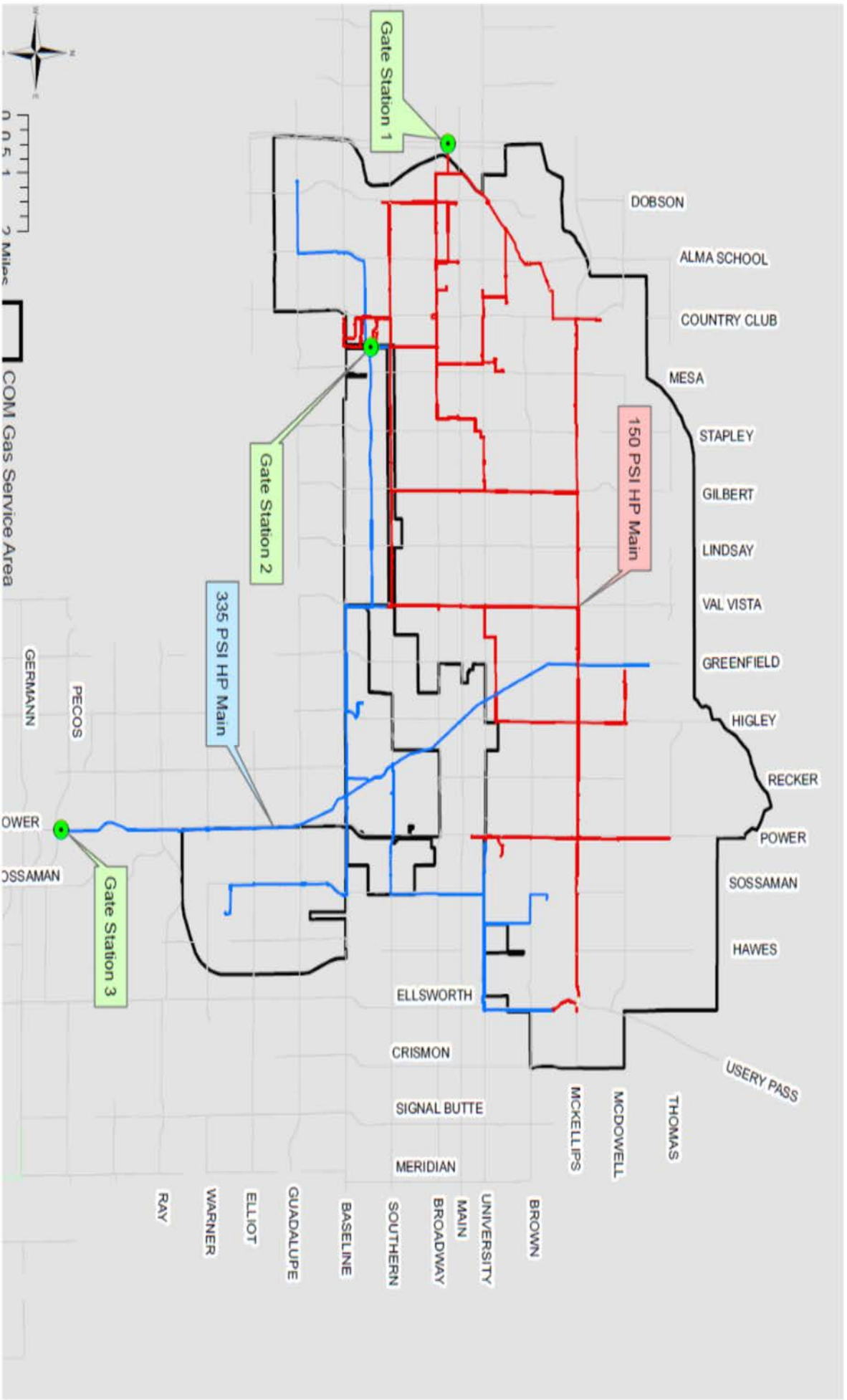


# Reductions in EECAF costs have recently offset small rate increases

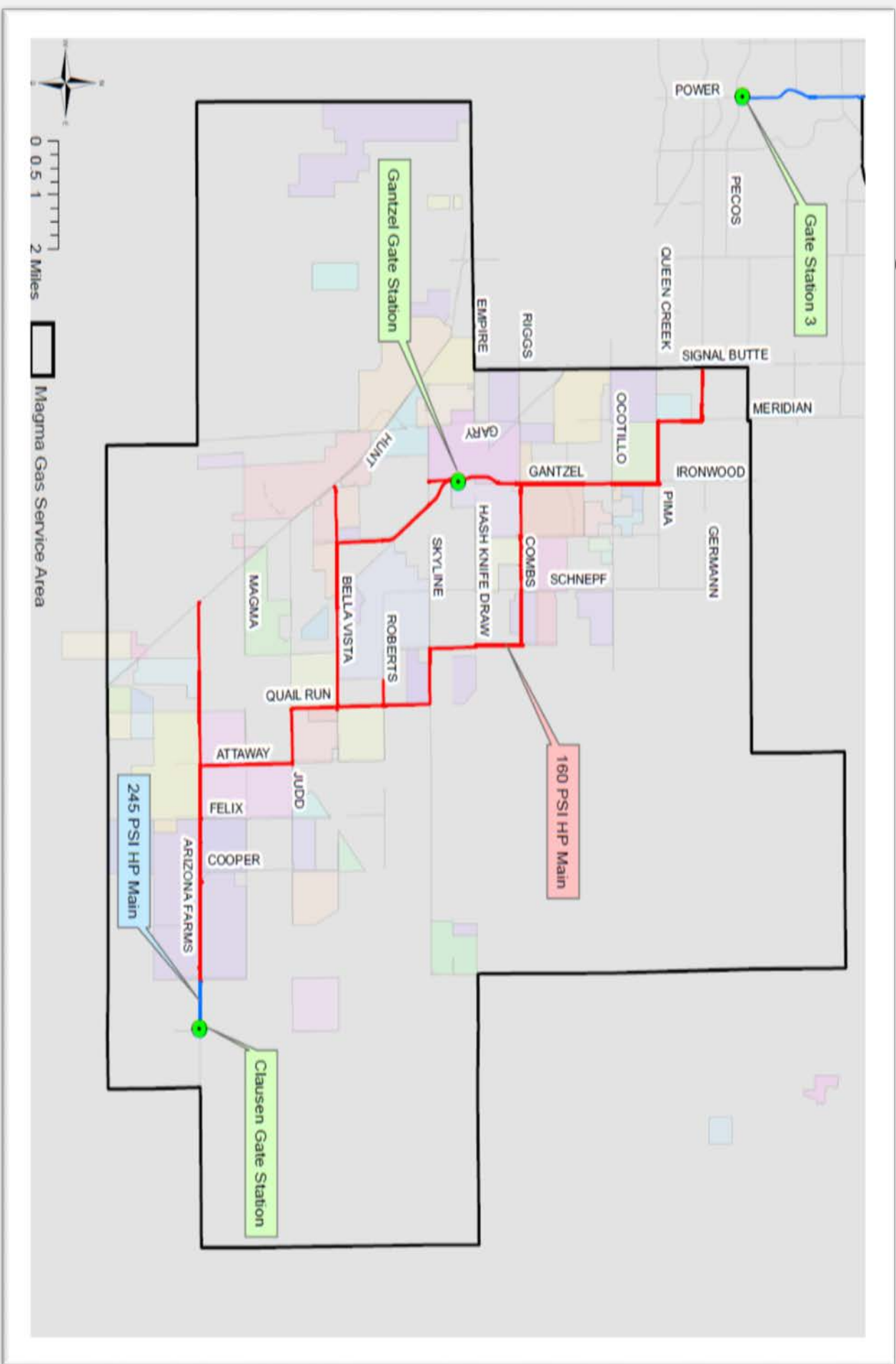




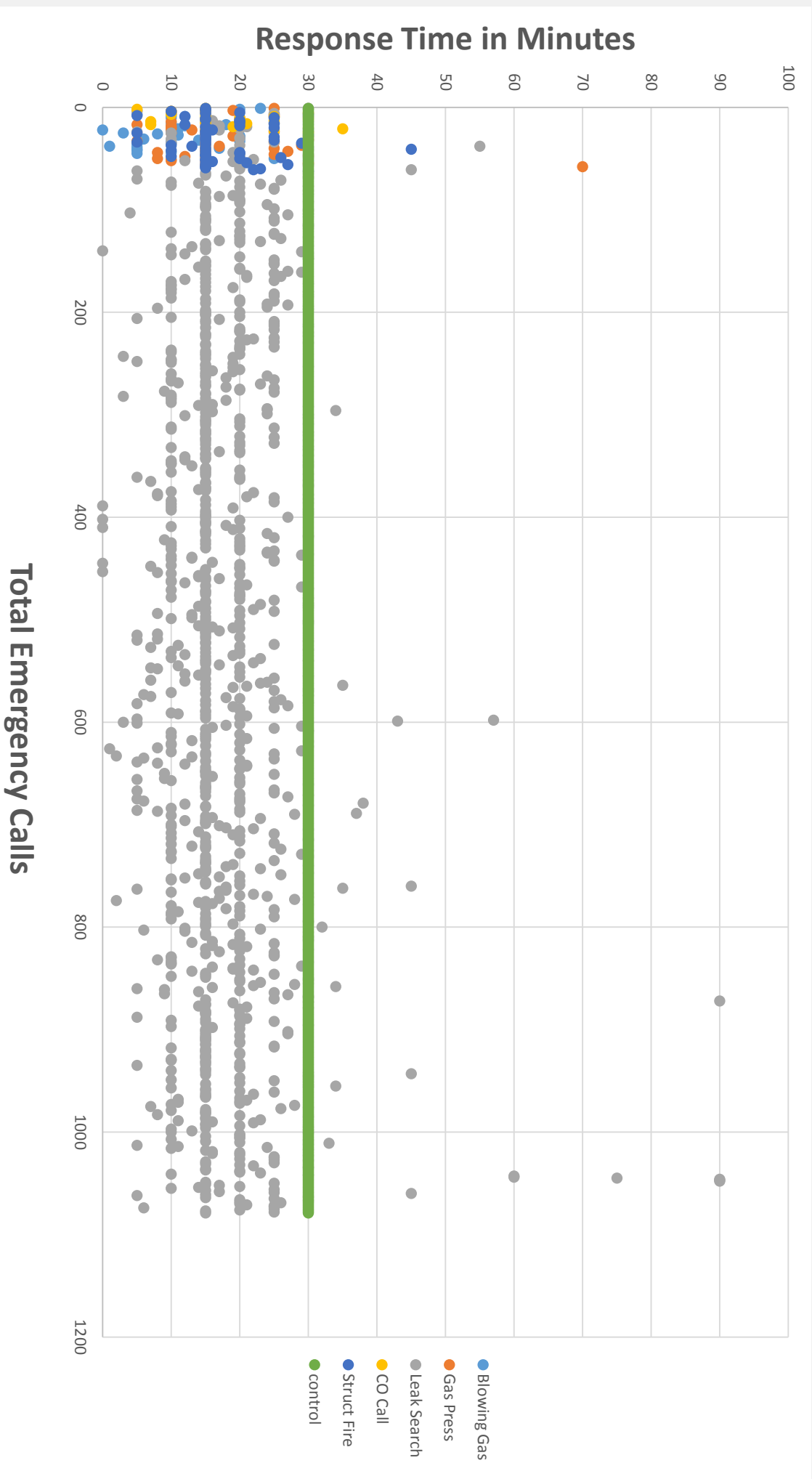
# Mesa Natural Gas Service Area



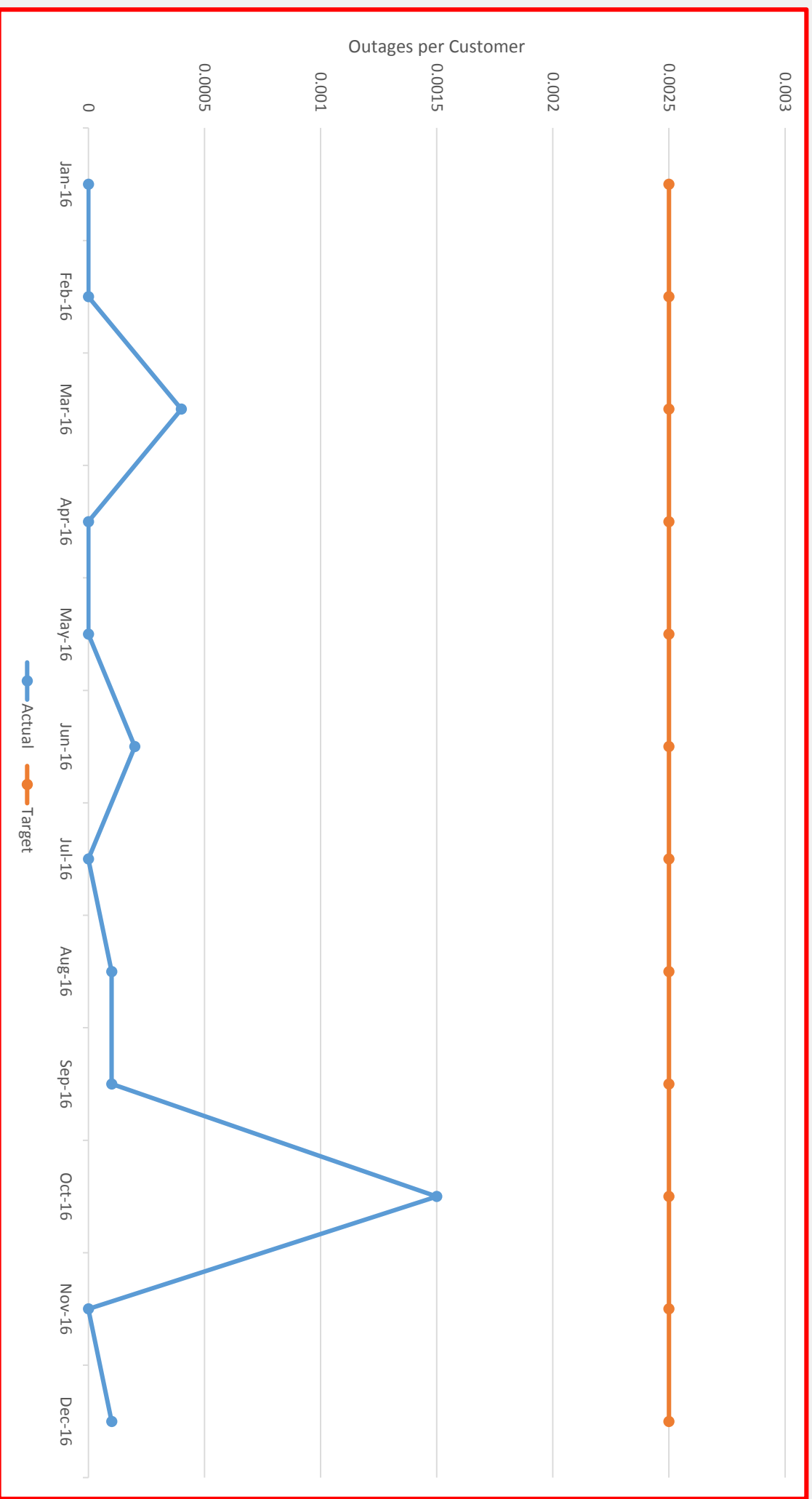
# Magma Natural Gas Service Area



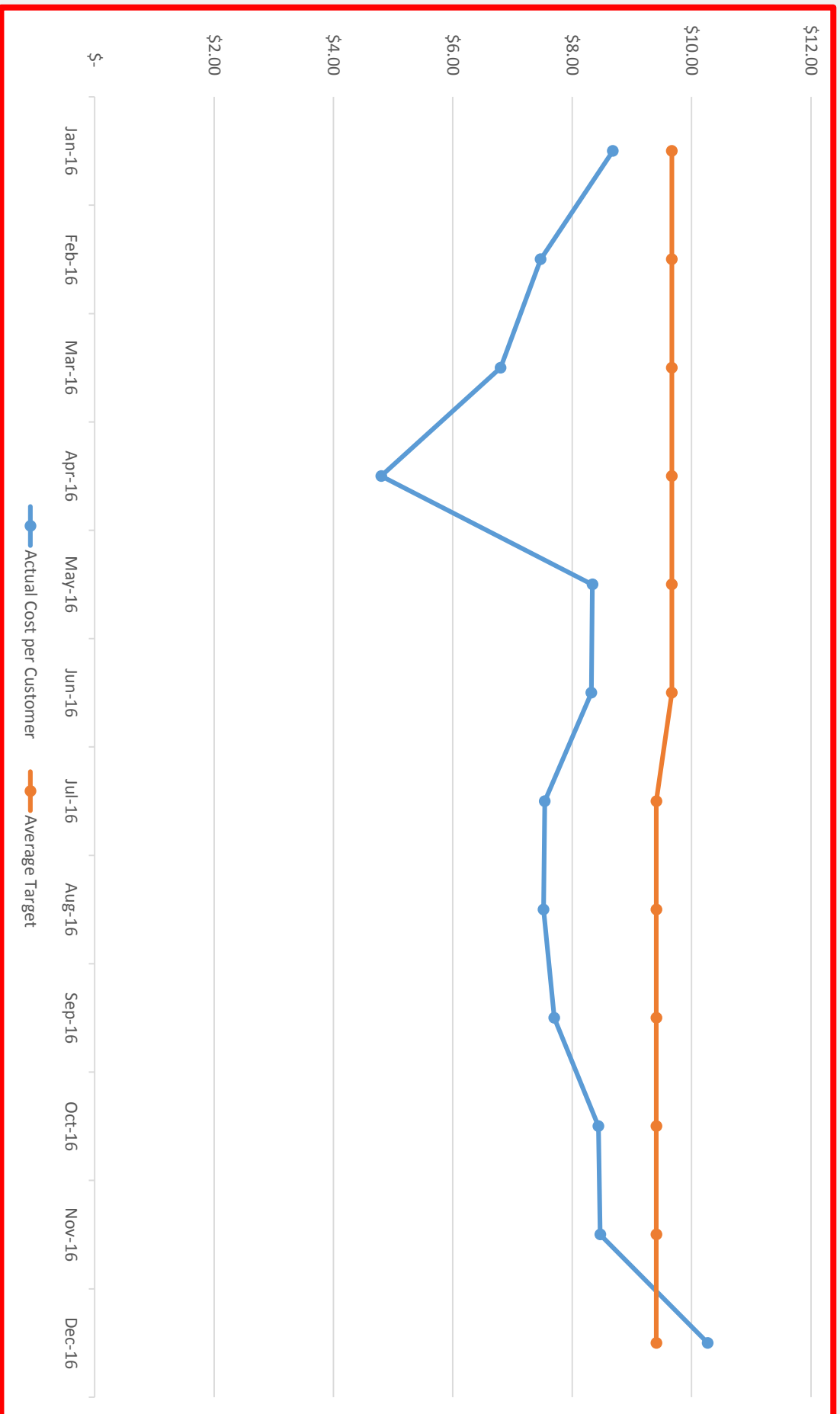
# Gas Emergency Response Time-Mesa



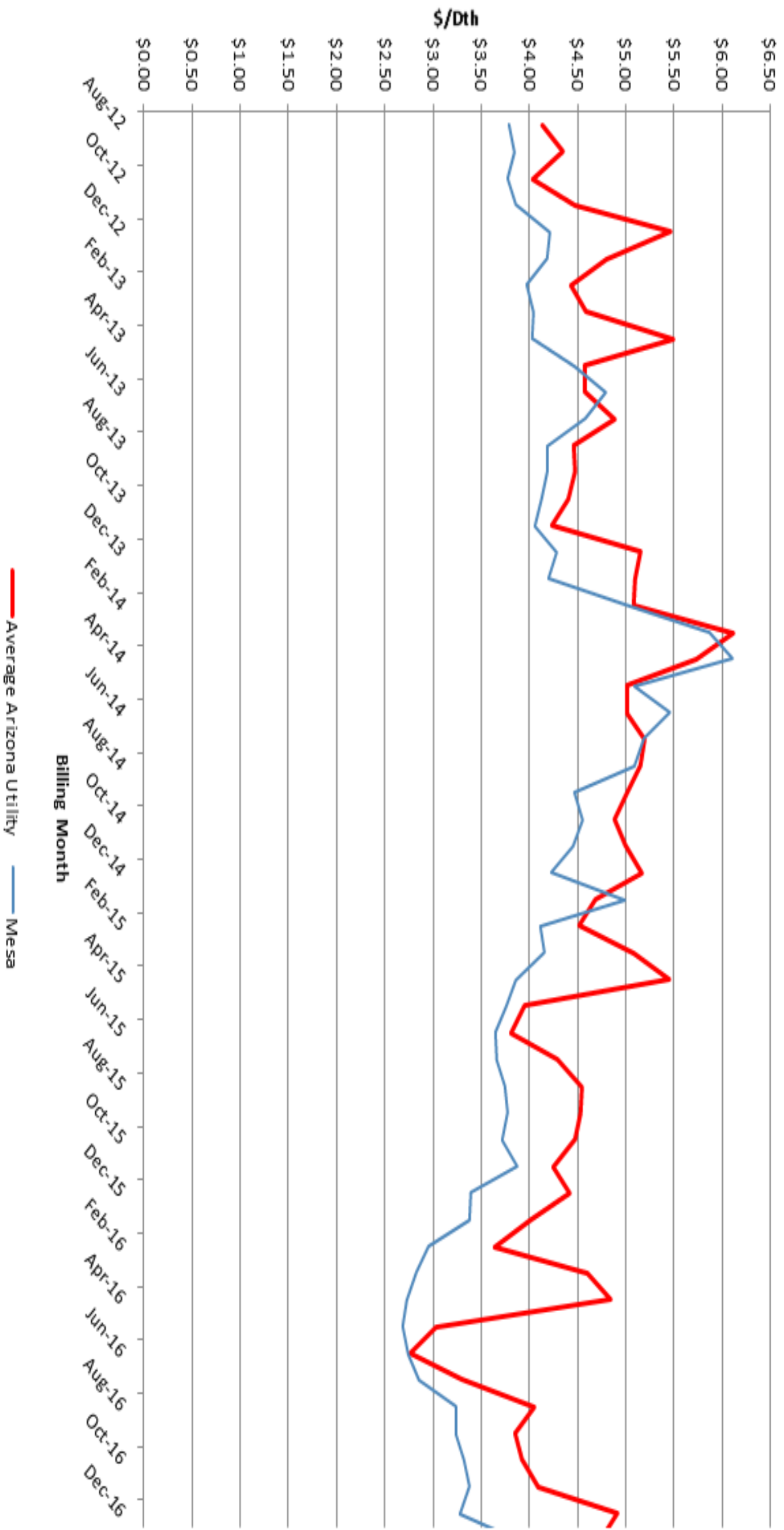
# Gas Reliability – Outage Frequency



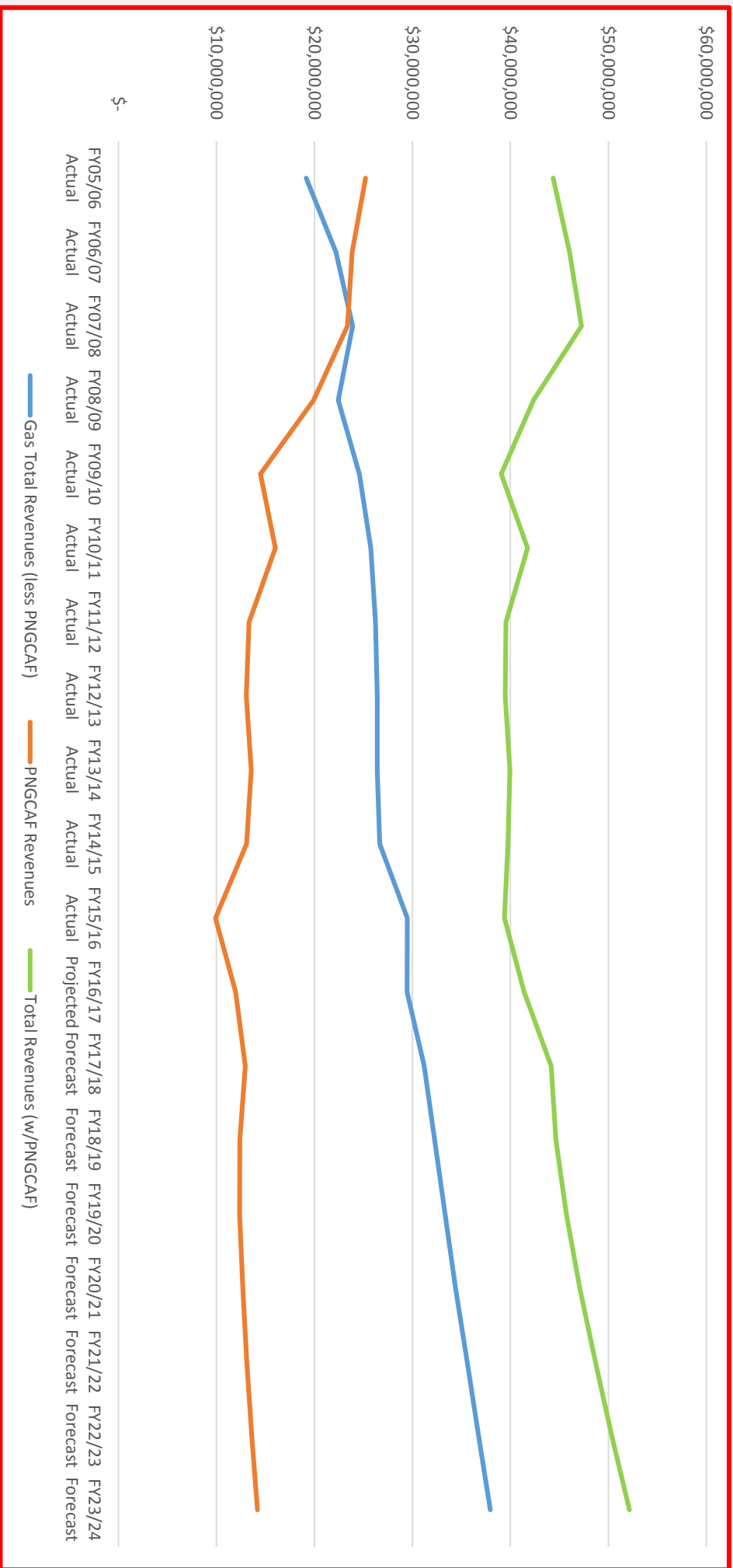
# Gas O&M per Customer



### Total Monthly Gas Supply Cost Mesa vs. Average Arizona Utility



# Reductions in PNGCAF costs have recently offset rate increases



# City of Mesa

FY 2017/18

Water Resources Department Presentation and  
Rate Recommendations

City Council

April 13, 2017

Presented by  
the Water Resources Department





# Water Resources

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City of Mesa Water Resources has provided reliable, safe, economical, and environmentally responsible water and wastewater services to the community for over a century.

## Value

We provide these valuable services that protect public health and the environment, bolster the local economy, and are an integral part of the vibrant lifestyle enjoyed in Mesa.

## Service

Our service area consists of 170 square miles with a growing population of over 471,000 people.

## Connections

The water system provides service to approximately 148,000 residential and commercial connections. The wastewater collection system serves nearly 124,000 residential and commercial connections.

# Water Resources



# FY 16/17 Accomplishments

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- **2016 Association of Metropolitan Water Agencies (AMWA) Platinum Award for Utility Excellence**
- In the more than 100-year history of the City of Mesa water utility, the City has never delivered a drop of water found to be unsafe by any local, state or federal agency
- Implemented a backflow ordinance to protect the City's potable water system
- Unveiled compliance software for monitoring and reporting water, wastewater, and backflow
- Our meter readers are some of the most productive and have one of the lowest error rates in the industry. 1.8M meters read with a .0003 error rate (**3 errors per 10,000 reads**)

# FY 17/18 Areas of Emphasis

- Southeast Mesa Infrastructure Planning
  - Signal Butte Water Treatment Plant Construction
  - Greenfield Water Reclamation Plant Expansion
- Waterline Replacements
- Succession Planning
- Recruitment
  - Signal Butte Water Treatment Plant
  - Greenfield Water Reclamation Plant





# Wastewater Business Objective

- **Mission**
  - Provide reliable, high quality, and environmentally responsible wastewater services at fair and reasonable rates for the people in our community.
- **Desired Outcomes**
  - Wastewater treatment is cost effective
  - The system reliably collects and treats wastewater and delivers reclaimed water
  - Treated wastewater meets all regulations for beneficial reuse
  - The environment is protected from wastewater contamination

# Measuring Success - Wastewater

- # of miles of sewer lines cleaned
  - Target – 26 per month
  - Current – 15 per month
- # of miles sewer lines inspected
  - Target – 20 per quarter
  - Current – 14 per quarter
- # of Sanitary Sewer Overflows (SSO's)
  - Target – 0 per quarter
  - Current – 1.5 per quarter





# Water Business Objective

- **Mission**
  - Provide reliable, high quality water services at fair and reasonable rates for the people in our community.
- **Desired Outcomes**
  - Mesa's water demands are met
  - Mesa's water is safe and reliable
  - Mesa's water quality meets Mesa's goals for taste, odor, and fluoride
  - Water is provided in a cost-effective manner

# Measuring Success -Water

- **Water Meter Read Error Rate**
  - Target - Meter readers are measured as a group will not exceed 4 errors per 10,000 reads per month.
  - Current – 3 errors per 10,000 reads per month
- **% of Groundwater Pumped**
  - Target – 10% - per month
  - Current – 21.5% per month
- **# of Leaks and Breaks per 100 miles of Pipe**
  - Target – 1 per month
  - Current – 1.5 per month





# Overview of Funding Sources

89%

**Enterprise  
Fund**

11%

**Restricted Funds**

- Greenfield WRP Joint Venture
- Utility Replacement Extension and Renewal
- Environmental Compliance Fee

# Significant Budget Changes for FY17/18

## Increase

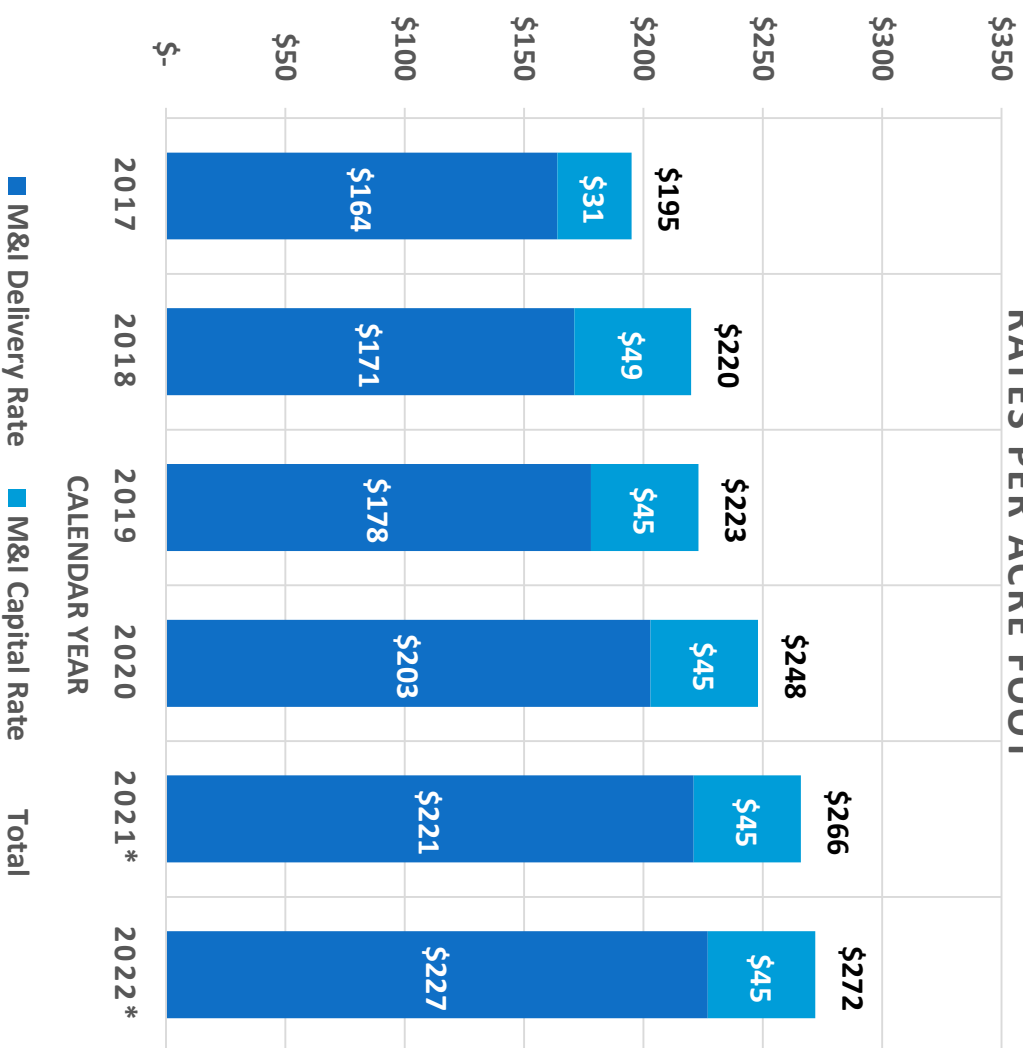
- Water Commodity \$1.2M
- Greenfield Plant Infrastructure \$207K (Mesa share)
- Plant Chemicals \$85K
- Signal Butte Plant Operations \$2.9M

## Decrease

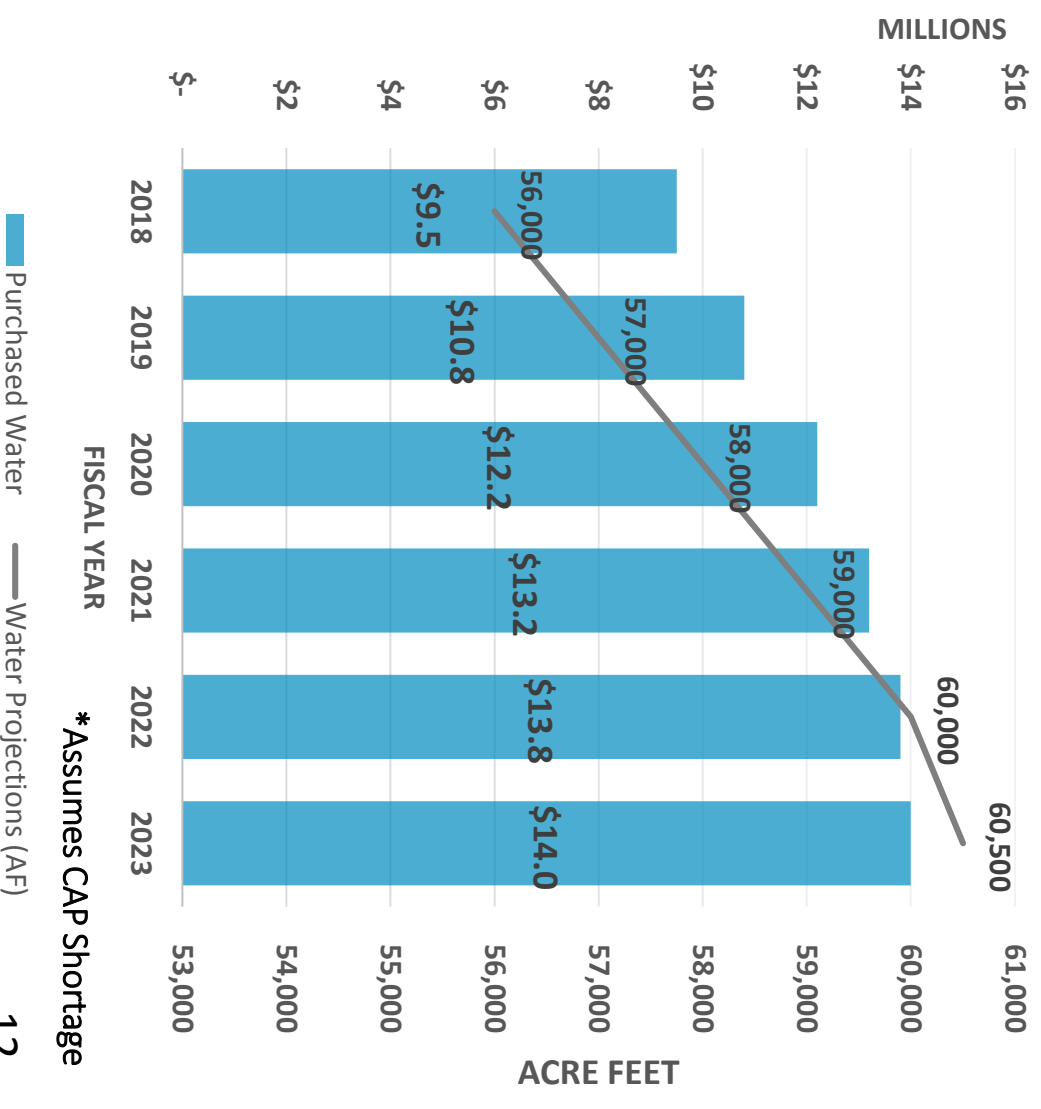
- Val Vista WTP \$200K
- 91st Avenue WRP \$150K
- Electrical \$113K

# Water Commodity Costs – Central Arizona Project

MUNICIPAL & INDUSTRIAL (M&I) WATER  
 RATES PER ACRE FOOT



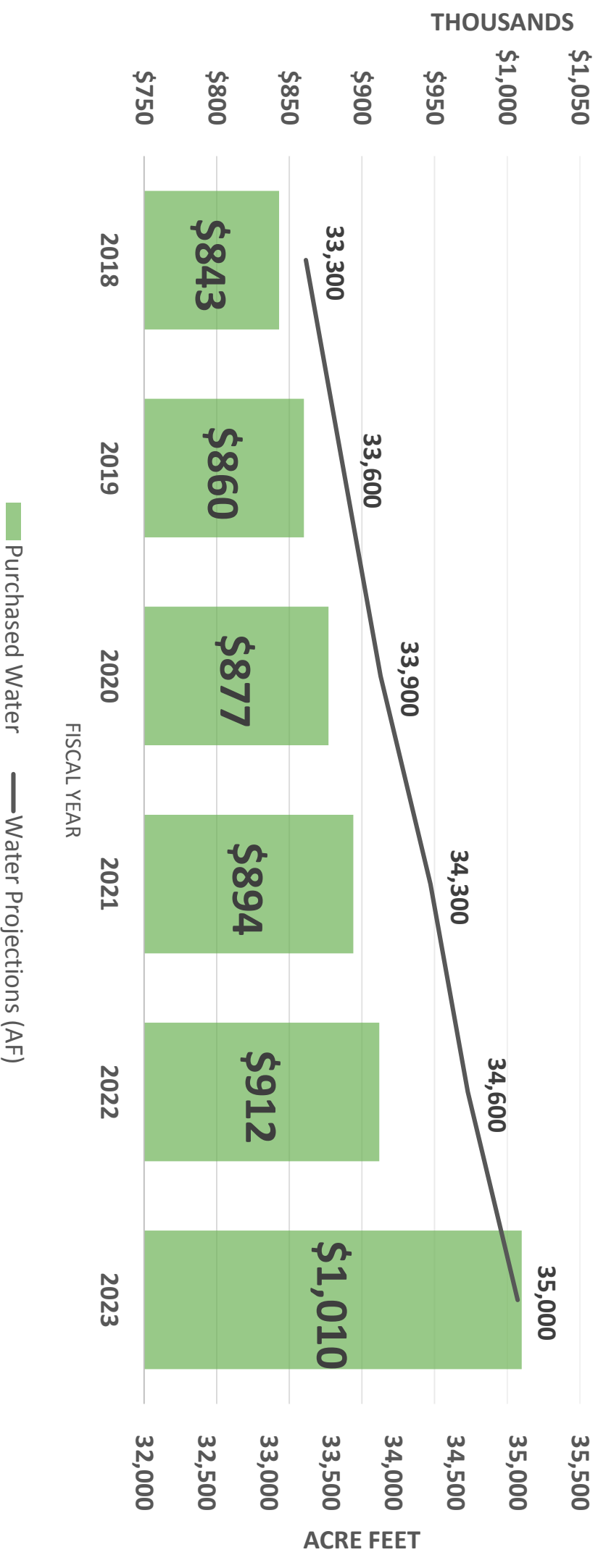
MESA COST BASED ON CAP FLOW PROJECTIONS



\* Assumes CAP Shortage

# Water Commodity Costs - SRP

## MESA COST BASED ON SALT RIVER PROJECT (SRP) FLOW PROJECTIONS



# Water Utility Rate Structure

- Over the last few years the City has focused on **better aligning fixed revenues with fixed costs**. Target is fixed revenues at 35-40% of total costs. FY 2017/18 estimated at 36.62%
- **Water consumption per account has declined** in recent years: more widespread use of water saving appliances, smaller number of people per household, less landscaping and more water conservation awareness
- The City **implemented a fourth residential water tier** to align the tiers with usage patterns and associated costs
- This year will be the **third year of a five year implementation**
  - **Decreases annual impact to customers** and allows time for customers to continue assessing their water usage and apply conservation techniques if possible

# Water Utility Rate Recommendations

- All customers: **3.5% increase** on all rate components
- Residential Service Charge: \$0.93 per month, from \$26.62 to \$27.55
- Residential average monthly seasonal consumption total bill: \$1.57, from \$44.74 to \$46.31
- The City average monthly consumption is about 9,000 gallons however seasonality takes into account high demand summer months that experience some water consumption in tier 2. The resulting impact is greater than a straight 9,000 gallons per month.
- Arizona Water Company filed with the ACC to increase residential rates by approximately 21%. Approximately 2,300 parcels within City limits.

# Water Utility Rate Structure Recommendation

## Current Residential Tier Structure for FY 16/17

First 3,000 gallons included in service charge

Gallons	Cost per 1,000 gal
4,000-10,000	\$3.02
11,000-20,000	\$4.54
21,000-24,000	\$5.23
25,000 and greater	\$5.54

## Proposed Residential Tier Structure for FY 17/18

First 3,000 gallons included in service charge

Gallons	Cost per 1,000 gal
4,000-9,000	\$3.13
10,000-18,000	\$4.70
19,000-24,000	\$5.57
25,000 and greater	\$6.07

# Wastewater Utility Rate Recommendations

- All customers: **4% increase** on all rate components
- Residential Service Charge: \$0.72 per month, from \$18.08 to \$18.80
- Residential average monthly seasonal consumption total bill: \$1.12, from \$27.93 to \$29.05
- Wastewater rates are not subject to seasonality. The monthly rate is adjusted annually based on the winter water average usage of the individual customer.





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