

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

	ELECTRIC	NATURAL GAS
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)

1st quartile Residential bills 14.9% less than SRP & 3rd quartile Residential bills 9.4% less

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

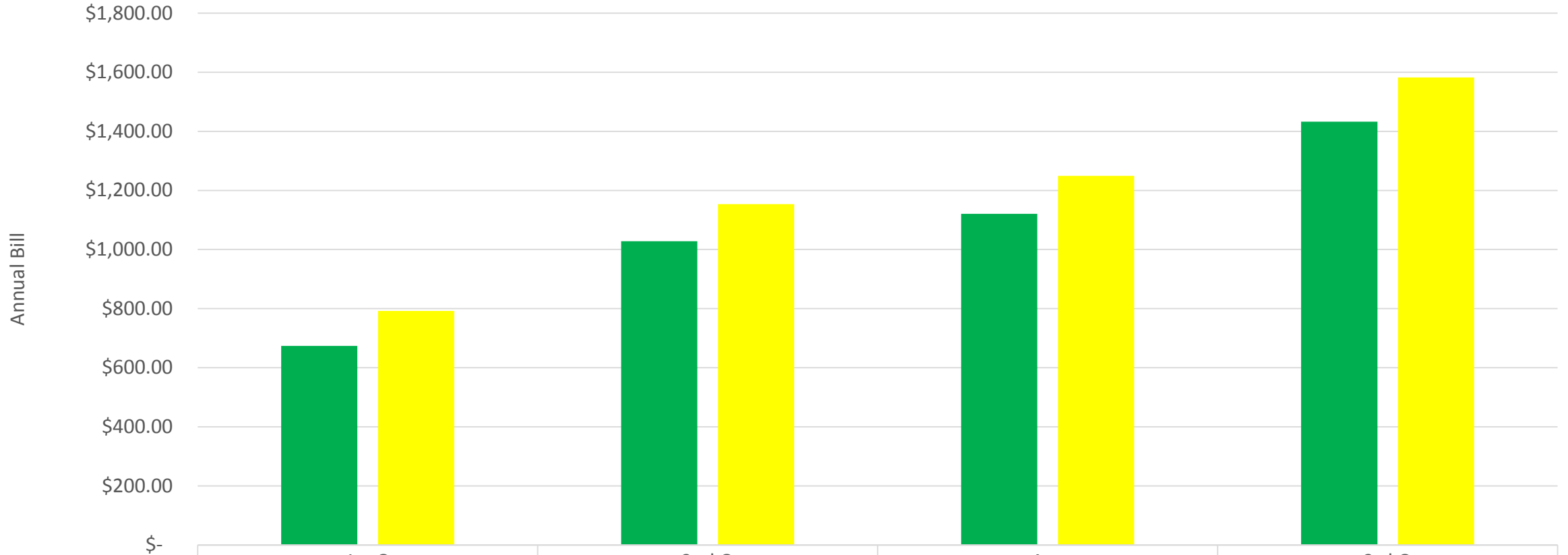
O&M costs 20% or \$3.14 per customer below target (2016)

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



	1st Q	2nd Q	Avg	3rd Q
Mesa	\$674.08	\$1,028.39	\$1,120.95	\$1,432.93
SRP	\$792.24	\$1,153.65	\$1,249.03	\$1,582.01
Avg Monthly kWh	464.25	766.14	845.63	1122.99

■ Mesa
 ■ SRP

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

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

01

556 days without
Lost Time
Accidents (as of
3.31.2017)

02

2% of emergency
response calls
exceed 30 minutes -
85% better than
target, 13% at target
(2016)

03

Outage frequency
- 92% better than
target (2016)

04

Average
Residential bills
1.6% less than
SWG

05

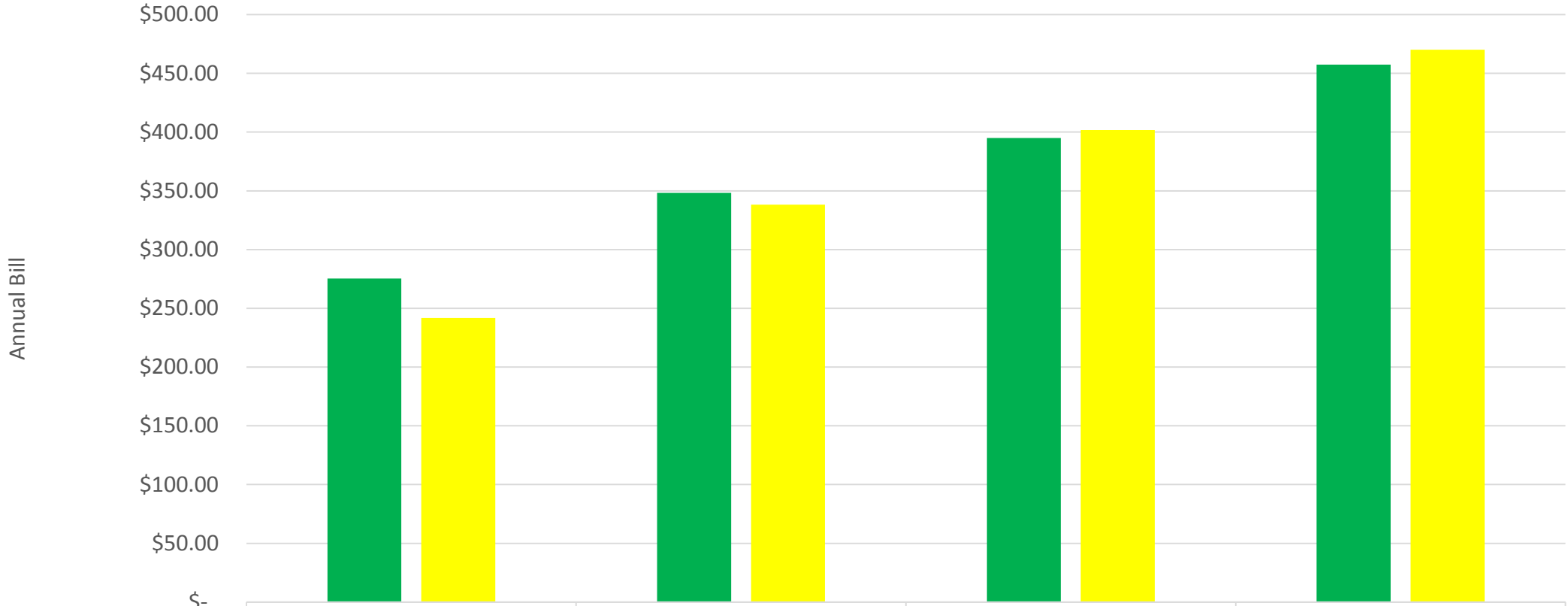
O&M costs 18%
or \$1.68 below
target (2016)

06

American Public Gas
Association System
Operational
Achievement
Recognition (SOAR)

Measuring Success

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



	1st Q	2nd Q	Avg	3rd Q
■ Mesa Annual Bill	\$275.39	\$348.20	\$394.99	\$457.34
■ SWG Annual Bill	\$241.83	\$338.32	\$401.73	\$470.07
Avg Monthly Therms	8.67	16.04	20.89	26.11

■ Mesa Annual Bill

■ SWG Annual Bill

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

A glowing blue dollar sign is superimposed over a background of flames. Below the flames, a gas valve with a silver handle is visible. The overall image is dark, with the blue light of the dollar sign and the orange and blue flames providing the primary illumination.

Gas 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 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

- 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

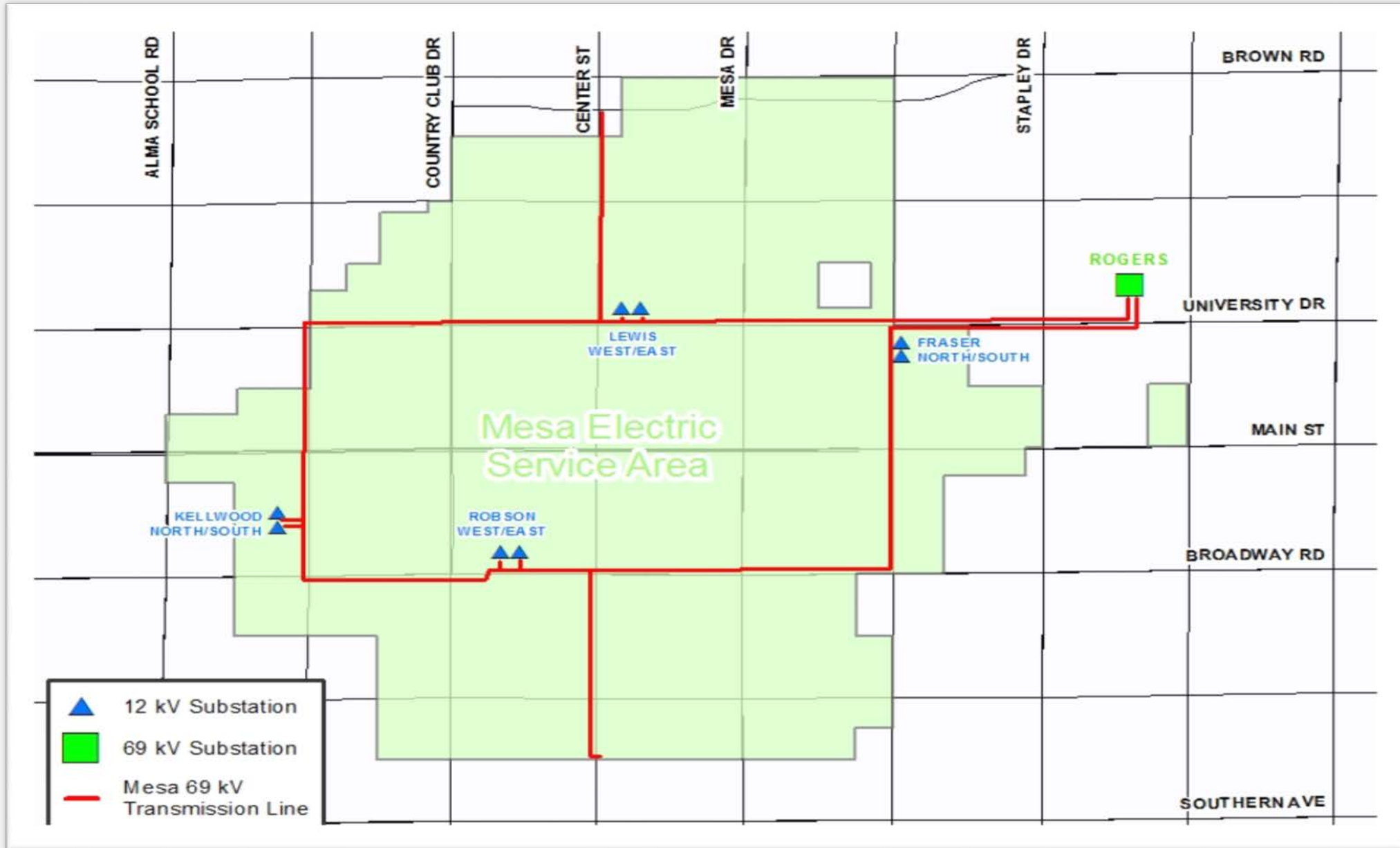
Natural Gas Utility Rate Recommendations Cont.

- 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)

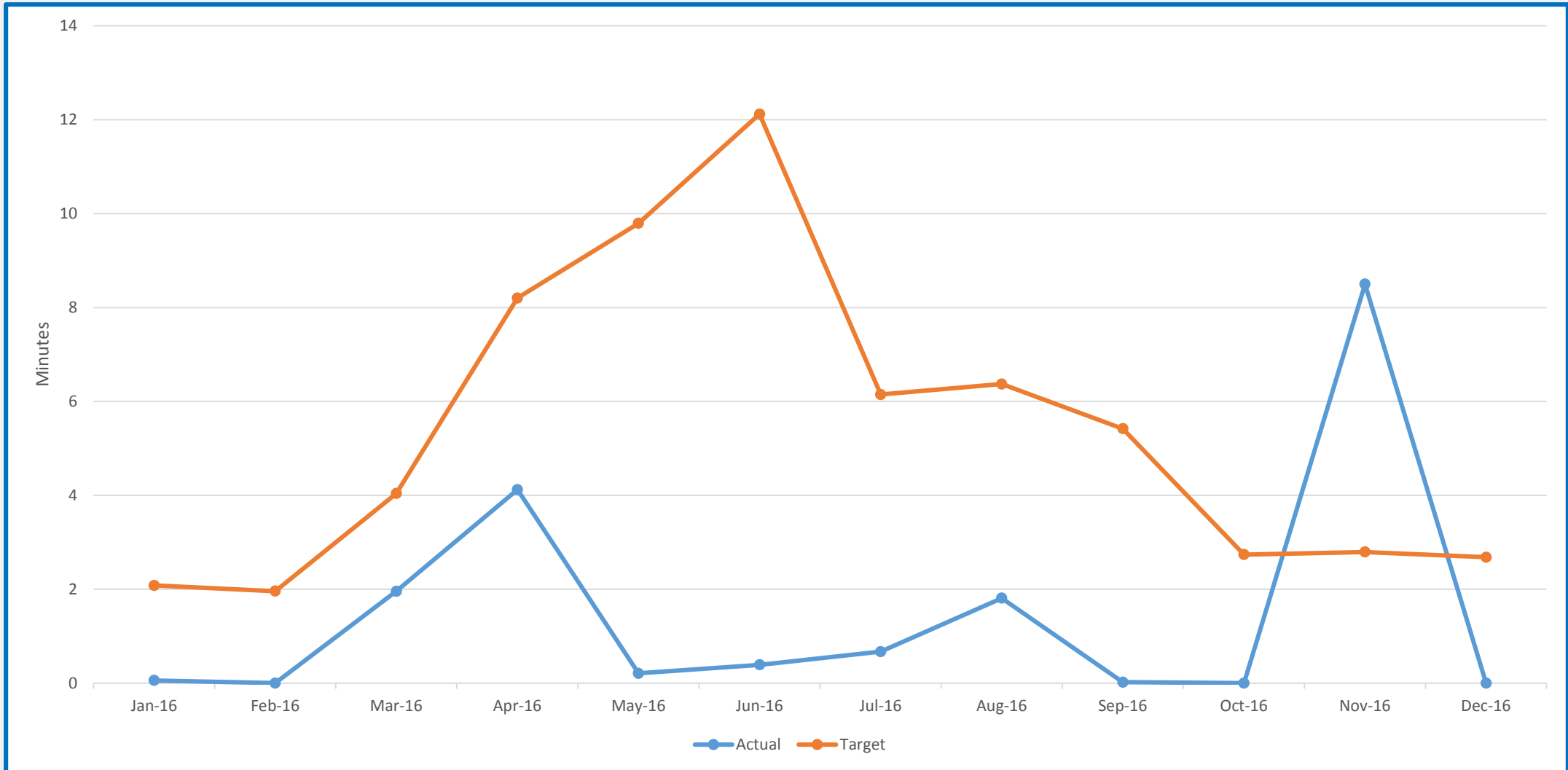




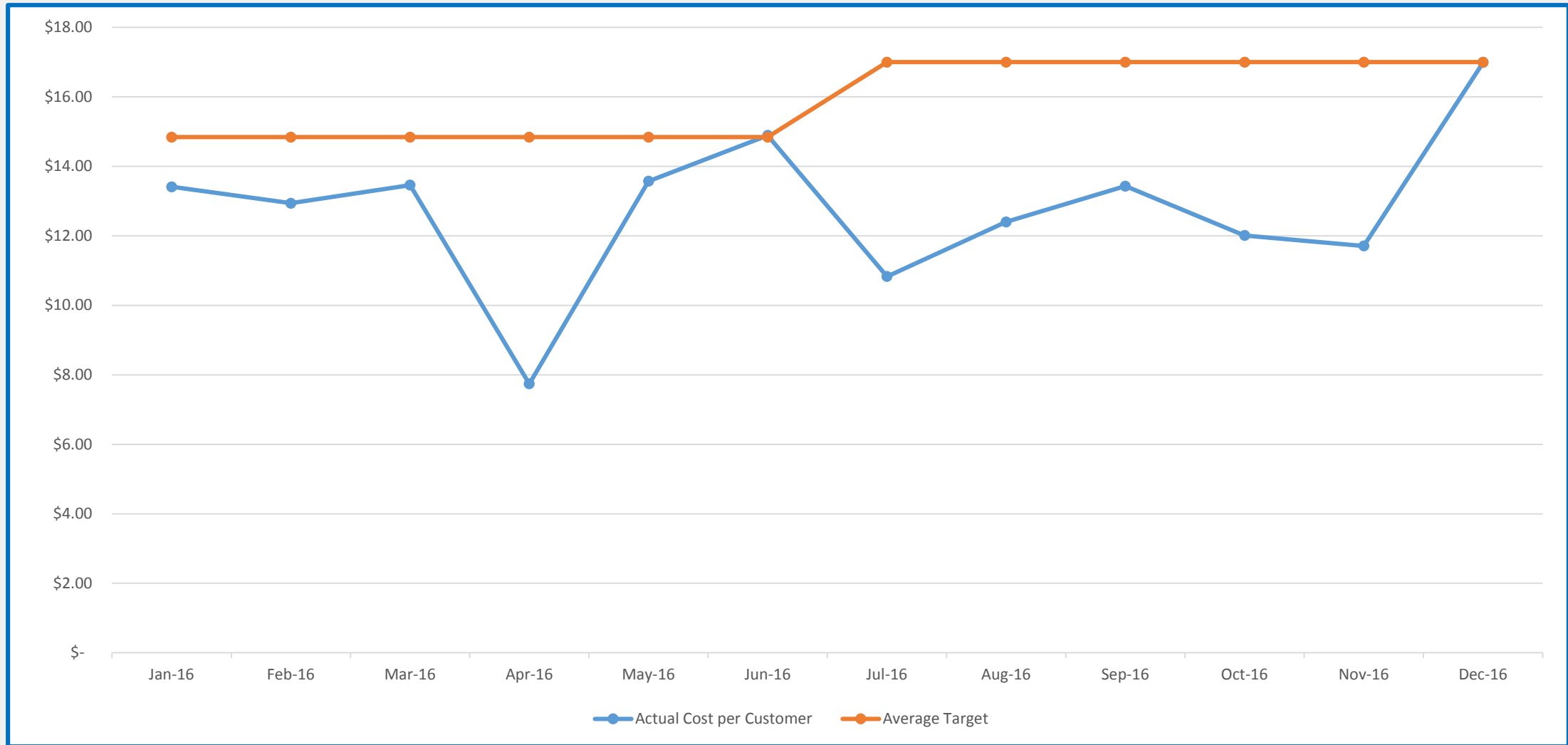
Electric Utility Service Area



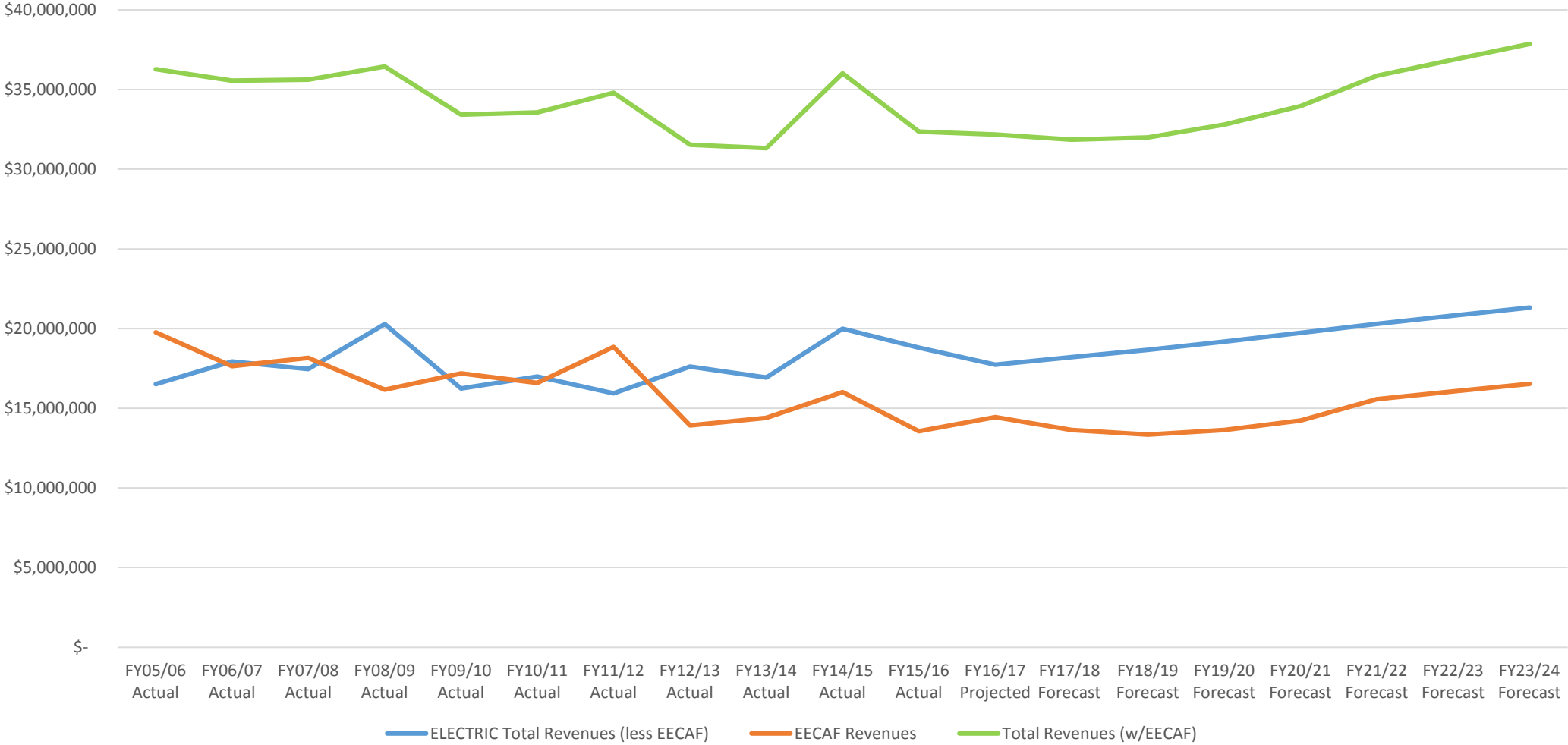
Electric Reliability-Outage Duration



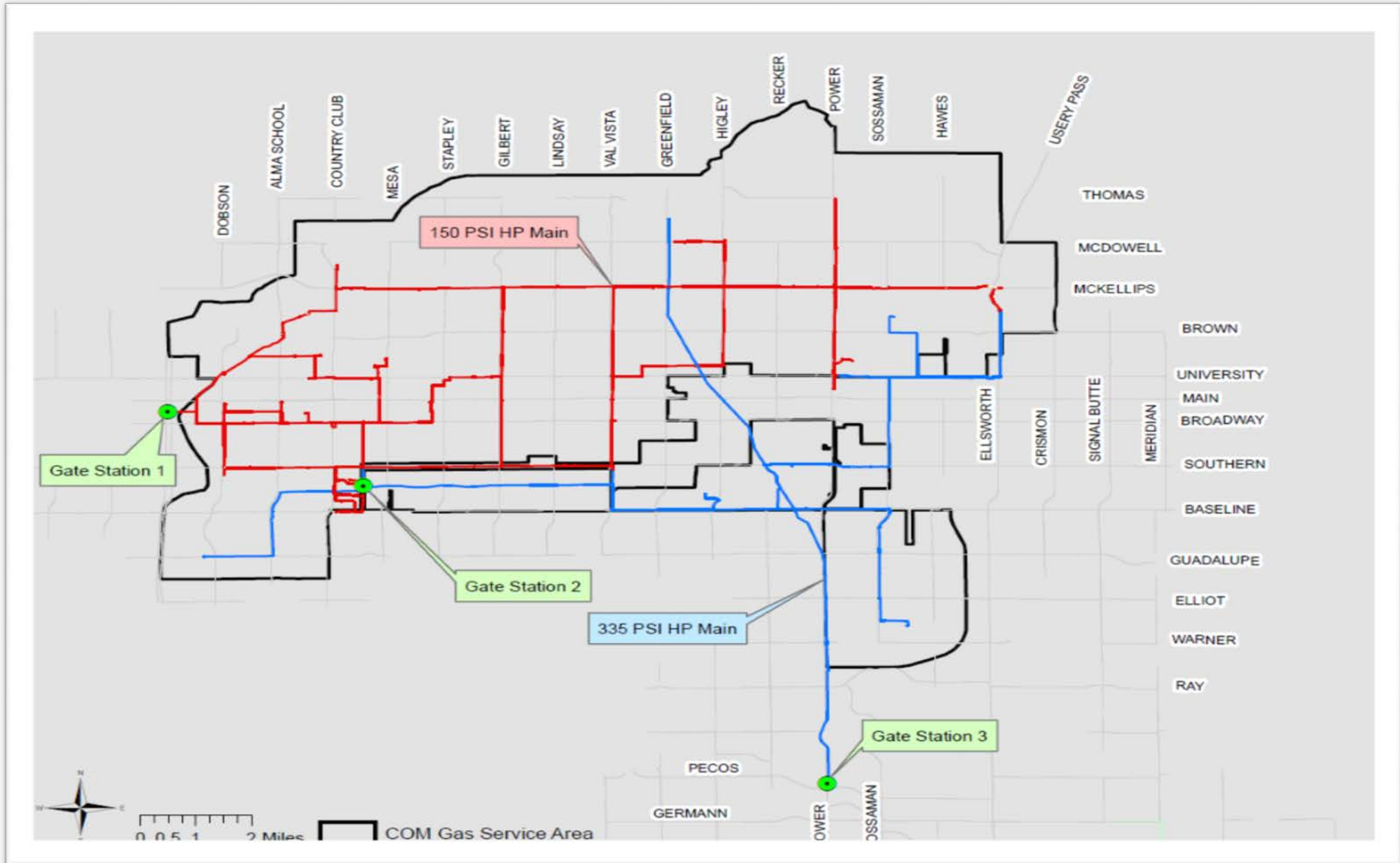
Electric O&M per Customer



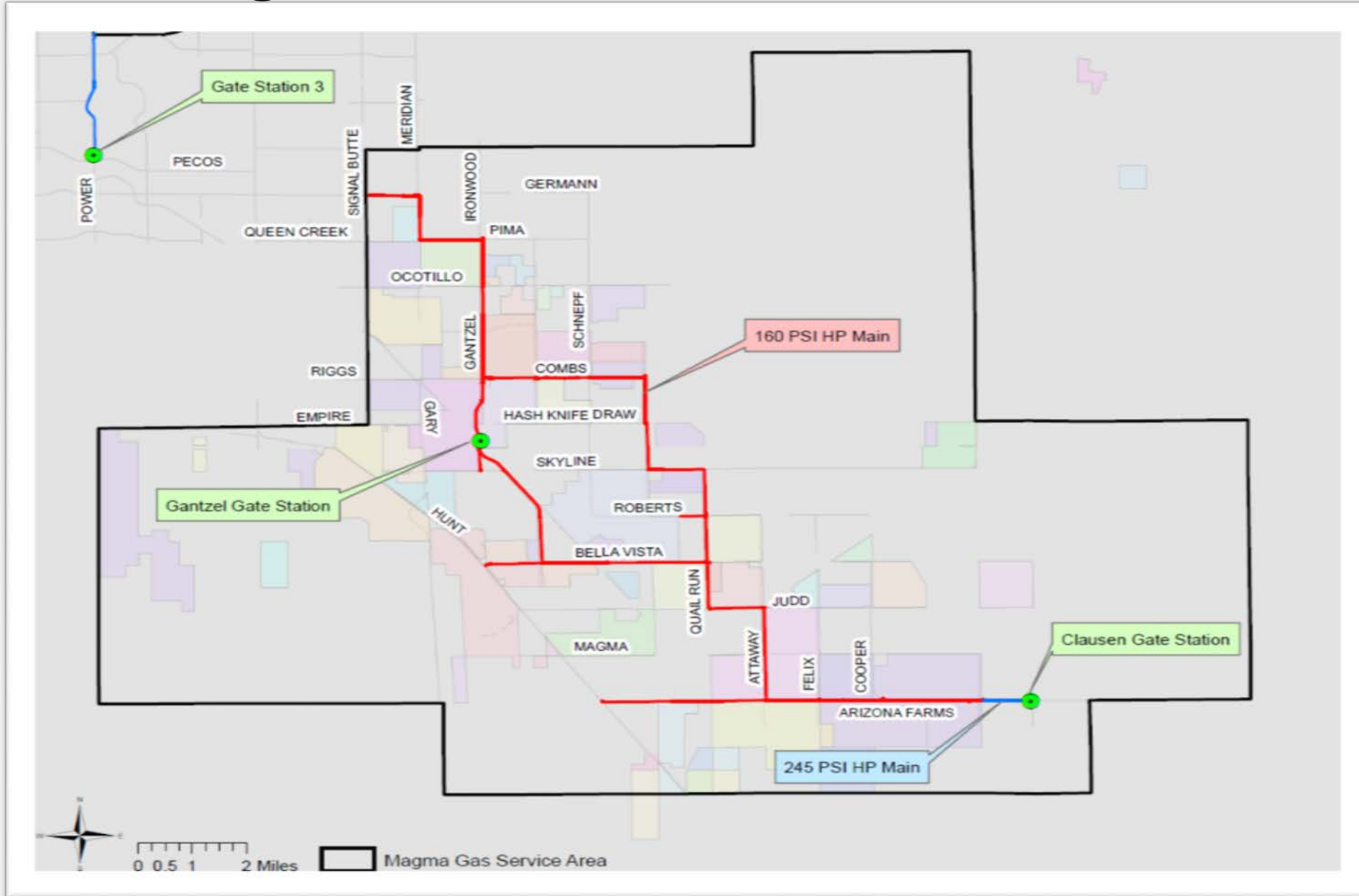
Reductions in EECAF costs have recently offset small rate increases



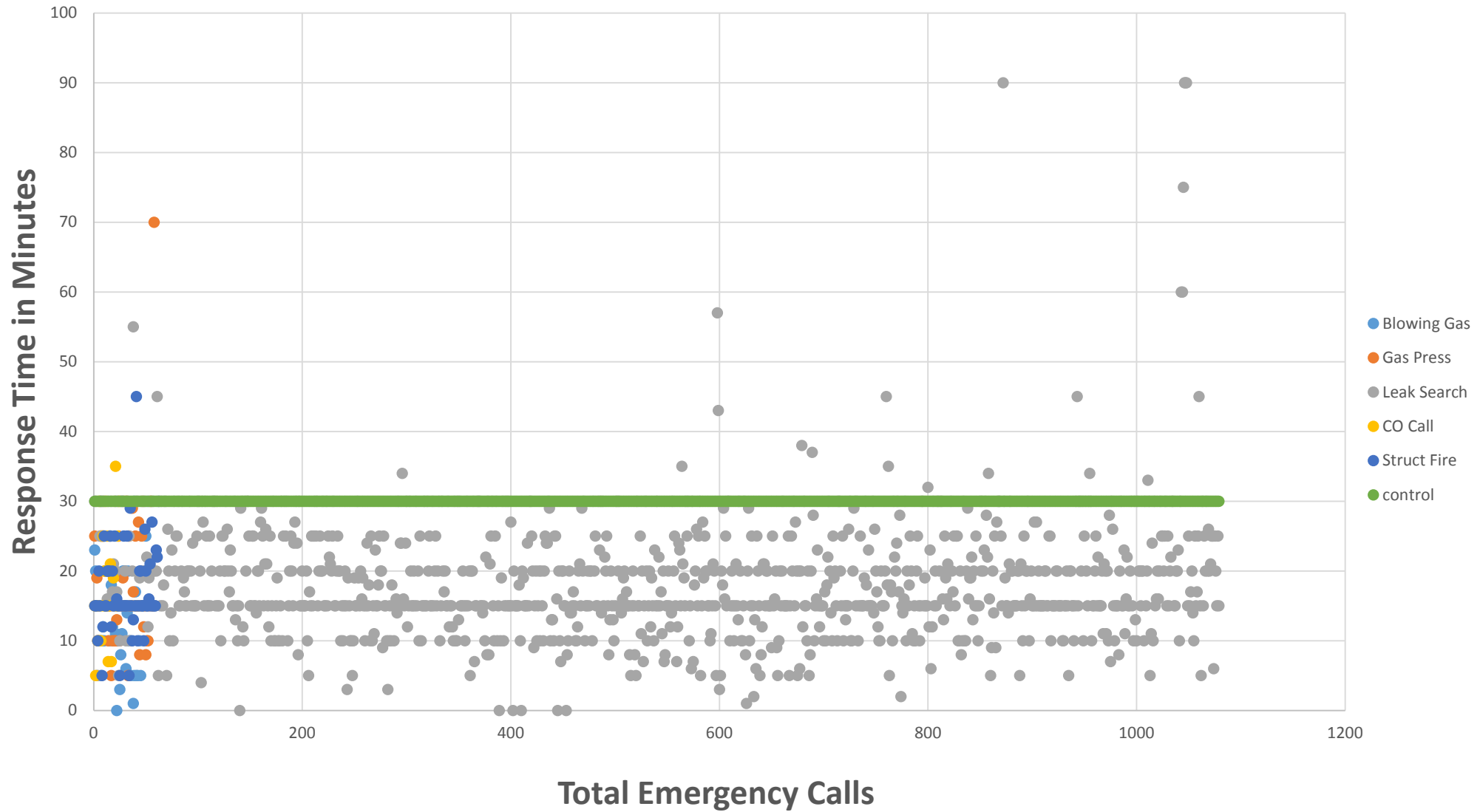
Mesa Natural Gas Service Area



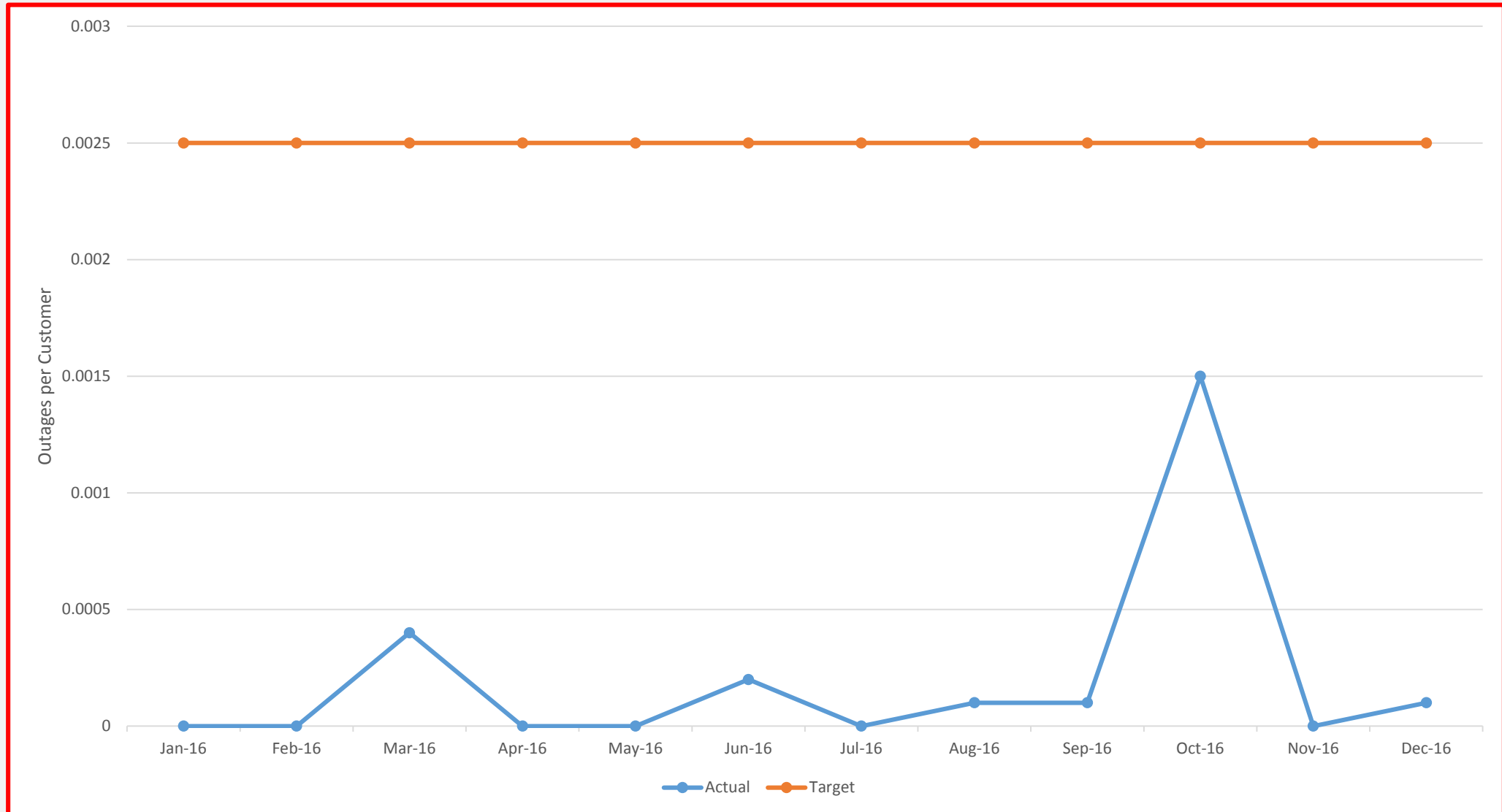
Magma Natural Gas Service Area



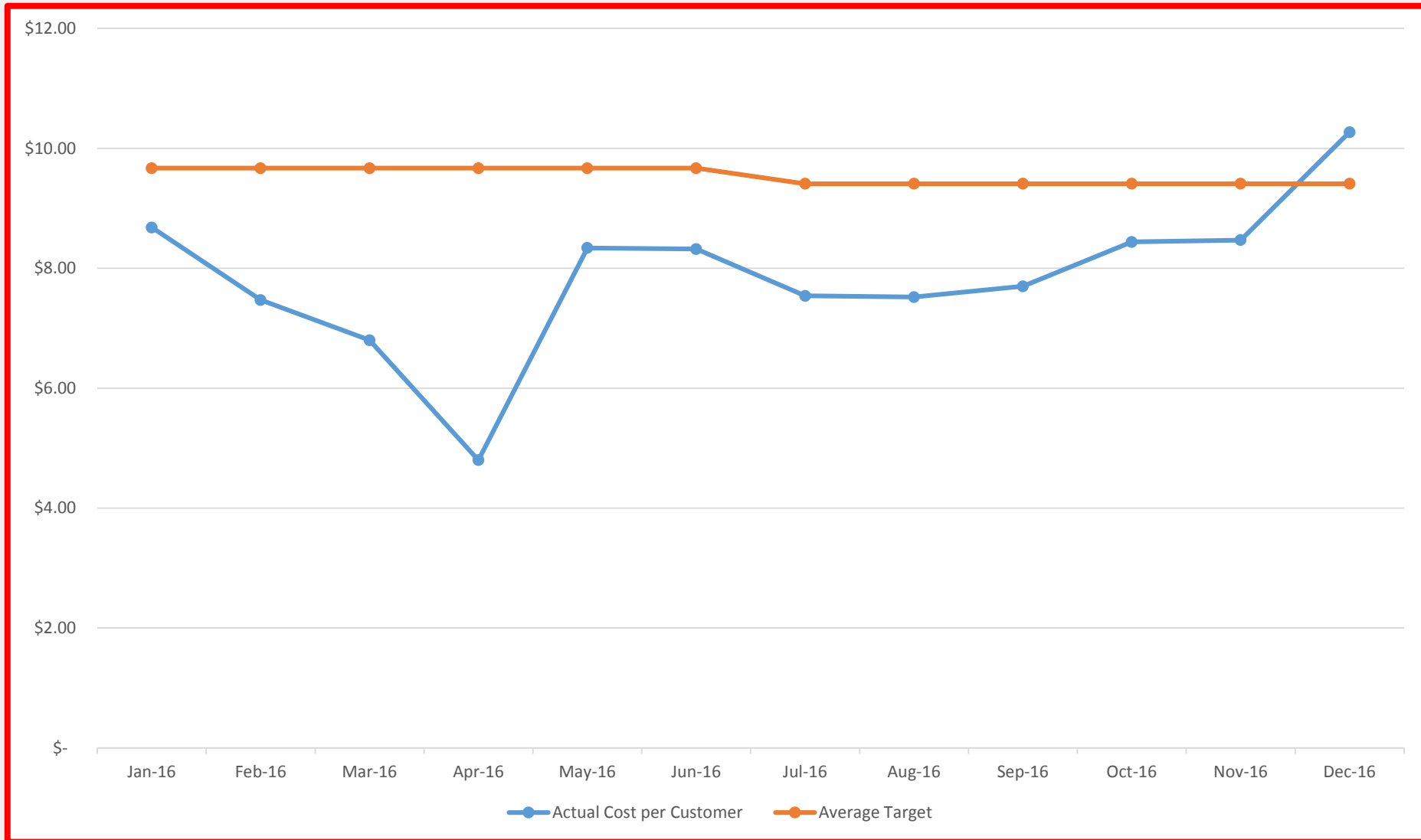
Gas Emergency Response Time-Mesa



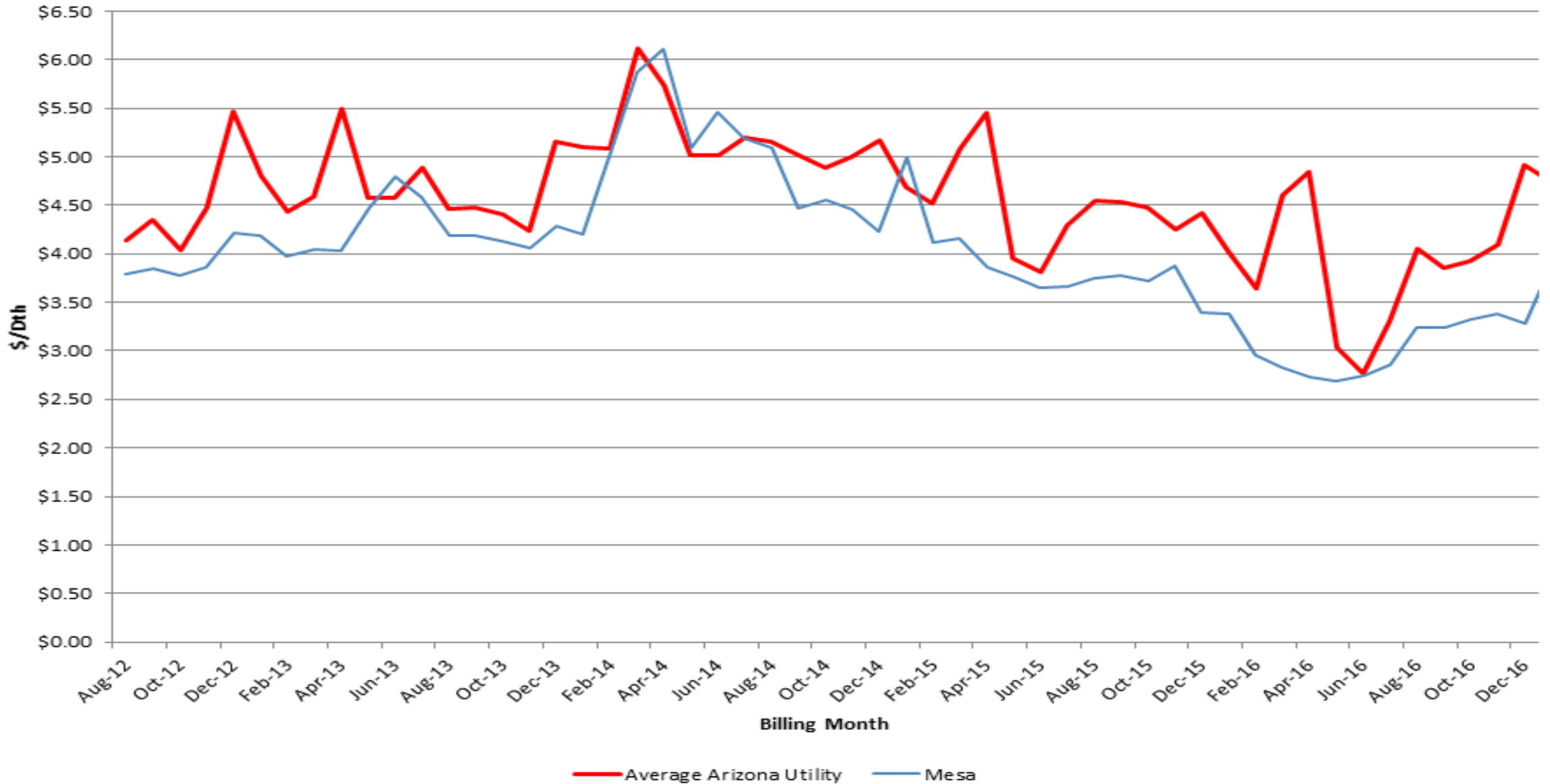
Gas Reliability – Outage Frequency



Gas O&M per Customer



Total Monthly Gas Supply Cost Mesa vs. Average Arizona Utility



Reductions in PNGCAF costs have recently offset rate increases

