

COUNCIL MINUTES

April 18, 2019

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 18, 2019 at 7:33 a.m.

COUNCIL PRESENT

John Giles
Mark Freeman
Jeremy Whittaker
Francisco Heredia
Jennifer Duff
David Luna
Kevin Thompson

COUNCIL ABSENT

None

OFFICERS PRESENT

Christopher Brady
Dee Ann Mickelsen
Jim Smith

1-a. Hear a presentation, discuss, and provide direction on the following department budgets:

1. Water Resources

Water Resources Department Director Jake West introduced Deputy Director of Water Distribution and Collections Chris Hassert, Deputy Director for Water Enterprise Services Seth Weld, and Water Resources Assistant Director Carlos Padilla. Mr. West announced that Water Resources is celebrating its first inaugural Arizona Water Professional's Day and in honor of that, he has provided Council and staff with a commemorative cup from the recently opened Signal Butte Water Treatment Plant (SBWTP). He added that the plant received an award last night for the Best Treatment Project for Arizona Water. He displayed a Power Point presentation for Water Resources. **(See Attachment 1)**

Mr. West highlighted the accomplishments of the Water Resources Division and discussed some of the challenges such as recruiting and retaining highly qualified staff. (See Pages 3 and 4 of Attachment 1)

Councilmember Thompson referred to the numbers provided on Page 2 of Attachment 1 and inquired if there were only 157,000 water system connections, even though the population is over 496,000. Mr. West confirmed that to be correct.

In response to a question from Councilmember Luna, Mr. West responded that Water Resources does a great job working with Gateway Community College (GCC) on an intern program. He explained that a qualified intern is hired for a year to gain experience and certification before being hired full-time as an Operator I or Operator II and shared a recent success story. He noted that

GCC offers a technical water program and that is why they work closely together, but he would work with Mesa Community College as well.

Mr. Hassert reviewed the performance metrics in water and wastewater. He stated the goal is to achieve a target of 10%, meaning limiting the amount of groundwater pumped to 10% or less to rely on sustainable service water supplies. He pointed out that last year was close to 20% and this year is nearly half of that, which is a testament to the SBWTP. (See Page 5 of Attachment 1)

Mr. Hassert provided performance metrics for wastewater and focused on the number of miles of sewer lines inspected, which is done by running a camera through the lines to check for defects. He reported that Mesa has adopted acoustic technology that sends sound waves through the sewer to determine if there is any blockage. He noted that the technology has allowed staff to triple the target as far as miles to inspect and provides much more efficiency. (See Page 6 of Attachment 1)

Councilmember Whittaker inquired about the technology or method used to expand the life of pipes. Mr. Hassert replied that the video surveillance (CCTV) system is more useful than the acoustic system in terms of trying to time the rehabilitation of pipes. He explained the CCTV can pick up any defects, such as cracks, and that allows them to establish a National Association of Sewer Service Companies (NAASCO) scoring system that ranks sewers on a scale of one (1) through five (5). He said that the scoring system provides recommendations for prioritization, such as a four (4) being labeled as an area to keep an eye on and comes back within five years to review again.

Mr. Hassert outlined Advanced Metering Infrastructure (AMI) and reported that it is in the first phase of trial and staff intends to issue a Request for Proposal (RFP) to obtain an experienced consultant to assist with the program. He added that AMI is an important component of Smart Cities, especially when it comes to the communication network and can be leveraged by other Smart City applications throughout the City. He displayed a graphic of the various elements of an AMI system and highlighted the goal of the trial is to include 1% of customers and test at least two vendor AMI systems to determine the best fit for Mesa. He clarified that the focus is to test the technology by the accuracy of reads going through the communication system and the customer billing system to provide accurate bills to customers. He emphasized that empowering customers with daily and hourly water usage is important in helping customers adapt their water usage. (See Pages 7 and 8 of Attachment 1)

Vice Mayor Freeman commented that a friend was notified by City staff of irregular water usage on his property and the notice enabled him to discover a leak and fix it quickly. Mr. Hassert explained how the new technology can assist in seeing changes in usage and communicating with customers to determine the issue.

In response to a question from Councilmember Luna related to the need for meter readers in the future, Mr. Hassert stated that some meter readers are necessary to oversee problems and staff expects that as the number of meter readers decreases, the number of positions on the technology side will increase.

Councilmember Thompson expressed concern that meter reader inspections may find corrosion or other issues only seen by the naked eye and inquired if meter readers would continue to be deployed for annual inspections. Mr. Hassert pointed out that the technology would have triggers to alert staff when an inspection is necessary.

Councilmember Thompson asked about the importance of performing atmospheric corrosion inspections, specifically on the natural gas side. Energy Resources Department Director Frank McRae reported that years ago, the City deviated from meter readers for that purpose and implemented other ways of inspecting those meters and seeing whether the corrosion control technology is working. He added that he does not foresee the conversion to AMI smart readers deteriorating their ability to maintain those inspections or meet code requirements.

In response to a question from Councilmember Duff related to the timeline after the pilot program, Mr. West confirmed that the funds are currently available to get through the pilot program and then staff would return for the 2020 authorization for funding of an overall Citywide deployment.

City Manager Christopher Brady added that staff is in the exploratory phases of determining what the total cost of the program would be and would return to Council in the Fall to discuss that as part of the total bond package.

Mr. Weld displayed charts of the cost increase to buy the water commodity for Mesa to treat. (See Page 9 of Attachment 1) He explained what the annual forecasted water commodity cost is for the Central Arizona Project (CAP). He noted that the CAP only approves two years at a time and is meeting soon to establish the rates for the next two years. He pointed out that as the CAP rates change, the City's forecasted rates may change as well.

Mr. Weld reported that Salt River Project (SRP) is also adjusting their rates and staff has forecasted an increase in those rates. He estimated a combined FY 19/20 increase of \$1 million just to buy the water to treat. (See Page 9 of Attachment 1)

Mr. West provided an update on the Colorado River and announced that the President of the United States has approved the drought contingency plans for the Colorado Basin states. He added that while that was happening, the Colorado Basin experienced record snowpack and inflow into Lake Powell and it was recommended that Mesa will not have a shortage in 2020 and possibly through 2022.

Water Resources Assistant Director Carlos Padilla highlighted the 2014 Water Bond authorization and provided the breakdown of committed projects underway for the remaining \$49 million of the CIP plan. (See Page 12 of Attachment 1)

In response to an inquiry from Vice Mayor Freeman, Mr. Padilla replied that new well sites are not part of the 2014 Bond package but would be in the future. Mr. Padilla said that two additional wells were drilled while the SBWTP was coming online and estimated the cost of \$2.5 million to drill and equip a well.

Mr. Padilla provided a chart with the breakdown of the remaining 2014 Wastewater Bond Authorization. He pointed out that most of the funds are committed to the expansion of the Greenfield Water Reclamation Plant, which is a joint venture with the towns of Gilbert and Queen Creek. He informed Council that the expansion will increase capacity to 30 million gallons per day with a price tag of \$210 million for the project, Mesa's share being \$127 million. He displayed photos of the projects in various phases. (See Pages 13 and 14 of Attachment 1)

Mr. Hassert identified future capital needs projects, some that are stand-alone projects and some that are part of larger programs. (See Pages 15 and 16 of Attachment 1) He provided details of the Water Rehabilitation Program and referenced the replacement cost of \$26 million. He emphasized the significance of that value based on the modeling analysis, and to maintain a 50-

year replacement cycle for all water pipes, Mesa would need to invest approximately \$26 million per year. He noted that due to competitive requirements within the CIP, Mesa has underspent that amount the last three fiscal years by averaging \$3.6 million per year. He expressed concern that instead of expecting a service life of 50 years, Mesa is looking at 100 years and staff will need to keep an eye on how they balance these needs with others.

Councilmember Whittaker asked for clarification on the request for a significant increase from \$3.6 million per year to \$26 million moving forward. Mr. Hassert replied that the \$26 million was not a request, but rather a value that equates to a 50-year service life cycle.

In response to a question from Councilmember Whittaker related to the sustainability of switching to a 100-year cycle, Mr. Hassert responded that staff would see more leaks and breaks and would be more reactive in terms of operation staff.

Councilmember Whittaker mentioned his conversations with staff about the lifespan of pipes and asked if there was a way to obtain a more accurate estimate of when these pipes need to be replaced. Mr. Hassert discussed ways to determine the highest risk pipes and formulas used to prioritize but said there was no sure way to predict in five years when a pipe would fail.

Discussion ensued regarding the \$3.6 million investment for replacement, the last bond package focused on plant expansions, and the balance of prioritizing projects annually.

Councilmember Duff asked about the Drop Contingency Plan (DCP) and the CAP announcement regarding significant increases to obtaining water. She stated if that is on the horizon, then she would like to look at infrastructure from a more sustainable view, such as use of purple pipes and more conservation-minded methods.

Mr. West responded that, with regards to the purple pipe concept, all of Mesa's effluent water goes to the Granite Reef Underground Storage Project (GRUSP) or is sent through Sub Regional Operating Group (SROG) where it is treated and sent to the Palo Verde Nuclear Power Plant, which provides some revenue to the City of Mesa. He reported that Mesa currently has no extra effluent, but staff is constantly looking at other ways to find water without having to go into the groundwater. He explained that during wet years, water cannot be put underground and must be stored in the northeast basins where it does not replenish the aquifer and earns no credit/revenue.

Mr. West reported that as the City is growing, conservation is working and the per account consumption is decreasing. He added that overall, households are using less water today, on a per capita basis, than they were 25 years ago.

Mr. Padilla indicated that the most important need for the future is to acquire additional water rights to support future expansion of the system. He proposed to convert the reclaimed water from the Northwest Water Reclamation Plant into additional CAP water credits. He explained that the flow from the northwest to GRUSP results in missed water credits and instead the concept is to bring the flow south to the Gila River Indian Community (GRIC). He noted that under that exchange agreement, for every five gallons of reclaimed water sent, the City acquires four gallons of CAP water rights that can be used. (See Page 17 of Attachment 1)

Mr. Brady explained that GRIC has more CAP rights than is needed and provides a significant source for Mesa. He stated that the Greenfield Water Reclamation Plant does not currently generate enough water and is short on the agreement. He clarified that the idea is to take

advantage of the effluent water from the north side of the City and bring it down to Greenfield to maximize on the exchange with GRIC.

Mr. Padilla illustrated the proposed map of 10-miles of 36" reclaimed water line that would bring water to the Greenfield Water Reclamation Plant, as well as the projected cost of \$66 million. He reported that staff recommends that the facility be in place by 2024, prior to the expansion of the water treatment plant so that the water credits may be used to expand the plant. He discussed the project timeline and noted the challenge will be road construction.

In response to a question from Councilmember Thompson, Mr. Brady replied that there has been a mixed reception to working with Roosevelt Water Conservation District (RWCD), but staff will pursue the idea.

Mr. West pointed out the green line at the top of the map that shows the original connection point that was going to be done with RWCD, but negotiations broke down. He said that staff will pursue a new agreement before building a new pipeline. (See Page 17 of Attachment 1)

Vice Mayor Freeman recalled that there was a capacity issue in that area with RWCD.

In response to a question from Mayor Giles, Mr. Brady clarified that effluent is a more technical term for reclaimed water.

Mr. West reported that he is putting together an internal group to research historical data to determine how often Mesa is unable to put water in the ground, hence losing opportunities that could be significant. Discussion ensued related to the seasonal capacity of GRUSP and the delivery from GRUSP compared to CAP water.

In response to a question from Councilmember Whittaker related to the water push to the Elliott tech corridor, Mr. Padilla replied that the data centers cannot use reclaimed water and run their water through an additional R/O process onsite to clean water for their use.

Councilmember Whittaker expressed his concern that the area has been heavily invested for power supplies and suggested it may be necessary to look at the water supply as well.

Mr. Padilla continued his presentation on the SBWTP expansion. He reported that the plant came online in 2018 and was ready to meet summer demands. He illustrated the system's demand in southeast Mesa relative to groundwater capacity. (See Page 18 of Attachment 1) He stated the recommendation for the master plan is to expand SBWTP to 48 million-gallon-per-day (MGD) by 2025 and reported that in 2018, southeast Mesa increased water accounts by 10% and water demand by 15%.

Mayor Giles asked at what point Mesa would be facing a crisis for the water portfolio and not meeting the demands of the community. Mr. West responded that Mesa is well suited in the City zone and the chart depicts the current conditions. He explained that staff is making assumptions that if Mesa takes full advantage of the water put into GRUSP, with the exchange with GRIC, that Mesa would not be relying on groundwater until 2024.

In response to a question from Mayor Giles, Mr. West confirmed that building the SBWTP expansion is planned for 2040 when Mesa would be relying heavily on groundwater, which is a finite resource.

Mr. Brady clarified that the chart (See Page 18 of Attachment 1) shows a conservative estimate that does not assume bringing GRUSP water down to GRIC, which would then avoid tapping into the wells and using only the sustainable water resources available. Mayor Giles requested staff bring back a graph of the City in its entirety, rather than only the southeast area.

Councilmember Duff commented that although Mesa acquires water rights, the worst-case scenario for the State is having no water supply and the rights would not matter. She felt that Mesa could make some impact in the City building codes of how water is retained onsite and how it is reused, such as keeping it at the buildings to reuse for landscape needs. She suggested adding requirements to the City Code to keep conservation in mind and put less pressure on this process.

Vice Mayor Freeman inquired about whether the City has considered adding a recharge basin in the southeast area of the City, or if that is feasible. He expressed concern that if the Colorado River is impacted, so is every City in the valley and said he was interested in creating partnerships and movement of water with GRIC.

Mr. Brady replied that when there are drought contingencies, Mesa will be the last valley city impacted by cutbacks due to its strength and portfolio, however the top priority is to send water to GRIC as soon as possible and take full advantage of maximizing that agreement. He suggested that the projected cost of the new pipeline may seem high, but it is a big pipe and the return on investment should be significant.

Mr. West added that with the exchange water and the City's use of it, it is cheaper than any CAP water it is receiving. Mayor Giles suggested that these projects would eventually need to go to the voters.

In response to a comment from Councilmember Whittaker related to coordinating the pipeline project with Transportation to replace old streets simultaneously, Mr. West confirmed that staff is working with Engineering for that purpose.

Mr. Hassert reported that another Citywide rehabilitation need was the collection system, which is related to the distribution system. He highlighted some programs to support the collection system rehabilitation. (See Page 19 of Attachment 1)

Mr. Padilla informed the Council that as staff plans the CIP numbers for water plants, they are developing facility plans for improvements needed at each plant. He advised that they have a comprehensive asset management program that provides lifecycle replacement for all equipment at the plants and said that both are used to calculate the needs for the treatment plants as it relates to the CIP. (See Page 20 of Attachment 1)

Mr. Weld highlighted the reasons for the significant budget changes for Water in FY 19/20. (See Page 21 of Attachment 1) He noted a unique situation at the end of 2019 of a six-week outage on the CAP canal that will result in two water treatment plants being offline, which means more water will need to flow into the Val Vista Water Treatment Plant. He advised another change was increased chemical costs for the SBWTP.

In response to a question from Councilmember Thompson related to preparations for potential fire season risks, Mr. West confirmed that staff always plans for a worst-case scenario when building budgets and has significant savings from previous years.

Mr. Weld stated that in the FY 19/20 budget, the department proposed two new full-time field workers, along with the tools and equipment needed for each. He described the challenge of maintaining routine ongoing maintenance for fire hydrants and this new crew will handle that task. (See Page 22 of Attachment 1)

Mr. Weld highlighted the significant budget changes on the wastewater side for FY 19/20 to include increased debt service increases and other obligations. (See Page 23 of Attachment 1) He noted that part of Mesa's ongoing maintenance program is to pull water reclamation plants (WRP) offline or reduce the flow, resulting in additional water being sent to SROG to be treated. He noted a one-time cost for the Aeration Basin mixers overhaul was \$250k with Mesa's cost share being \$105k. (See Page 24 of Attachment 1)

Mr. Brady clarified that 91st Avenue Wastewater Treatment Plant is in Phoenix, but Mesa has a contractual obligation to supply that plant with a certain amount of effluent water.

Mr. Weld provided a financial overview of the water side and pointed out that funding will come in under projection due to a cold and rainy winter and decreased demand. He added, on a positive note, the operating costs are coming in slightly under budget since less water is being treated. He reported that other significant savings is the refund or defeasance of bonds. He estimated the fund balance should grow by \$2.7 million for FY 19/20. (See Page 25 of Attachment 1)

Mr. Weld reviewed the financial summary for the wastewater side and reminded Council that the residential billings are based on last year's winter water average. He noted that the billings are now being recalculated and residents may see a slight decrease in April. He reported that the budget was expected to draw down the fund balance by \$1.5 million but is now projected to grow by \$4 million. (See Page 26 of Attachment 1)

In response to a question from Councilmember Freeman, Mr. Brady explained that the reserves are combined for all enterprises and had a 30% ending reserve for FY 17/18, which meant approximately \$111 million in fund balance reserves. He noted that a slight increase of 31% is projected for this year. He pointed out that staff is not recommending rate increases for residential, but other non-residential categories have fallen behind and need adjustment.

Mayor Giles thanked staff for the presentation.

(Mayor Giles declared a recess at 8:55 a.m. The meeting reconvened at 9:05 a.m.)

2. Environmental Management and Sustainability –

Environmental Management and Sustainability Department Director Scott Bouchie introduced Senior Fiscal Analyst Sheri Collins and displayed a PowerPoint presentation. **(See Attachment 2)**

Mr. Bouchie pointed out the divisions that make up the Environmental Management and Sustainability Department and listed various programs and services that tie into Council's strategic priorities. (See Pages 2 and 3 of Attachment 2)

Mr. Bouchie highlighted the top performance measures to include the following:

- Household Hazardous Materials Facility
- Recycle Blue Barrel Diversion Rate

- Commercial Customer Retention & Growth
- Renewable Energy & Energy Efficiency

Mr. Bouchie reported that the Household Hazardous Materials (HHM) Facility opened in October 2018 and has had over 5,000 visitors. He noted that solar panels provide approximately 26% of the power at the facility and explained one metric tracked is the cost per vehicle at the HHM facility, compared to the same at the previous Household Hazardous Waste (HHW) events. He estimated the HHM facility to have 14,000 visitors its first year at a cost of \$56 per vehicle. (See Pages 5 and 6 of Attachment 2)

Councilmember Whittaker inquired about the \$56 cost per vehicle and whether the amount included capital costs/depreciation. Mr. Bouchie confirmed that the rate only includes operational costs of the facility and offered to gather the information on capital cost/depreciation of the facility to bring back to Council.

In response to a question from Vice Mayor Freeman related to a charge on utility bills to help fund the facility, Mr. Bouchie replied that the Mesa Green and Clean Fee pays for the Neighborhood Cleanup Program and all operational costs of the HHM Facility.

Councilmember Duff expressed her appreciation for the HHM facility and asked if there were any plans to provide drop-bins around the City for hazardous materials, to make the service more convenient to residents. Mr. Bouchie reported that many materials are not compatible and mixing them in drop-bins could result in the risk of gases, fumes or even combustion.

In response to a question from Councilmember Luna related to marketing the HHM Facility, Mr. Bouchie reported that social media is used for outreach and advertising will be increased moving forward.

Mayor Giles commented that he has received great feedback on the program and mentioned an event that educated him on the significant cost involved with disposing of prescription medications. He asked if it seems appropriate to add that item to the HHM Facility. Mr. Bouchie explained that prescription medication is the one item that was accepted at the events but is not accepted at the HHM Facility due to the requirement of an officer and the cost involved. He stated that many other local facilities are available to accept prescription medications.

In response to a request from Councilmember Luna to accept plastic bags at the facility, Mr. Bouchie pointed out that most retailers have a box to recycle plastic bags and encouraged residents to use that resource since the bags cause damage to recycling machinery.

Mr. Bouchie continued his presentation and outlined the blue and green barrel diversion rate and displayed the running three-year average. He pointed out the target continues to decline and is missed mostly due to the growth in population and the consumer-based economy that increases the solid waste created. He added that trash has increased 10% but recycling has dropped, and a lot of new packaging is lighter weight and may affect the reduction in tonnage. (See Page 7 of Attachment 2)

Mr. Bouchie reported that recycling has gone from a revenue to an expenditure. He explained that previous contracts had a floor price for what the City was paid per ton/commodity and it would never go below that price. He pointed out that new contracts no longer offer the floor price and instead have a processing fee and a revenue share associated with them. He added that the processing fee is now higher than the revenue received. (See Page 8 of Attachment 2)

In response to a question from Councilmember Whittaker related to China not accepting as much material as it did in the past, Mr. Bouchie agreed and stated that China has reduced the contamination rate of what is acceptable. He clarified that the contamination rate is .05% and anything over that is rejected. He explained that the City's partners in recycling are having trouble meeting the .05% contamination rate and to avoid paying disposal fees in addition to processing fees, they are not sending the questionable material to China.

Discussion ensued related to the reasoning for the increased rates and the efforts made to reduce the contamination rate of materials.

Mayor Giles inquired if the City was saving money by reducing the landfills, despite paying more for recycling. Mr. Bouchie said the cost per ton for recycled material is less than the cost per ton of solid waste material, however that delta is becoming smaller.

Mr. Bouchie highlighted the challenges of recycling, including the market risk that shows great fluctuation in commodity price. He added that the market volatility has increased dramatically due to the situation in China and stated that if the commodity prices continue to decline, our cost for recycling will continue to increase. (See Page 9 of Attachment 2)

In response to a question from Councilmember Whittaker related to eliminating the middleman from the recycling process, Mr. Bouchie replied that the idea has been considered. He mentioned that the City of Glendale had operated their own recycling facility and had trouble disposing of the material.

Councilmember Whittaker inquired about partnering with other Valley cities to work together with one company. Mr. Bouchie explained that staff is conversing with neighboring cities to partner up and ensure that everyone is getting the best prices for commodities and lowering contamination rates. He added that all the cities are experiencing the same struggles and campaigning for the same results.

Mr. Bouchie discussed a performance measure related to the retention and growth of commercial customers, specifically the percent change of accounts gained versus accounts lost. He explained that if the percentage exceeds the target of 100%, then the City has gained more customers in that quarter than it has lost. He noted that the City is competing with private solid waste companies so the fact that the commercial customers are growing is good. (See Page 10 of Attachment 2)

Mr. Bouchie predicted a significant increase in the amount of renewable energy received in FY 20/21. (See Page 11 of Attachment 2) He recalled that in the Fall of 2018, Mesa partnered with Salt River Project (SRP) on a utility-scale solar project, adding over five (5) megawatts of solar capacity to Mesa's solar portfolio.

Mr. Bouchie highlighted the energy efficiency investments and reported that the projects completed this fiscal year look to save 686,600 kWh and avoid the cost of \$57k annually, as well as approximately \$23,000 saved in SRP rebates. He noted that many lighting projects were completed. He explained that the cost of the project subtracted by SRP rebates received, divided by annual savings, results in just over a five-year payback for these projects. (See Page 12 of Attachment 2)

Councilmember Thompson inquired if the Phoenix-Mesa Gateway Airport Authority would consider installing solar panels on the covered parking structures. Mr. Brady reported that the concern with that idea was the glare, since the parking lot was at the end of the runway.

Mr. Bouchie discussed the energy efficiency project of Facility Automation at the Red Mountain Library. He stated that the project was a partnership between his department, Information Technology (ITD) and Facilities Maintenance. He explained the goals of the project and reported that the City received over \$15,000 in rebates from SRP, which calculates to just over a six-year payback on the project. He added that the City is applying more resources to the efforts of implementing more building with Facility Automation. (See Page 13 of Attachment 2)

In response to a question from Councilmember Heredia related to the new buildings for Fire and Police, Mr. Brady stated that the City is considering the automation system for new buildings and provided a few examples.

Mr. Bouchie provided an update to the Food to Energy project and said it is reaching the end of the feasibility study. He explained that this project is both a Smart Cities and Imagine Mesa initiative and has the potential to be a waste-reduction and a renewable energy project. He indicated that Mesa was partnering with ASU, Bashas, United Food Bank and Mesa Public Schools and staff would be scheduling tours of the HHM Facility with the Council.

Mr. Bouchie stated that 85% of the City's fleet is fueled by natural gas and it has partnered with other projects using a broker to use renewable natural gas in the fleet. He reported that the usage is shown on paper and has an associated monetary benefit.

Mr. Bouchie highlighted other program updates from Imagine Mesa. (See Page 15 of Attachment 2) He noted that the increase in bulk pickup to four times per week was a pilot that was very successful and is proposed to continue. He added that the Clean and Green Sweep program has been rebranded to the Neighborhood Clean-up program and projects a 94% utilization rate. He noted that the Neighborhood Clean-up program partners with Code Compliance and the Fire Department.

Mr. Bouchie stated the Solid Waste budget from FY 18/19 is projected to come in \$600,000 less after the General Fund transfer, which is associated with recycling projects. He noted that the FY 19/20 budget will lower the Enterprise Fund balance. (See Page 16 of Attachment 2)

Mayor Giles thanked Mr. Bouchie for the presentation.

3. Energy Resources

Energy Resources Director Frank McRae introduced Senior Fiscal Analyst John Petrof who displayed a PowerPoint presentation. **(Attachment 3)**

Mr. McRae pointed out that Mesa is unique in that it is the only city in the valley that provides both electric and gas utilities. He announced that April is Safe Digging Month and encouraged all residents to call before digging.

Mr. McRae emphasized that Energy Resources prioritizes the safety of employees and customers, as well as reliability and economic services, and serves almost 17,000 electric and 65,000 gas customers. He stated that as members of the American Power Association and American Public Gas Association, Mesa has received awards for the quality of service they

provide. He pointed out these achievements are also owed to the support received from Engineering, Human Resources, Environmental Management and Sustainability, Fire and Medical Department, and Water Resources.

Senior Fiscal Analyst John Petrof highlighted the proposed FY 19/20 budget and reported that no material changes other than payroll-related increases. He reported that expansions are expected to be funded by a combination of contributions from customers and bonds. He added that the remaining authorizations from bonds are fully committed for future and current projects. He said that staff works to minimize costs and meet their needs/requirements with existing crews, contractors, and temporary employees. (See page 3 of Attachment 3)

Mr. McRae highlighted programs and projects as follows (See Page 4 of Attachment 3)

- Summer Energy Assistance Program – helps customers with stand increases of consumption during the summer months.
- Small Business Assistance Program – specifically for the downtown electric service area, saves participating customers 25% in electric bills.
- Electric Economic Development Rate - designed for larger customers who are eligible.
- Enhanced Employee Training – one employee receives a scholarship annually into the Chamber's Leadership Training and Development Program.
- Electric Pre-Apprenticeship Program – non-electric employee opportunities for training.
- Succession Planning Program – approximately 20% of employees are participating in this program and many of those have been selected for promotions.
- Technology for inspections and assessments of equipment and devices.

Mr. Petrof reviewed a cumulative chart of the operating efficiency cost for the electric utility for the direct operating and maintenance activities. (See Page 5 of Attachment 3) He reported the current cost for FY 18/19 is 11% below target and was 18.4% below target in the previous year. He noted that cost drivers are major storms and increases of switching orders for substations.

Mr. Petrof reported the same performance measure on the gas side is tracking 4% below target for FY 18/19 and 5.4% below target for the previous year. He noted the cost is influenced by an increase in utility-locating cost, emergency response cost or third-party damages to the City's systems. (See Page 6 of Attachment 3)

Mr. McRae pointed out that the target response time for electric is 30 minutes between a call and arrival to the site. He explained that the average response time is typically below the target, and if it is not below the target, then staff investigates; often the delay is due to multiple calls or associated with monsoon season. (See Page 7 of Attachment 3)

Mr. McRae stated another measure of reliability is the expected duration the customer can expect to see in an interruption of service. He presented a chart based on a cumulative basis and explained that each month the average duration of outage exceeds the target, an assessment is performed. He noted the target was almost met last year. (See Page 8 of Attachment 3)

Mr. McRae reported that the emergency response for gas is measured differently than it is for electric. He explained rather than a straight 30-minute response time, gas measures how many times the response time exceeded that target and the target is no more than 9.8% of calls. He noted that typically the cause of gas service interruptions is a third-party contractor failing to dig safely and hitting the gas line causing catastrophic damage, other times the cause is delays due to employee location at time of call and/or simultaneous calls. (See Page 9 of Attachment 3)

Mr. McRae stated that expected frequency of interruptions is tracked on the gas side. He reported that an early interruption in the fiscal year caused the measure to exceed the target but as the year progressed, frequencies of outages decreased and ended very near the target. (See Page 10 of Attachment 3)

In response to a question from Councilmember Thompson, Mr. McRae claimed that very few outages for gas are not associated with third party digs. He stated that many electric outages are weather related and recent outages have been caused by mylar balloons getting caught in power lines. He added that device failures also cause outages and staff is reviewing ways to monitor inspections, such as if the frequency of device inspections were accelerated, it could minimize the number of outages.

In response to a question from Councilmember Thompson, Mr. McRae replied that Mesa has not experienced any evidence of malicious activity.

Councilmember Whittaker inquired about the percentage of damage caused by mylar balloons and if it would be deemed feasible to make them illegal in the City. Mr. McRae mentioned that some states have proposed legislation to prevent mylar balloons, yet he has higher priorities to address at this time. He added that many of the balloon-related outages occur around holidays such as Valentine's Day, Easter, and graduation time. He said that Mesa has sent out a public service announcement on Channel 11 and worked with the power companies to publicize those announcements to make people more aware of the impact of those balloons when released. He said that he would need to research as to where that type of legislation has been passed and if it has been effective.

Mr. McRae announced a Smart City initiative is the Smart Grid technology that would provide the City with many benefits. He suggested that the principles or ambitions of a Smart Grid translate to the gas side as well, however, his focus is on the electric side. (See Page 11 of Attachment 3)

Mr. McRae emphasized that AMI smart meters would allow Mesa to connect to the customers in a way that was not possible in the past. He explained that the meters can gather information quickly and can dramatically improve the effectiveness and efficiency of responding to issues and provided an example. (See Page 12 of Attachment 3)

Councilmember Whittaker inquired about the AMI smart meters and the capital cost and asked if each City department will leverage the same protocol technology to communicate to the backend server. Mr. McRae replied that more than a few departments are trying to leverage all the assets and technology infrastructure that the City owns. He clarified that the feasibility study identified ways to capitalize on the synergy of all the existing assets Mesa has and when the potential cost of the AMI project was reviewed, the communications cost was much less than anticipated due to taking advantage of the large amount of existing infrastructure.

Mr. McRae stated that Mesa is the beneficiary of some hydro-electric projects on the Colorado River that are operated by the federal government, and between them and the customer-owned solar program, Mesa is meeting about 19% of its annual energy requirements with renewable resources. He indicated that the largest percentage of the City's energy supply requirements is made up of five Request for Proposals (RFP) contracts, which are typically short-term from three to five (5) years. He reported that staff would return to Council with an integrated resource plan that spells out the intended ways to meet the energy resource requirements in the future. (See Page 13 of Attachment 3)

Mr. McRae mentioned that staff is in the final stages of an RFP for replacement of two of the contract components and has not received any proposed contracts from renewable resources. He added that if any other contracts are requested, staff would make them short-term in nature to pursue renewable resources when they expire. He noted that federal taxing incentives are set to expire this year and an RFP will be issued in early summer to give those renewable resource projects an opportunity to take advantage of those tax incentives and help Mesa meet its energy requirements with renewables. He provided a schedule of the current plan of replacing existing contracts. (See Pages 14 and 15 of Attachment 3)

Mr. McRae discussed the customer-owned solar program that is nearing one megawatt of customer-owned solar capacity. He claimed the customer demographics make it challenging for Mesa customers to own and invest in solar. He explained that AMI meters will help automate a process that is currently done manually, to manage the data associated with customer production of solar energy, how it offsets their consumption, and how that excess energy is valued when it comes into Mesa's system. (See Page 16 of Attachment 3)

Mr. McRae highlighted the unique aspects of the electric and gas enterprises. He defined the electric energy cost adjustment factor (EECAF) as a rate component that allows the City to recover the cost of its electric energy and transmission cost. He pointed out that adjusting the EECAF as frequently as monthly, allows the small rate increases to be offset by the cost decreases. He noted the trend that the City's electric bills have declined over time, even though its rates have increased, making its utility enterprise more sustainable. He conservatively projected seeing increases in electric costs over time and pointed out that the City has not adjusted non-residential customer non-EECAF portion of rates since 2005. He noted that the City started increasing residential non-EECAF portion of the rates in 2015, yet over time, all customer electric rates have gone down. (See Pages 17 of Attachment 3)

Mr. McRae explained the gas side had reductions in cost, referred to as the purchase natural gas cost adjustment factor (PNGCAF). He reviewed the chart and noted the trend that customer costs are going down or staying flat. (See Page 18 of Attachment 3)

Mr. Petrof reviewed the recent financial results on the electric side for FY 18/19 and stated revenue-wise, the consumption is similar to FY 17/18. He reported lower operating expenditures and said the debt service refunding on the water side is being recognized to improve net income. He pointed out the decreases in energy supply costs are trending down results in bill savings to customers. (See Page 19 of Attachment 3)

Mr. Petrof reported the financials for the gas side (See Page 20 of Attachment 3) and stated the cold winter caused revenues and consumption to go up, resulting in higher revenues opposed to last year. He added that operating expenditures are trending along with budget, and supply costs are higher due to the increased consumption.

Councilmember Thompson referred to the Master Meters and asked if the recent rule passed by the Arizona Corporation Commission (ACC) would impact Mesa. Mr. McRae estimated there to be 113 Master Meter systems in Mesa and the Magma Service Area. He expressed interest in identifying the most immediate safety risk, but believed the biggest threat is third party damage. He noted the systems have a tendency to have leaks that may go unidentified and he is trying to develop a proposal to help those systems identify the leaks, classify them and coordinate repair.

In response to a question from Councilmember Heredia, Mr. Brady replied that staff will come back to Council in a few weeks with more information on the AMI meter pilot project.

Councilmember Whittaker asked if Energy Resources had a schedule of the life cycle or replacement of equipment that is equivalent to that provided by Water Resources or is that considered irrelevant since there are no large capital investments. Mr. McRae replied that the City does not own any gas or power plants, so that part of the capital-intensive nature is delegated to a contracted party. He explained in terms of gas pipes, the City has regulatory requirements to monitor those systems and most replacement projects are done in conjunction with other City infrastructure, sometimes accelerated to coincide with multiple departments.

Mr. McRae stated that he knows the age of each piece of pipe, has a good handle on the condition of the system, anticipated replacement dates, and typically runs out 5-8 years with planning.

Discussion ensued about system maintenance and plans for replacements along the way.

Mayor Giles thanked staff for the presentation.

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

Mayor Giles: Wayne Pomeroy Funeral

Vice Mayor Freeman: Autism Certification Training

Councilmember Thompson: Mass Casualty Exercise at the Phoenix-Mesa Gateway Airport

Councilmember Luna: Ride Your Bike to Work Day

3. Scheduling of meetings and general information.

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

Tuesday, April 23, 2019, 6:00 p.m. – West Mesa Town Hall Meeting

Thursday, April 25, 2019, 7:30 a.m. – Study Session

4. Adjournment.

Without objection, the Study Session adjourned at 10:35 a.m.

ATTEST:


DEE ANN MICKELSEN, CITY CLERK




JOHN GILES, MAYOR

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 18th day of April 2019. I further certify that the meeting was duly called and held and that a quorum was present.


DEE ANN MICKELSEN, CITY CLERK

hm
(Attachments – 3)



ARIZONA WATER PROFESSIONALS



Operational Overview and Budget Discussion

April 18, 2019



Mission

Provide 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

170 square mile service area with a growing population of over 496,000

Connections

Water System – 157,000 residential and commercial connections
Wastewater Collection System – 127,000 residential and commercial connections

Water Resources

Community Safety
and Sustainable
Economy

Accomplishments

- Continue to meet over 100 state and federal water quality standards
- Opening and dedication of Signal Butte Water Treatment Plant – increasing Mesa's water treatment capacity by 24 MGD
- AZ Water Association 2019 Water Treatment Project of the Year – Signal Butte Water Treatment Plant
- Water and Wastes Digest 2018 Project of the Year – Signal Butte Water Treatment Plant
- PRSA Copper Anvil Award of Merit – Digital Water Quality Consumer Confidence Report
- MARCOM Platinum Award – Digital Water Quality Consumer Confidence Report
- \$44,200 grant from SRP/MIC for Know Your H2O Water Education Program
- Know Your H2O Water Bar eliminated over 30k water bottles from plastic waste at community events



Operational Efficiencies

- Recruiting and retaining highly qualified staff
- Succession planning
- Technology

Water Commodity

- Increasing costs
- Update on the Colorado River System

Infrastructure

- Rehabilitation of distribution and collection system
- Capacity expansion
- Reliability

Top Challenges

Measuring Success - Water

Water meter read error rate

- Target: Meter readers collectively will not exceed 4.0 errors per 10,000 reads per month
- Average: 5.7 errors per 10,000 reads per month

% of Groundwater pumped

- Target: 10.00% per month
- Average: 11.75% per month

of Leaks and breaks per 100 miles of pipe

- Target: 1.0 per month
- Average: 1.6 per month



Measuring Success - Wastewater

of miles of sewer lines cleaned

- Target: 26.0 per month
- Average: 19.8 per month

of miles sewer lines inspected

- Target: 20.0 per quarter
- Average: 60.5 per quarter

of Sanitary Sewer Overflows (SSO's)

- Target: 0.0 per quarter
- Average: 0.5 per quarter



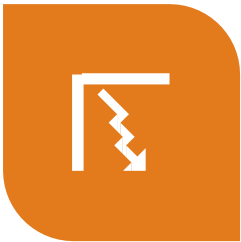
Advanced Metering Infrastructure (AMI)



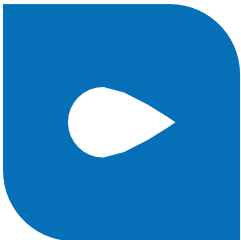
mesaaz
Smart City



TIMELY REPLACEMENT OF
INACCURATE METERS
IMPROVES REVENUE STABILITY



ADVANCED ANALYTICS HELP
IMPROVE SYSTEM
MANAGEMENT

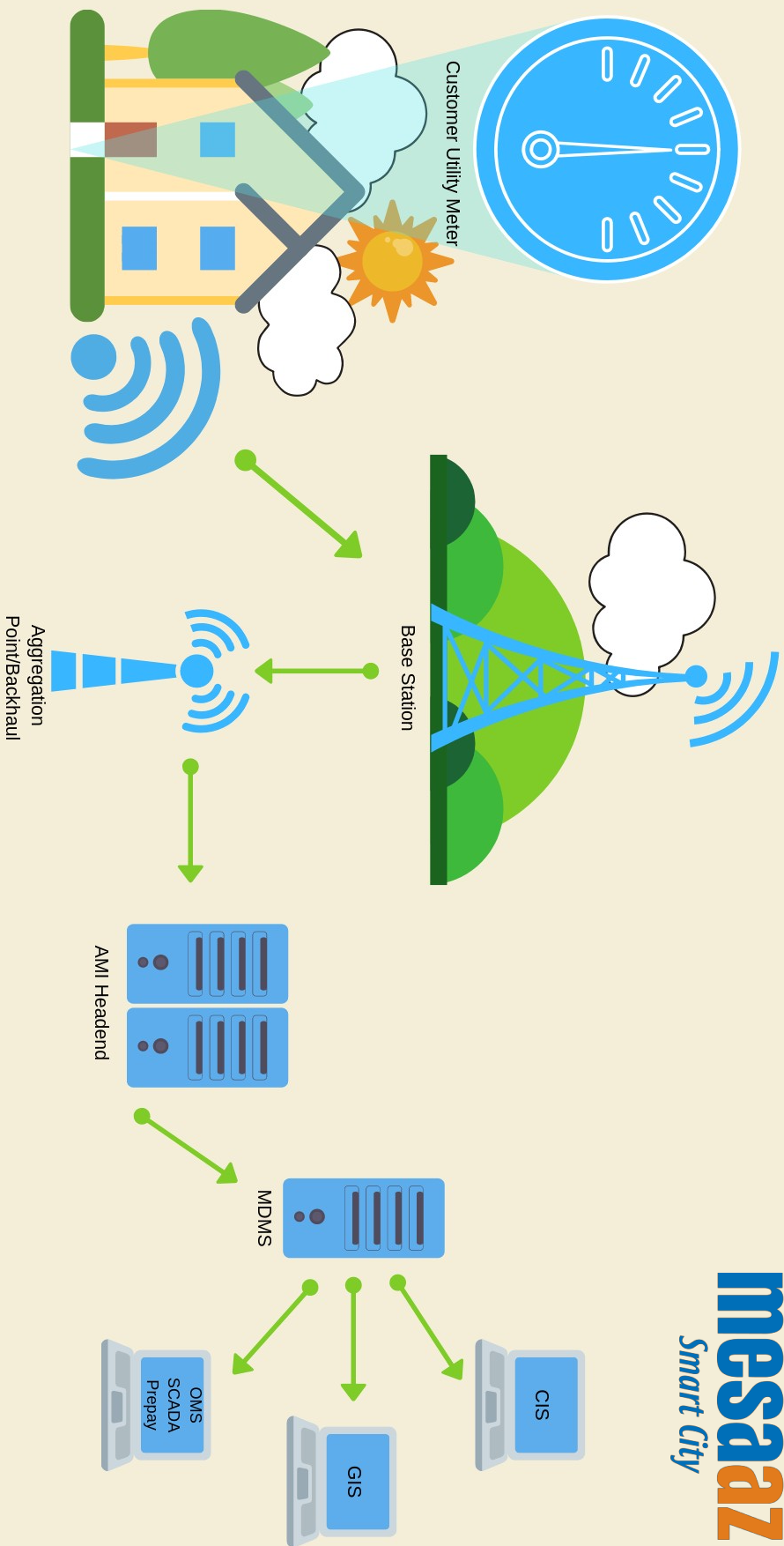


REDUCED WATER LEAKAGE
WITH EARLY DETECTION

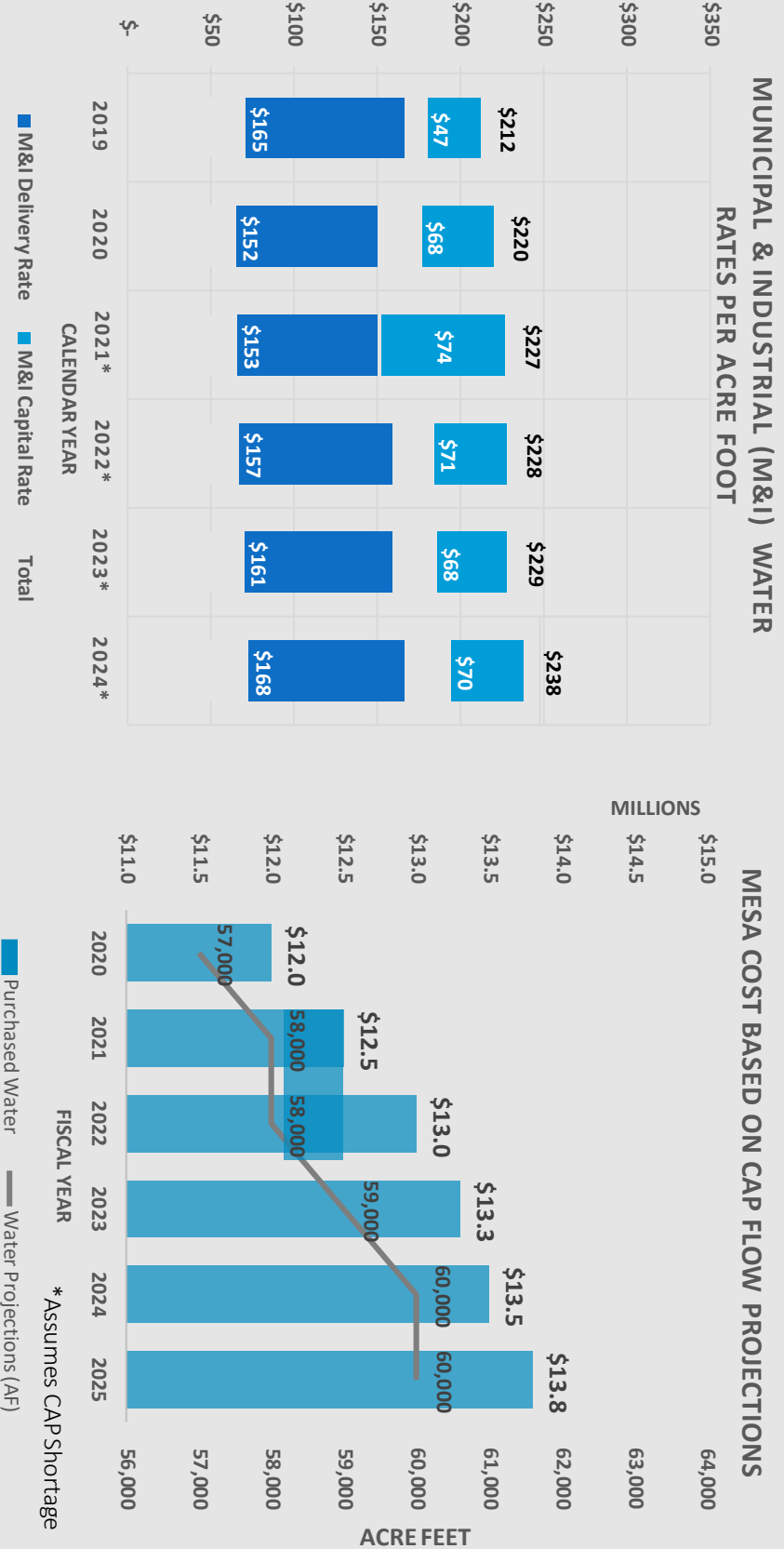


IMPROVES CUSTOMER
EXPERIENCE AND
ENGAGEMENT

Advanced Metering Infrastructure (AMI)



Water Commodity Costs – Central Arizona Project



Water Commodity Costs - SRP

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

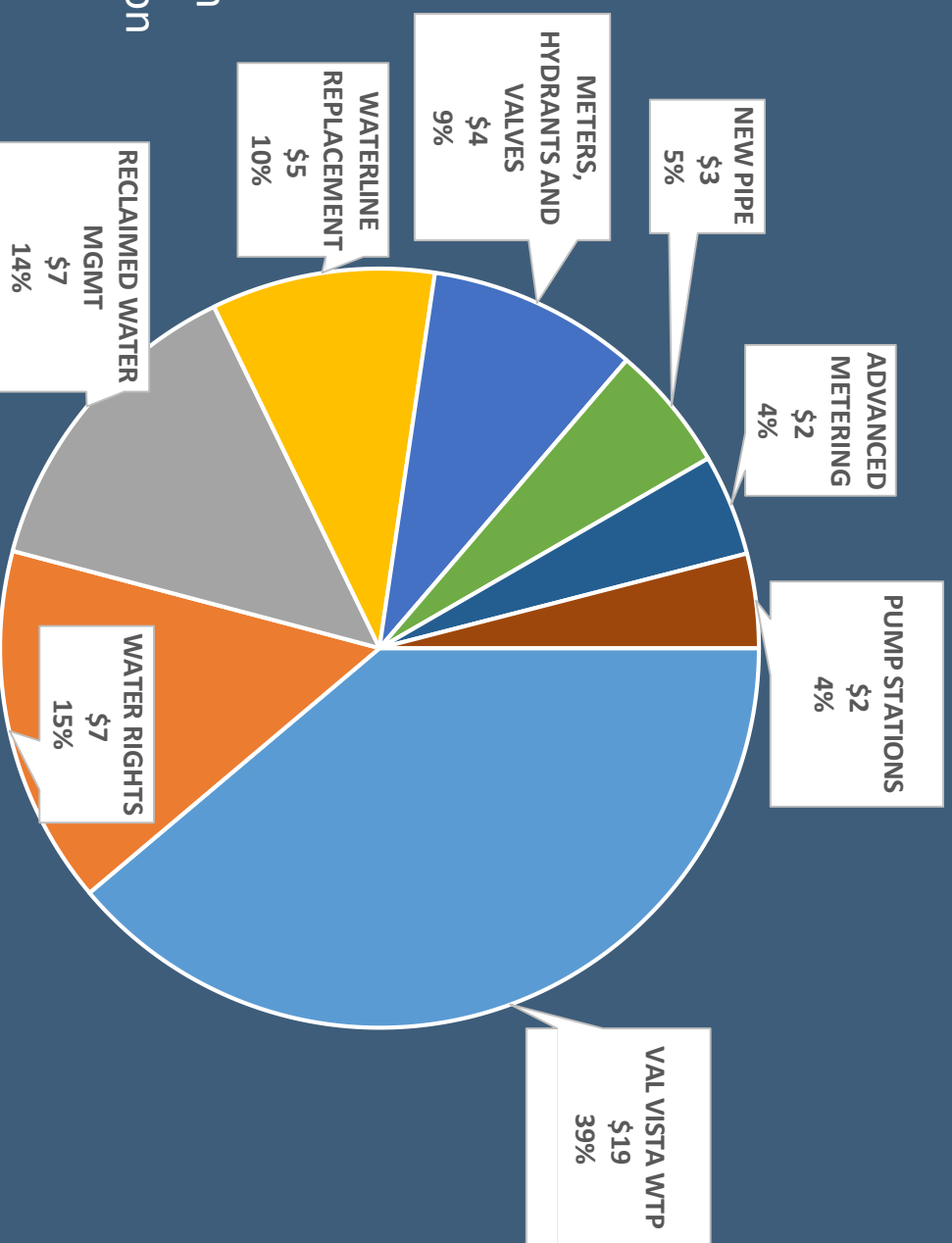




Update on Colorado River System

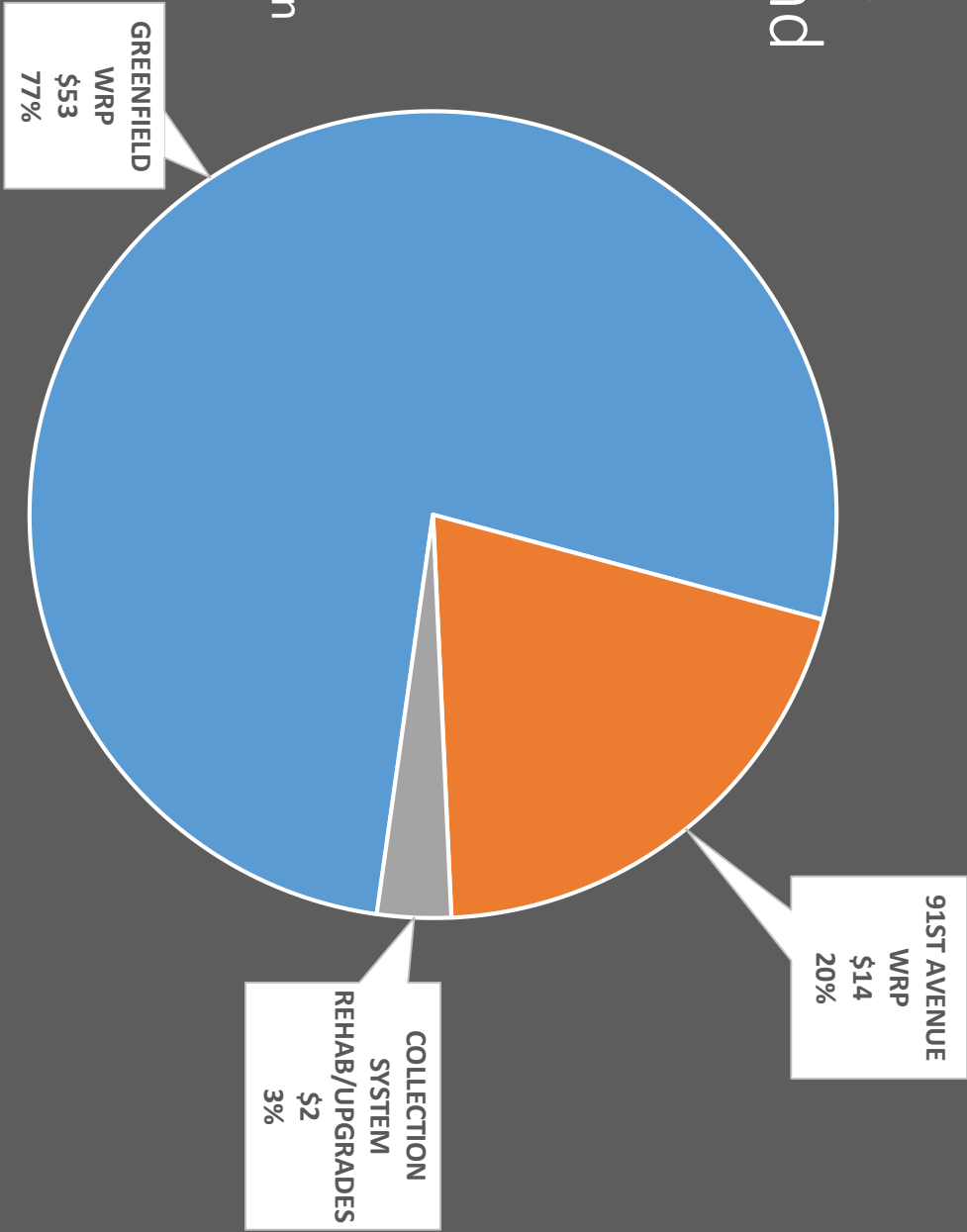
Remaining 2014 Water Bond Authorization (millions)

Authorization: \$316 million
Current CIP Plan: \$49 million



Remaining 2014 Wastewater Bond Authorization (millions)

Authorization: \$178 million
Current CIP Plan: \$69 million





Headworks

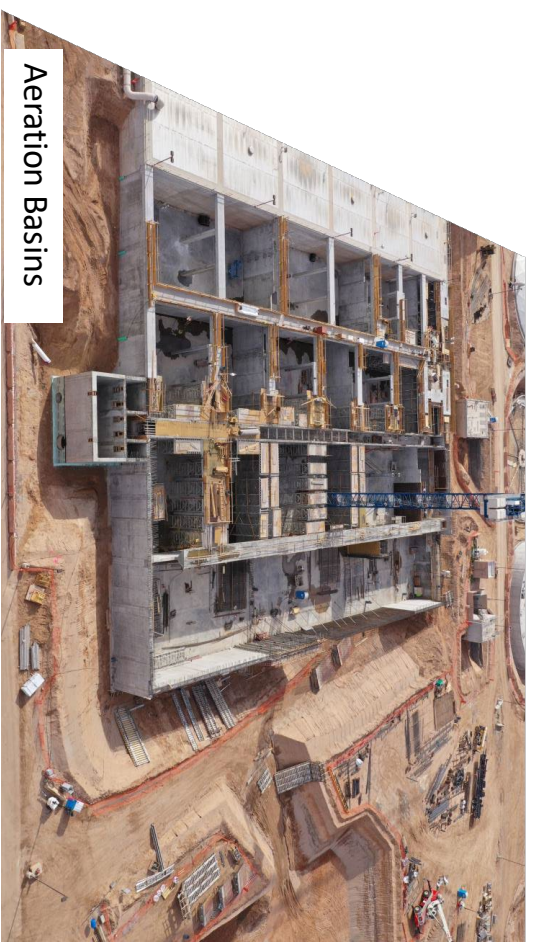


Digesters

Greenfield Water Reclamation Expansion – Phase III



Secondary Clarifiers



Aeration Basins

Future Capital Needs



Infrastructure
Replacement



Reclaimed Water
Management – GRIC
Exchange



Collection System
Rehabilitation



Water Reclamation
Plants Expansion and
Rehabilitation



Signal Butte Water
Treatment Plant
Expansion Phase II

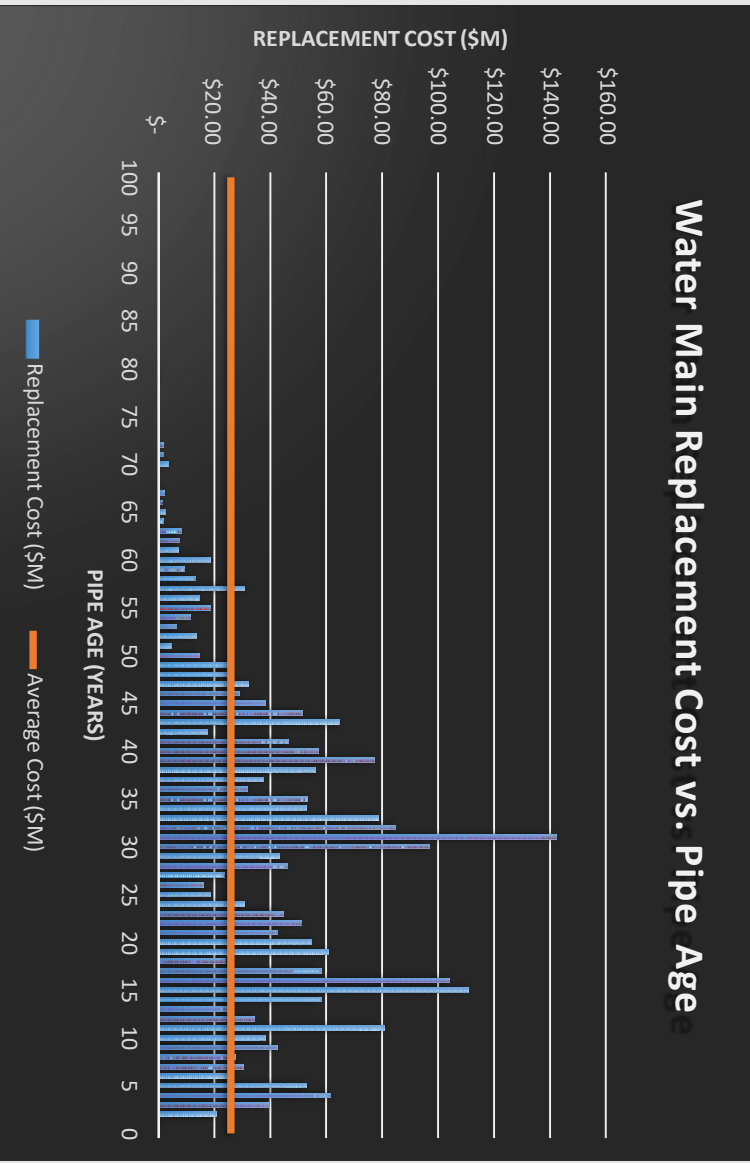


Advanced Metering
Infrastructure (AMI)

Water Main Replacement and Rehabilitation Program

Water Lifecycle Program

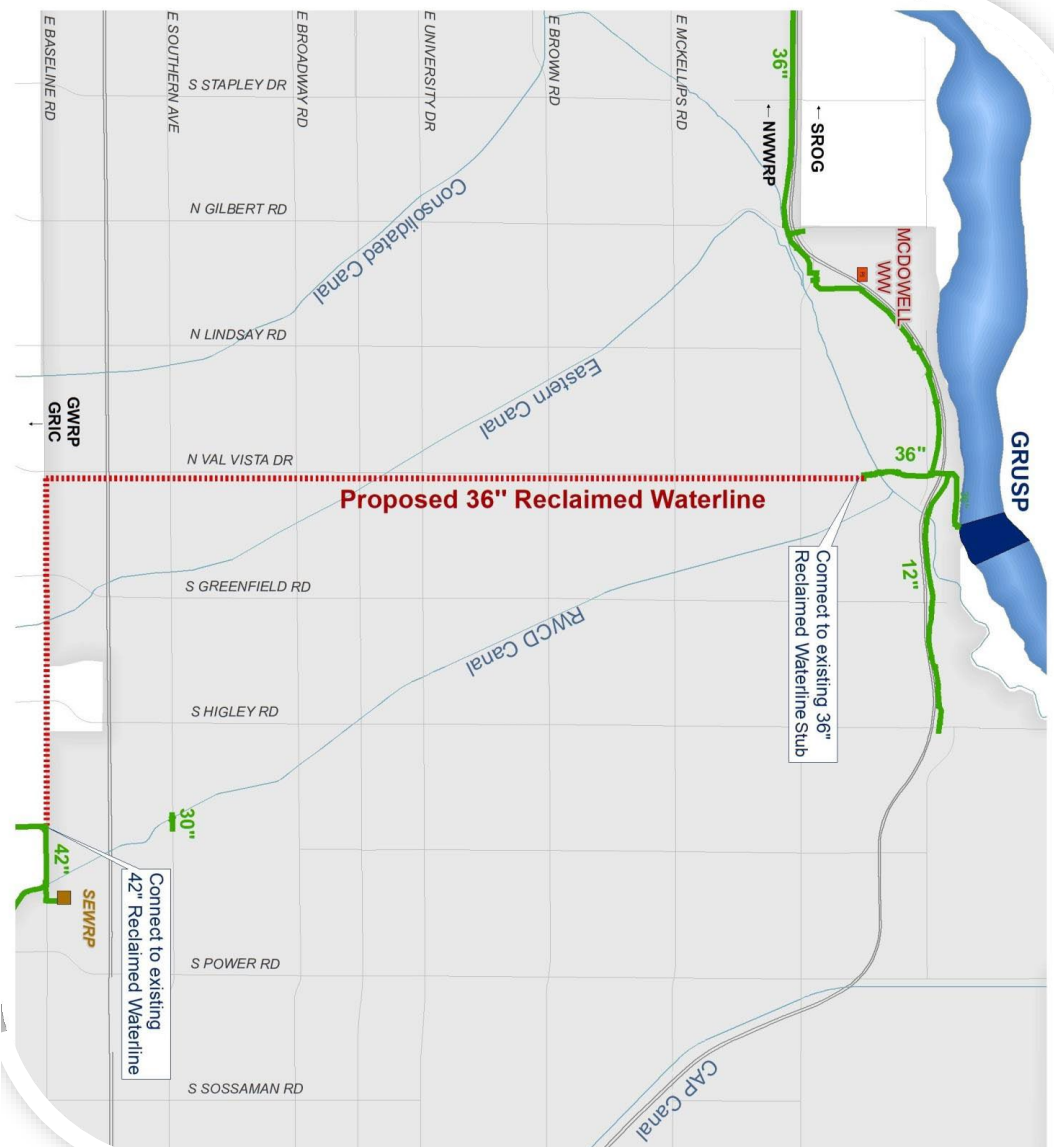
- Replace infrastructure to avoid service disruption
- Need \$26M annually for 50-year service life
- Risks and Concerns:
 - Averaged \$3.6M per year for replacement over last three fiscal years
 - Remaining 2014 Bond Dollars for Replacement: Less than \$10M



Reclaimed Water Management (GRIC Exchange)

Water Customer Service Demand Southeast Mesa

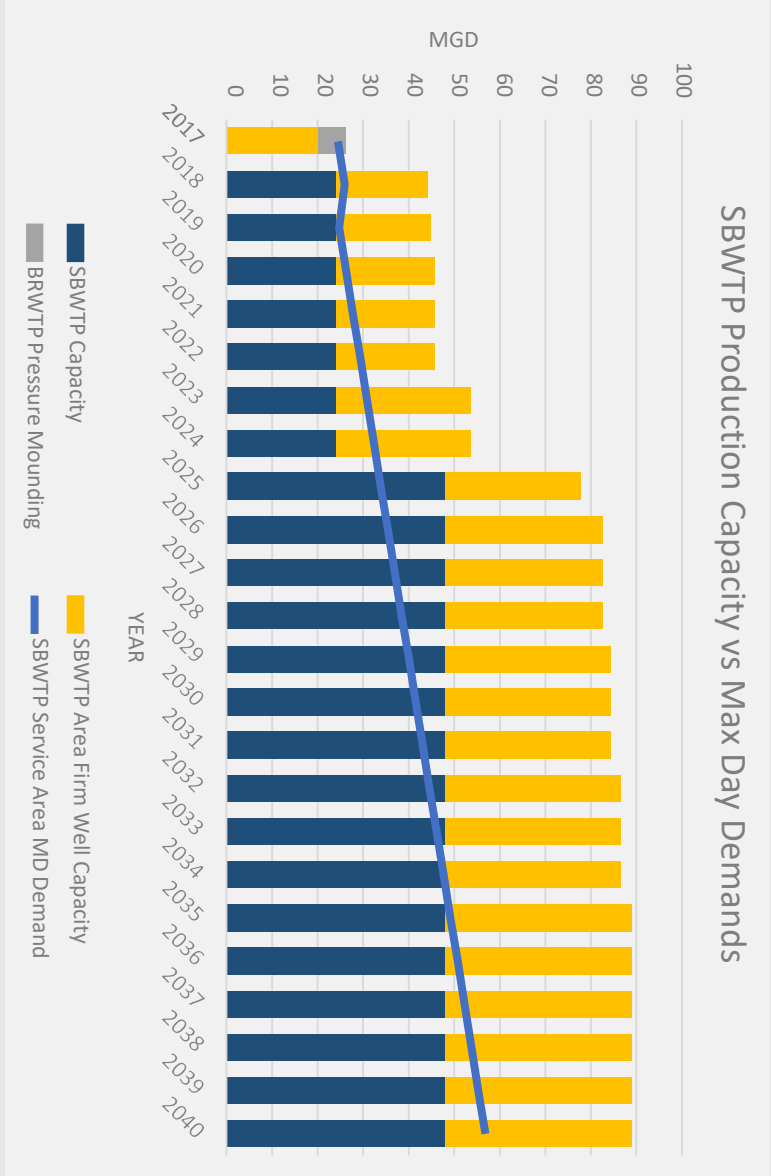
- Total Projected Cost: \$66M
 - \$2M (Alignment Study)
 - \$5M (Design – if approved)
 - \$59M (Construction)
- Project Timeline:
 - Alignment Study: 2019
 - Design Initiation: 2021
 - Projected Start: 2022
 - Projected Completion: 2024
- Significant Issues:
 - Obtaining right-of-way
 - Lengthy construction
 - Traffic restrictions



Signal Butte Water Treatment Plant Expansion Phase II

Water Customer Service Demand Southeast Mesa

- Increase SBWTP Capacity to 48MGD
- Based on existing development trend, demand could be higher
- Projected Cost: \$90M
- Project Initiation: 2021
- Projected Completion: 2025



Collection System Rehabilitation

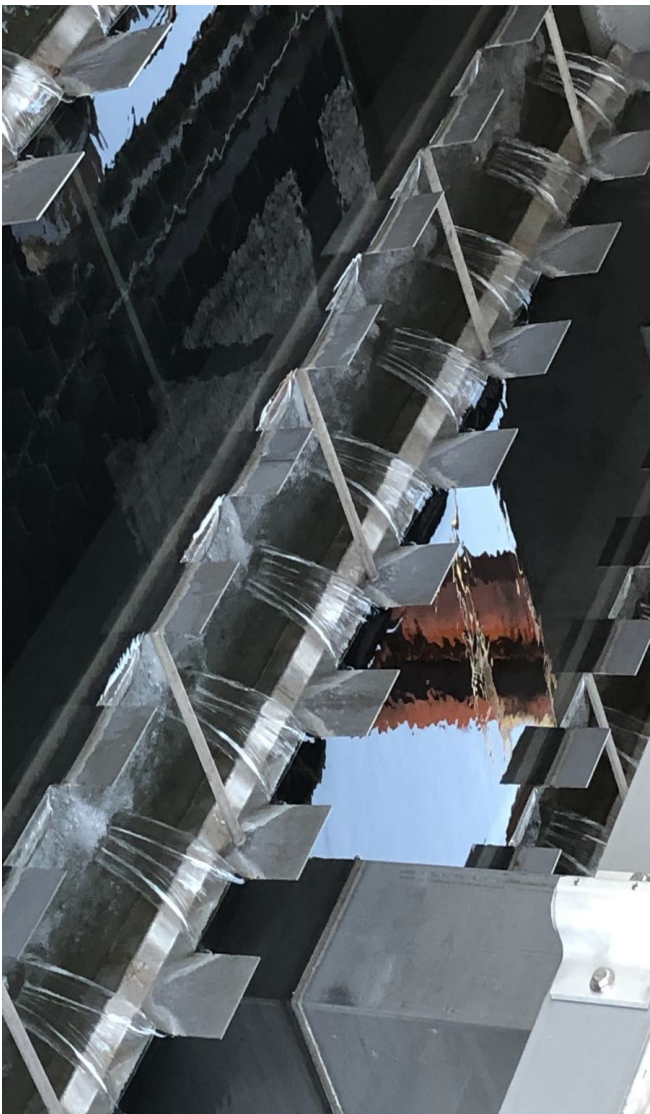
- **Sewer Line Rehab**
- Address aging sewer mains at the end of their useful life
- Annual, ongoing program
- Correct structural deficiencies which could block or overflow sewers
- Manhole Rehabilitation Program
- Proposed expansion of regional sewer interceptors



Water Reclamation Plant Rehabilitation/ Improvements

- 91st Ave/SROG Joint Venture
- Northwest Water Reclamation Plant
- Southeast Water Reclamation Plant
- Greenfield Water Reclamation Plant





Water Significant Budget Changes FY19/20

- Increased Debt Service Costs **+\$3.9M**
- Water Commodity **+\$1.0M** (CAP/SRP)
- Val Vista WTP Obligation **+\$600k**
- Chemicals **+\$200k**

Water

Proposed Budget FY19/20

Ongoing Cost:

- 2 FTE Field Workers II - Water Distribution **\$159k**

One-time Cost:

- 2 Vehicles - Water Distribution Positions **\$102k**





Wastewater Significant Budget Changes FY 19/20

- Increased Debt Service Costs **+\$600k**
- 91st Avenue WRP Obligation **+\$450k**
- Greenfield WRP Joint Venture Obligations **-\$375k** (Mesa share)

Wastewater

Proposed Budget FY19/20

One-time Cost:

- Aeration Basin Mixers Overhaul - Greenfield Joint Venture **\$250k**
- Mesa's Cost Share **\$105k**



Financial Overview



WATER				
	FY 17/18 Actuals	FY 18/19 Revised Budget	FY 18/19 Projected	FY 19/20 Proposed Budget
Sources of Funding				
Residential Rate Related Revenues	\$94,175,245	\$97,851,546	\$87,493,383	\$91,059,668
Non-Residential Rate Related Revenues	\$48,573,656	\$49,218,563	\$58,919,400	\$61,019,599
Other Revenues	\$6,655,818	\$4,407,900	\$4,393,923	\$4,426,023
Total Sources	\$149,404,720	\$151,478,009	\$150,806,706	\$156,505,290
Uses of Funding				
Operating Expenditures	\$43,219,565	\$52,692,786	\$51,160,062	\$55,381,652
Project Costs	\$111,757	\$542,255	\$535,772	\$74,600
General Fund Transfer	\$54,965,073	\$55,951,500	\$55,951,500	\$57,090,063
Debt Service Transfer	\$32,215,854	\$36,297,812	\$31,617,463	\$40,159,224
Lifecycle/ Infrastructure Transfers	\$2,975,380	\$2,948,324	\$3,016,134	\$3,126,956
Capital Transfer	\$1,080,000	\$187,340	\$187,340	\$257,752
Economic Investment Fund Transfer	\$2,813,482	\$6,310,840	\$5,592,628	\$1,400,288
Total Uses	\$137,381,112	\$154,930,857	\$148,060,899	\$157,490,535
Net Sources and Uses	\$12,023,608	(\$3,452,848)	\$2,745,807	(\$985,245)

Financial Overview



WASTEWATER

	FY 17/18 Actuals	FY 18/19 Revised Budget	FY 18/19 Projected	FY 19/20 Proposed Budget
Sources of Funding				
Residential Rate Related Revenues	\$43,593,435	\$45,572,684	\$46,296,273	\$46,762,462
Non-Residential Rate Related Revenues	\$36,589,563	\$36,688,094	\$36,967,686	\$38,355,790
Other Revenues	\$2,560,615	\$2,773,004	\$2,651,396	\$2,773,000
Total Sources	\$82,743,613	\$85,033,782	\$85,915,355	\$87,891,252
Uses of Funding				
Operating Expenditures	\$24,738,532	\$27,418,510	\$26,841,052	\$27,376,811
Project Costs	\$119,537	\$525,342	\$525,342	\$44,200
General Fund Transfer	\$15,470,049	\$15,747,681	\$15,747,681	\$16,068,132
Debt Service Transfer	\$37,583,902	\$39,780,589	\$35,755,192	\$40,377,555
Lifecycle/ Infrastructure Transfers	\$1,652,790	\$1,707,208	\$1,718,307	\$1,757,825
Capital Transfer	\$239,000	\$199,787	\$199,787	\$250,905
Economic Investment Fund Transfer	\$560,108	\$1,120,215	\$1,120,215	\$0
Total Uses	\$80,363,917	\$86,499,332	\$81,907,576	\$85,875,428
Net Sources and Uses	\$2,379,695	(\$1,465,550)	\$4,007,779	\$2,015,824



Questions?

Environmental Management & Sustainability Department

Budget Presentation
April 18, 2019

Presented by:
Scott Bouchie
Environmental Management & Sustainability Dept. Director

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.



Serving Our Community

Council Strategic Priority

Our Programs & Services

Community Safety

- Storm Water Quality
- Air Quality
- Storage Tanks
- Asbestos & Lead Abatement
- Employee Safety Training & Education

Transforming Neighborhoods

- Hazardous Materials Facility
- Recycling Education & Outreach
- Barrel, Bin & Roll Off Trash, Recycle and Green Waste Collection
- Neighborhood Clean-Up, Bulk-Item, Appliance Pick-Up

Sustainable Economy

- Energy Conservation
- Renewable Energy
- Sustainability Education & Outreach

Top Performance Measures



Household Hazardous Materials Facility
Customers & Waste Collected



Recycle Blue Barrel Diversion Rate



Commercial Customer Retention &
Growth

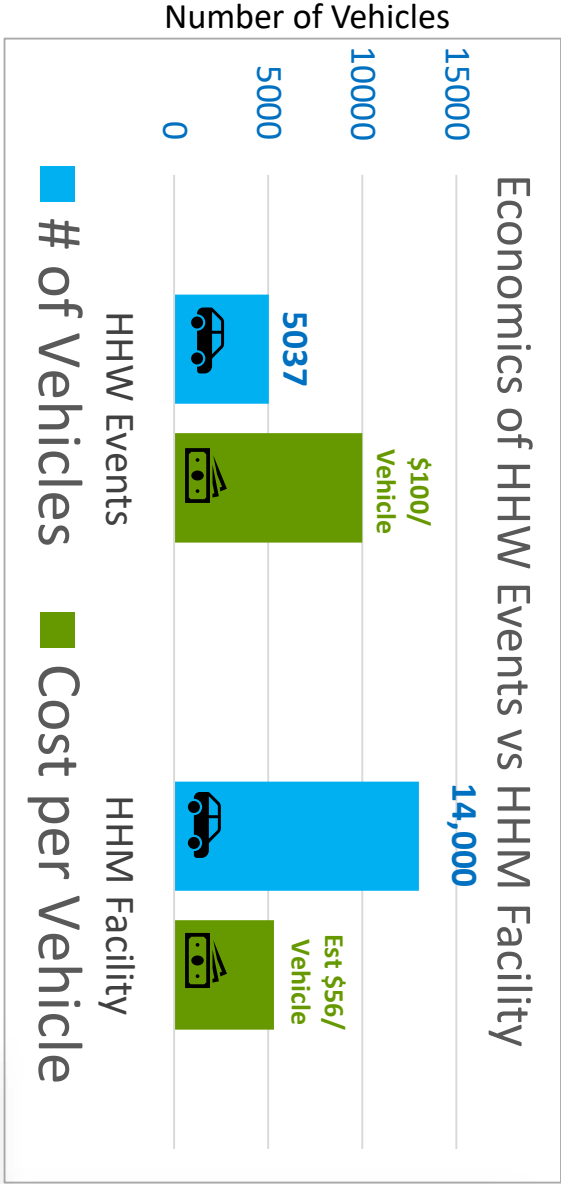


Renewable Energy & Energy Efficiency

Household Hazardous Material Facility

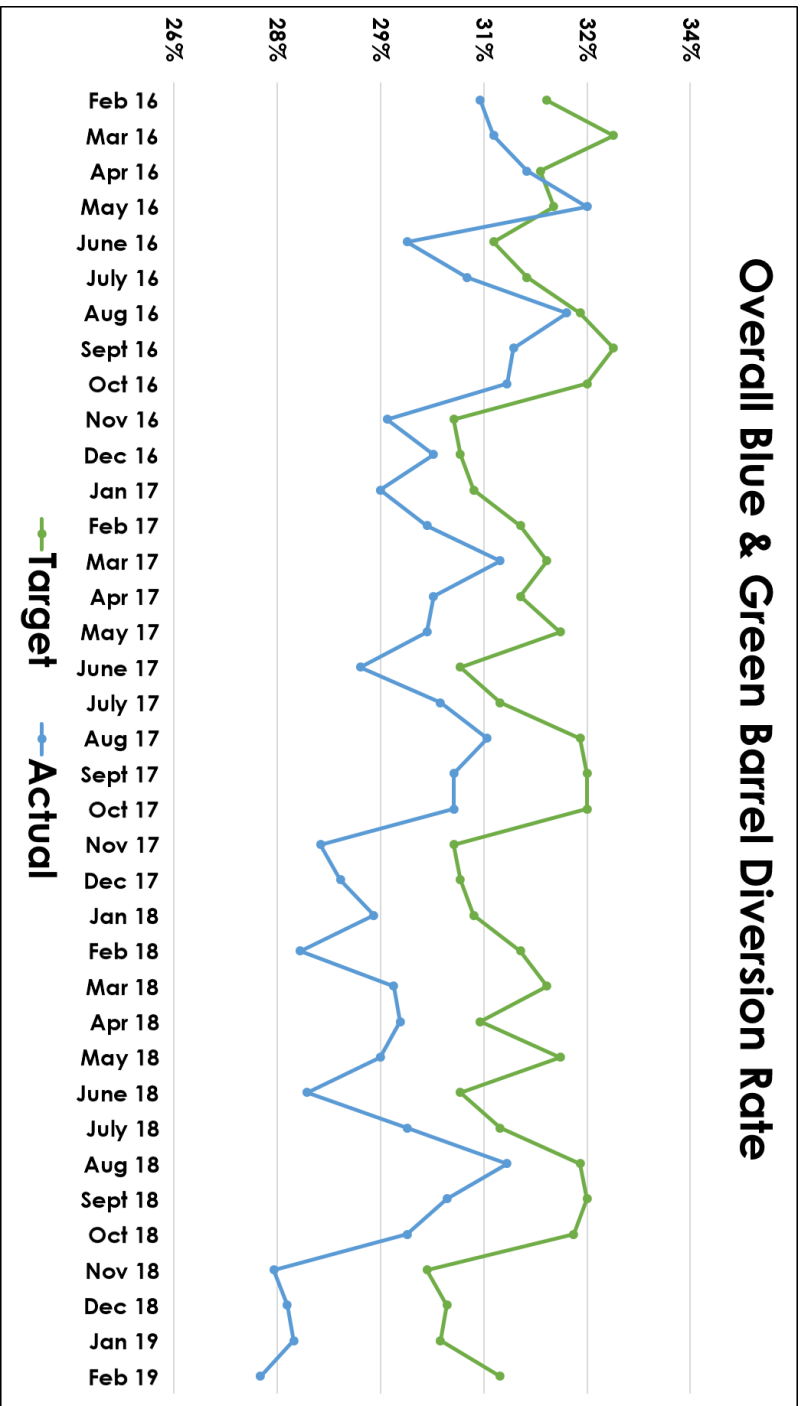


Household Hazardous Material

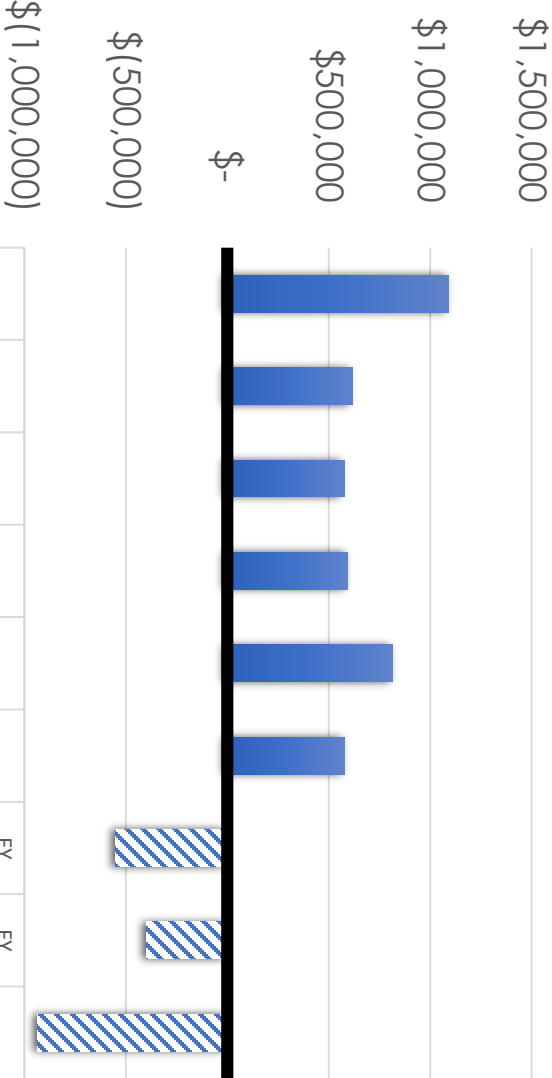


- Improved customer service – 2.5 times more people than events
- Opportunity for reuse and recycling of Materials rather than disposal
- ~30% material is picked up by residents in Swap Shop





Recycling Revenue

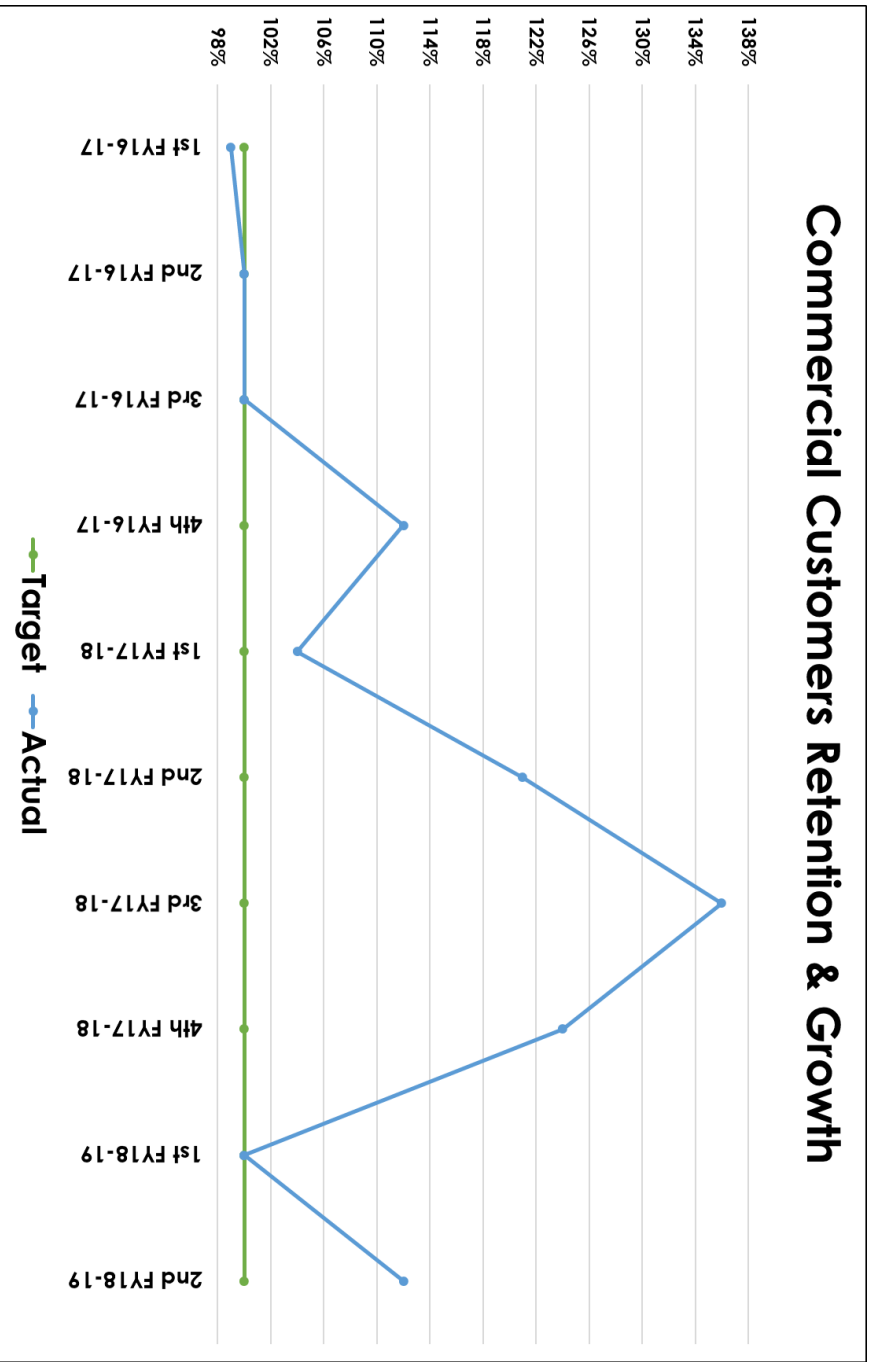


■ Commingled Recycling Revenue	FY 12/13	FY 13/14	FY 14/15	FY 15/16	FY 16/17	FY 17/18	FY 18/19 Original Forecast	FY 18/19 Updated Forecast	FY 19/20 Forecast
	\$1,090,000	\$616,710	\$574,420	\$594,280	\$815,480	\$577,950	\$(551,000)	\$(400,000)	\$(935,000)

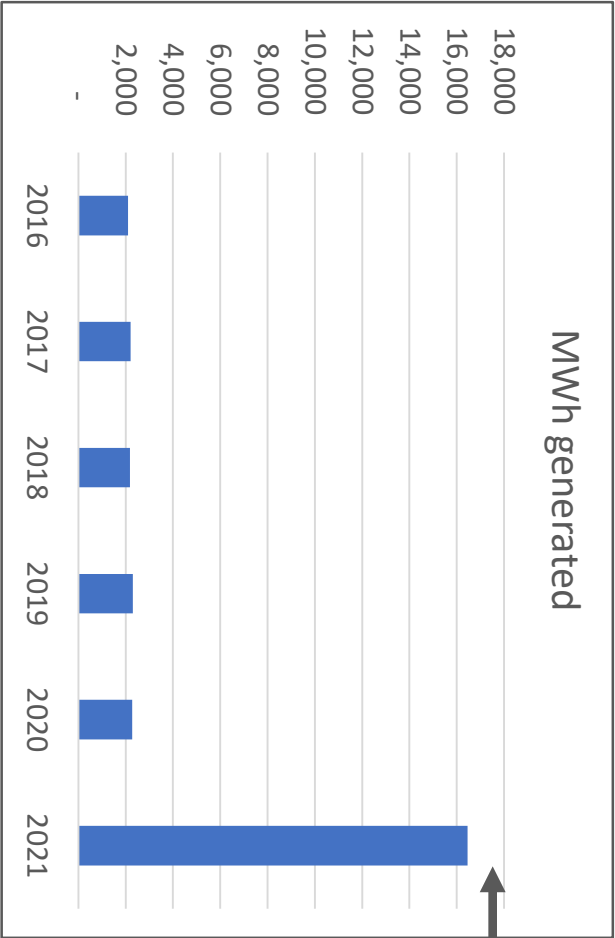
Recycling Challenges

- Recycling Market Risk Increases
- Revenue to Expense for Recycling
- Community Recycling Centers





Renewable Energy



SRP Utility-scale solar, Sustainable Energy Purchase begins

~13% of the energy consumed by City Facilities will be renewable solar energy

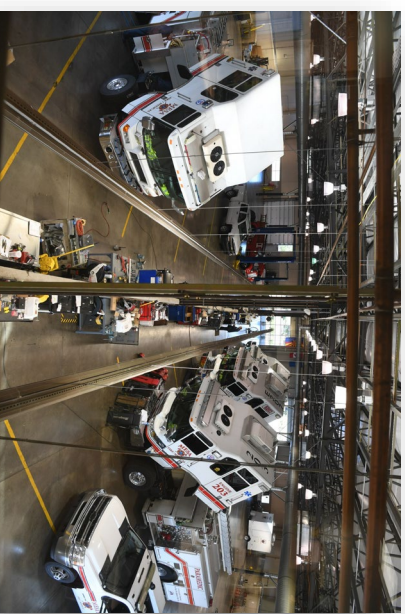
Performance Measure:

kWh generated from renewable energy sources

- \$41,000 savings in 2018 (2,200 MWh)
- Equivalent to removing 350 vehicles driven 1 year

Energy Efficiency Investments

- Major projects completed
 - kWh saved – 686,600 kWh
 - \$ costs avoided – \$57,000
- FY 18/19 SRP Rebates – \$23,000
- Projects on the boards for FY 19/20



Energy Efficiency

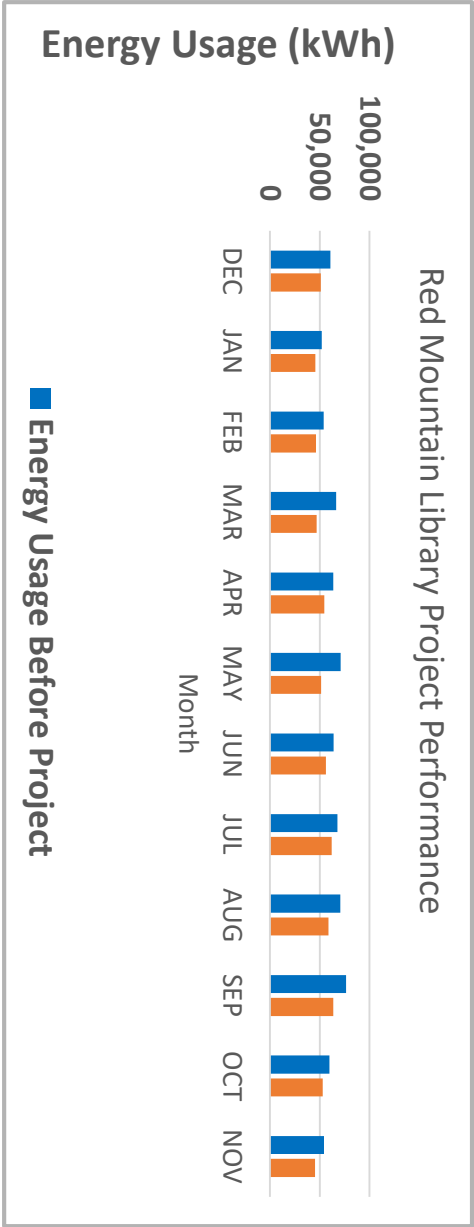


Smart Cities Initiative: Facility Automation

- Realize Cost Savings
- Increase Energy Efficiency
- Optimize Equipment Performance
- Improve Work Environment

Red Mountain Library:

Energy Management System Installation Results – 16.7% annual energy savings (ongoing)



Food to Energy



Smart Cities & ImagineMesa Initiative

- Feasibility study through September 2019
 - Technical
 - Operational
 - Financial
- Fleet now powered by renewable natural gas (RNG)
- Federal legislative challenges



Program Updates

Bulk Item Collection

- ✓ Served additional 900 customers
- ✓ Wait times reduced
- ✓ 84% of available hauls utilized



Neighborhood Clean-Up

- ✓ Partner with other departments



Budget

SOLID WASTE

	FY 17/18 Actuals	FY 18/19 Revised Budget	FY 18/19 Projected	FY 19/20 Proposed Budget
Sources of Funding				
Revenues	\$60,688,185	\$61,691,549	\$62,139,201	\$63,256,335
Uses of Funding				
Operating Expenditures	\$33,339,954	\$36,495,070	\$36,551,787	\$37,699,181
Project Costs	\$99,543	\$487,911	\$487,911	\$68,800
General Fund Transfer	\$21,431,000	\$21,815,610	\$21,815,610	\$22,259,538
Debt Service Transfer	\$329,176	\$412,660	\$117,228	\$715,804
Lifecycle/ Infrastructure Transfers	\$1,213,134	\$1,247,668	\$1,242,784	\$1,265,127
Capital Transfer	\$1,630,000	\$2,126,402	\$2,126,402	\$2,073,583
Total Uses	\$58,042,807	\$62,585,321	\$62,341,722	\$64,082,033
Net Sources and Uses	\$2,645,377	(\$893,772)	(\$202,521)	(\$825,698)

Environmental Management & Sustainability Department

Questions?



ENERGY RESOURCES DEPARTMENT

FY 19/20 BUDGET REVIEW

PROVIDE

SAFE, RELIABLE & ECONOMICAL

ELECTRIC & NATURAL GAS

UTILITY SERVICES

TO OUR CUSTOMERS

Frank McRae
John Petrof

STRATEGIC PRIORITY ALIGNMENT

	COMMUNITY SAFETY	SUSTAINABLE ECONOMY	TRANSFORM NEIGHBORHOODS	PLACE-MAKING
SAFETY	X	X	X	
RELIABILITY	X	X	X	X
ECONOMICS		X	X	X



2017-2020 Platinum Level

2017-2020 Silver

PROPOSED FY 19/20 BUDGET

- No material changes unique to the Energy Resources Department.
- Funding system expansions to meet customer growth with a combination of contributions from customers and bonds.
- Supplementing our crews with contractors and temporary employees where effective.
- Compensation – recruiting and retention of qualified employees is critical to meeting the challenges and capitalizing on the opportunities for innovation and technology.



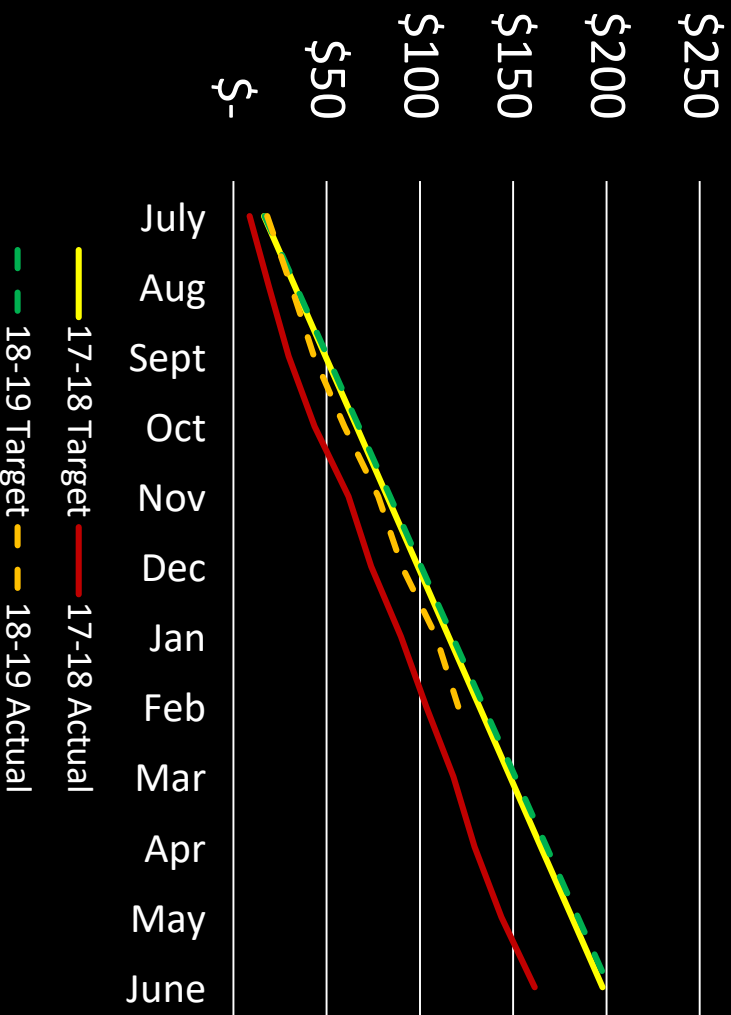
HIGHLIGHTED

PROGRAMS/PROJECTS

- SEA – Summer Energy Assistance Program (Electric Low Income)
- Small Business Assistance Program (Downtown)
- Electric Economic Development Rate
- Enhanced Employee Training
 - Succession Planning
 - Safety – Technology for Inspections (IR Cameras)
 - System Integrity (Corrosion Control)
 - Operations & Maintenance (CNG station)
- Vehicle & Equipment Replacements

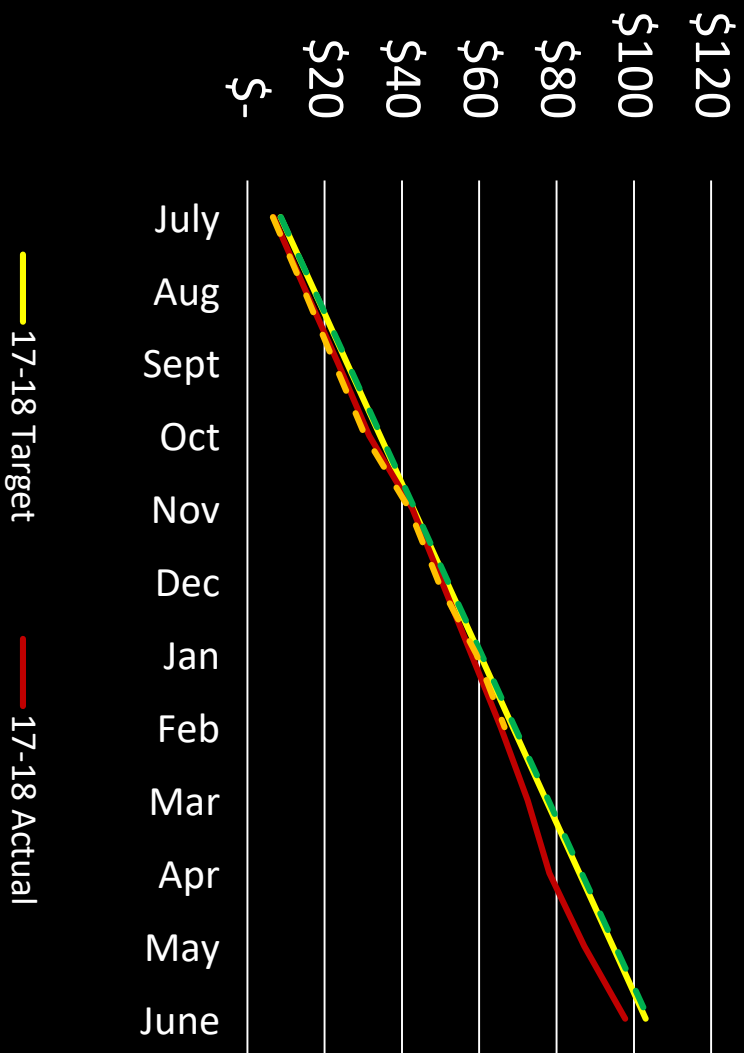


ELECTRIC O&M PER CUSTOMER



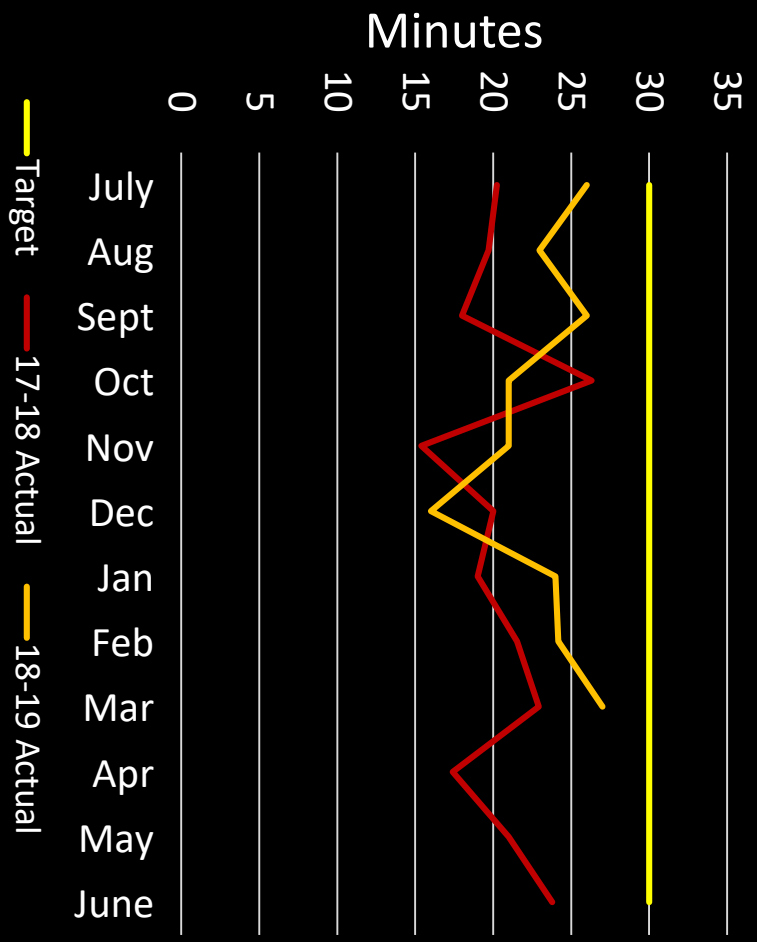
- Measure of efficiency
- Target is based on prior year budgeted expenditures and forecasted customers
- Direct labor, materials & equipment
 - T&D Ops & Maint
 - Substation Ops & Maint
 - Meter Ops & Maint

GAS O&M PER CUSTOMER

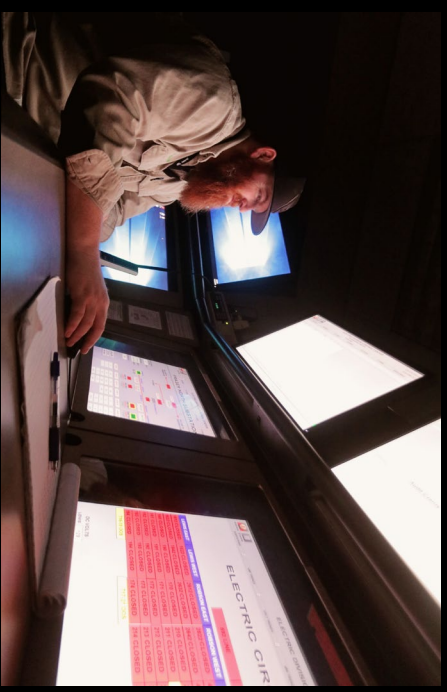


- Measure of efficiency
- Target is based on prior year budgeted expenditures and forecasted customers
- Direct labor, materials & equipment
 - System Ops & Maint
 - Emergency Response
 - Meter Ops & Maint
 - Regulatory Compliance
 - Utility Locating
 - Property Damages

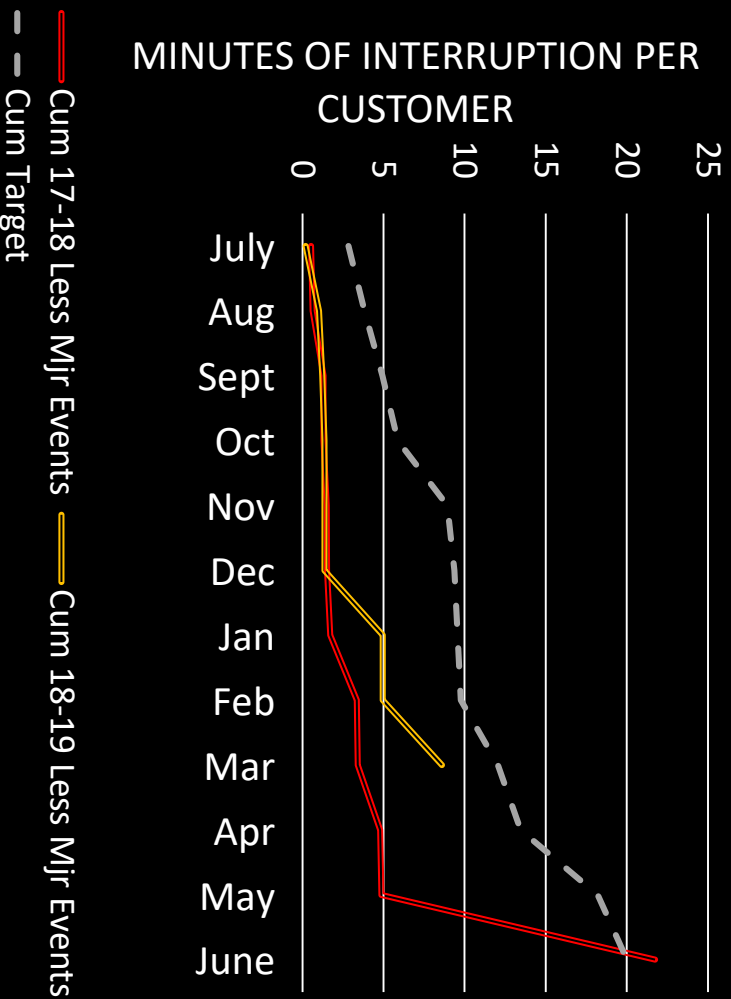
AVERAGE RESPONSE TIME-ELECTRIC



- Measure of safety & reliability
- Time taken to respond to a customer call for emergencies or interruptions of service
- Number of calls in most recent 12 months - 456



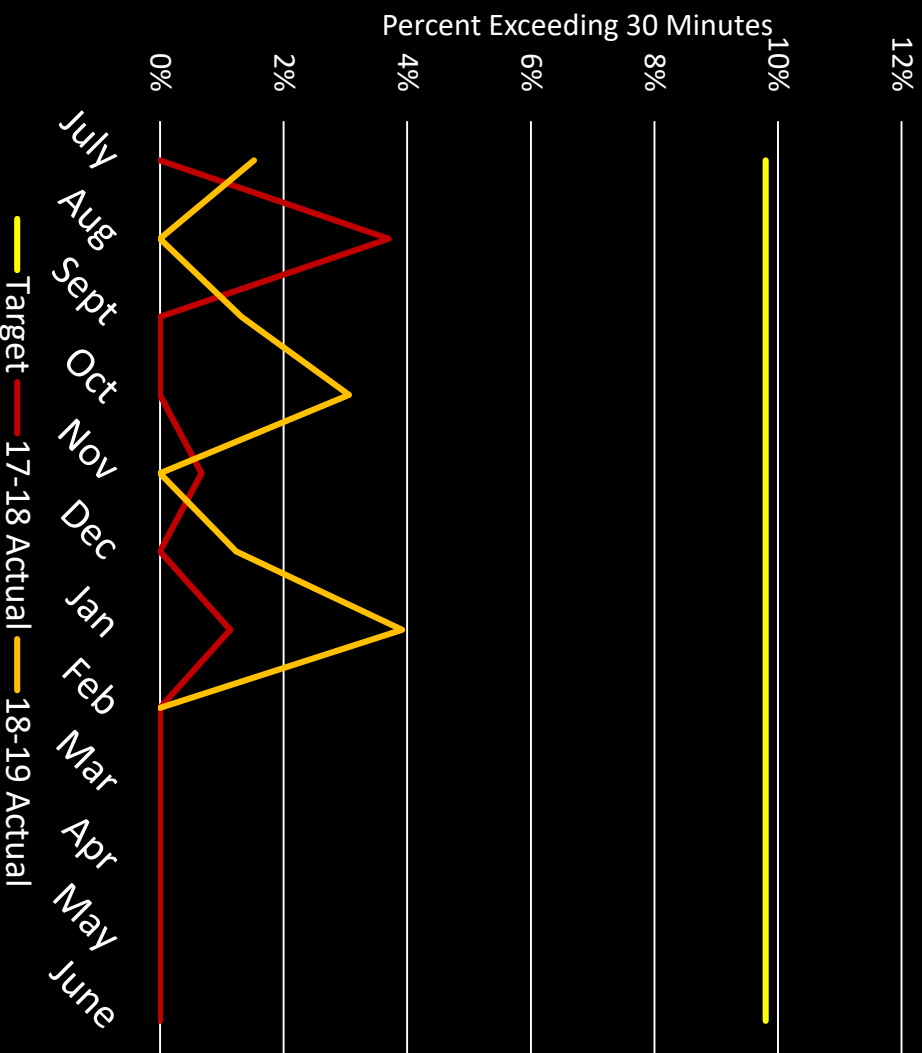
ELECTRIC RELIABILITY DURATION OF OUTAGES (CUMULATIVE)



- Measure of reliability of service
- SAIDI
- Target for 19/20 adjusted to promote continuous improvement
- All months and associated events where targets are exceeded are thoroughly assessed and root causes for extended outages are identified and remedies developed and implemented

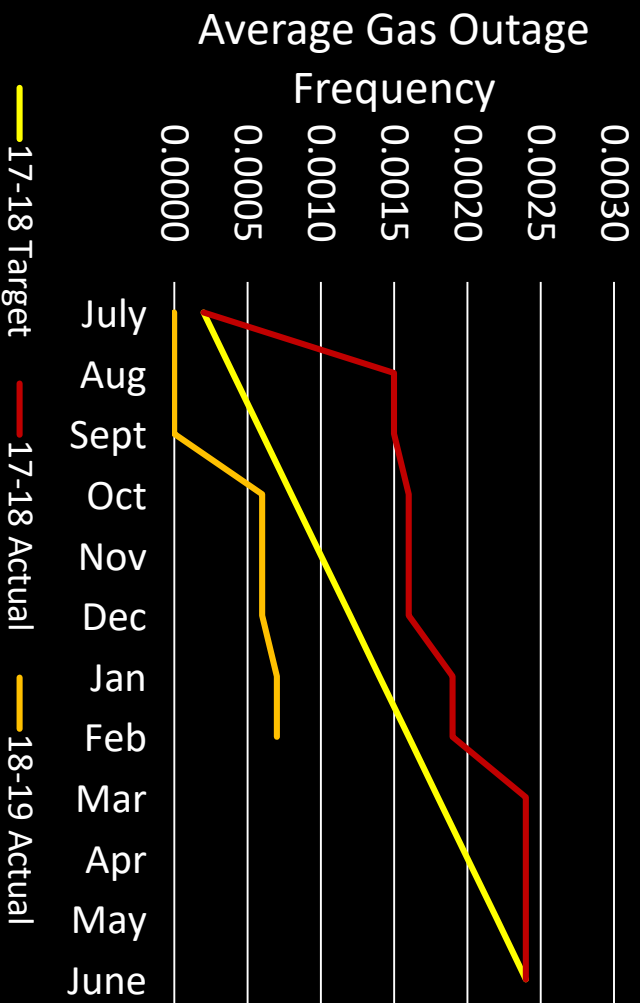
EMERGENCY RESPONSE MESA-GAS

- Measure of safety & reliability
- Time taken to respond to a customer call for emergencies or interruptions of service
- Number of calls in most recent 12 months 1,240

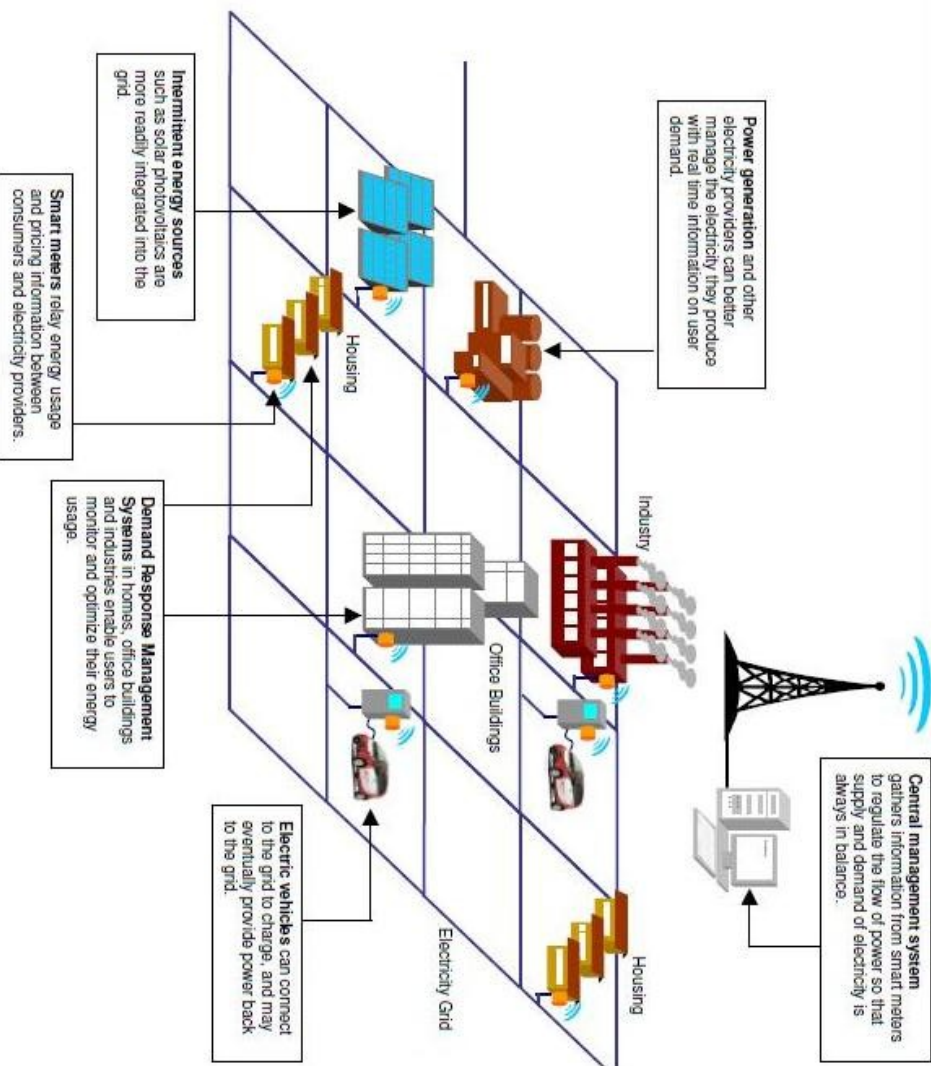


GAS RELIABILITY

FREQUENCY OF OUTAGES (CUMULATIVE)



- Measure of reliability of service
- SAIFI
- All months and associated events where targets are exceeded are thoroughly assessed and root causes for extended outages are identified and remedies developed and implemented

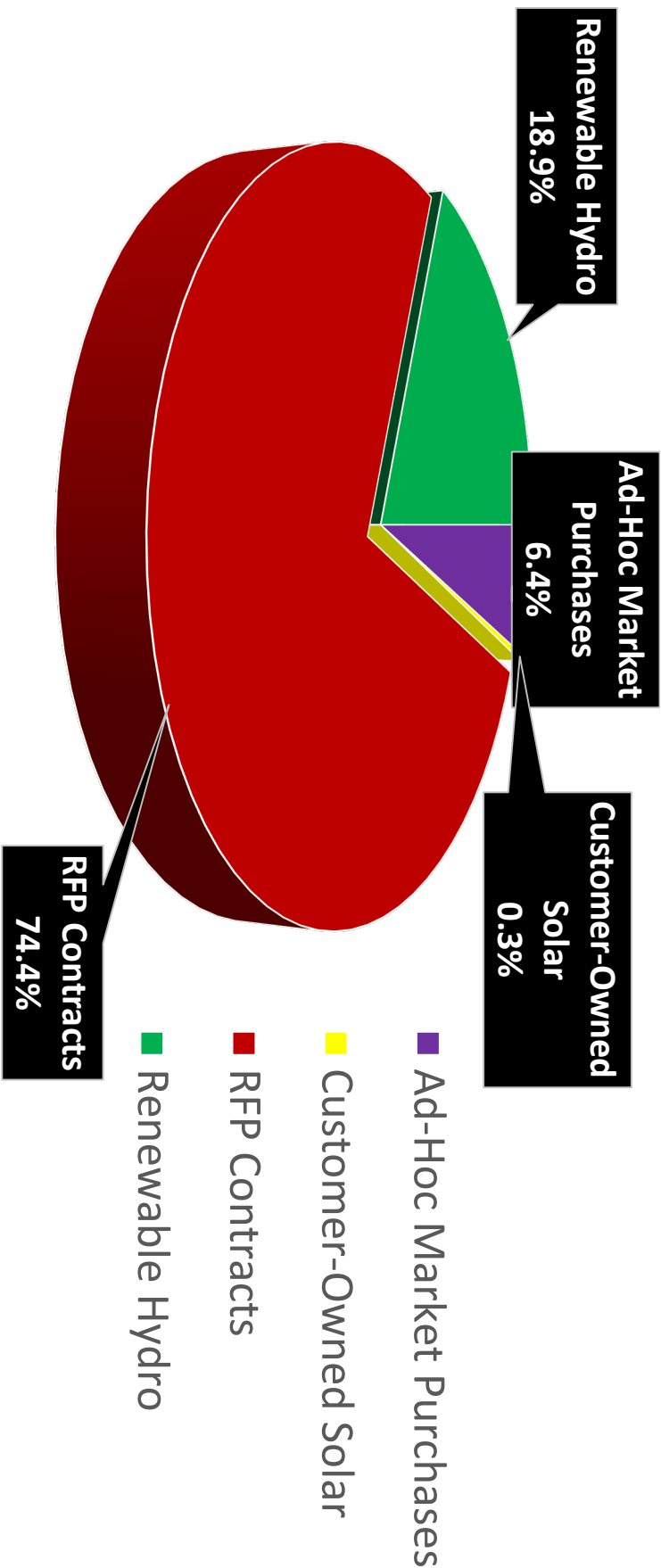


- Smart grid technologies provide tools to solve our challenges & opportunities:
- Aging infrastructure
- Growing demand
- Integration of renewable energy sources
- Integration of electric vehicles as energy storage resource
- Improve supply security
- Lower carbon emissions

SMART CITY & SMART GRID

- AMI Smart Meters are a critical component of Smart Grid & Smart City
- Utility Analytics & System Operations / Outage Management
- Optimization of renewable resources & other innovative technologies
- Achieving full potential of Smart Grid will require investment beyond the AMI Project
 - Professional Development
 - Energy Control Room - to identify & maximize the value of the data that AMI & Smart Grid generates

ENERGY RESOURCES ELECTRIC SUPPLY PORTFOLIO



SMART CITY & RENEWABLE ENERGY

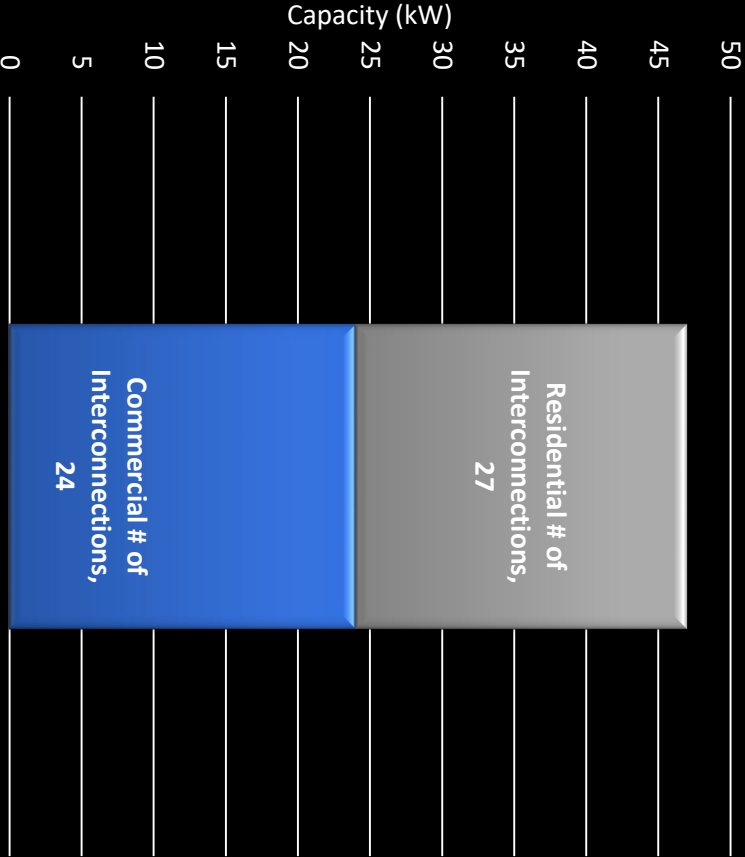
- Proposed 2019 Integrated Resource (IRP)
 - Customers & Community engagement
 - Enhanced focus on Solar & energy conservation
 - Continue existing customer owned solar program
 - Competitive RFP process
- April 2019 RFP
 - RFP for replacement of two contract components of portfolio

SMART CITY & RENEWABLE ENERGY

- June – July 2019: Purchase 10 MW utility scale solar
- Late 2019: With Sustainability, renew offers for utility solar generation within the ESA
- 2020: 10 MW of Renewable with storage for 2021-2022 delivery
- 2021: Replace two contracts

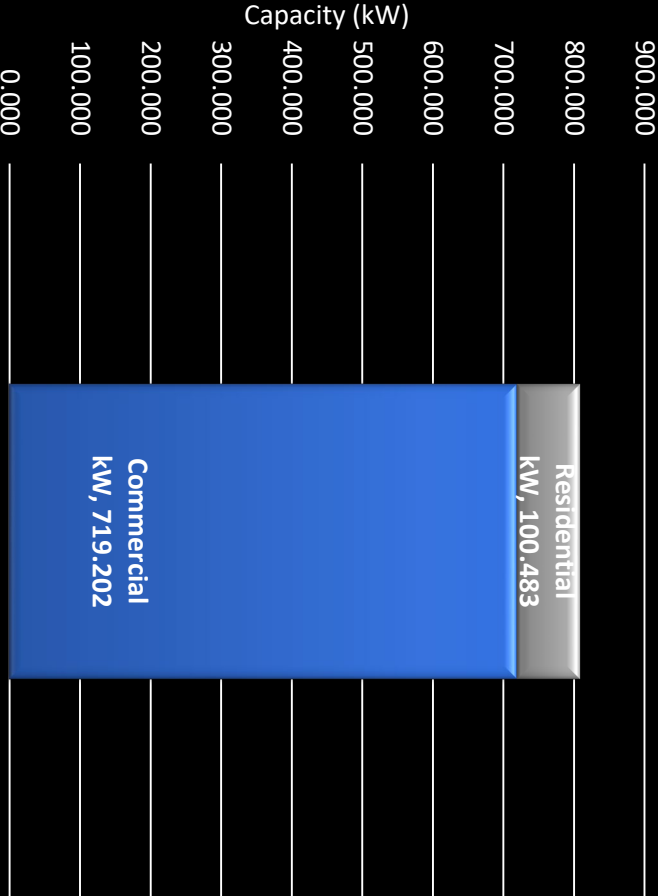
ELECTRIC CUSTOMER OWNED SOLAR PROGRAM

INSTALLED # AS OF 3.31.19 Total= 51

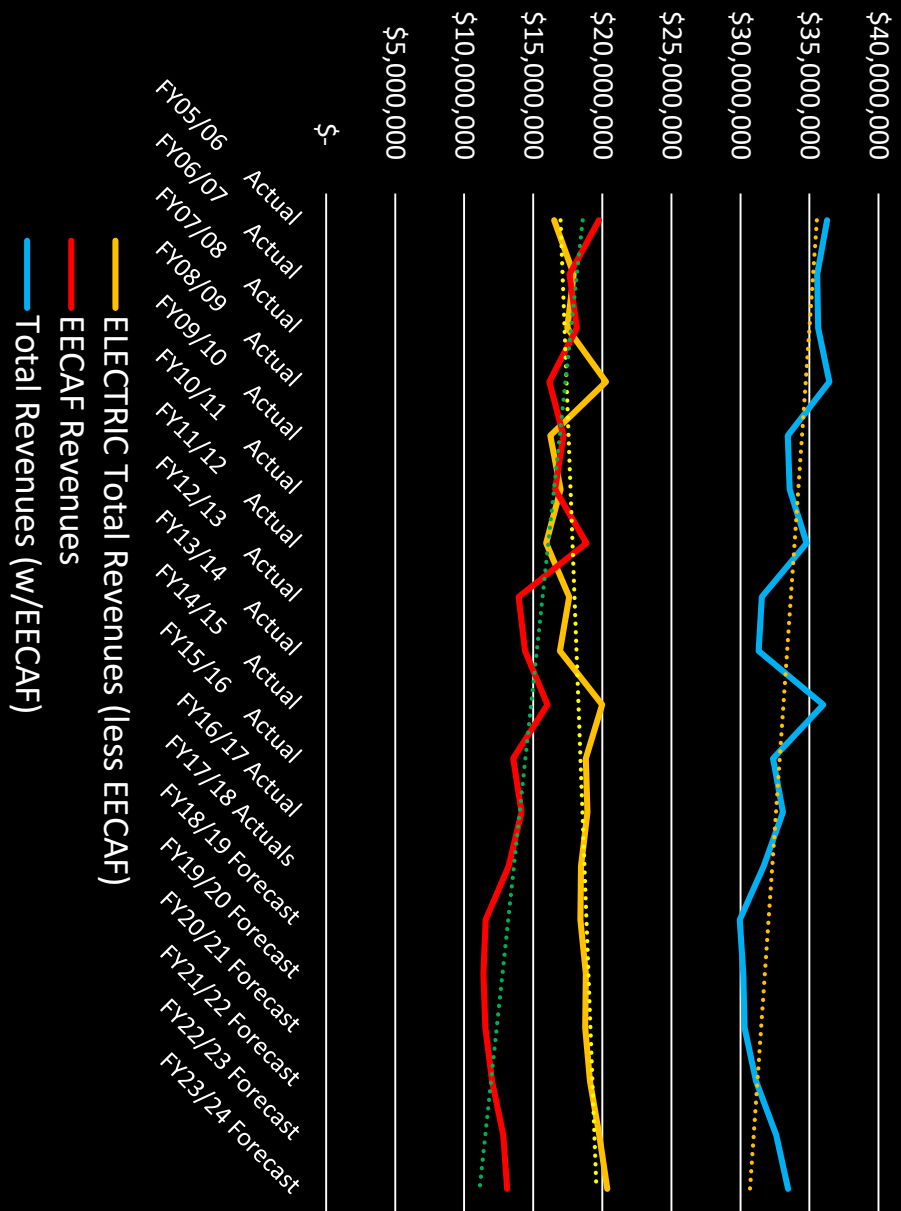


INSTALLED NAMEPLATE DC CAPACITY (kW) AS OF 3.31.19

Total= 819.685 kW

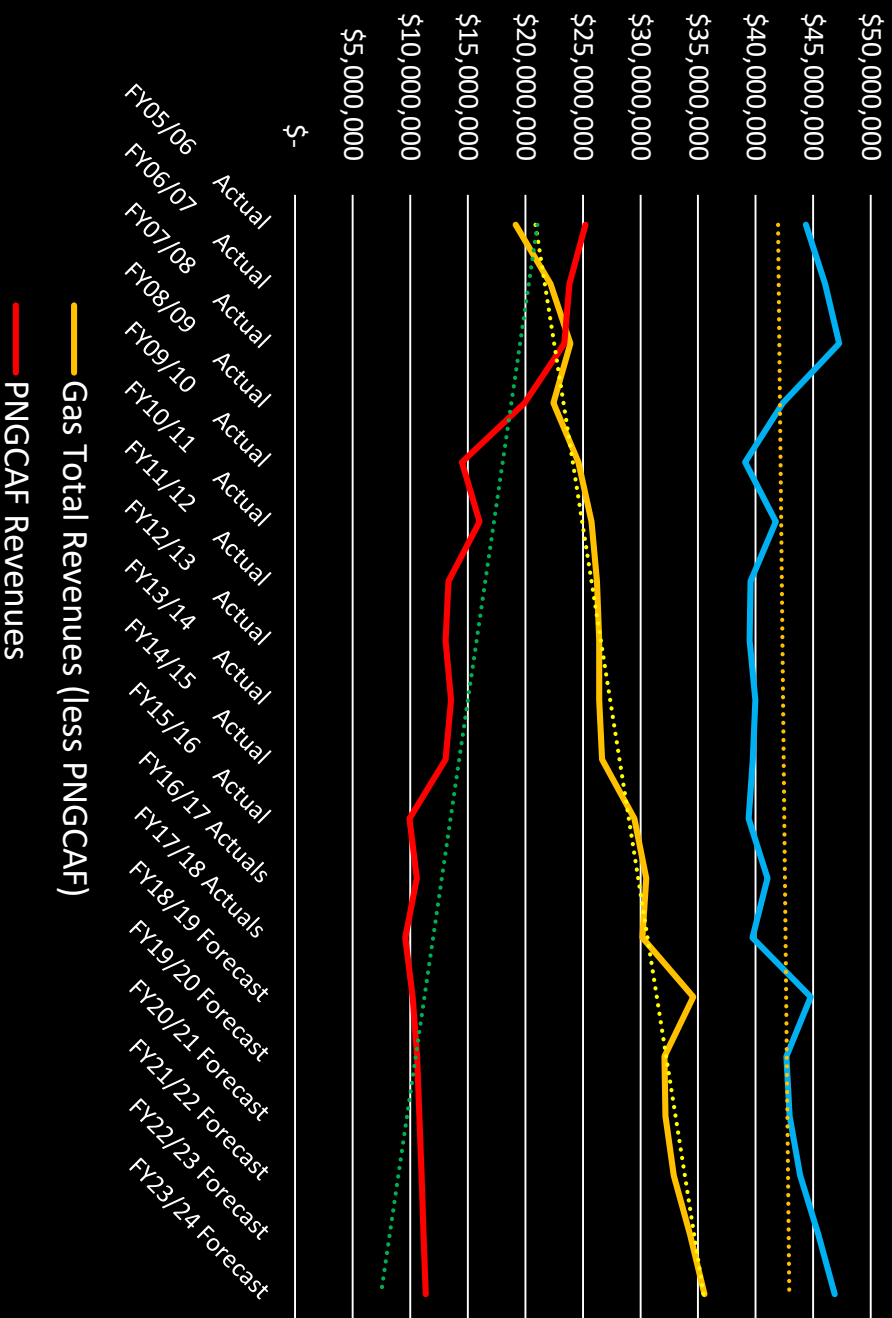


ELECTRIC REVENUE HISTORY AND FORECAST



- The rate component (EECAF) is adjusted monthly to timely pass through changes in energy supply costs
- Decreases in electric energy supply costs have offset increases in general rates such that customers bills over time have decreased

GAS REVENUE HISTORY AND FORECAST



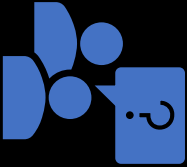
- The rate component (PNGCAF) is adjusted monthly to timely pass through changes in energy supply costs
- Decreases in natural gas supply costs have offset increases in general rates such that customers bills over time have decreased

Financial Overview

ELECTRIC				
	FY 17/18 Actuals	FY 18/19 Revised Budget	FY 18/19 Projected	FY 19/20 Proposed Budget
Sources of Funding				
Revenues	\$18,453,285	\$18,286,468	\$18,411,785	\$18,751,282
EECAF Revenues	\$13,233,811	\$12,616,573	\$11,548,700	\$11,395,504
Total Sources	\$31,687,097	\$30,903,041	\$29,960,485	\$30,146,786
Uses of Funding				
Operating Expenditures	\$7,012,138	\$7,813,262	\$7,422,475	\$7,419,254
EECAF Expenditures	\$13,131,317	\$12,631,573	\$11,093,915	\$11,395,504
Expenditure Subtotal	\$20,143,454	\$20,444,835	\$18,516,390	\$18,814,758
Project Costs	\$43,303	\$181,997	\$181,267	\$24,000
General Fund Transfer	\$6,656,624	\$6,776,087	\$6,776,087	\$6,913,974
Debt Service Transfer	\$1,316,892	\$1,488,572	\$988,334	\$1,982,893
Lifecycle/ Infrastructure Transfers	\$633,213	\$637,773	\$599,210	\$602,936
Capital Transfer	\$0	\$149,468	\$149,468	\$124,539
Economic Investment Fund Transfer	\$233,430	\$466,860	\$466,860	\$0
Other Transfers	\$9,000	\$0	\$0	\$0
Total Uses	\$29,035,917	\$30,145,592	\$27,677,615	\$28,463,100
Net Sources and Uses	\$2,651,180	\$757,449	\$2,282,870	\$1,683,686

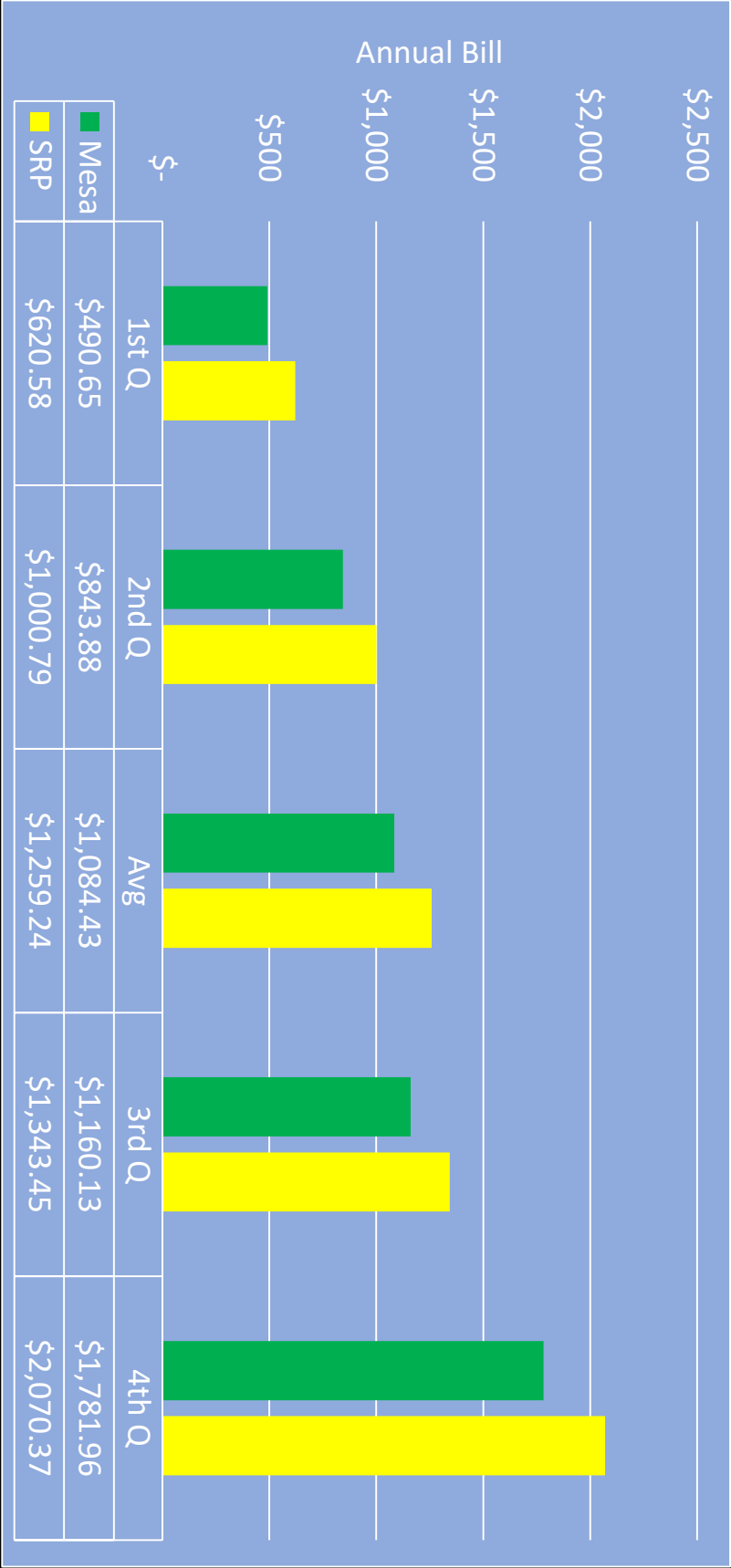
Financial Overview

NATURAL GAS				
	FY 17/18 Actuals	FY 18/19 Revised Budget	FY 18/19 Projected	FY 19/20 Proposed Budget
Sources of Funding				
Revenues	\$30,152,251	\$31,199,482	\$34,586,914	\$32,283,311
PNGCAF Revenues	\$9,572,586	\$12,517,481	\$10,194,487	\$10,512,645
Total Sources	\$39,724,838	\$43,716,963	\$44,781,401	\$42,795,956
Uses of Funding				
Operating Expenditures	\$12,489,955	\$14,068,723	\$14,147,736	\$14,202,481
PNGCAF Expenditures	\$9,760,743	\$12,517,481	\$10,301,087	\$10,702,645
Expenditure Subtotal	\$22,250,698	\$26,586,204	\$24,448,823	\$24,905,126
Project Costs	\$179,682	\$350,984	\$282,297	\$29,000
General Fund Transfer	\$7,955,552	\$8,098,326	\$8,098,326	\$8,263,120
Debt Service Transfer	\$5,460,468	\$5,647,463	\$4,601,402	\$5,800,347
Lifecycle/ Infrastructure Transfers	\$794,686	\$888,887	\$895,628	\$855,919
Capital Transfer	\$0	\$0	\$2,116,520	\$0
Economic Investment Fund Transfer	\$278,980	\$557,961	\$557,961	\$0
Total Uses	\$36,920,066	\$42,129,825	\$41,000,957	\$39,853,513
Net Sources and Uses	\$2,804,772	\$1,587,138	\$3,780,444	\$2,942,443



Questions?

Mesa Residential Electric Bill Comparison January 2018 to December 2018



Mesa Residential Gas Bill Comparison January 2018 to December 2018

