



# City of Mesa

FY 2021/22

Utility Fund forecast and  
Rates Recommendations

City Council Study Session  
September 23, 2021



Presented by:

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Jake West – Water Resources Director

Scott Bouchie – Environmental Management &  
Sustainability Director

Frank McRae – Energy Resources Director



# Utility Operations

- Each utility is operated as a separate business center but treated as one fund
- Reserve balance provides a safety net for unforeseen conditions
- Reserve balance can be used to smooth rate adjustments year-to-year

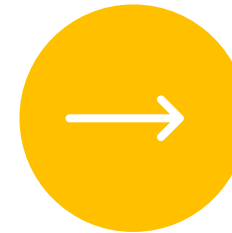
# Financial Principles



BALANCE NET SOURCES  
AND USES



20% OR HIGHER  
RESERVE FUND  
BALANCE



RATE ADJUSTMENTS  
THAT ARE PREDICTABLE  
AND SMOOTHED  
THROUGHOUT THE  
FORECAST



EQUITY BETWEEN  
RESIDENTIAL AND NON-  
RESIDENTIAL RATES



AFFORDABLE UTILITY  
SERVICES



# Water



# Increasing Costs/Pressures on the Utility

## Water Utility



- **Increases from FY 20/21 actuals to FY 21/22 budget**
  - Operating Expenditure
    - Water Commodity Costs \$2.6M
    - Treatment Plant Chemicals \$0.8M
    - Treatment Plant Power Costs \$1.0M
    - Personnel \$1.9M

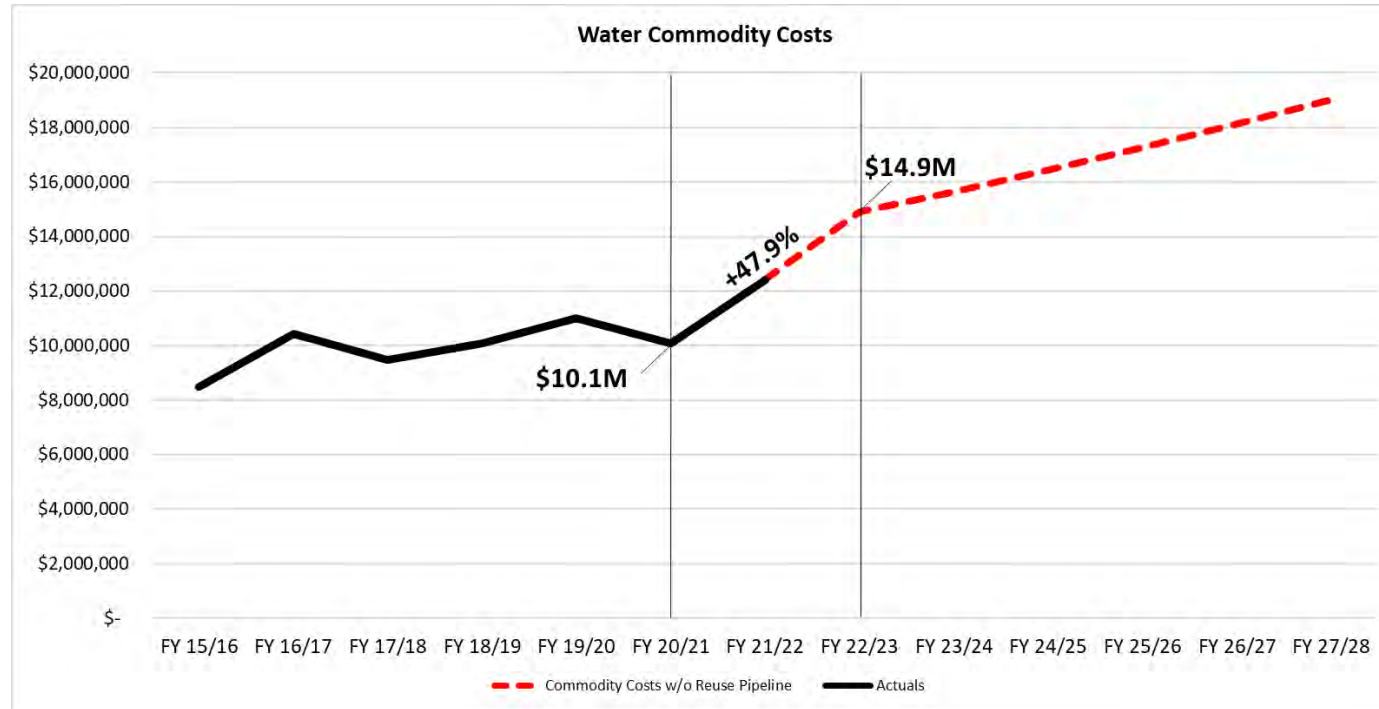
# Increasing Costs/Pressures on the Utility

## Water Utility



- **Increases from FY 20/21 actuals to FY 21/22 budget**
  - Existing Debt Service \$8.4M
    - Includes debt issued for past capital improvement projects
      - Signal Butte - Phase I
      - Waterline Replacement Projects
    - Refundings FY20/21 > FY21/22

# Increasing Costs/Pressures on the Utility





# Increasing Costs/Pressures on the Utility

## FY 20/21 Water Commodity Purchases

	Acre Feet	Cost
Central Arizona Project	49,093	\$8.7M
Salt River Project	32,812	\$1.4M



## Water Commodity Costs (\$/AF)

	<i>Actual</i>				<i>Forecast</i>				
	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>
Central Arizona Project	\$ 205.00	\$ 199.00	\$ 226.00	\$ 211.00	\$ 242.00	\$ 256.00	\$ 284.00	\$ 290.00	\$ 291.00
Salt River Project	\$ 34.56	\$ 35.76	\$ 37.91	\$ 40.18	\$ 41.59	\$ 43.04	\$ 44.55	\$ 46.11	\$ 47.72

# Future Capital Improvement Projects

## Water Utility



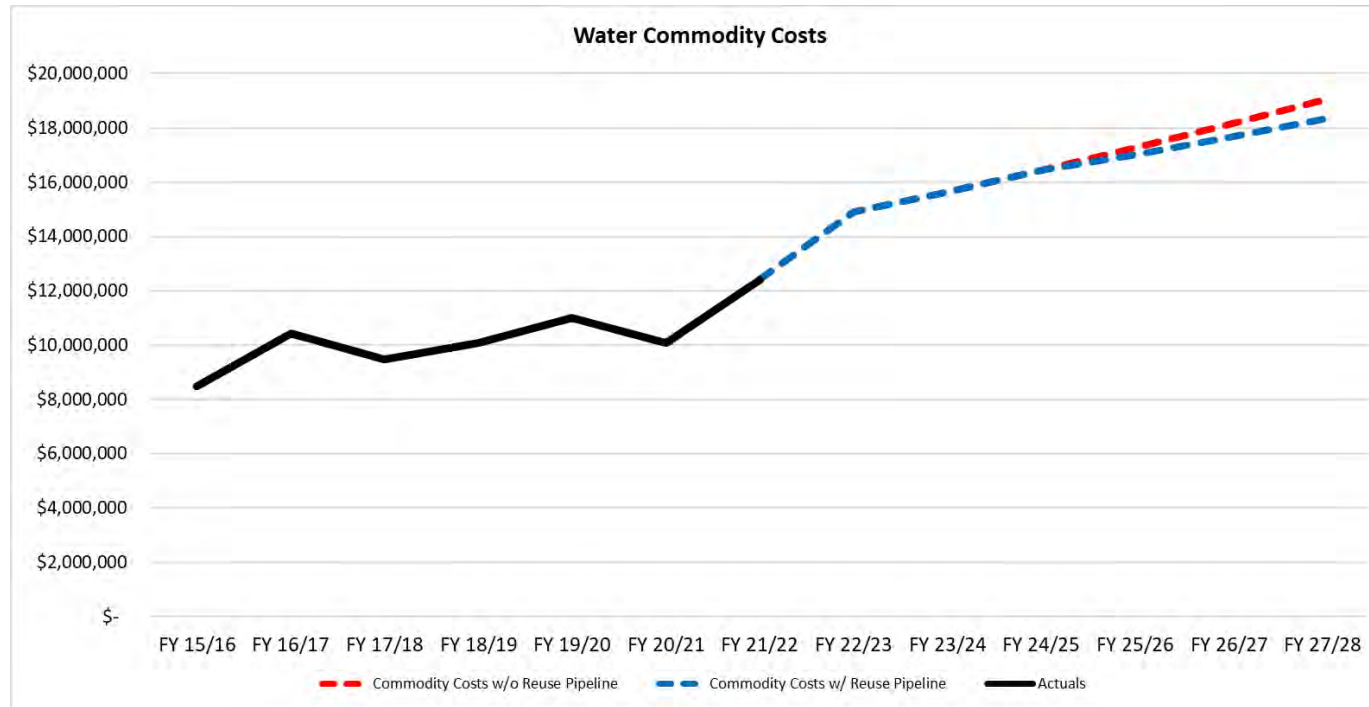
### **Central Mesa Reuse Pipeline**

*Growth and Sustainability with ROI*

- Provide for economic growth
- Greater water system reliability
- Drought mitigation
  
- Project Cost

**\$72M**

# Future Capital Improvement Projects



	<i>Actual</i>					<i>Forecast</i>				
	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	
Central Arizona Project	\$ 205.00	\$ 199.00	\$ 226.00	\$ 211.00	\$ 242.00	\$ 256.00	\$ 284.00	\$ 290.00	\$ 291.00	
Central Arizona Project w/ Reuse Pipeline	\$ 65.00	\$ 62.00	\$ 56.00	\$ 56.00	\$ 56.00	\$ 57.00	\$ 61.00	\$ 61.00	\$ 63.00	
Salt River Project	\$ 34.56	\$ 35.76	\$ 37.91	\$ 40.18	\$ 41.59	\$ 43.04	\$ 44.55	\$ 46.11	\$ 47.72	

# Future Capital Improvement Projects

## Water Utility



### **East Mesa Water Interconnect**

*Growth and Sustainability with Flexibility*

- Move 5 -10MGD between treatment plants
- Greater system reliability through diversification
- More operational resiliency through capacity sharing
- Project Cost **\$82M**

# Future Capital Improvement Projects

## Water Utility



### **Signal Butte WTP Expansion**

#### *Growth*

- Increase plant capacity from 24MGD to 48MGD
- Support residential & commercial development
- Help SE Mesa to realize full potential
- Maximize renewable resource - GRIC

- Project Cost

**\$98M**

# Future Capital Improvement Projects

## Water Utility



### **Smart Metering**

#### *Growth and Demand Management*

- Revenue security – Loss/Breaks
- Real-time data/system demand
- Transparency

- Project Cost

**\$60M**

# Water - Typical Customer



	2021	2022	
Residential	\$38.24/mo.	Service Charge	3.0%
		Usage Charge	3.0%
		\$39.40/mo. (\$1.16/mo.)	
Commercial General	\$53.24/mo.	Service Charge	3.0%
		Usage Charge	5.0%
		Effective increase	3.8%
		\$55.28/mo. (\$2.04/mo.)	
Commercial Landscape	\$163.29/mo.	Service Charge	3.0%
		Usage Charge	6.0%
		Effective increase	5.3%
		\$172.02/mo. (\$8.73/mo.)	



# Wastewater





# Increasing Costs/Pressures on the Utility

## Wastewater Utility



- **Increases from FY 20/21 actuals to FY 21/22 budget**
  - Operating Expenditure
    - Reclamation Plant Chemicals \$0.3M
    - Reclamation Plant Power Costs \$0.5M
    - Greenfield WRP (one-time)/Joint Venture \$3.7M
    - Personnel \$0.7M

# Wastewater - Typical Customer



	2021	2022	
Residential	\$23.22/mo.	Service Charge	3.5%
		Usage Charge	3.5%
		\$24.04/mo. (\$0.82/mo.)	
Commercial	\$45.94/mo.	Service Charge	4.0%
		Usage Charge	4.0%
		Surcharge	4.0%
		\$47.77/mo. (\$1.83/mo.)	



# Solid Waste



## Increasing Cost Pressures On The Utilities

- Disposal Fees - \$640K
- Personal Services - \$820K
- CNG Cost Increase - \$200K
- Barrel/Bin Price Increase - \$385K

# Solid Waste Residential Rate Recommendation

	CURRENT	PROPOSED INCREASE	NEW TOTAL
90-gallon Trash Barrel	\$29.34	\$0.58	\$29.92
Green & Clean Fee	\$ 0.84	\$0.05	\$ 0.89
Total Residential Increase	\$30.18	\$0.63	\$30.81

COMPARISON TO OTHER CITIES	
Phoenix	\$33.80
Mesa	\$30.81
Tempe	\$29.57

## Appliance, Bulk Item, and Green Waste Barrel Rate Recommendations

### Appliance Collection

- Increase charge for items not out on scheduled date from \$11.79 to \$19.00

### Bulk Item

- Per load increase from \$25.00 to \$28.00

### Green Waste Barrel

- Increase by \$0.14, from \$6.93 to \$7.07

## Commercial Front Load Recommendations

- Increase base rate by 3%
- Increase fee for collection out-of-zone from \$16.50 to \$19.00 per bin
- Decrease multi-day and multi-bin service discounts by 1 percentage point
- Convert special pick-up fee from tiered to flat rate of \$60
- Increase compactor base rate by \$5
- Increase excessive weight charge by 5%
- Increase cardboard by \$5 per bin

# Commercial Roll Off Recommendations

RATES	CURRENT	PROPOSED INCREASE	NEW TOTAL
Set Fee	\$60.00	\$20.00	\$80.00
Trash Per Ton Rate	\$33.50	\$ 1.75	\$35.25
Green Waste Per Ton Rate	\$39.75	\$ 2.00	\$41.75

ROLL OFF SIZE	CURRENT	PROPOSED
15 & 20 YD	\$290.50	\$315.75
30 YD	\$300.50	\$325.75
40 YD	\$315.50	\$340.75

COMPETITOR COMPARISON (40 YD)	
City of Mesa	\$340.75
Competitor Pricing	\$523.80 - \$717.97



## Flare to Fuel

- 60% design
  - Construction complete summer 2023
- Renewable Identification Numbers (RIN) revenues will begin in FY 23/24
  - 7 to 11 year pay back
- Will increase renewable energy portfolio

## Transfer Station at EMSC

- Operational feasibility analysis
- Mitigate against dependency on private sector
- Will come back to Council first quarter of 2022

## Solid Waste Infrastructure

### Materials Recovery Facility (MRF) at Pecos & Sossaman

- Evaluate available options for recycling
- Regional partnerships
- Competitive edge

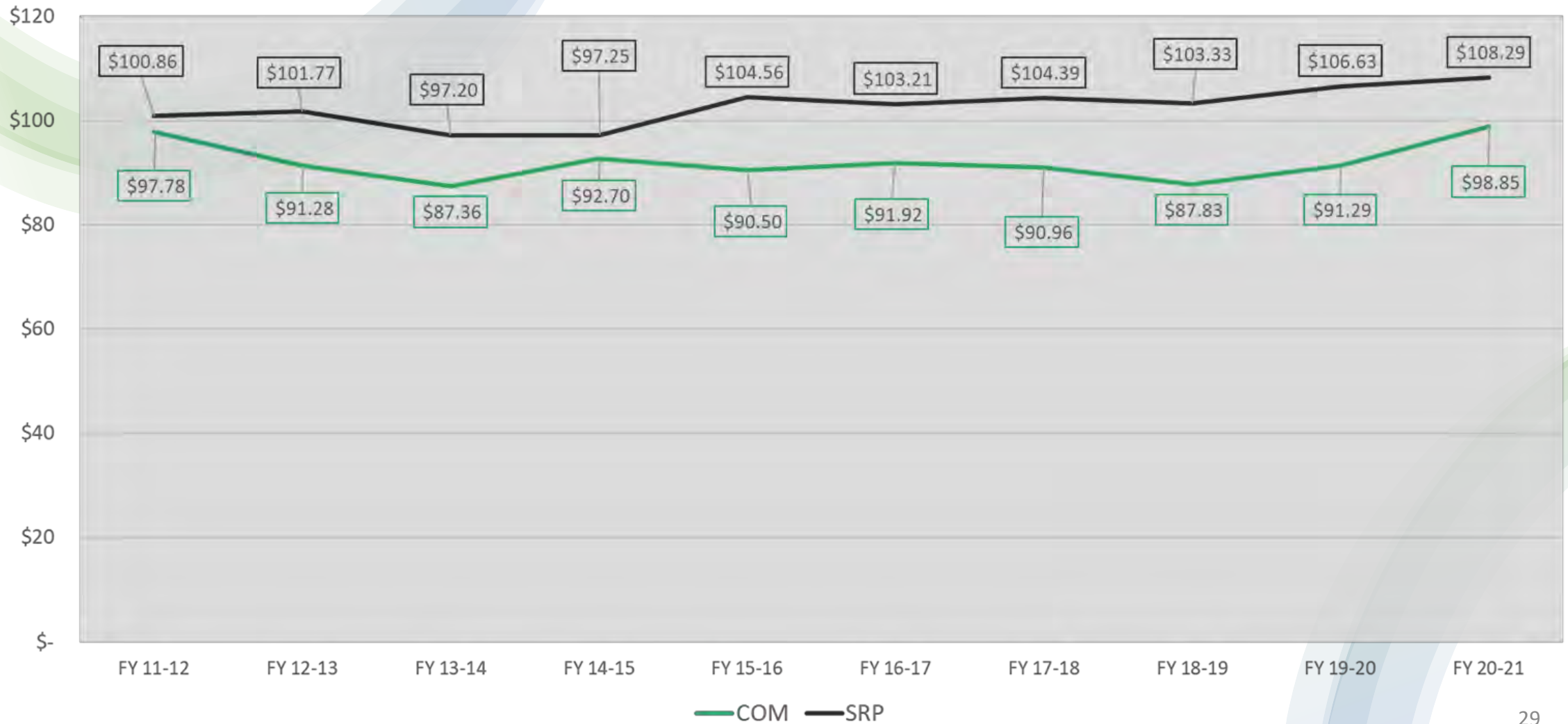


# Energy Resources

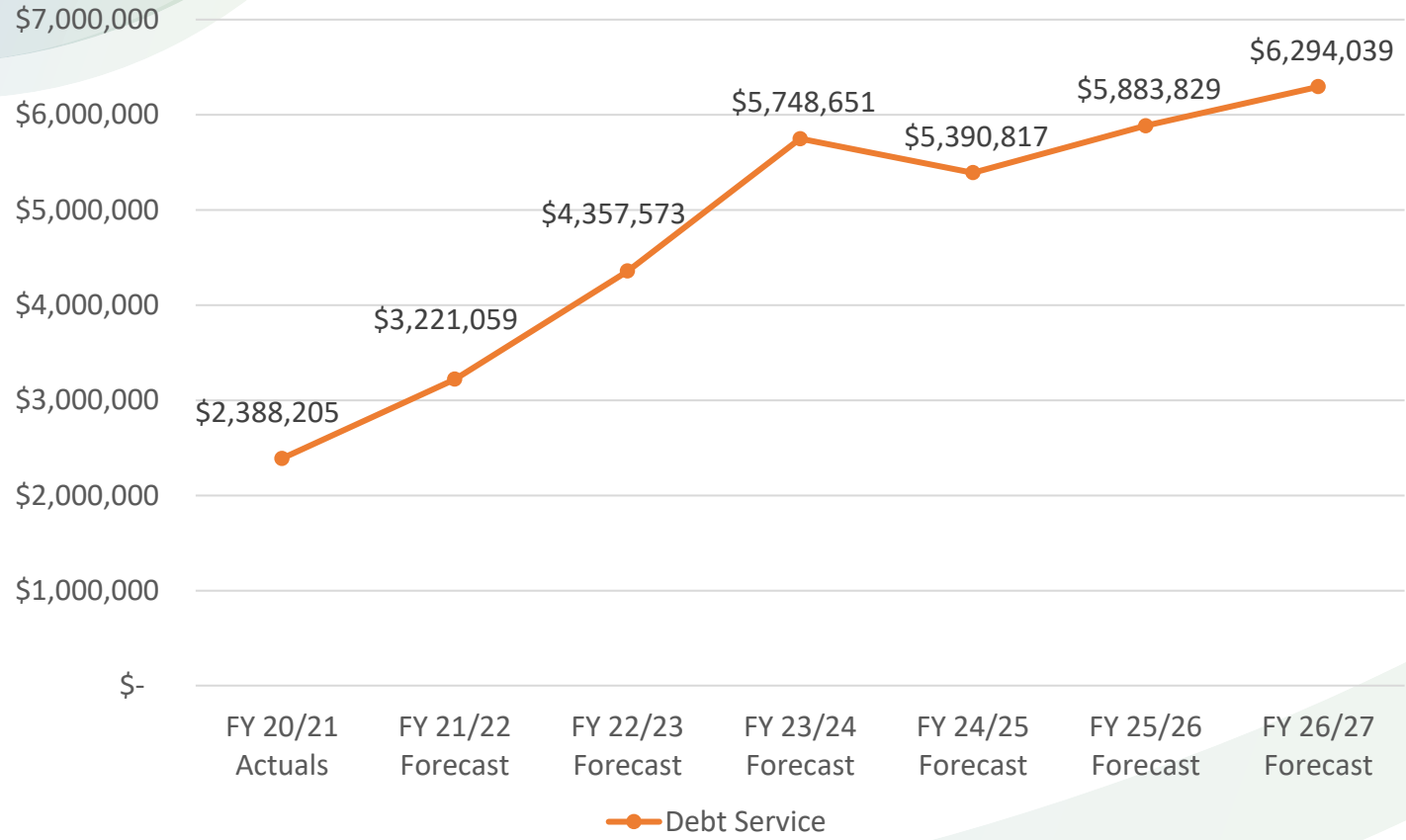


# Electric

## Average Monthly Residential Electric Bill Rate Comparison by Fiscal Year



# Increasing Debt Service Costs on the Electric Utility



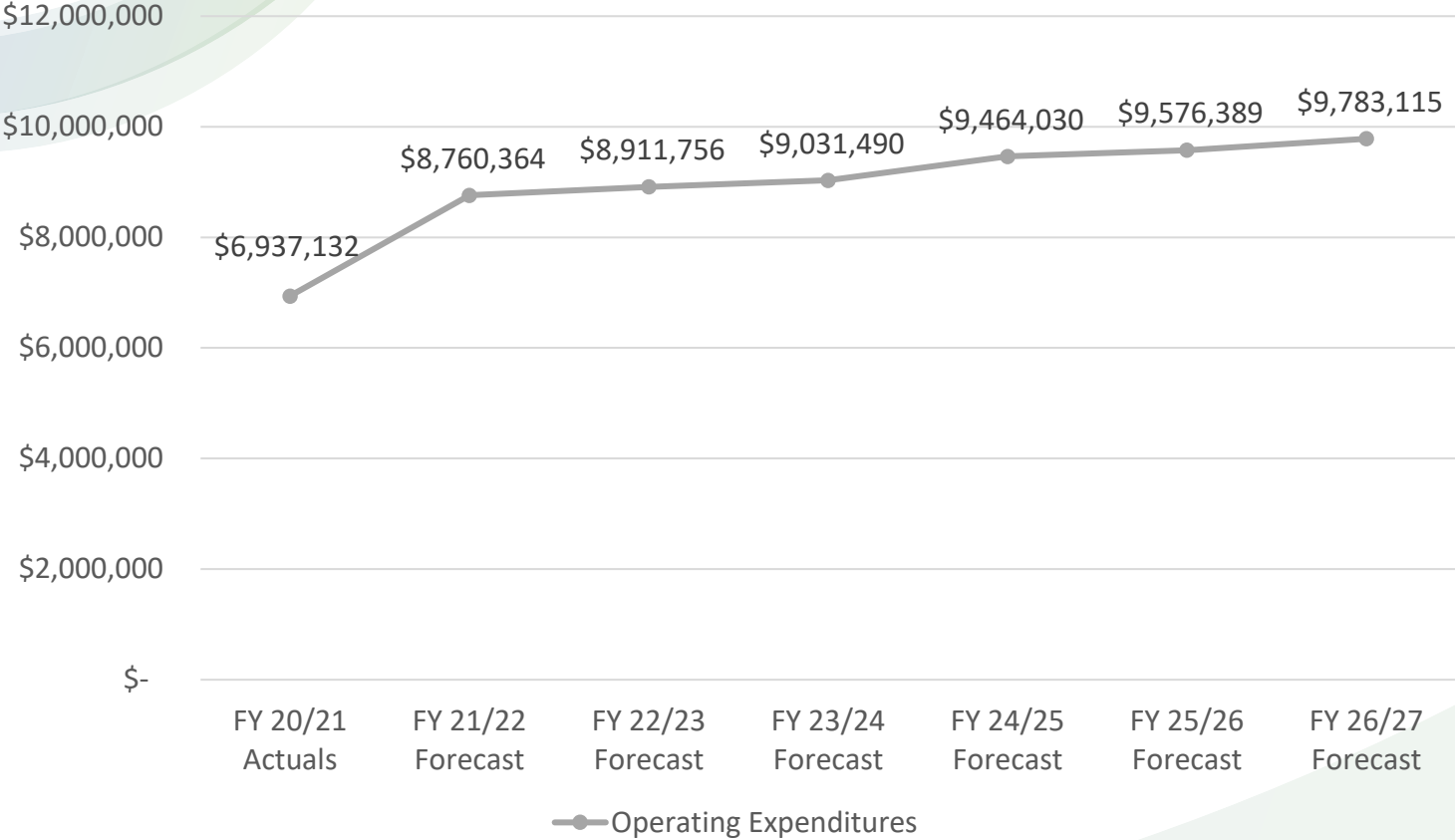
## Completed Projects

- Substation Improvements - \$10M
- Undergrounding - \$6.6M
- City Center New Service \$3.1M

## Future Projects

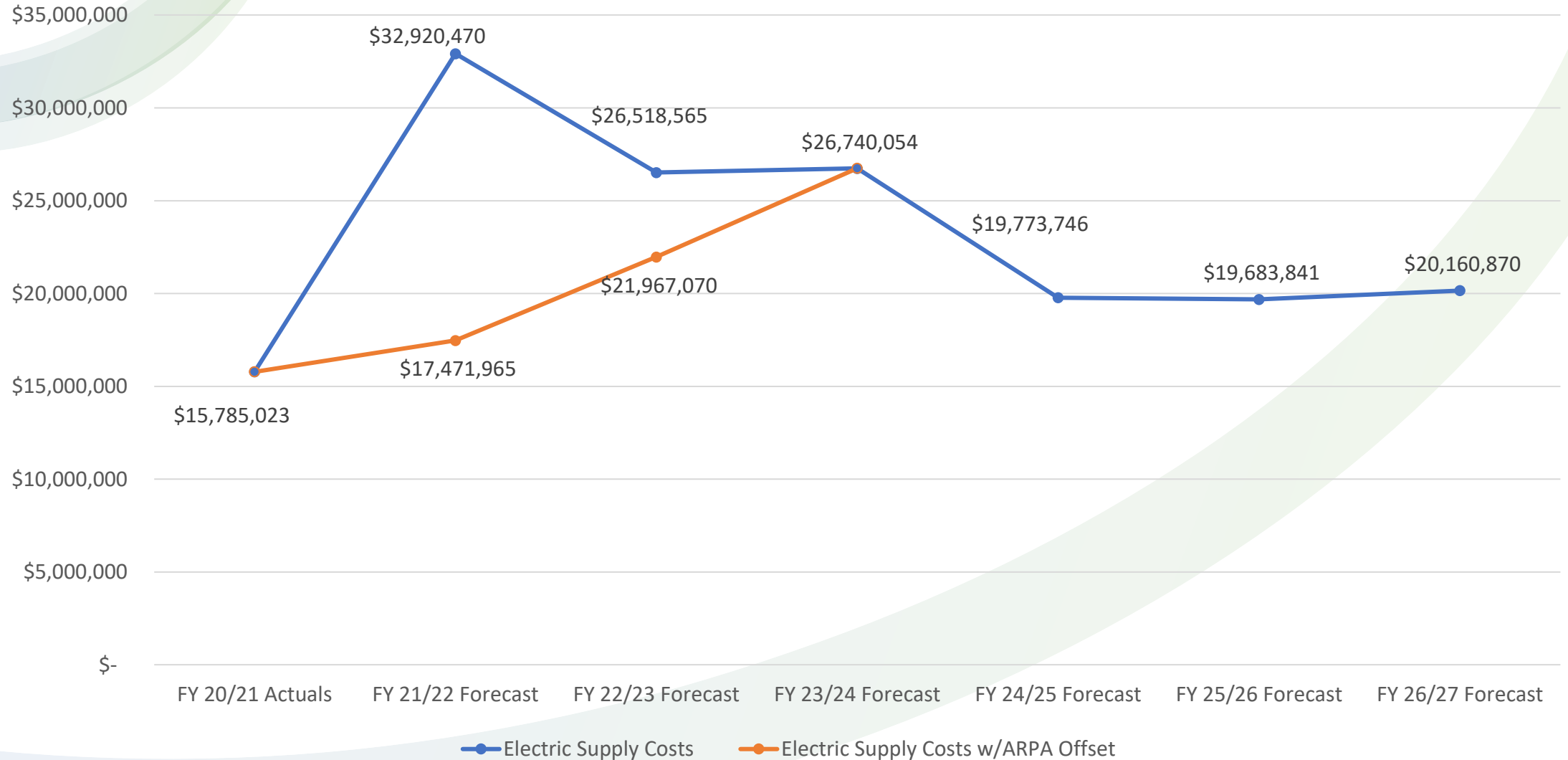
- Microgrid - \$5.5M
- Undergrounding - \$7.4M
- AMI - \$3.4M
- New Services - \$8.5M

# Increasing Operating Costs on the Electric Utility



**Cost Increases**  
• Payroll/Benefits

# Electric Commodity Cost Pressures





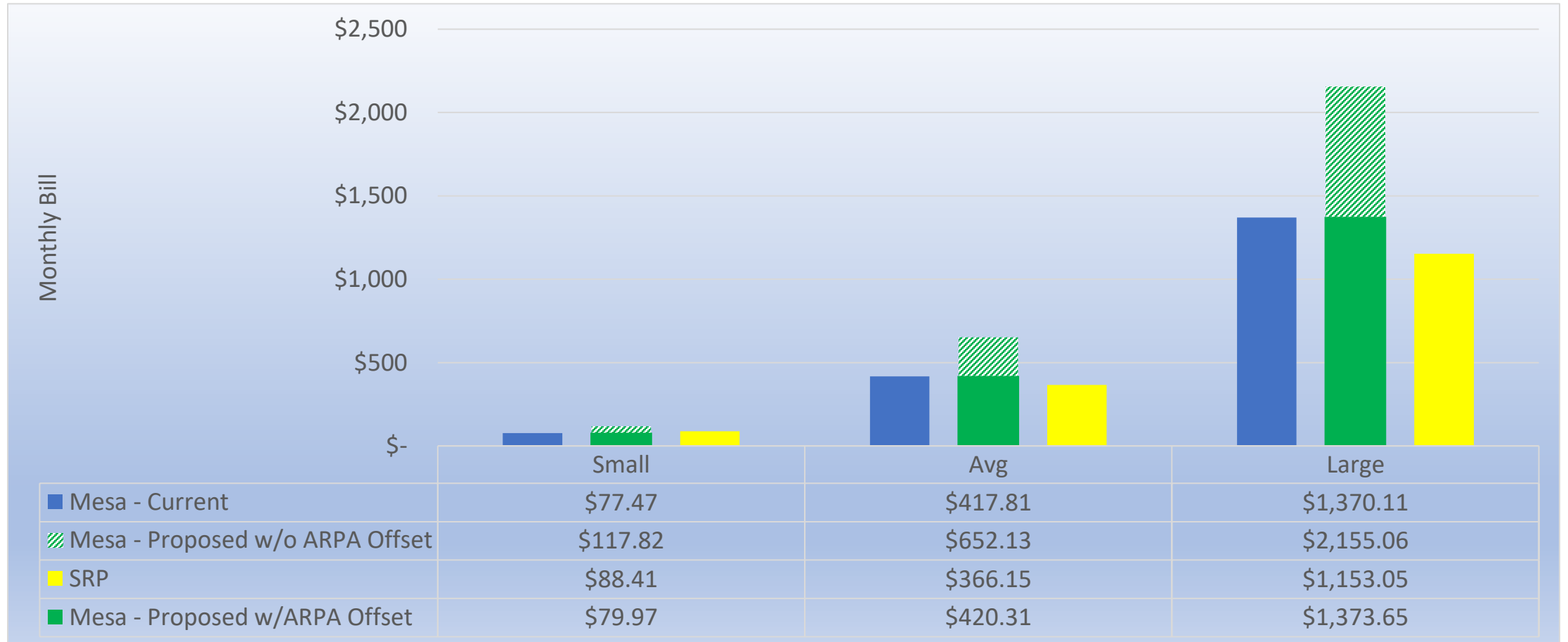
# RESIDENTIAL ELECTRIC BILL COMPARISON



# PROPOSED RESIDENTIAL ELECTRIC RATES

COMPONENT	CURRENT	PROPOSED
SYSTEM SERVICE CHARGE	\$13.00	\$14.50
USAGE CHARGE SUMMER per kWh	Tier 1 - \$0.05179 Tier 2 - \$0.04822	Tier 1 - \$0.05231 Tier 2 - \$0.04822
USAGE CHARGE WINTER per kWh	Tier 1 - \$0.03953 Tier 2 - \$0.01715	Tier 1 - \$0.04151 Tier 2 - \$0.01800
MONTHLY BILL (Average Customer)	\$106.83	\$109.22
	(effective increase 2.2% or \$2.39/mo.)	

# COMMERCIAL ELECTRIC BILL COMPARISON



# PROPOSED COMMERCIAL ELECTRIC RATES

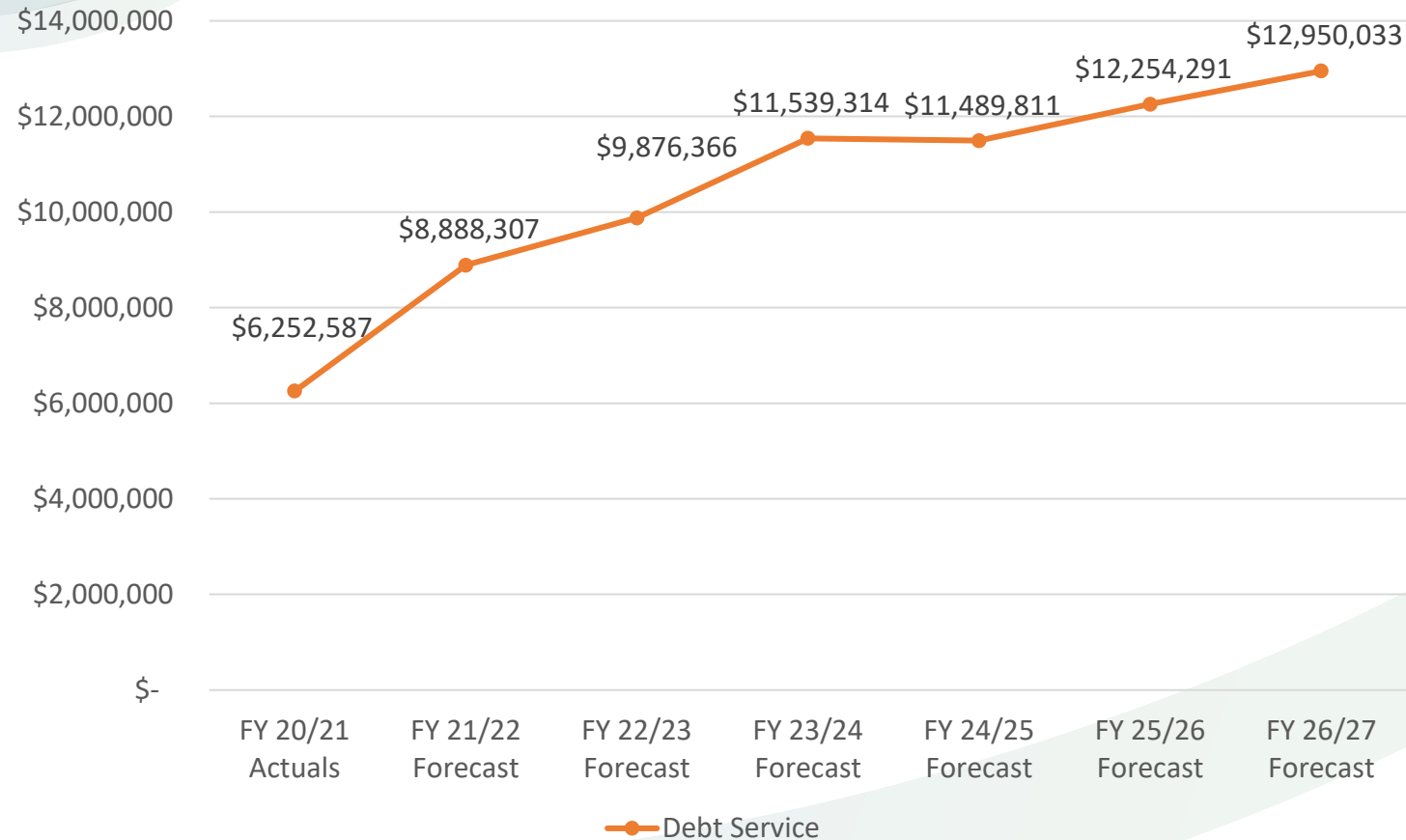
COMPONENT	CURRENT	PROPOSED
SYSTEM SERVICE CHARGE	\$7.22	\$9.72
USAGE CHARGE SUMMER per kWh	Tier 1 - \$0.06491 Tier 2 - \$0.04125 Tier 3 - \$0.02901	Tier 1 - \$0.06491 Tier 2 - \$0.04331 Tier 3 - \$0.02901
USAGE CHARGE WINTER per kWh	Tier 1 - \$0.05375 Tier 2 - \$0.03692 Tier 3 - \$0.02060	Tier 1 - \$0.05375 Tier 2 - \$0.03877 Tier 3 - \$0.02060
MONTHLY BILL (Average Customer)	\$417.81	\$420.31
	(effective increase 0.6% or \$2.50/mo.)	



# Gas



# Increasing Debt Service Costs on the Gas Utility



## Completed Projects

- Regulator Stations - \$5.4M
- Aging Infrastructure - \$10M
- Growth - \$13.6M

## Future Projects

- Gate Station - \$9.6M
- Aging Infrastructure – 15.8M
- Growth - \$9.9M
- AMI - \$10M

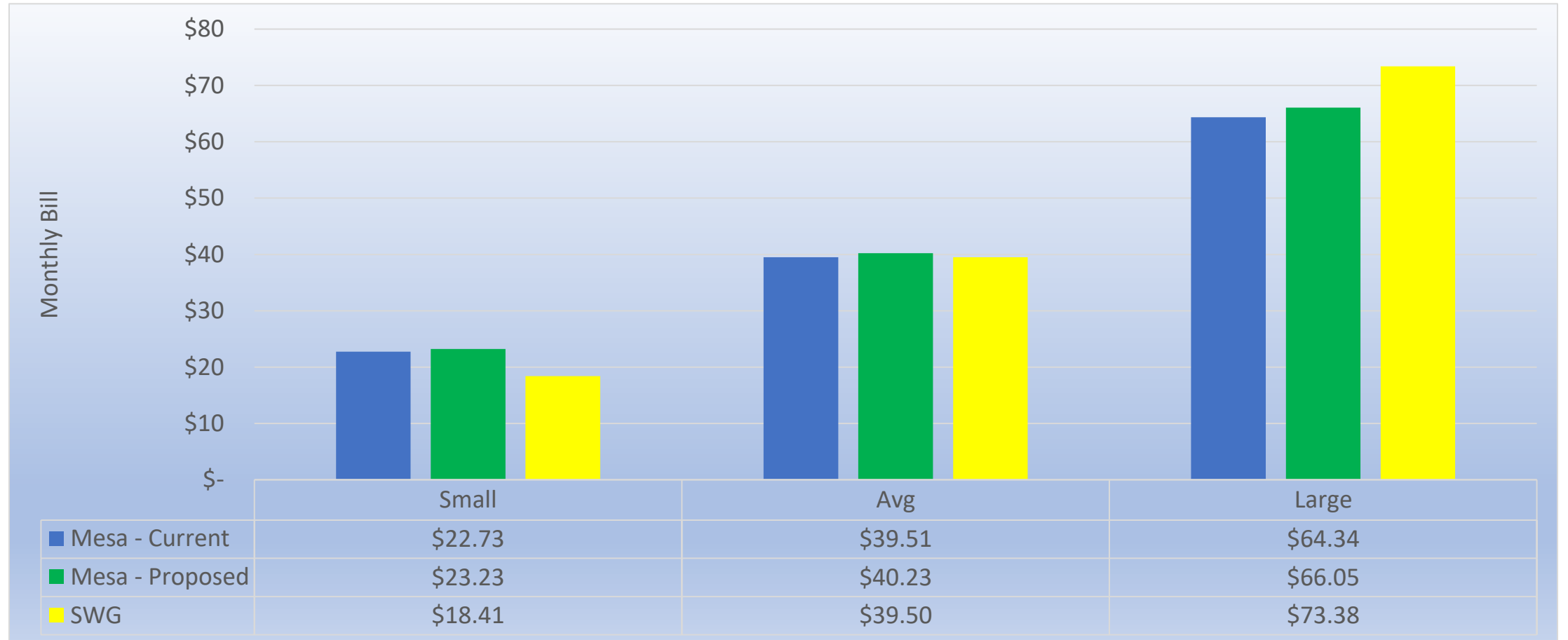
# Increasing Operating Costs on the Gas Utility



Cost Increases

- Payroll/Benefits

# RESIDENTIAL GAS BILL COMPARISON





# PROPOSED RESIDENTIAL GAS RATES

COMPONENT	CURRENT	PROPOSED
SYSTEM SERVICE CHARGE		
SUMMER	\$15.31	\$15.81
WINTER	\$18.24	\$18.74
USAGE CHARGE		
SUMMER per therm	Tier 1 - \$0.6685 Tier 2 - \$0.2384	Tier 1 - \$0.6685 Tier 2 - \$0.2622
USAGE CHARGE		
WINTER per therm	Tier 1 - \$0.6685 Tier 2 - \$0.5419	Tier 1 - \$0.6685 Tier 2 - \$0.5960
MONTHLY BILL (Average Customers)	\$39.51	\$40.23
	(effective increase 1.8% or \$0.72/mo.)	

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# Utility Fund Forecast

# Utility Fund Forecast: FY 21/22 Recommended Rate Adjustments

As of 08/31/2021	FY 20/21 Projected	FY 21/22 Projected	FY 22/23 Forecast	FY 23/24 Forecast	FY 24/25 Forecast	FY 25/26 Forecast	FY 26/27 Forecast
TOTAL NET SOURCES AND USES	\$9,851,803	(\$22,016,908)	(\$9,194,370)	(\$5,014,613)	(\$11,181,618)	(\$8,307,063)	(\$7,422,938)
Beginning Reserve Balance	\$136,773,320	\$146,625,123	\$124,608,215	\$115,413,845	\$110,399,232	\$99,217,614	\$90,910,551
<b>Ending Reserve Balance</b>	<b>\$146,625,123</b>	<b>\$124,608,215</b>	<b>\$115,413,845</b>	<b>\$110,399,232</b>	<b>\$99,217,614</b>	<b>\$90,910,551</b>	<b>\$83,487,613</b>

Ending Reserve Balance Percent*	<b>32.2%</b>	<b>27.7%</b>	<b>25.0%</b>	<b>23.1%</b>	<b>20.1%</b>	<b>17.2%</b>	<b>15.8%</b>
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\*As a % of Next Fiscal Year's Expenditures

WATER Residential	1.50%	<b>3.00%</b>	2.50%	2.00%	2.00%	2.00%	2.00%
WATER Non-Residential (usage)	5.00%	<b>5.00%</b>	5.00%	5.00%	5.00%	5.00%	3.00%
WASTEWATER Residential	3.50%	<b>3.50%</b>	4.00%	4.00%	4.00%	4.00%	4.00%
WASTEWATER Non-Residential	4.00%	<b>4.00%</b>	4.50%	4.50%	4.50%	4.50%	4.50%
SOLID WASTE Residential	0.00%	<b>2.00%</b>	2.00%	2.00%	2.00%	2.00%	2.00%
SOLID WASTE Commercial	2.00%	<b>3.75%</b>	2.00%	2.00%	2.00%	2.00%	2.00%
SOLID WASTE Rolloff	2.00%	<b>3.25%</b>	2.00%	2.00%	2.00%	2.00%	2.00%
ELECTRIC Residential - svc charge	\$1.50	<b>\$1.50</b>	\$2.00	\$2.50	\$2.50	\$2.50	\$2.50
ELECTRIC Non-Residential - svc charge	\$2.50	<b>\$2.50</b>	\$2.50	\$2.50	\$2.50	\$2.50	\$2.50
GAS Residential - svc charge	\$0.50	<b>\$0.50</b>	\$0.75	\$1.00	\$1.00	\$1.00	\$1.00
GAS Non-Residential - svc charge	\$2.00	<b>\$0.00</b>	\$2.00	\$2.00	\$2.00	\$2.00	\$2.00

# Utility Fund Forecast: Deferred Residential Rate Adjustments Scenario

\*For Planning Purposes Only\*

As of 08/31/2021	FY 20/21 Projected	FY 21/22 Projected	FY 22/23 Forecast	FY 23/24 Forecast	FY 24/25 Forecast	FY 25/26 Forecast	FY 26/27 Forecast
<b>TOTAL NET SOURCES AND USES</b>	\$9,851,803	(\$23,366,051)	(\$14,553,789)	(\$11,990,643)	(\$10,481,538)	(\$1,516,603)	(\$418,484)
Beginning Reserve Balance	\$136,773,320	\$146,625,123	\$123,259,072	\$108,705,284	\$96,714,641	\$86,233,103	\$84,716,500
<b>Ending Reserve Balance</b>	<b>\$146,625,123</b>	<b>\$123,259,072</b>	<b>\$108,705,284</b>	<b>\$96,714,641</b>	<b>\$86,233,103</b>	<b>\$84,716,500</b>	<b>\$84,298,015</b>
Ending Reserve Balance Percent*	<b>32.3%</b>	<b>27.6%</b>	<b>23.7%</b>	<b>20.2%</b>	<b>17.3%</b>	<b>15.9%</b>	<b>15.8%</b>

\*As a % of Next Fiscal Year's Expenditures

WATER Residential	1.50%	0.00%	0.00%	7.00%	7.00%	2.00%	2.00%
WATER Non-Residential (usage only)	5.00%	5.00%	5.00%	7.00%	7.00%	5.00%	3.00%
WASTEWATER Residential	3.50%	0.00%	0.00%	7.00%	7.00%	4.00%	4.00%
WASTEWATER Non-Residential	4.00%	4.00%	4.50%	7.00%	7.00%	4.50%	4.50%
SOLID WASTE Residential	0.00%	0.00%	0.00%	7.00%	7.00%	2.00%	2.00%
SOLID WASTE Commercial	2.00%	3.75%	2.00%	2.00%	2.00%	2.00%	2.00%
SOLID WASTE Rolloff	2.00%	3.25%	2.00%	2.00%	2.00%	2.00%	2.00%
ELECTRIC Residential - svc charge	\$1.50	\$0.00	\$0.00	\$3.00	\$2.50	\$2.50	\$2.50
ELECTRIC Non-Residential - svc charge	\$2.50	\$2.50	\$2.50	\$2.50	\$2.50	\$2.50	\$2.50
GAS Residential - svc charge	\$0.50	\$0.00	\$0.00	\$2.00	\$1.00	\$1.00	\$1.00
GAS Non-Residential - svc charge	\$2.00	\$0.00	\$2.00	\$2.00	\$2.00	\$2.00	\$2.00

# Schedule for FY 2021/22 Utility Rates Adjustment Recommendation

- Oct 4** – City Council Action on Notice of Intent
- Nov 15** – Introduce Utility Rate Ordinances
- Dec 8** – City Council Action on Utility Rates
- Feb 1** – Effective date for Utility Rate changes



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