Water Rate Study Recommendations

Stantec

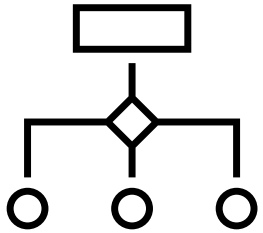
A Rate Study is a Series of Connected Investigations

How Much?

Revenue Sufficiency

- Maintain policies & targets
- Fund system investment needs
- Achieve sustainable funding of operations

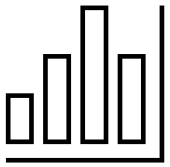
From Whom?



Defensible Allocation Methods

- Utilize industry accepted approaches
- Maintain inter and intra class proportionality
- Define correct and appropriate units of service

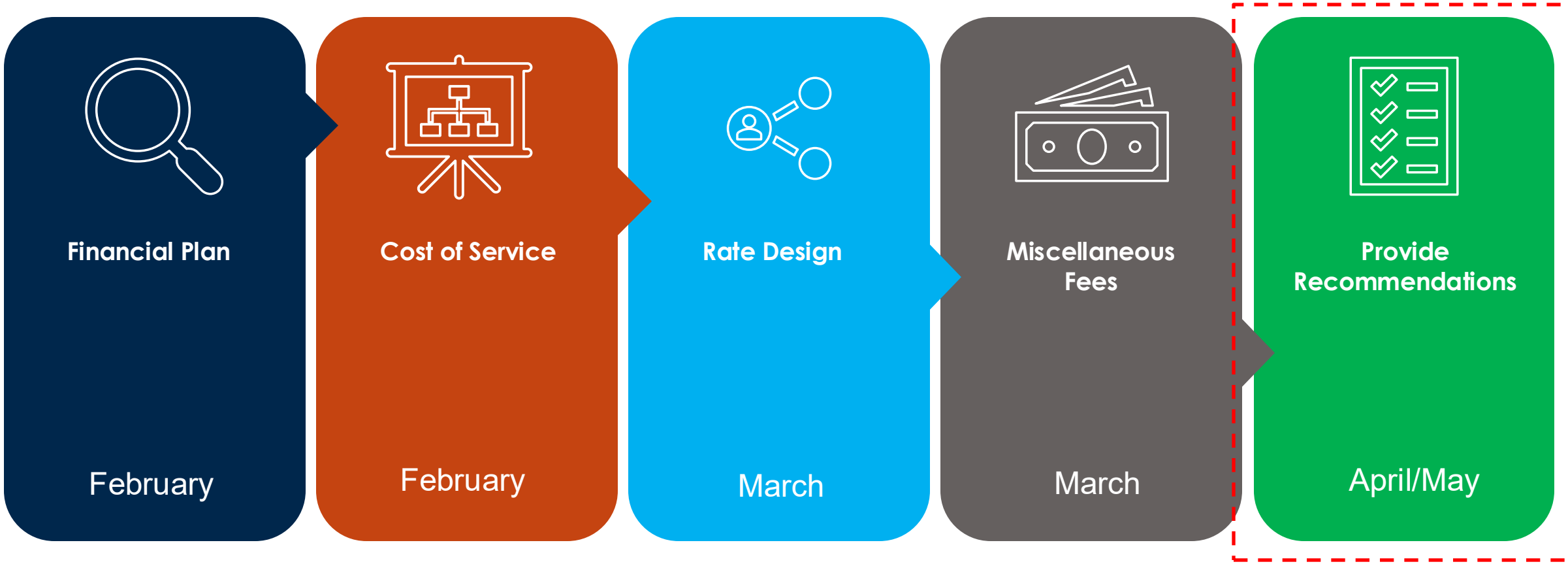
How to Collect?



Simple & Sustainable Rates

- Collect revenue proportional to services provided
- Balance affordability and financial objectives
- Accomplish revenue stability

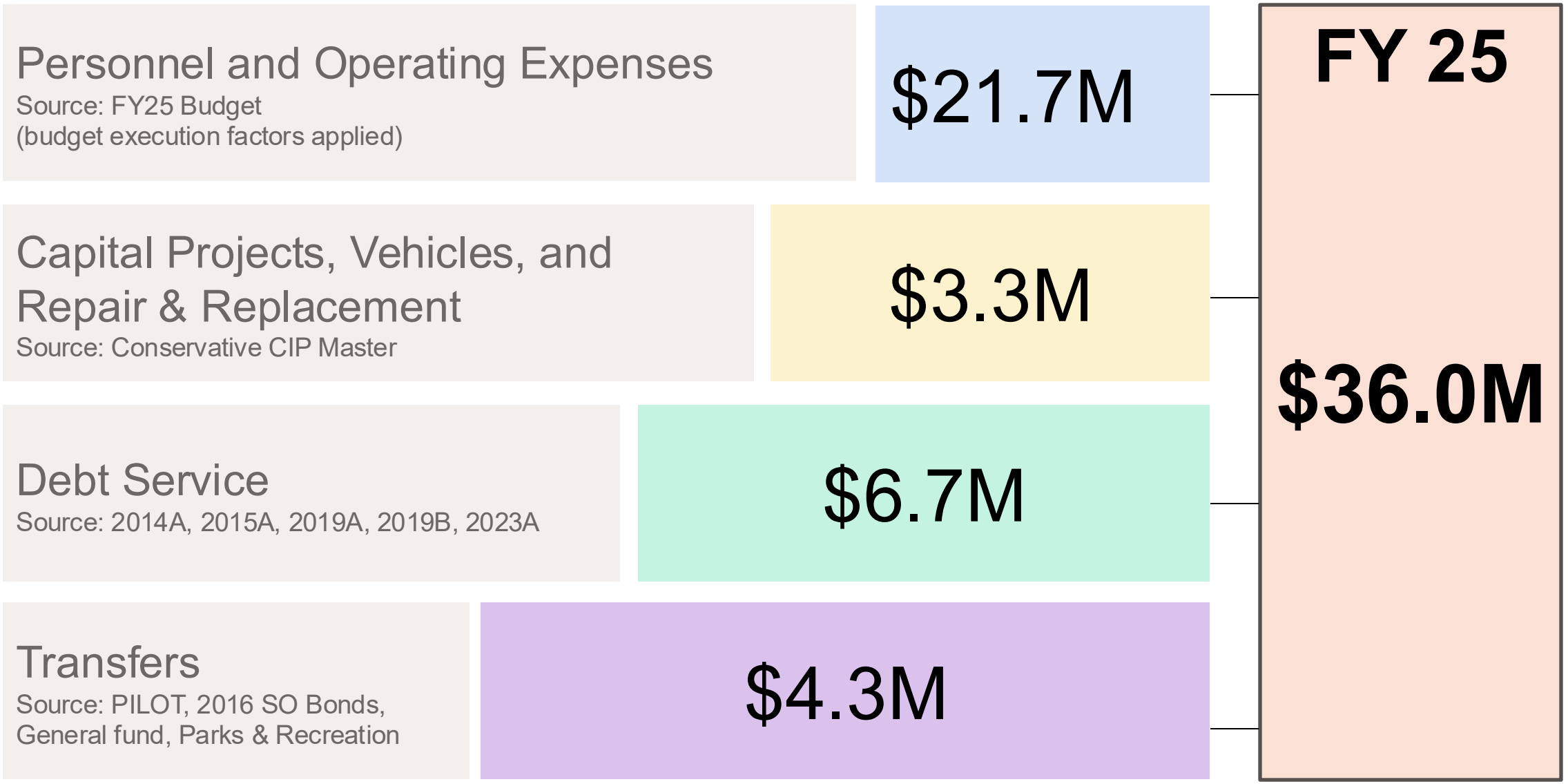
Water Rate Study Overview



1 Financial Plan

Typical Components of Utility Revenue Requirements

Starting Water System Revenue Requirements



1: Total may be off due to rounding

Key Assumptions

- Audited FY 2024 ending balances
- FY 2025 Adopted Budget
- Forecasting reflects status quo operations and capital investments
  - Excludes the purchase of AMI Meters
  - Minimum capital investment needs are met
  - No new personnel positions forecasted
  - Next debt referendum in FY 2030 ($51M)

10-Year Financial Plan – Diagnostic

FAMS Financial Analysis & Management System | By Stantec

COLUMBIA, MO

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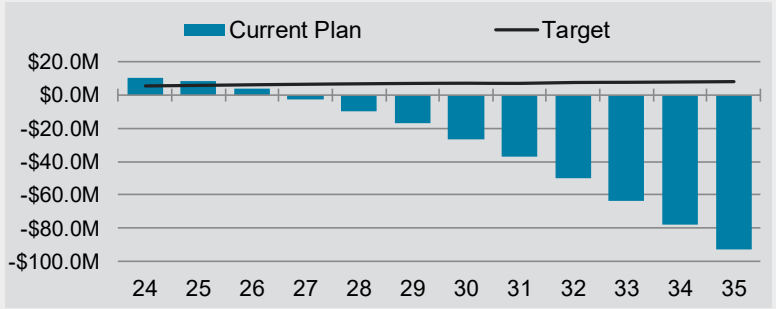
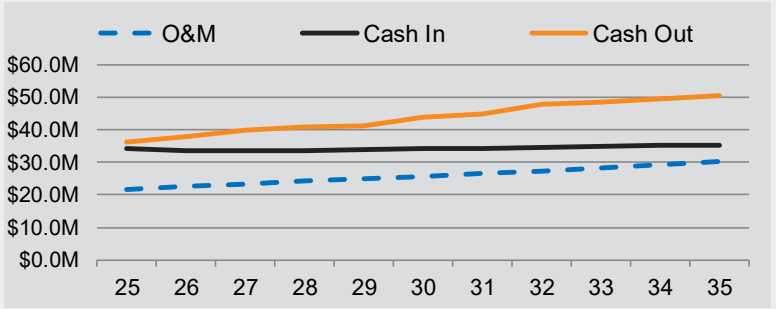
	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034	FY 2035	FY 2030	FY 2035
Water Rate Plan		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Senior-Lien Debt Service Coverage	1.86	1.59	1.49	1.53	1.65	1.14	0.89	0.80	0.73	0.66	0.58	Scenario Manager	

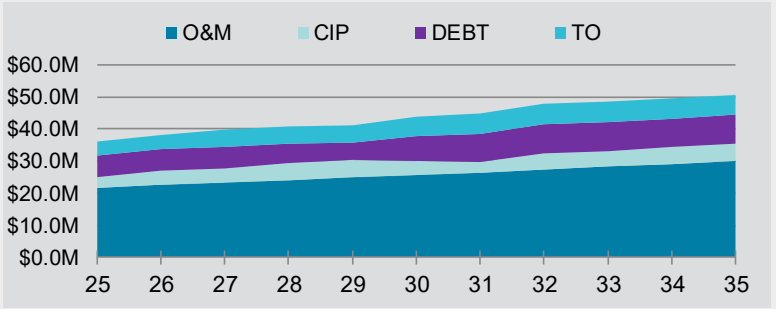
Operating Fund



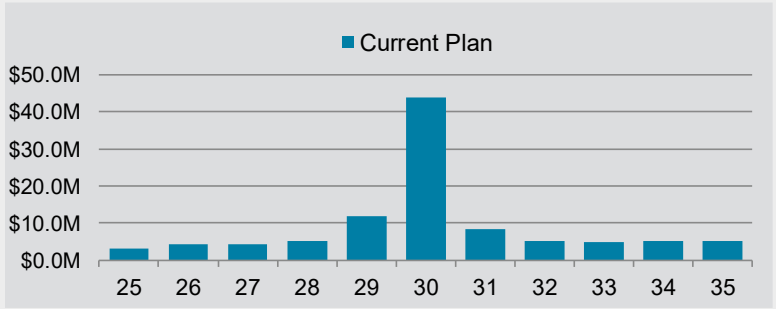
Revenues vs. Expenses



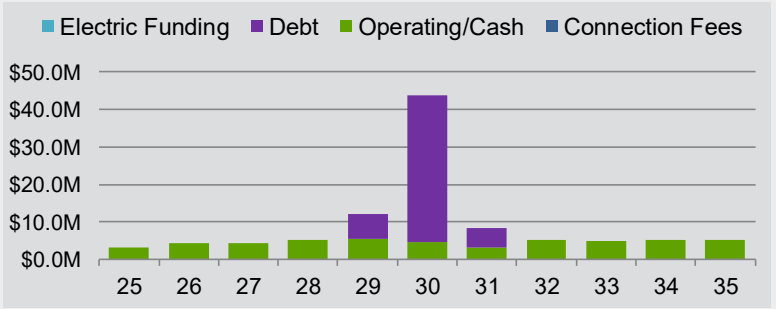
Expenses by Type



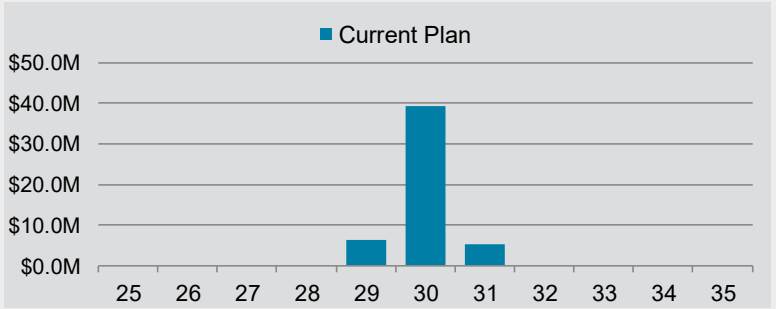
CIP Spending



CIP Funding



Borrowing



10-Year Financial Plan – Diagnostic

FAMS Financial Analysis & Management System | By Stantec

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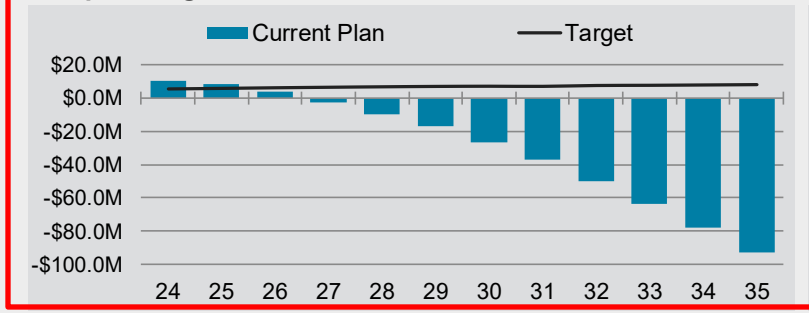
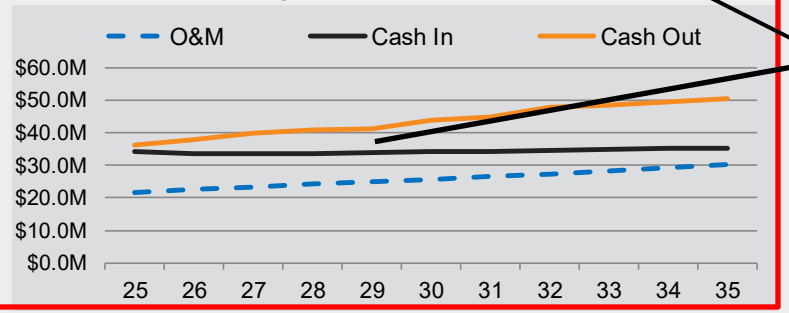
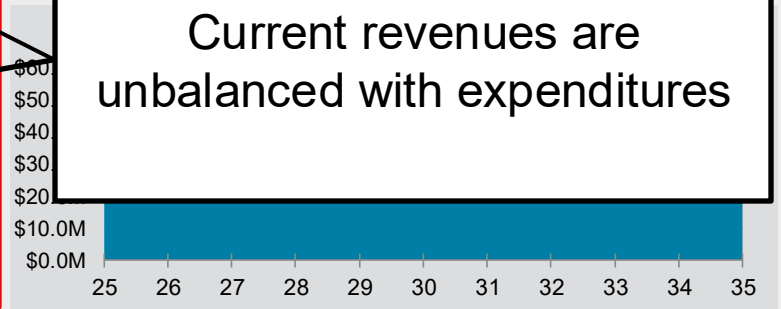
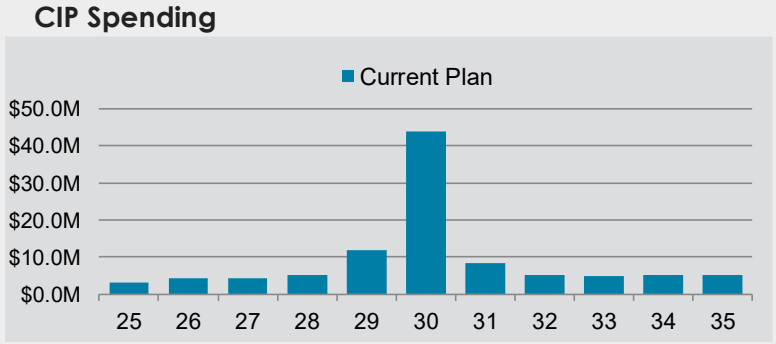
Water Rate Plan		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Senior-Lien Debt Service Coverage	1.86	1.59	1.49	1.53	1.65	1.14	0.89	0.80	0.73	0.66	0.58	Scenario Manager	

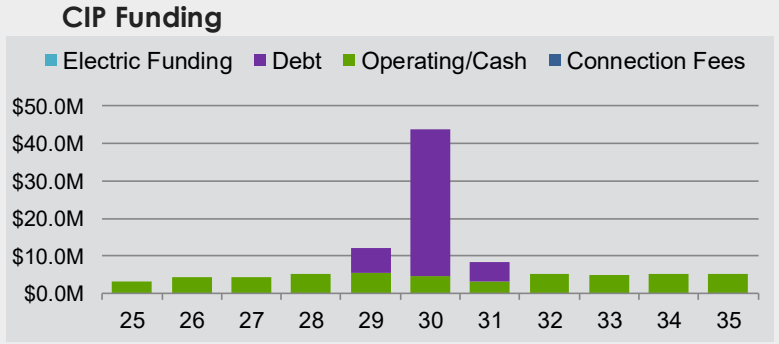
Current revenues are unbalanced with expenditures

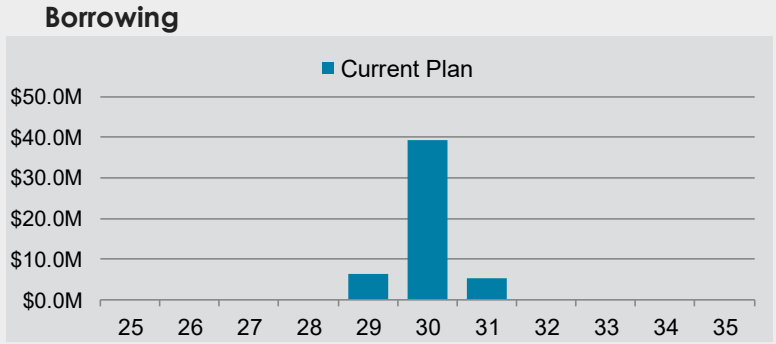












10-Year Financial Plan – Just In Time Revenue Increases

FAMS Financial Analysis & Management System | By Stantec

COLUMBIA, MO

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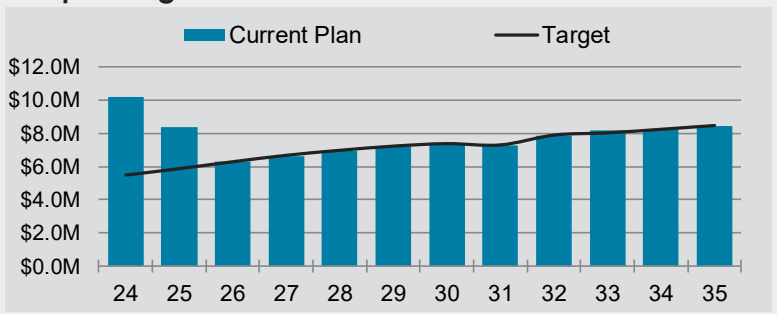
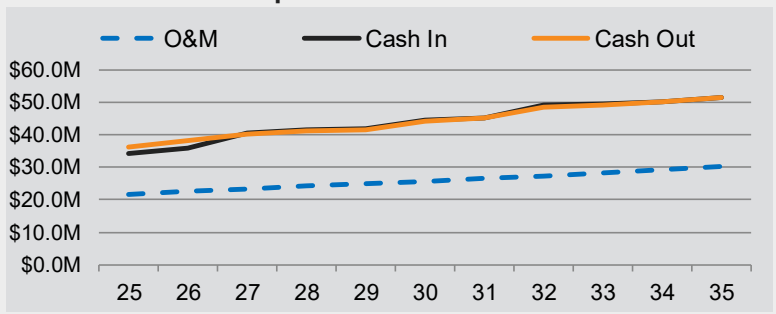
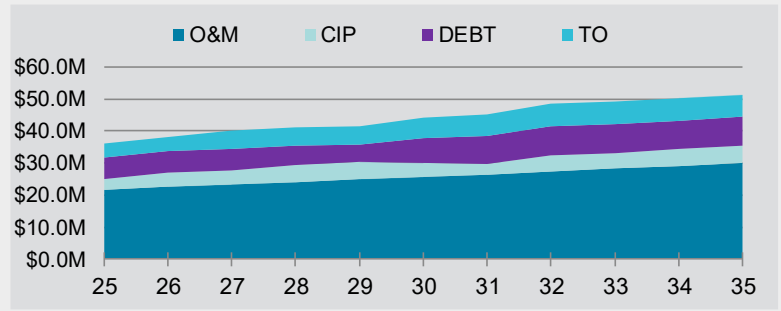
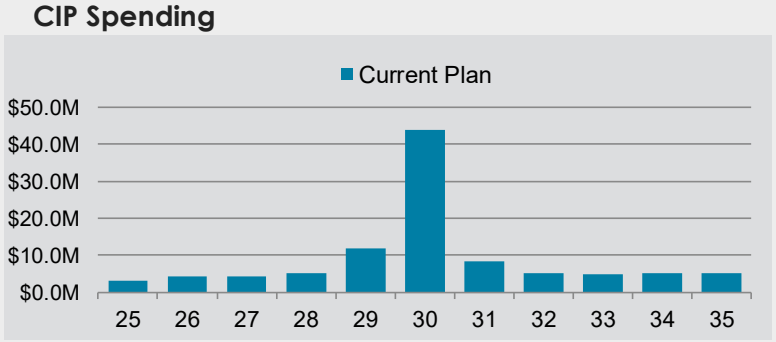
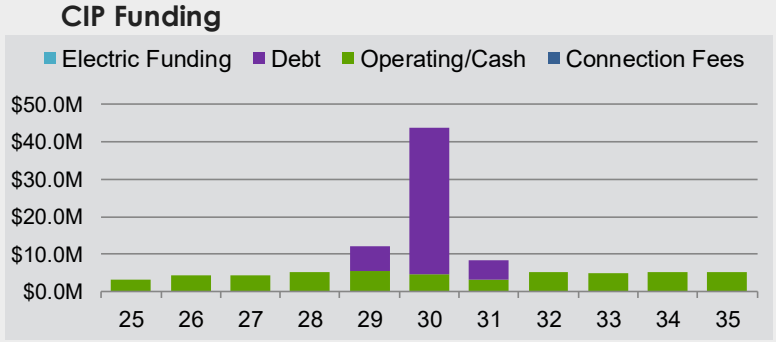
	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034	FY 2035	FY 2030	FY 2035
Water Rate Plan		8.48%	13.04%	1.66%	0.38%	6.16%	1.15%	8.55%	0.00%	1.20%	2.13%	32.85%	50.72%
Senior-Lien Debt Service Coverage	1.86	1.97	2.52	2.76	3.09	2.52	2.12	2.40	2.34	2.34	2.37	Scenario Manager	

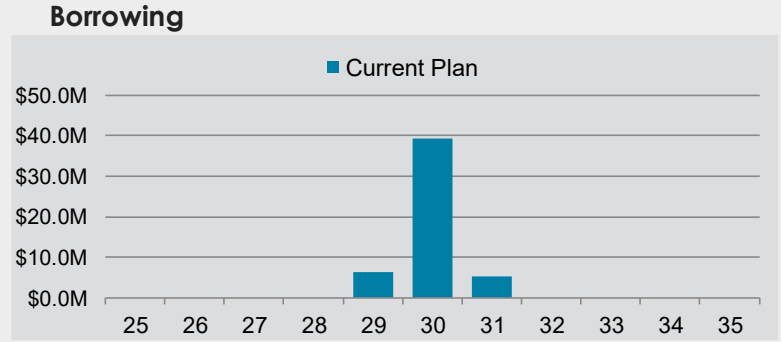












10-Year Financial Plan – Just In Time Revenue Increases

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COLUMBIA, MO

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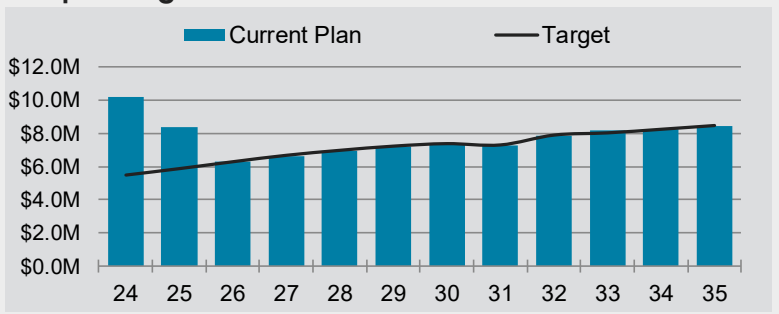
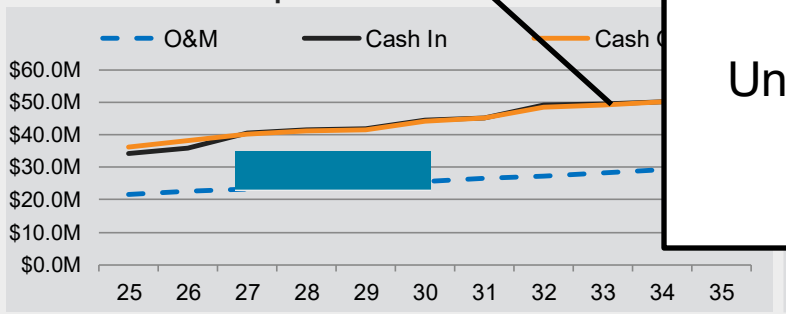
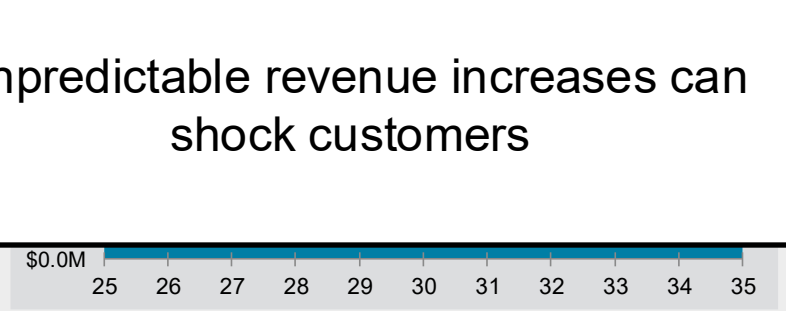
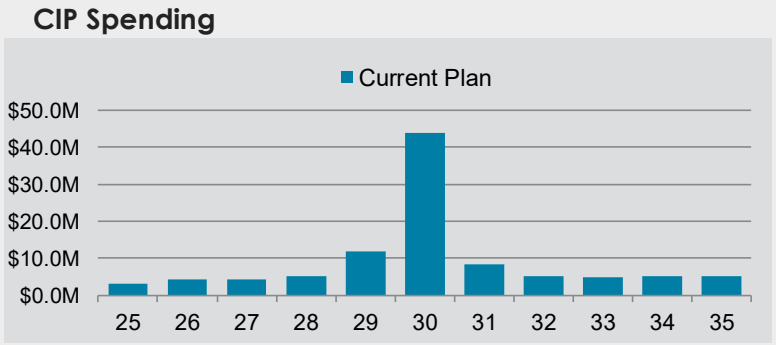
Water Rate Plan		8.48%	13.04%	1.66%	0.38%	6.16%	1.15%	8.55%	0.00%	1.20%	2.13%	32.85%	50.72%
Senior-Lien Debt Service Coverage	1.86	1.97	2.52	2.76	3.09	2.52	2.12	2.40	2.34	2.34	2.37	Scenario Manager	

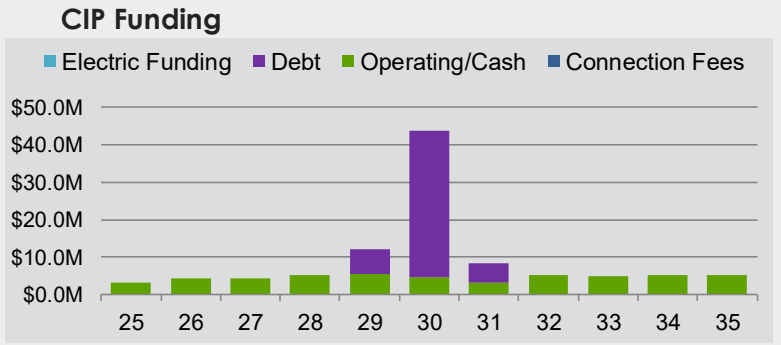


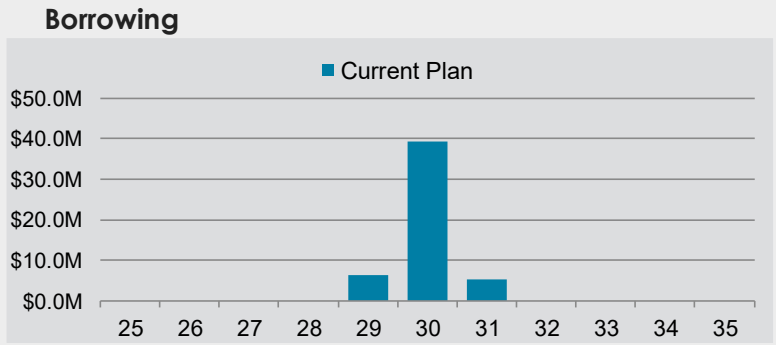


Unpredictable revenue increases can shock customers









10-Year Financial Plan – Recommended Revenue Increase

FAMS Financial Analysis & Management System | By Stantec

COLUMBIA, MO

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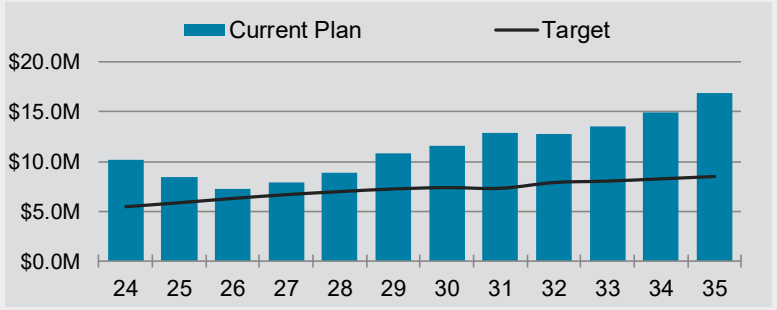
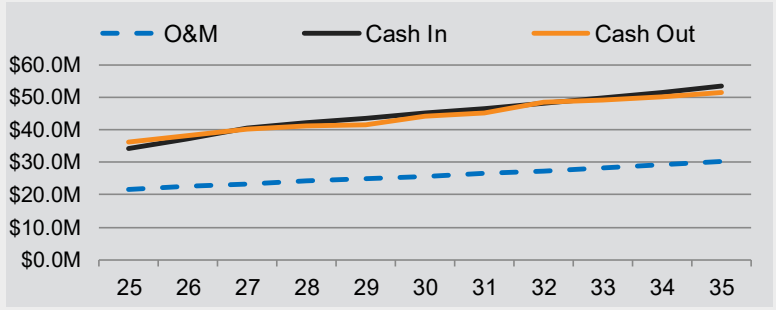
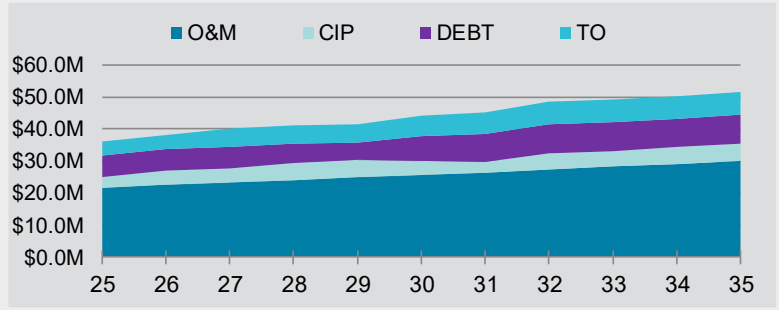
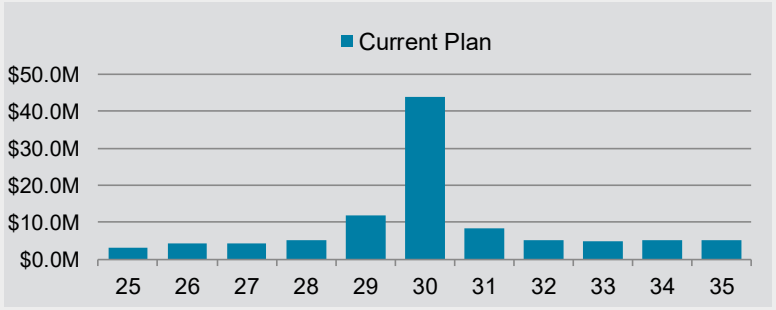
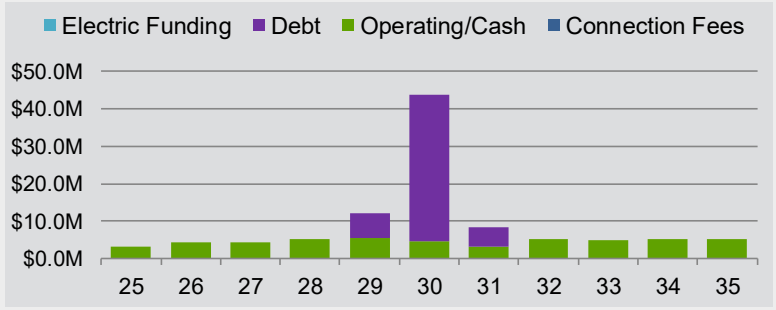
Water Rate Plan		12.00%	10.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	34.70%	56.09%
Senior-Lien Debt Service Coverage	1.86	2.13	2.55	2.88	3.42	2.60	2.28	2.31	2.40	2.49	2.58	Scenario Manager	

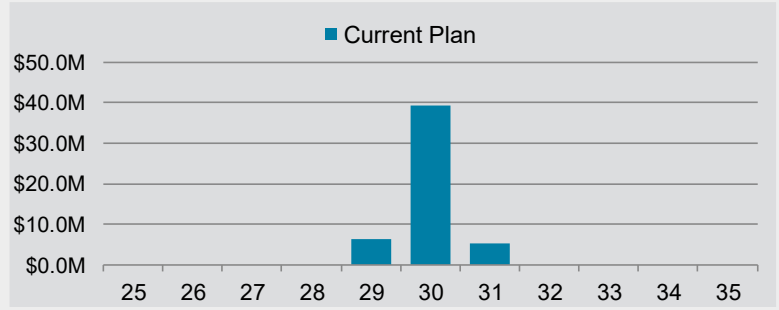












10-Year Financial Plan – Recommended Revenue Increase

FAMS Financial Analysis & Management System | By Stantec

COLUMBIA, MO

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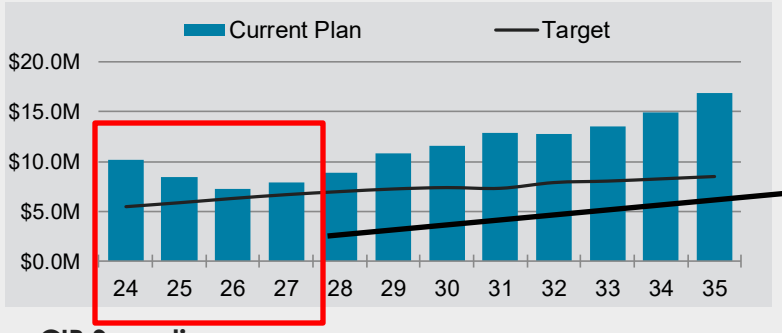
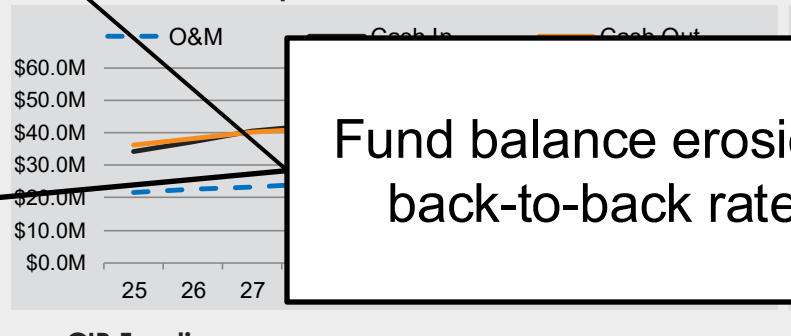
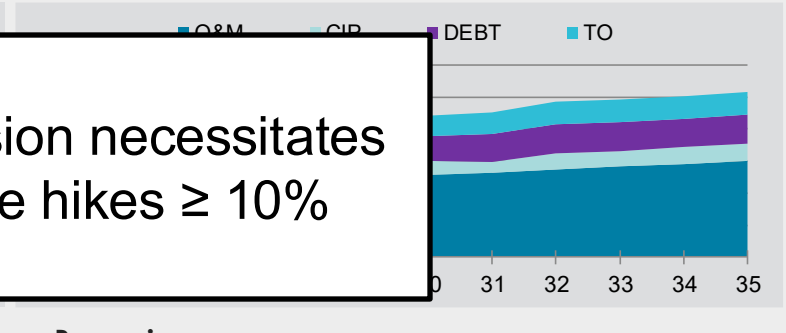
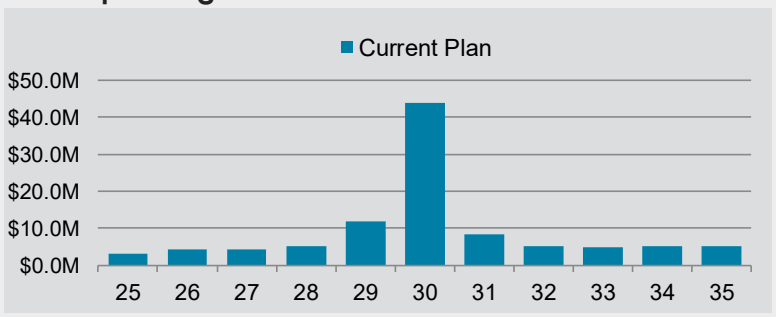
Senior-Lien Debt Service Coverage	1.86	2.13	2.55	2.88	3.42	2.60	2.28	2.31	2.40	2.49	2.58	Scenario Manager	

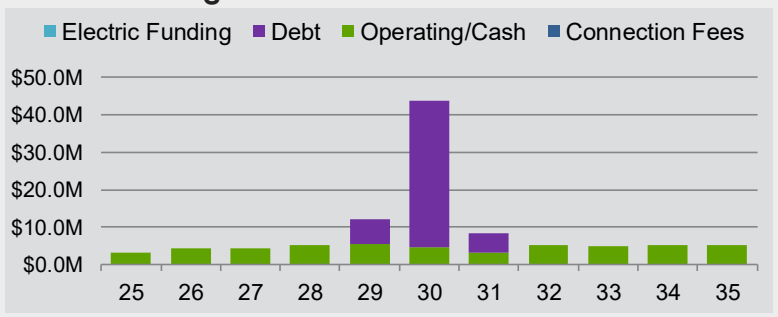
Fund balance erosion necessitates back-to-back rate hikes ≥ 10%

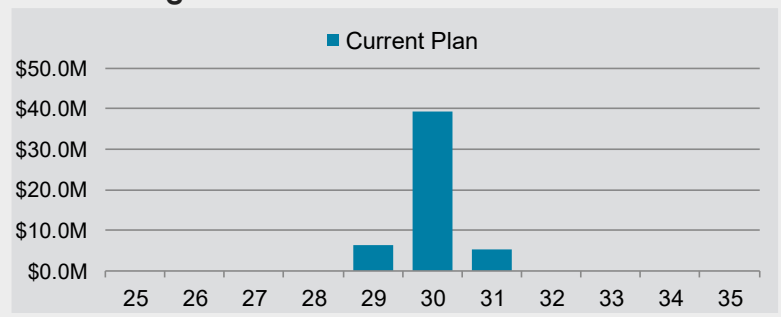












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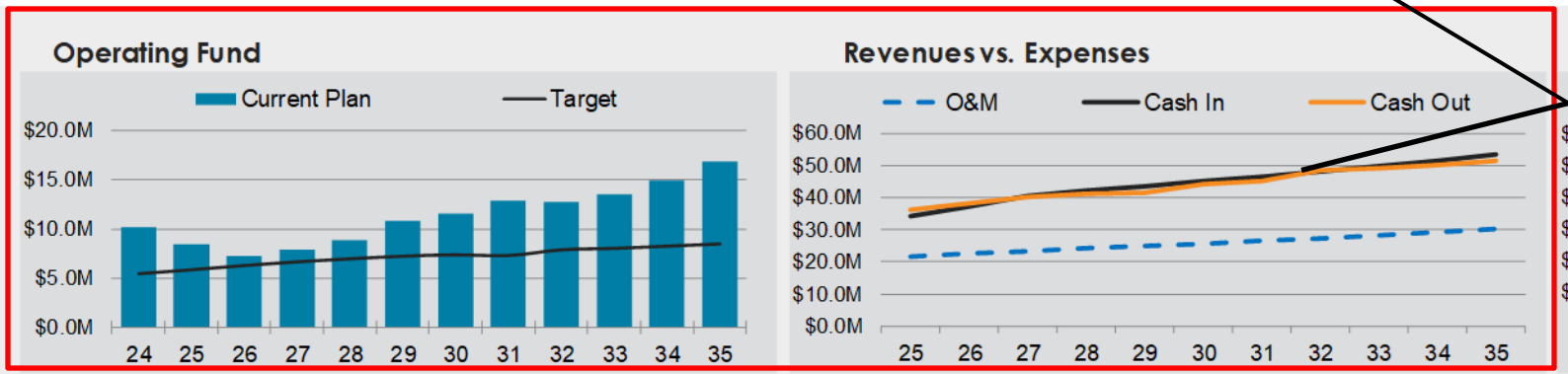
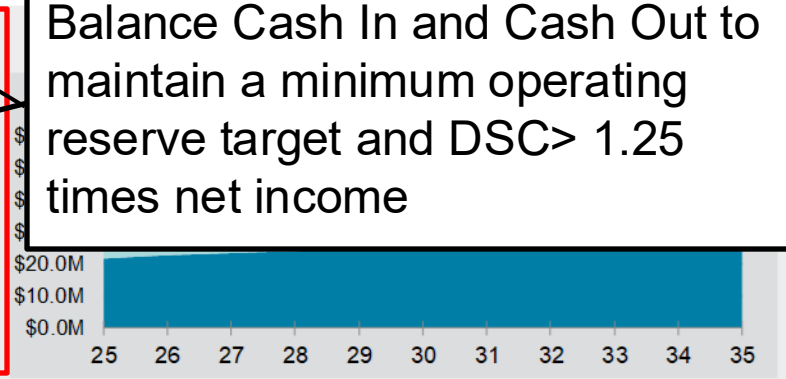
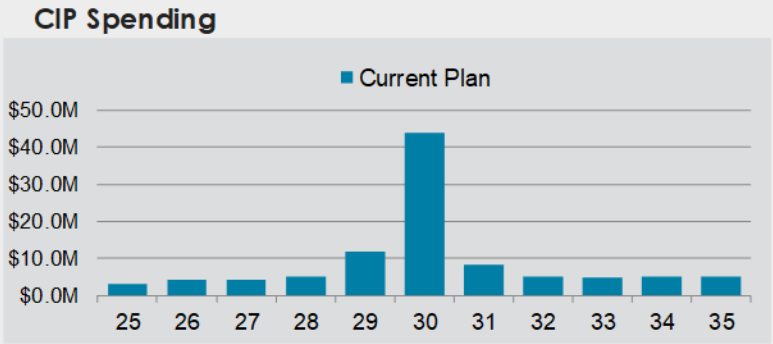
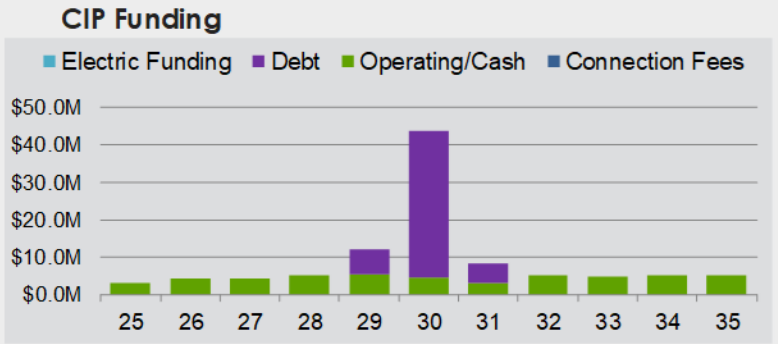
Senior-Lien Debt Service Coverage	1.86	2.13	2.55	2.88	3.42	2.60	2.28	2.31					

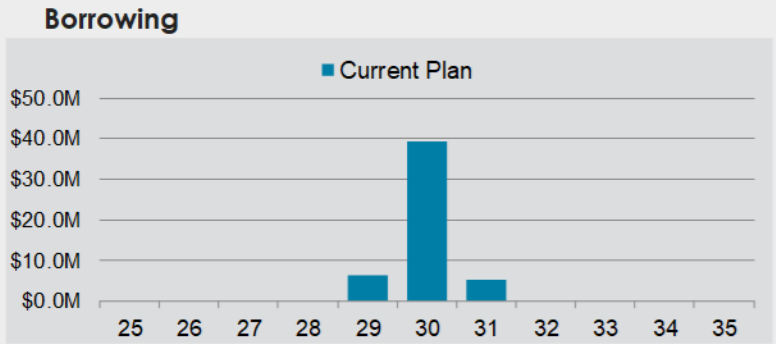
Balance Cash In and Cash Out to maintain a minimum operating reserve target and DSC> 1.25 times net income







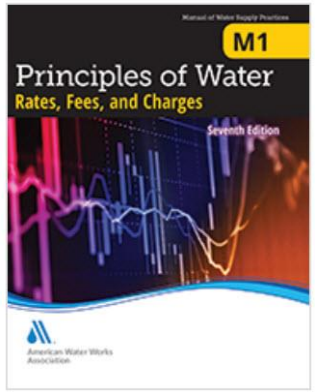


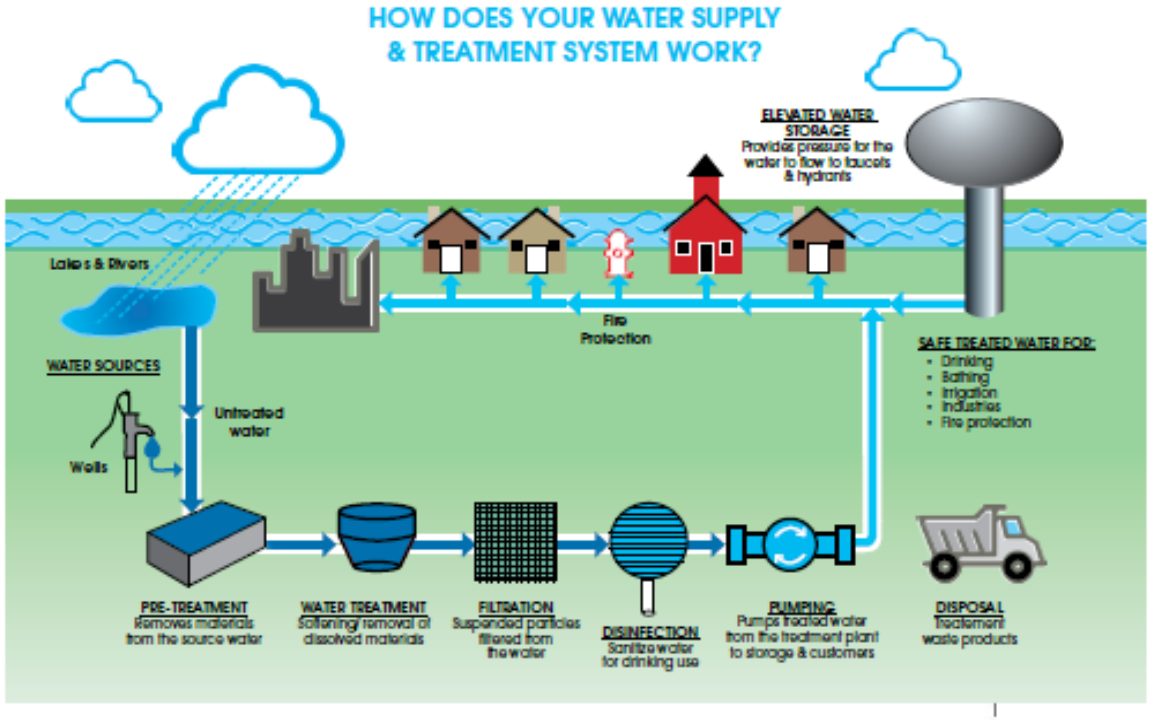


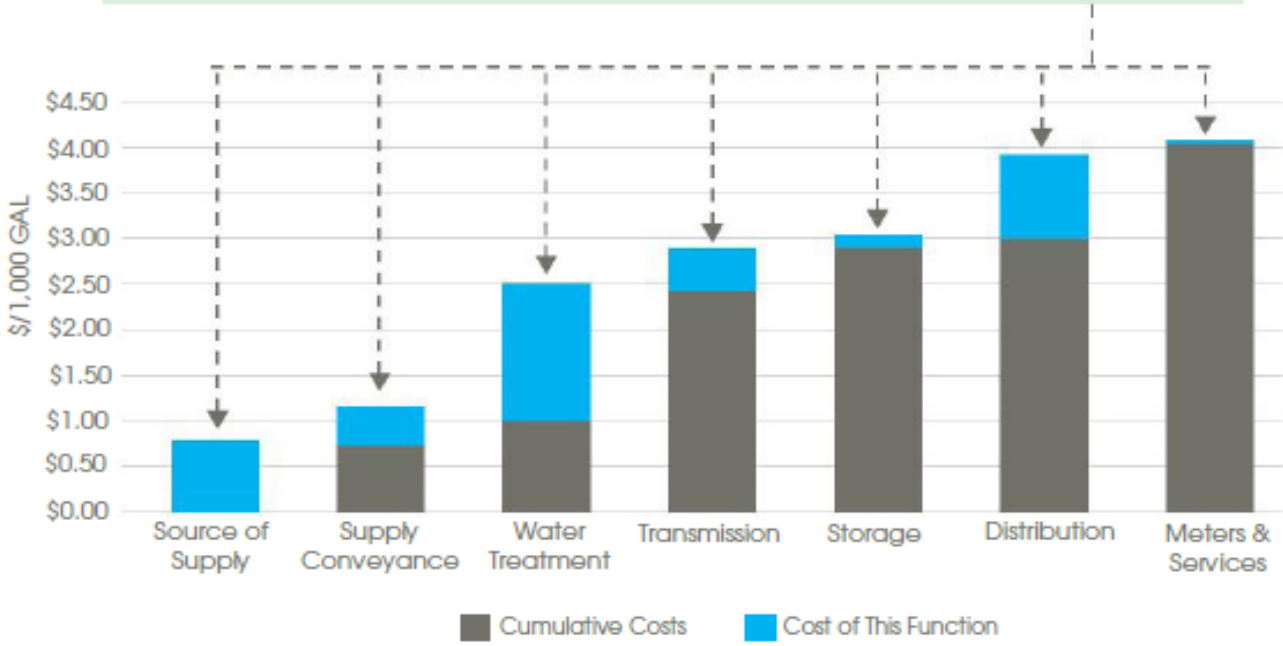
2 Cost of Service

Cost to Serve

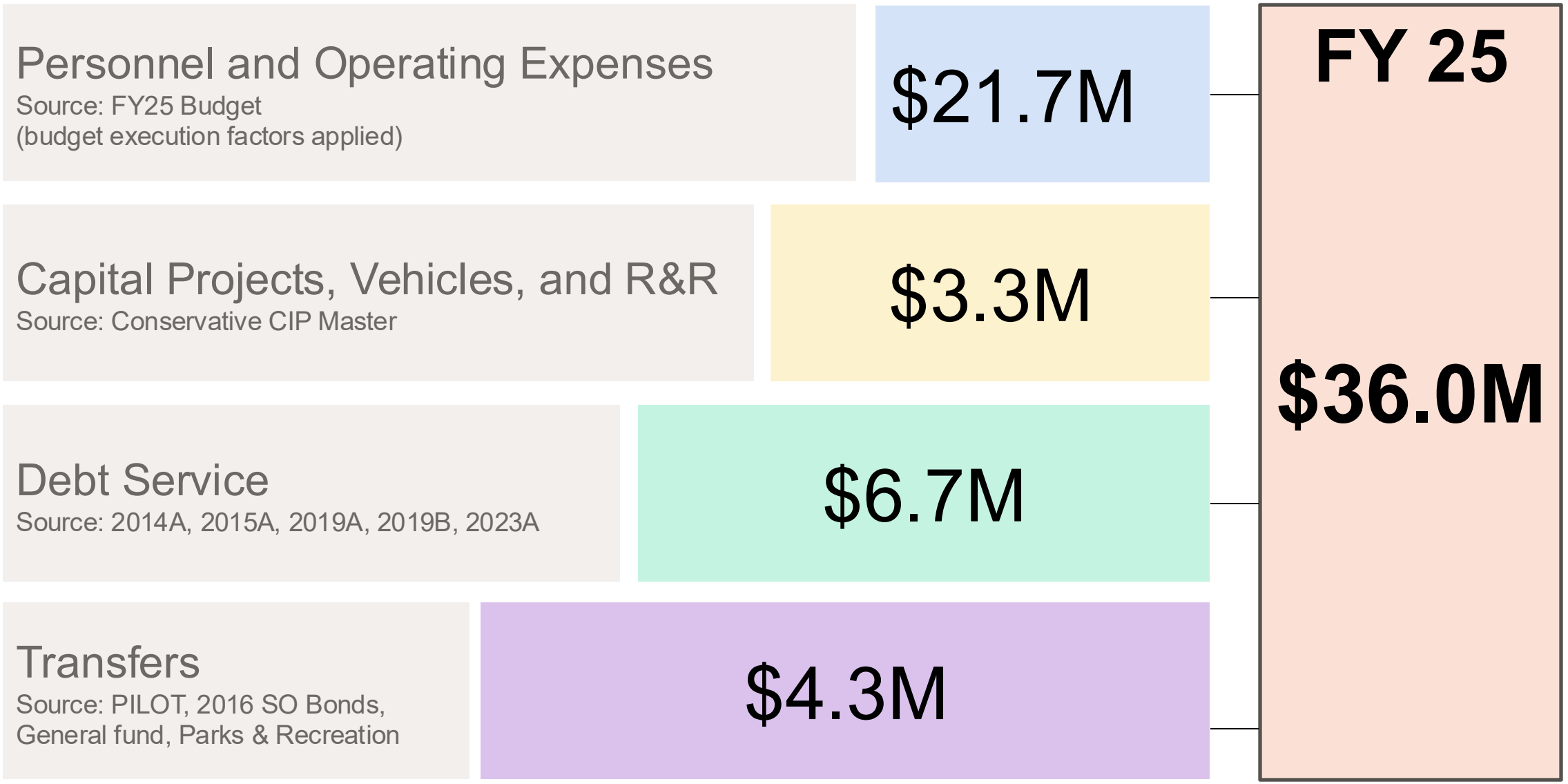
Goal: Determine the cost of providing service by function







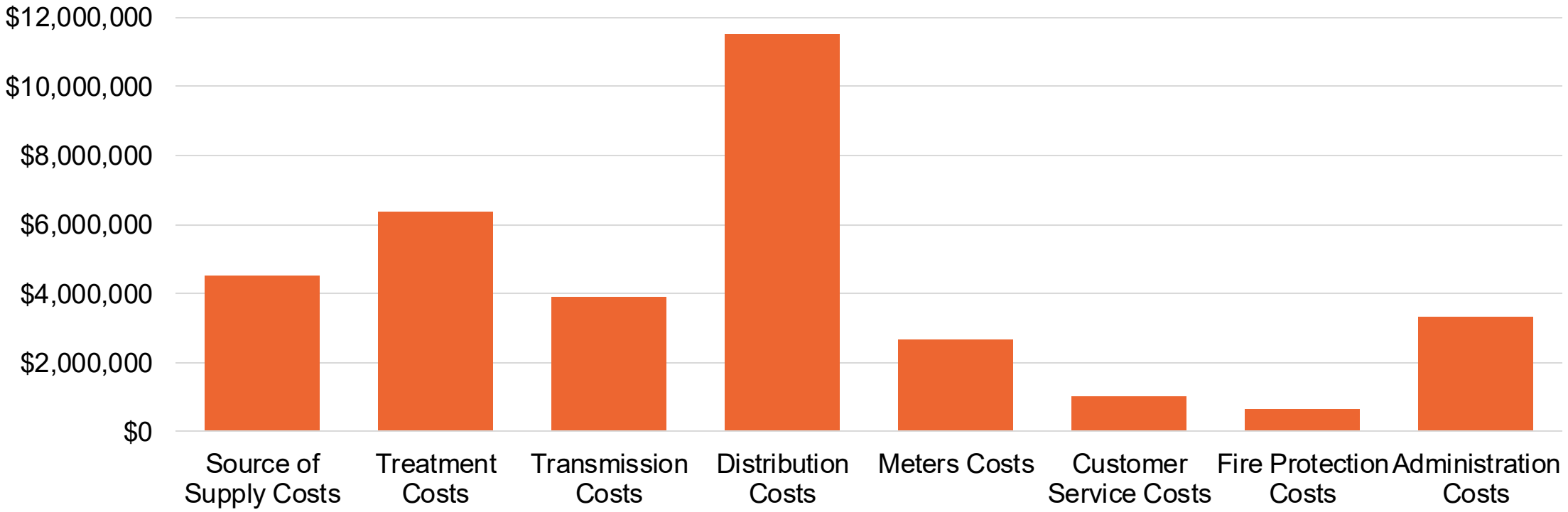
Starting Water System Revenue Requirements



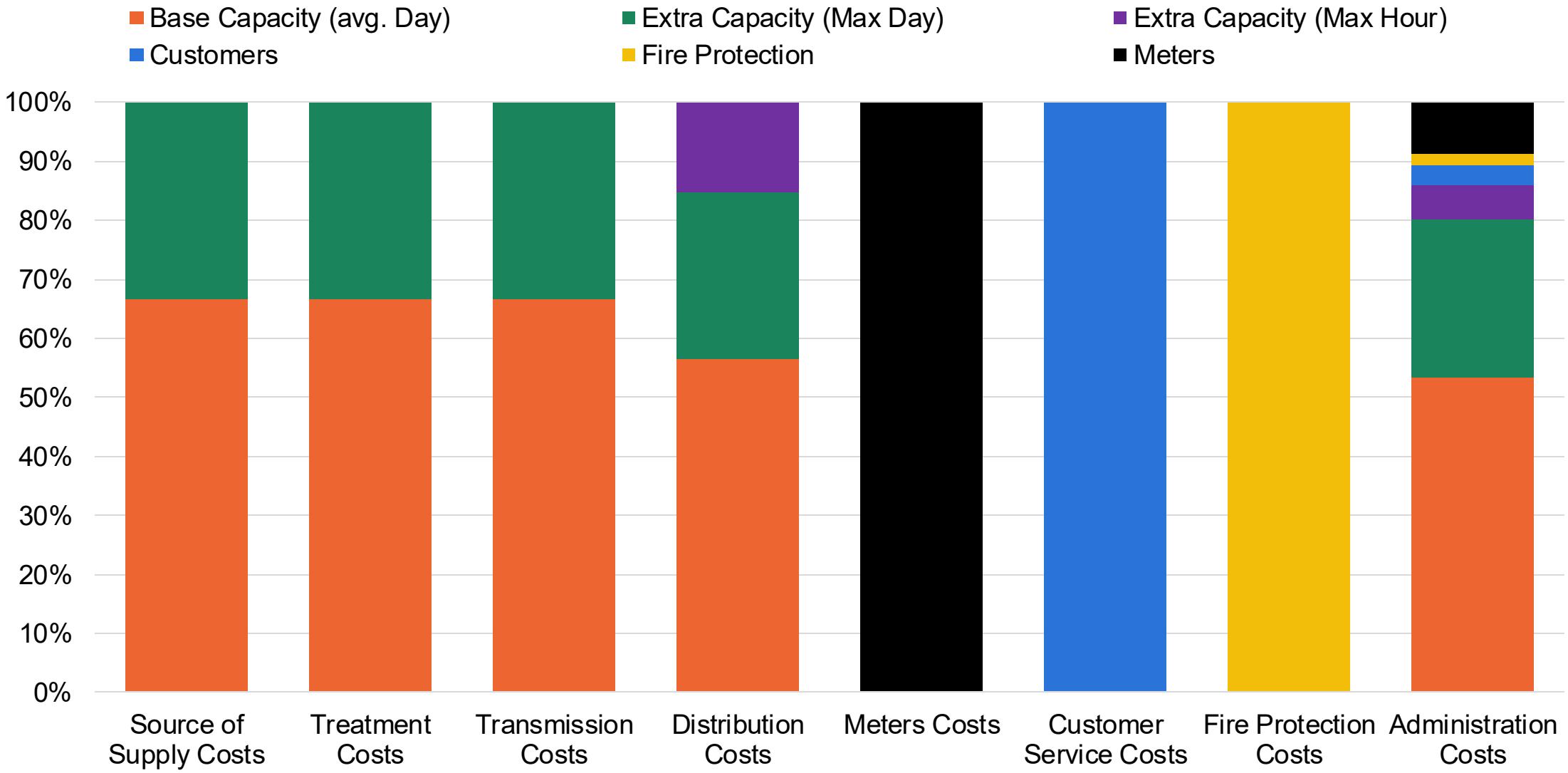
1: Total may be off due to rounding

Functional Allocations

FY 2026 Test Year Rate Revenue Requirements $34.1M (With Offsetting Revenues)



System Functions to System Units



Unit Costs

Average Day	**Average Day Allocation**	**CCF per Year**	**Unit Cost**
Total	$18,175,950	5,480,631	$3.32
Max Day	**Max Day Allocation**	**CCF per Year**	**Unit Cost**
Total	$9,135,754	9,609	$950.71
Peak Hour	**Max Hour Allocation**	**CCF per Year**	**Unit Cost**
Total	$1,953,892	4,432	$440.81
Customer	**Customer Allocation**	**Annual Bills**	**Unit Cost**
Total	$1,143,067	626,892	$1.82
Public Fire Protection	**Customer Allocation**	**Hydrants**	**Unit Cost**
Total	$705,148	6,443	$109.44
Meters	**Customer Allocation**	**EQ Meters**	**Unit Cost**
Total	$2,962,524	62,937	$47.07

3 Rate Design

Current Rates

Customer Classes:

- Residential
- Commercial
- Large Commercial
- Residential Irrigation
- Commercial Irrigation
- Airport

Additional Charges

- Lawn Irrigation is charged at tier 3 in the summer
- An additional fire flow charge is applied based on meter size
- Backflow prevention charge is $2.00 per device
- Columbia Regional Airport has separate rate

Monthly Base Charges		
Meter Size	**In-City Base**	**Fire Charge**
5/8” and ¾”	$12.48	$1.59
1”	$20.15	$1.69
1.5”	$40.52	$2.44
2”	$61.41	$2.63
3”	$189.99	$6.31
4”	$398.45	$9.75
6”	$850.20	$19.51

In City Volumetric Charges		
Tier	**Summer (June through September)**	**Non-Summer**
Tier 1 (70% of WAC)	$3.22	$3.22
Tier 2 (71%-170% of WAC)	$4.44	$3.22
Tier 3 (>170% of WAC)	$6.89	$3.22

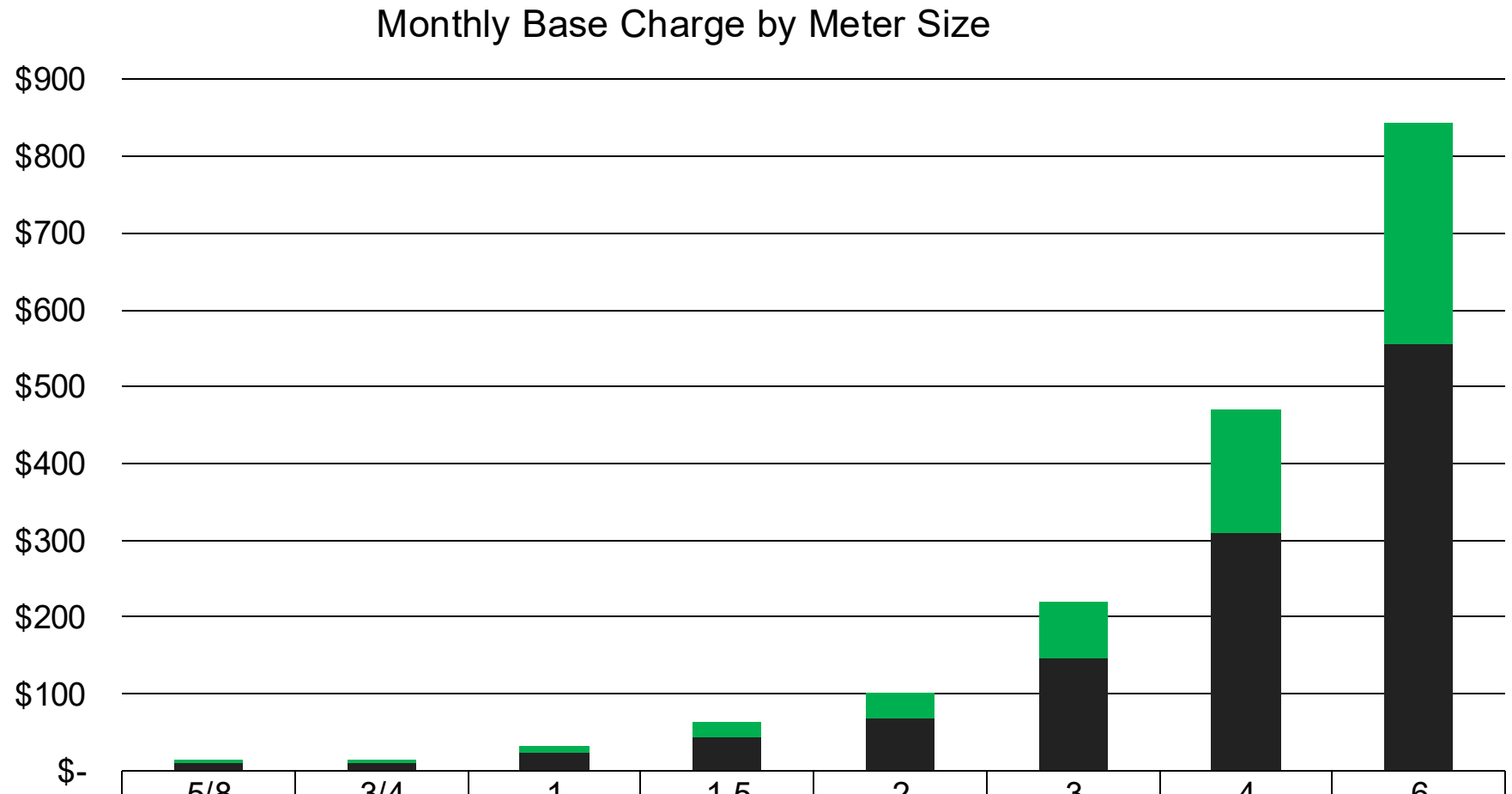
WAC = Winter Average Consumption

Base Rate Recommendations

- Recover 30% of rate revenue requirements in monthly base charges (currently 29%)
- Simplify by including public fire protection cost in base charges
- Combine scaled and unscaled cost by meter size to calculate fees using strong cost basis

Cost Components		Cost	Recovery %		Fixed Cost Recovered
Customer	$	1,143,067	100%	$	1,143,067
Meters	$	2,962,524	100%	$	2,962,524
Fire Protection	$	705,148	100%	$	705,148
Average Day	$	18,175,950	30%	$	5,452,785
				$	**10,263,524**

Calculated Base Rates



	5/8	3/4	1	1.5	2	3	4	6
Meter Cost Scaled Cost	$4.29	$4.29	$10.73	$21.45	$34.32	$75.08	$160.88	$289.58
Meter Capacity Scaling	$8.19	$8.19	$20.48	$40.95	$65.52	$143.33	$307.13	$552.83
Customer Cost	$1.84	$1.84	$1.84	$1.84	$1.84	$1.84	$1.84	$1.84
Total	$14.32	$14.32	$33.04	$64.24	$101.68	$220.24	$469.84	$844.24

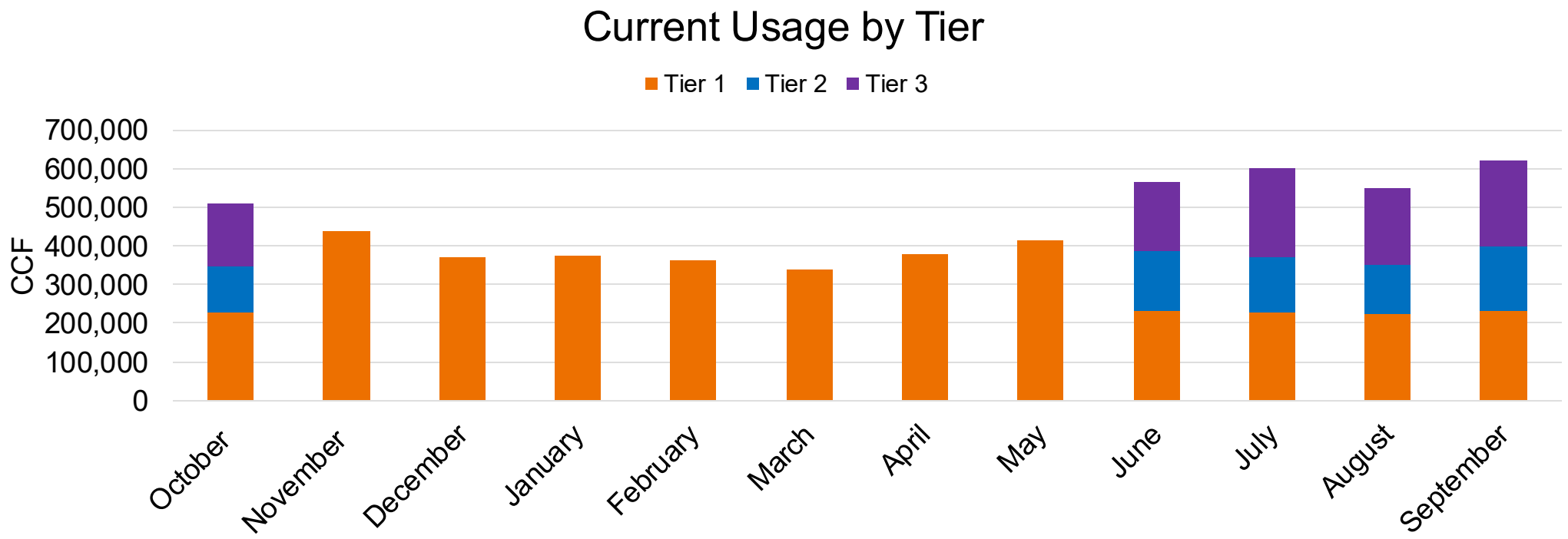
Base Rates Impacts

Meter Size	Current	Calculated	$ Change	% Change
5/8	$ 14.07	$ 14.32	$ 0.25	1.8%
3/4	$ 14.07	$ 14.32	$ 0.25	1.8%
1.0	$ 21.84	$ 33.04	$ 11.20	51.3%
1.5	$ 42.96	$ 64.24	$ 21.28	49.5%
2.0	$ 64.04	$ 101.68	$ 37.64	58.8%
3.0	$ 196.30	$ 220.24	$ 23.94	12.2%
4.0	$ 408.20	$ 469.84	$ 61.64	15.1%
6.0	$ 869.71	$ 844.24	$ (25.47)	-2.9%

Note: current base fees include fire charges in this table

Volume Rates Observations

- 70% of winter average use is restrictive and penalizes steady use during peak months
- Peak use occurs outside the summer; significant shoulder-month use is present
- Tier pricing should reflect the defined cost as identified in the cost of service



<=70% WAC
Tier 1/ Non Summer

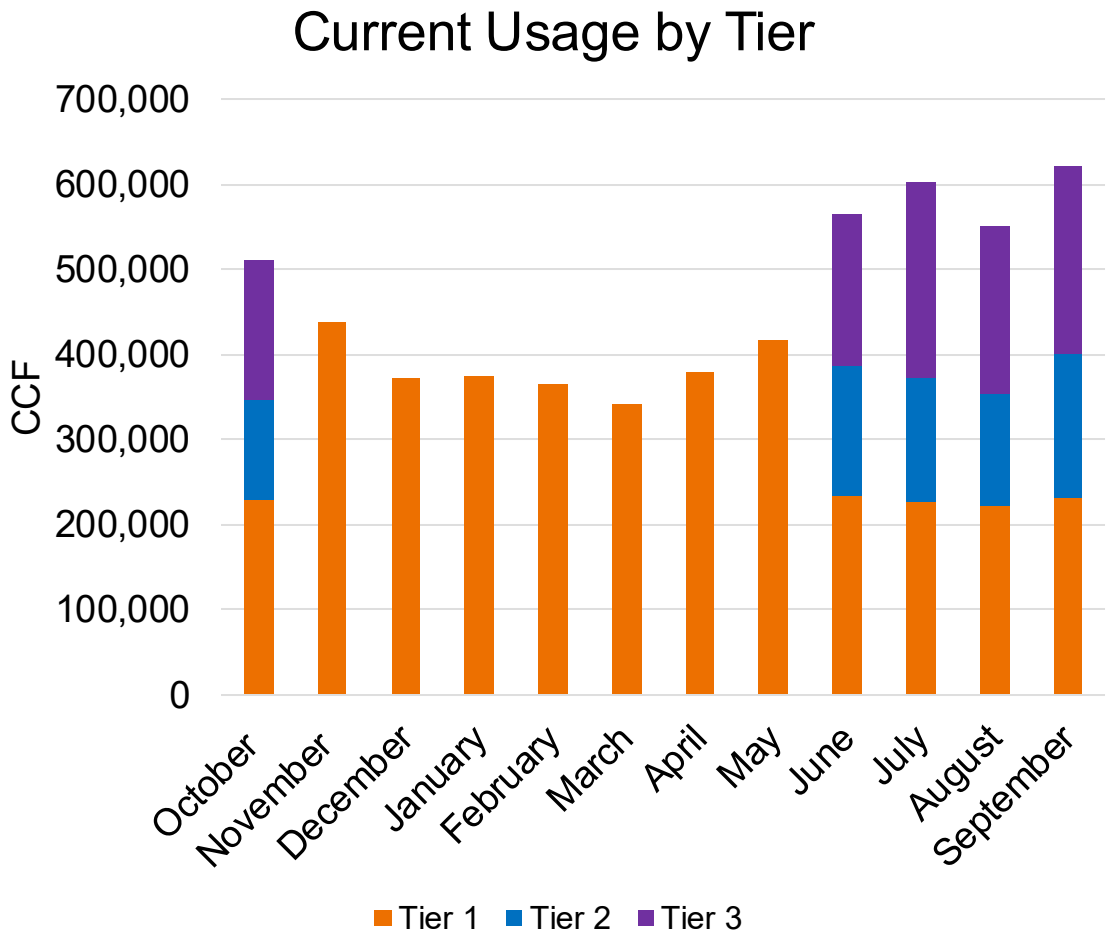
70%< WAC>170%
Tier 2

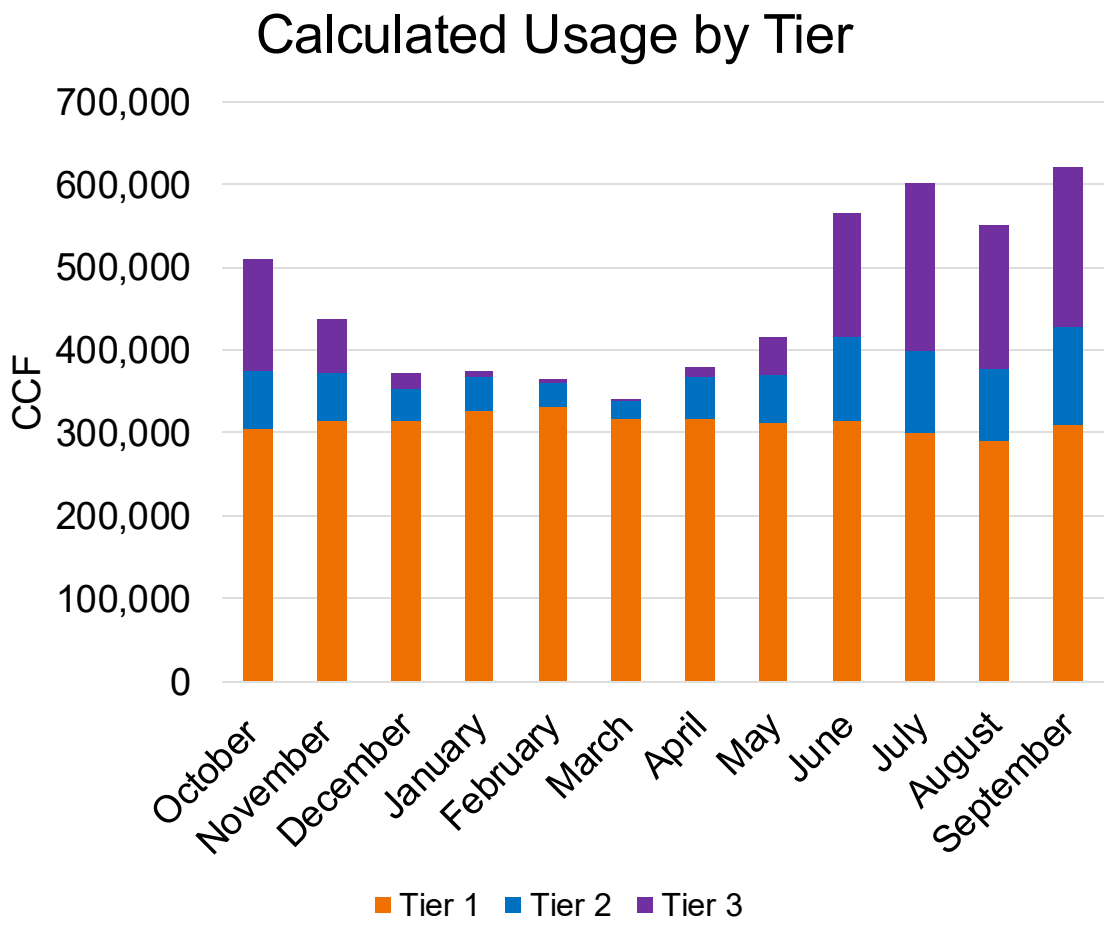
>170% WAC
Tier 3

WAC = Winter Average Consumption

Volume Tiers

<=100% WAC	100%< WAC>200%	>200% WAC
Tier 1/ Non Summer	**Tier 2**	**Tier 3**





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Volume Rates

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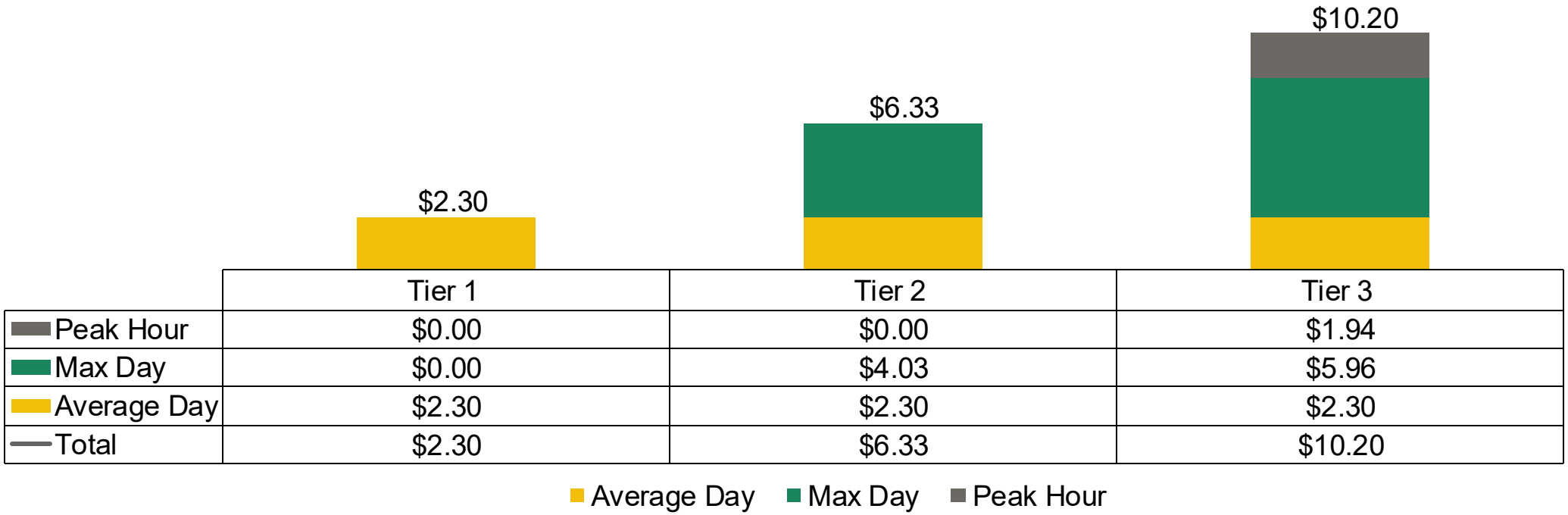
Total	$705,148	6,443	$109.44
Meters	**Customer Allocation**	**EQ Meters**	**Unit Cost**
Total	$2,962,524	62,937	$47.07

Note 70% of average day costs are allocated to the volume rates

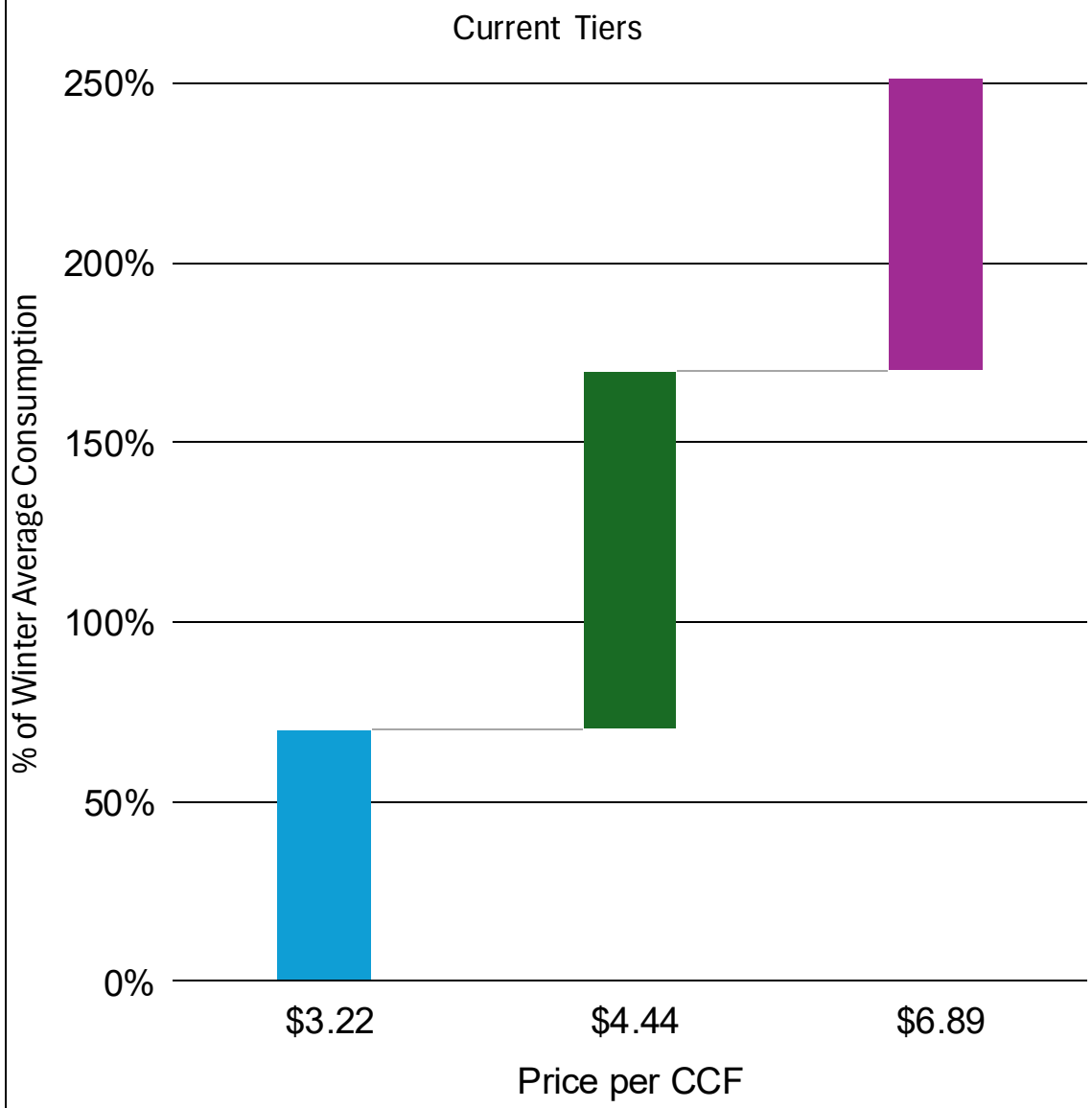
Calculated Volume Rates

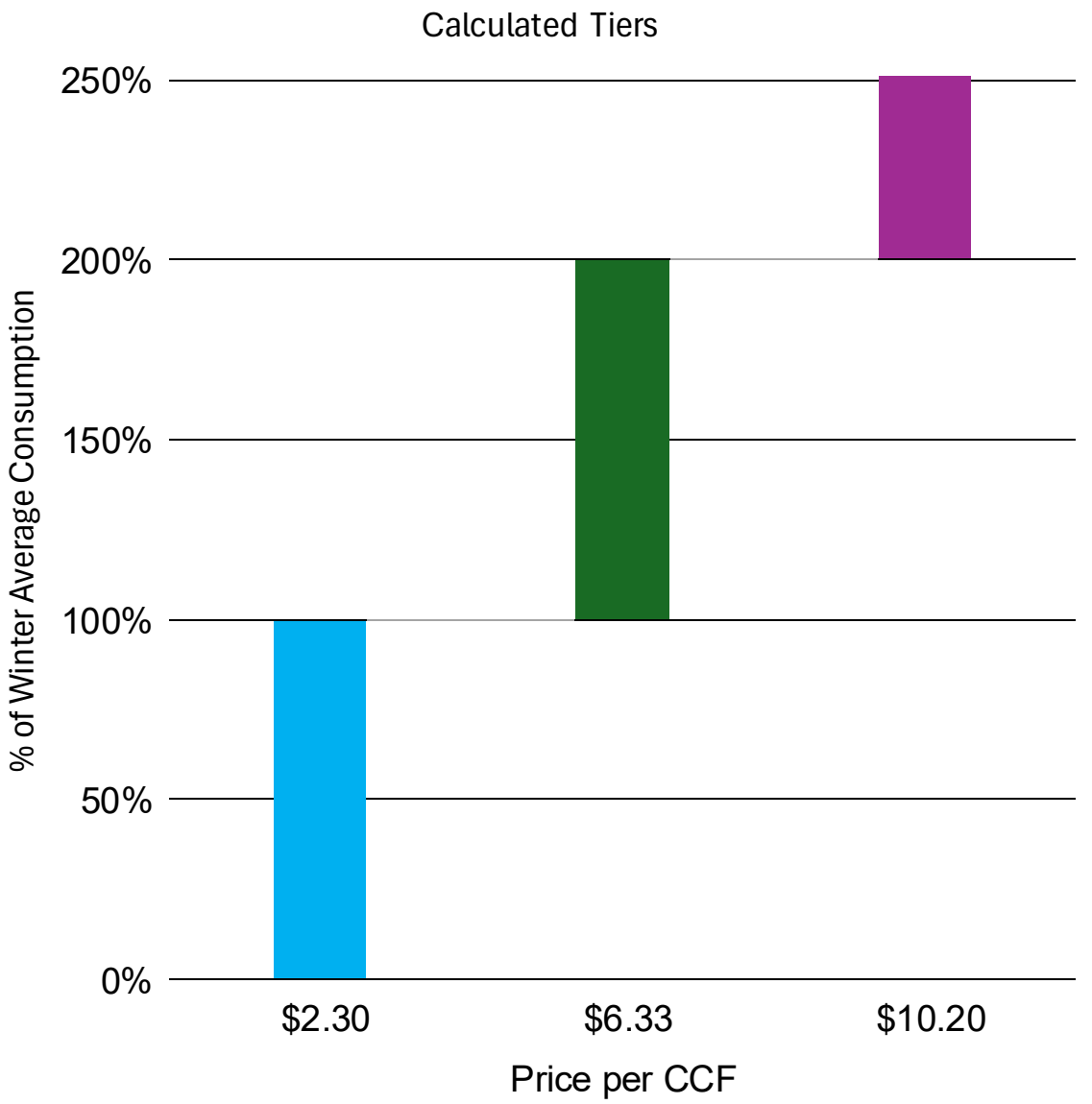
- Use 100% of winter average consumption for Tier 1
- Set tier two max to 200% of winter average consumption based on system peaking data
- Apply tiers year round
- Use identified cost of service components and volume characteristics to calculate rates



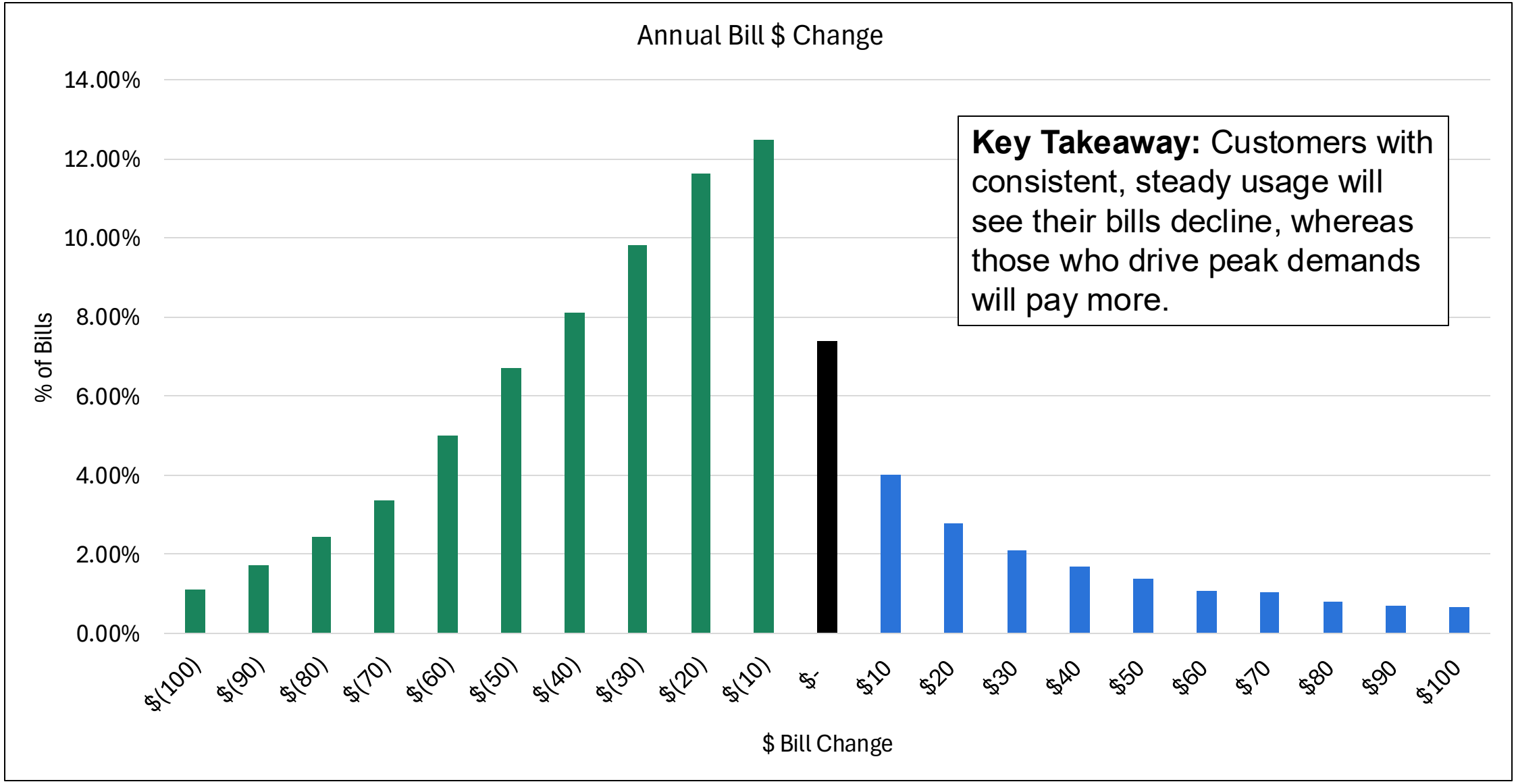
	Tier 1	Tier 2	Tier 3
Peak Hour	$0.00	$0.00	$1.94
Max Day	$0.00	$4.03	$5.96
Average Day	$2.30	$2.30	$2.30
Total	$2.30	$6.33	$10.20

Rate Comparison



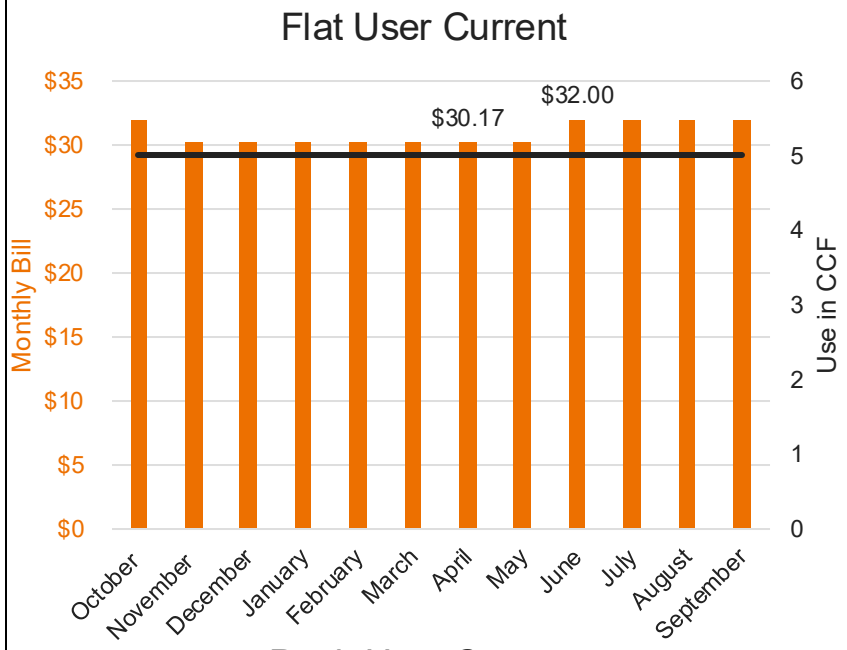


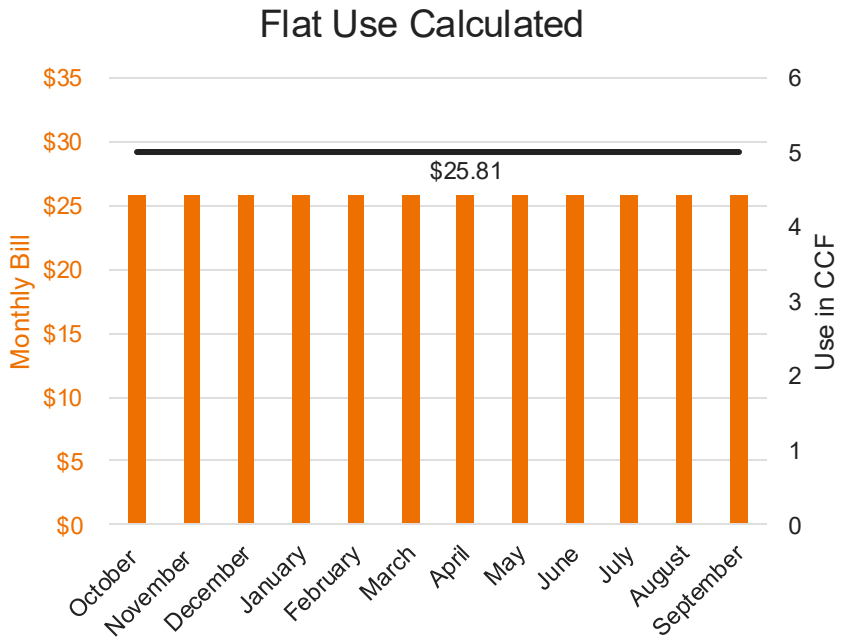
Customer Impacts – Residential



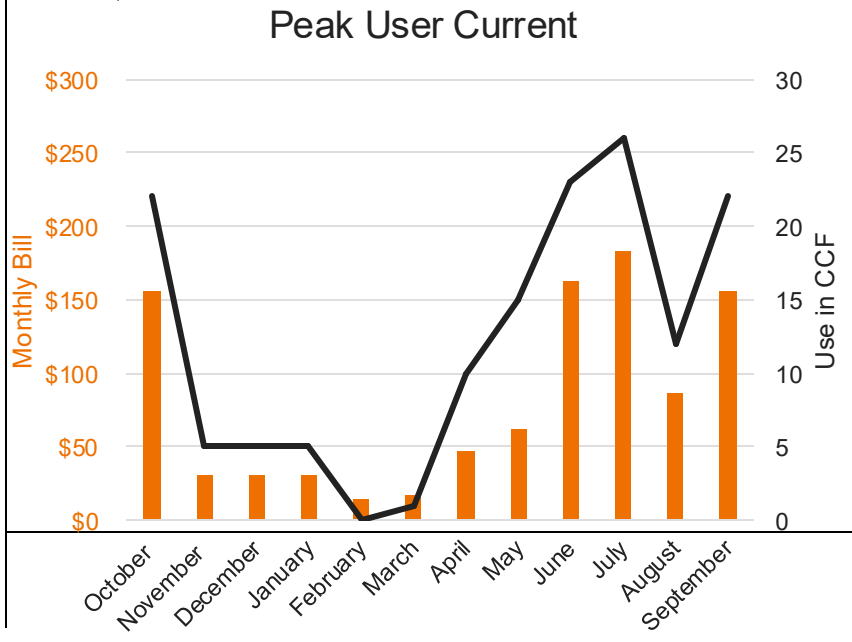
Overall: 65% of annual bills are expected to decrease, while 35% will increase

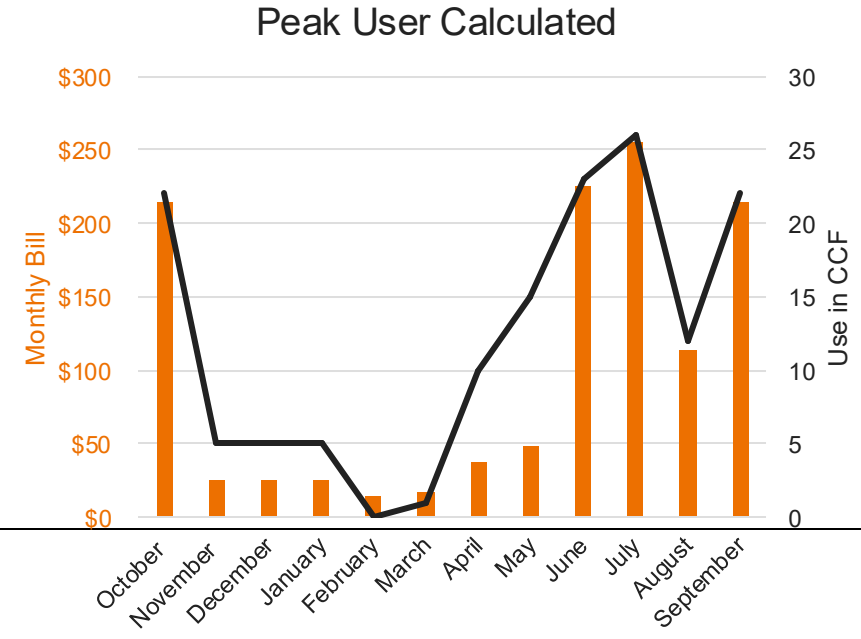
Customer Impacts – Residential Illustration





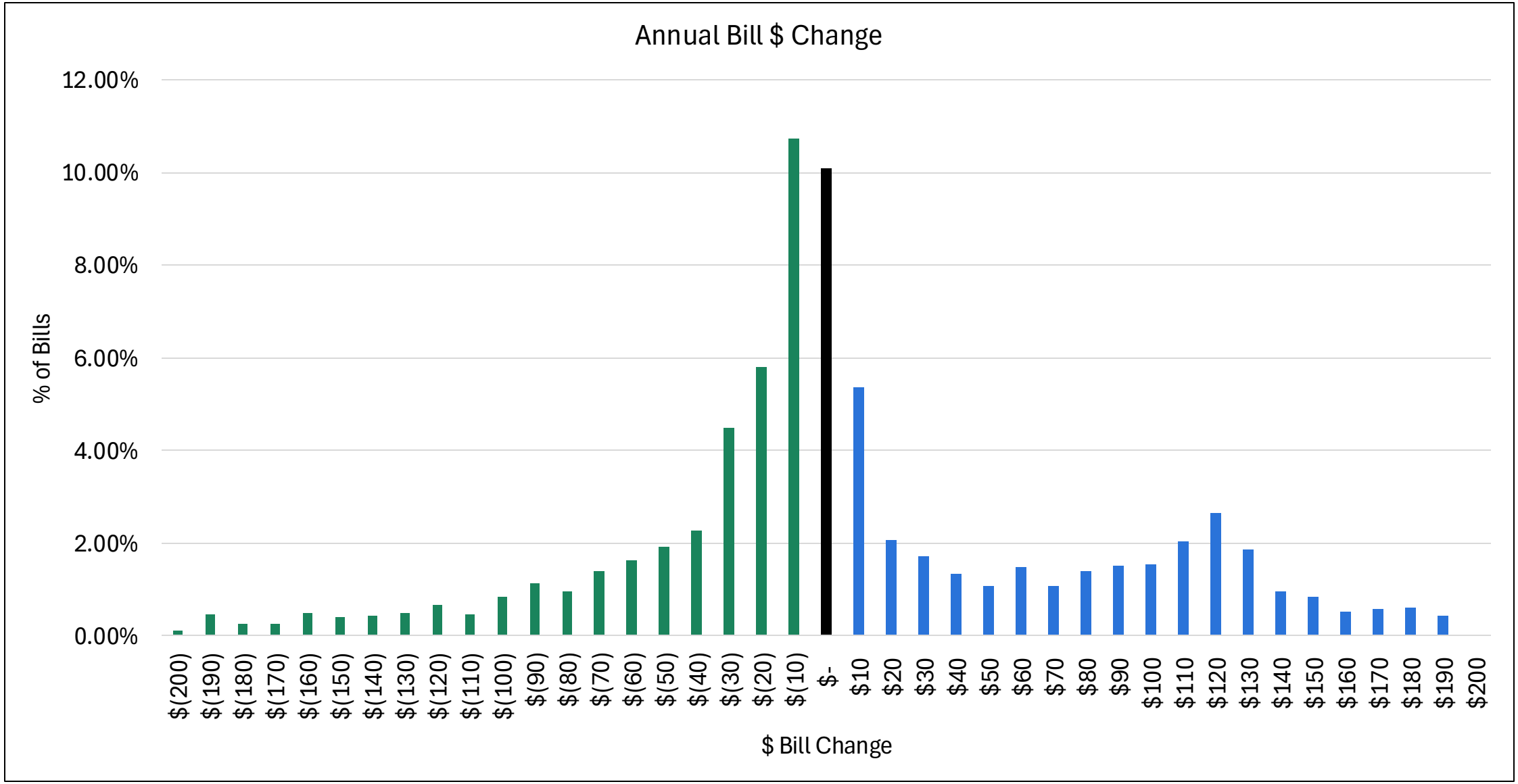
Annual Change $(61.50)





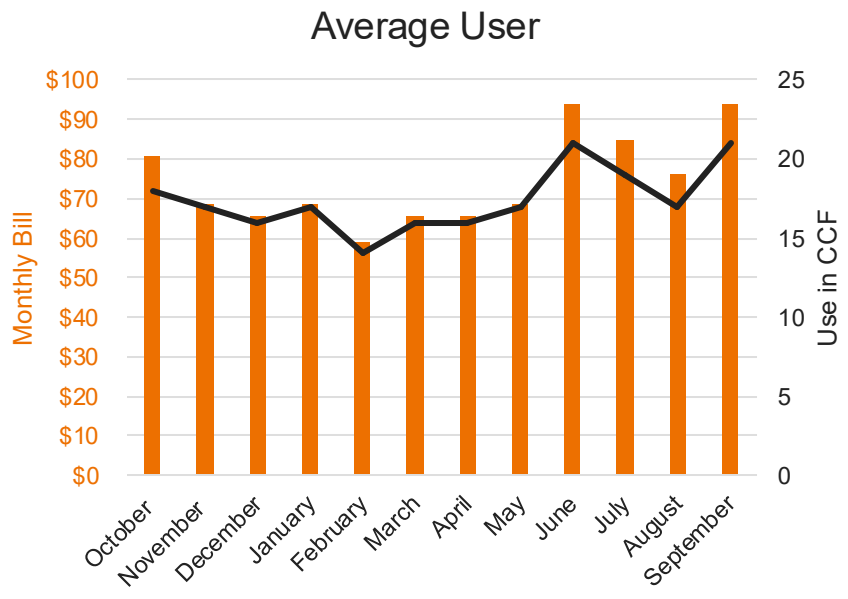
Annual Change $244.97

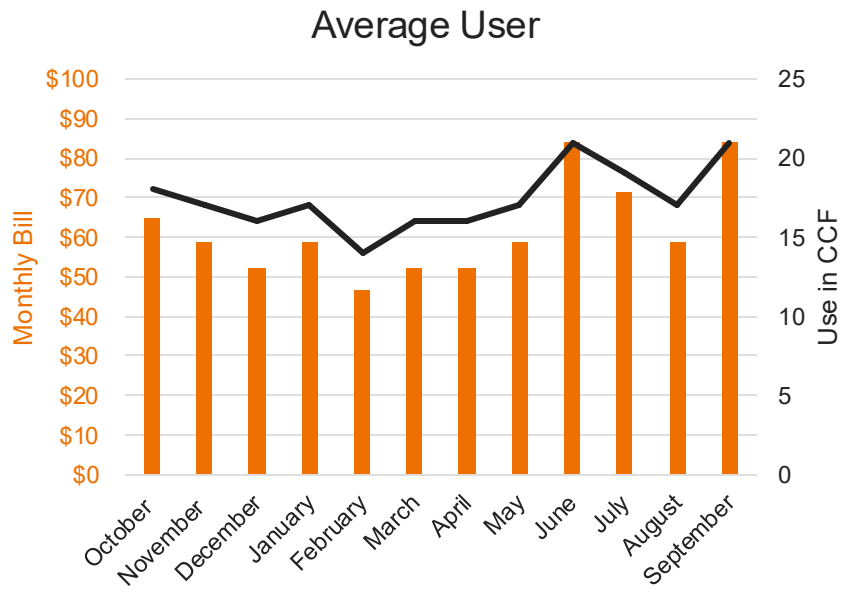
Customer Impacts – Small Commercial



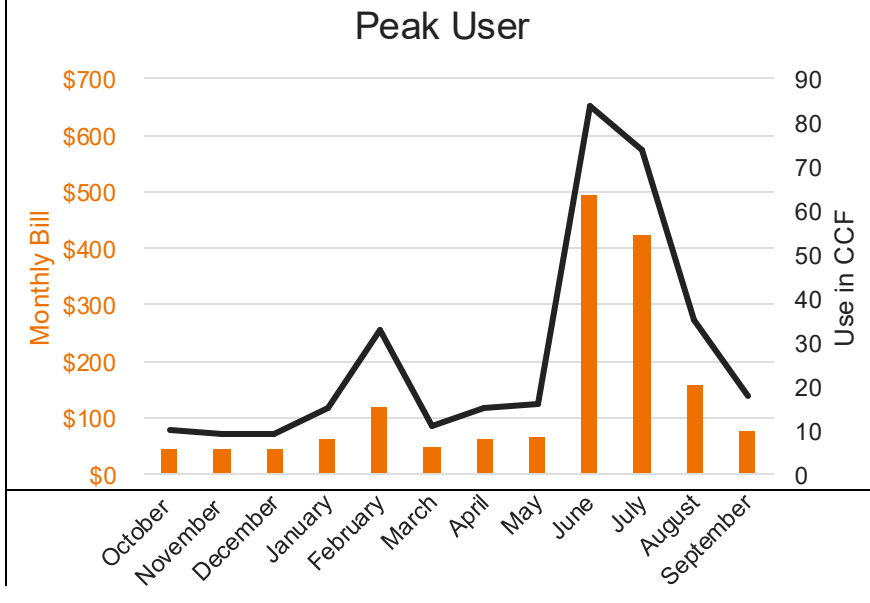
Overall: 46% of annual bills are expected to decrease, while 54% will increase

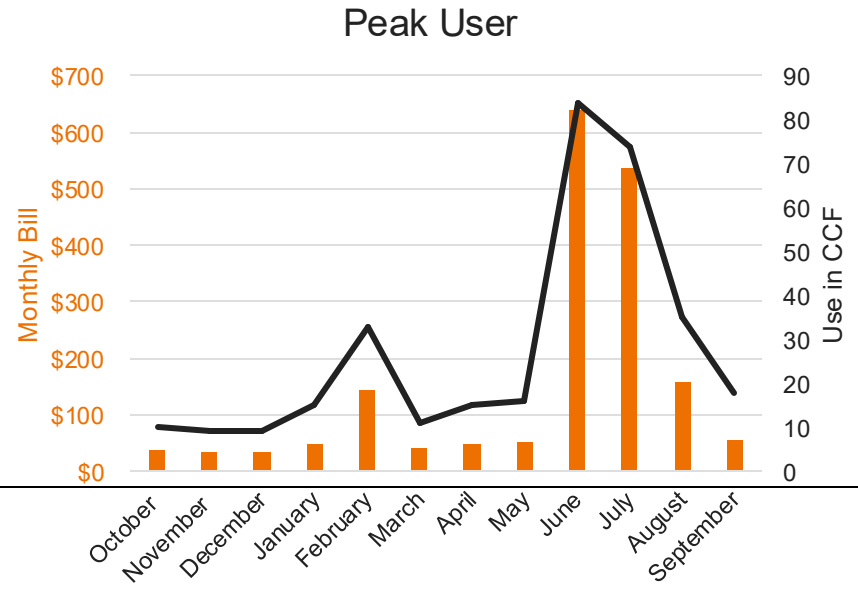
Customer Impacts – Small Commercial Illustration





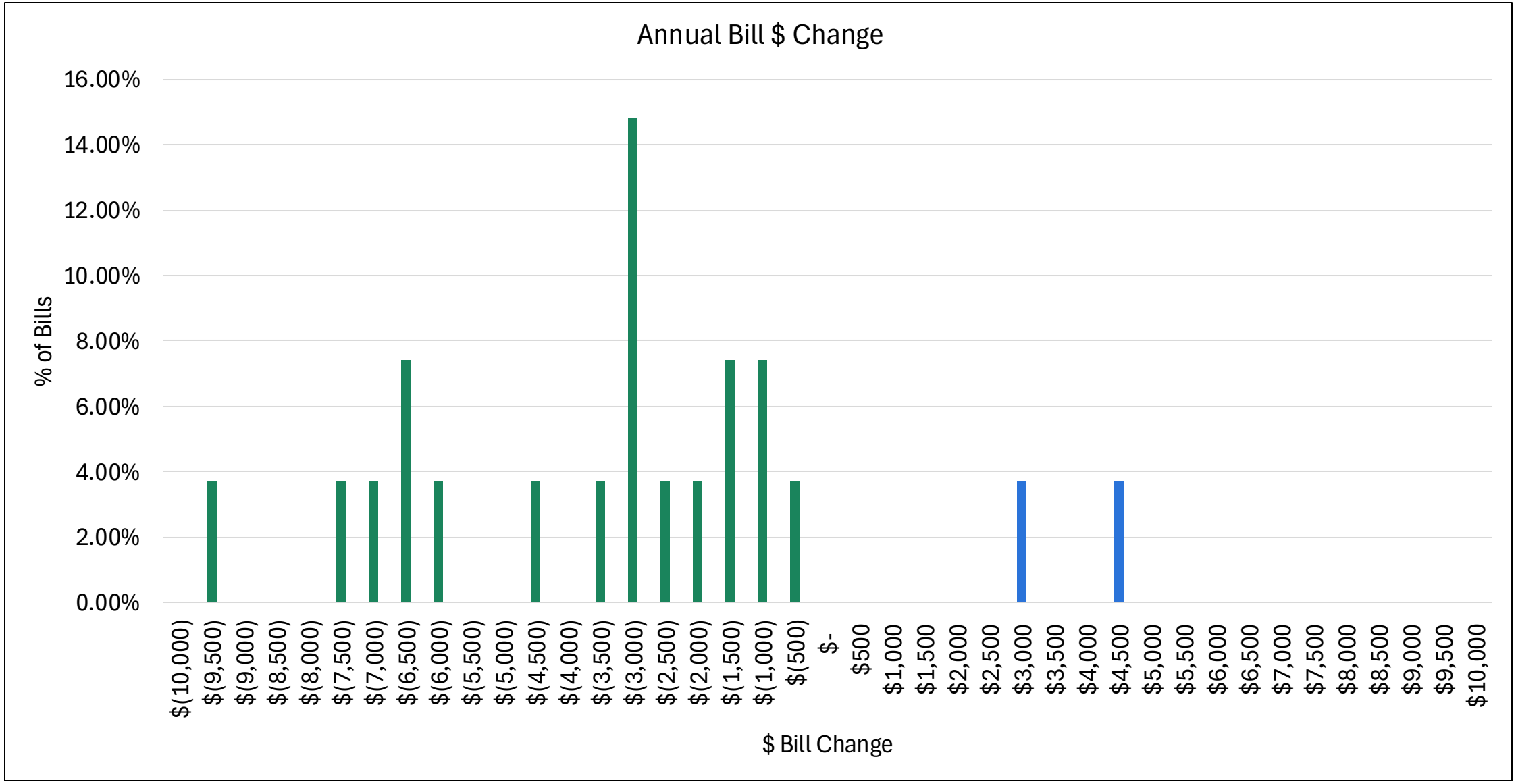
Annual Change $(148.49)





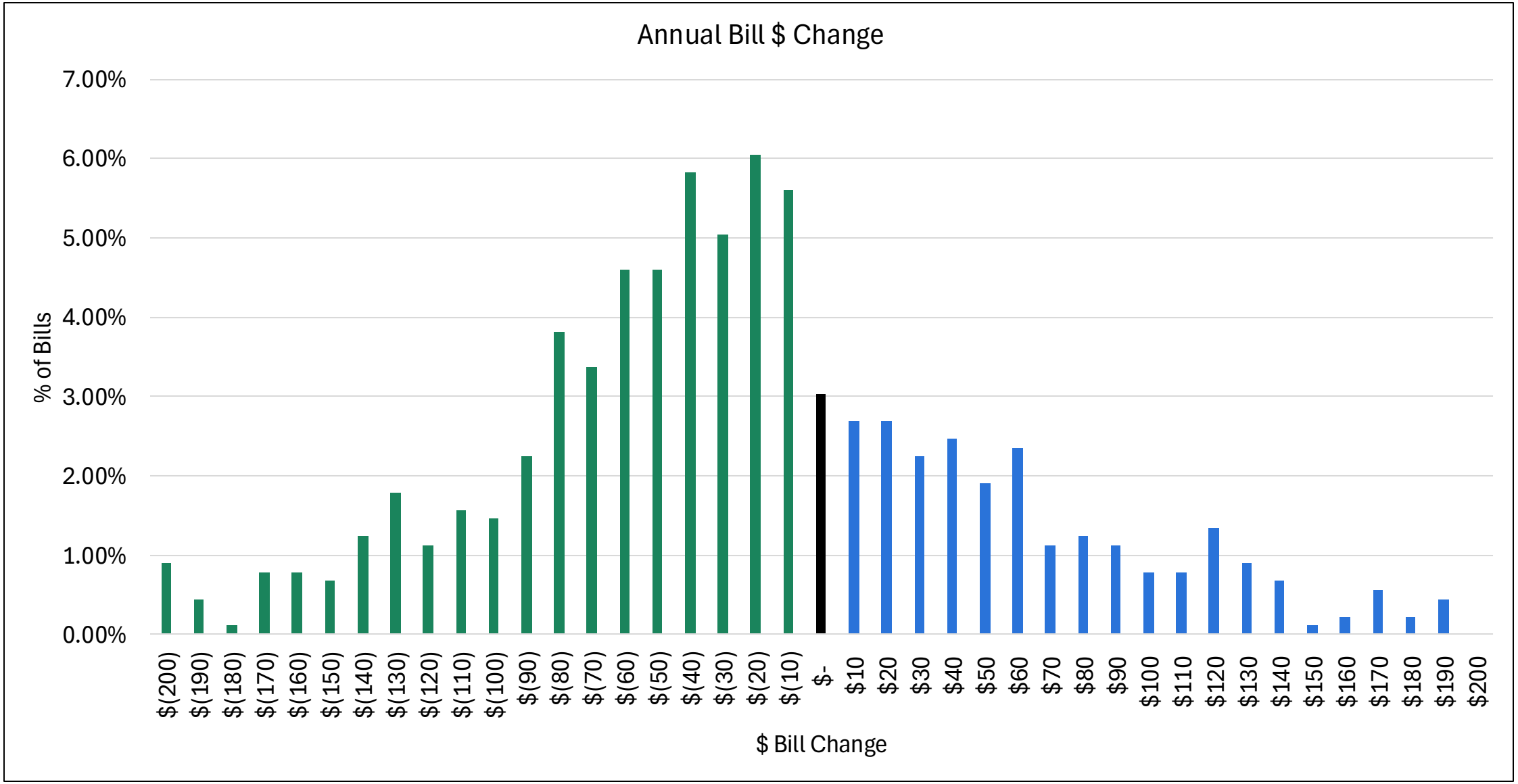
Annual Change $183.30

Customer Impacts – Large Commercial



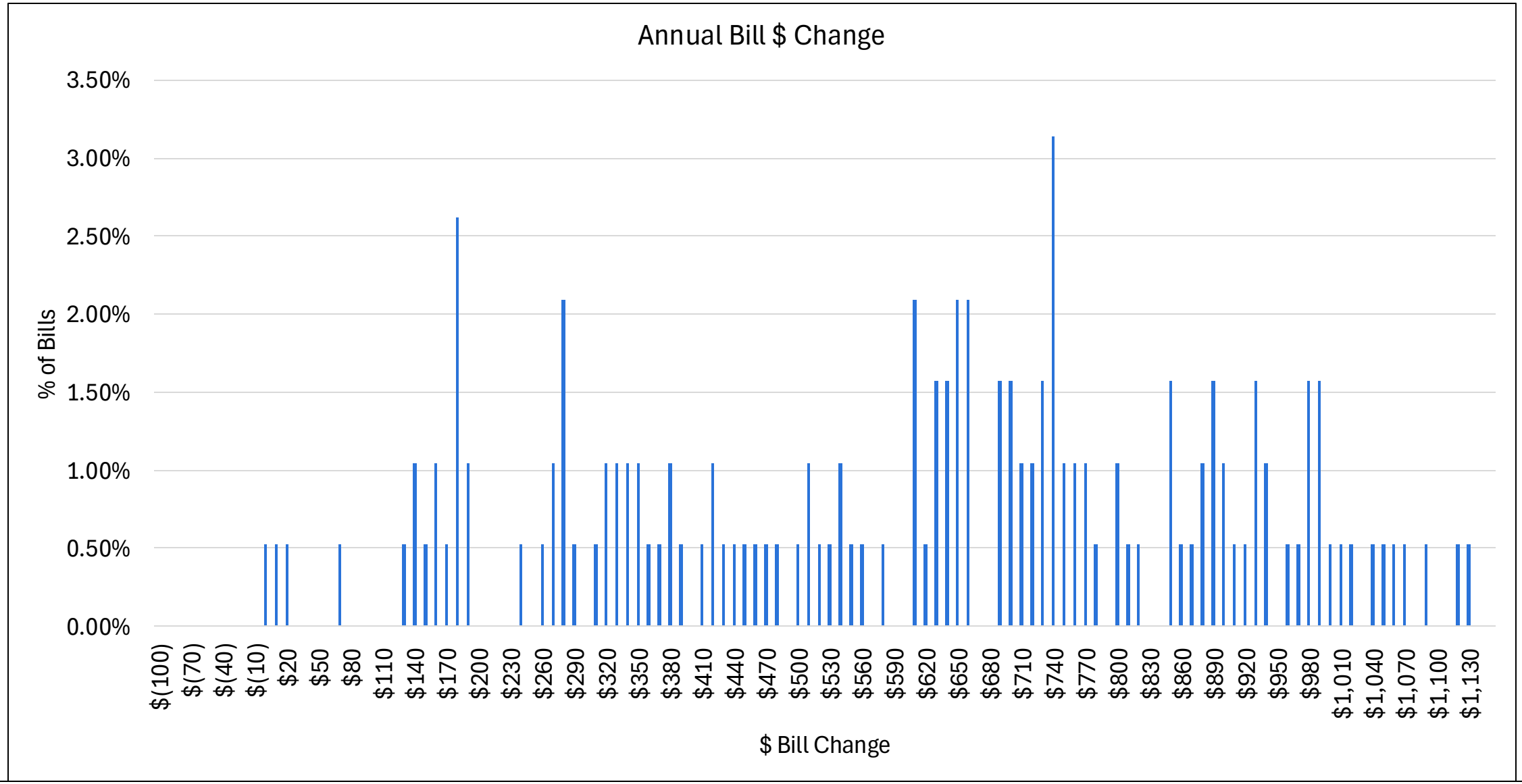
Overall: 89% of annual bills are expected to decrease, while 11% will increase

Customer Impacts – Master Metered



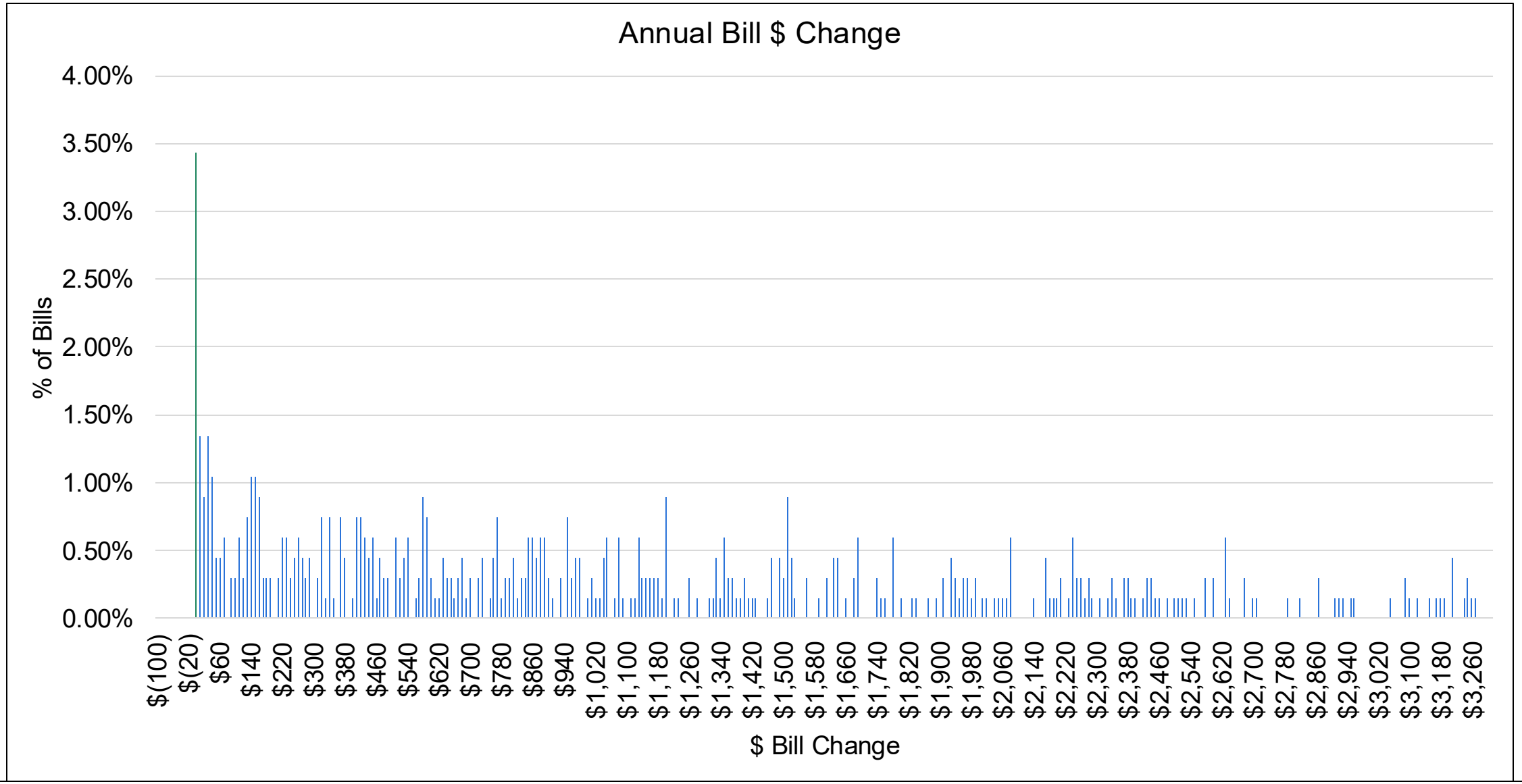
Overall: 67% of annual bills are expected to decrease, while 33% will increase

Customer Impacts – Residential Irrigation



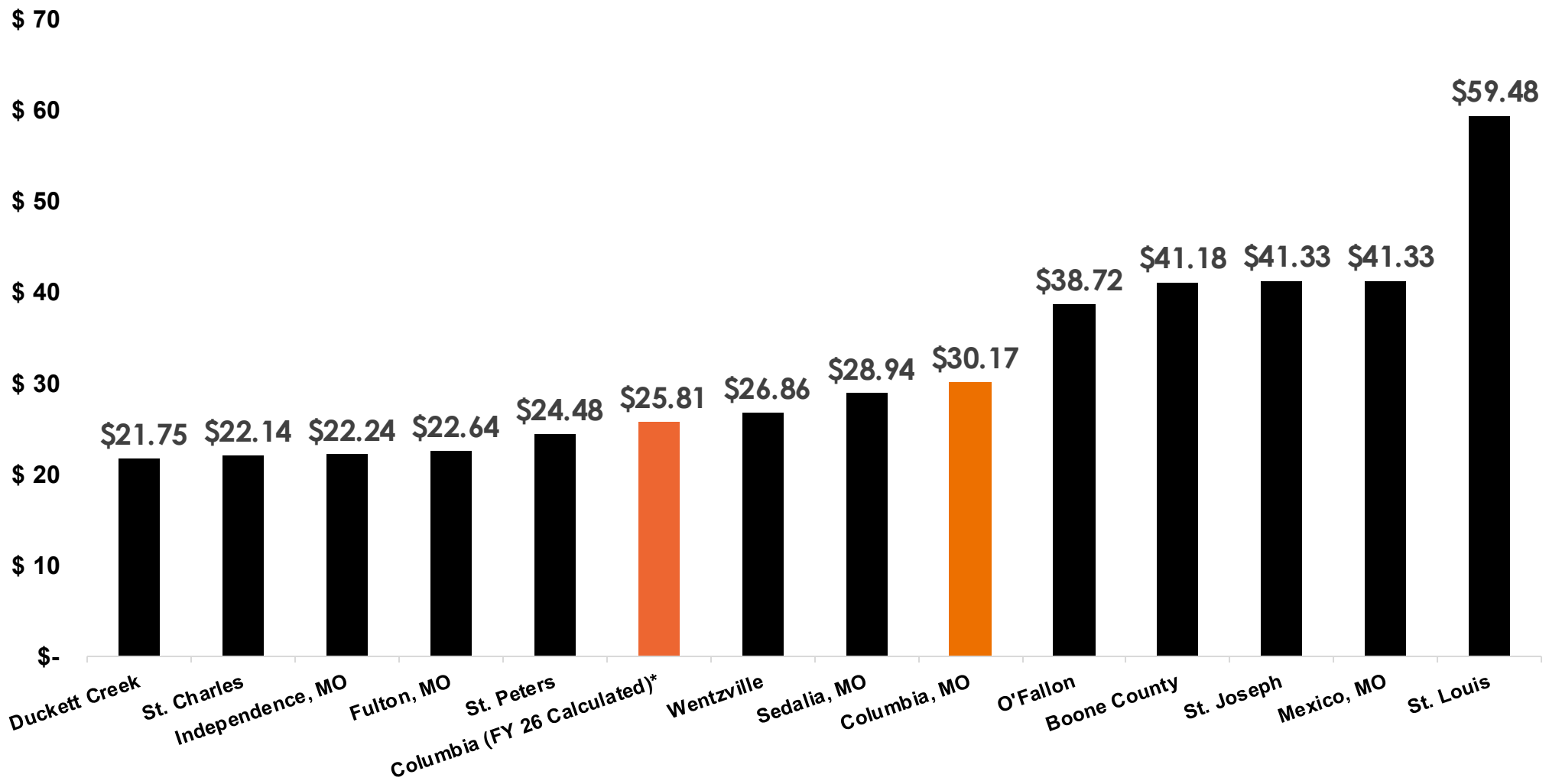
Overall: 100% of bills will increase

Customer Impacts –Commercial Irrigation



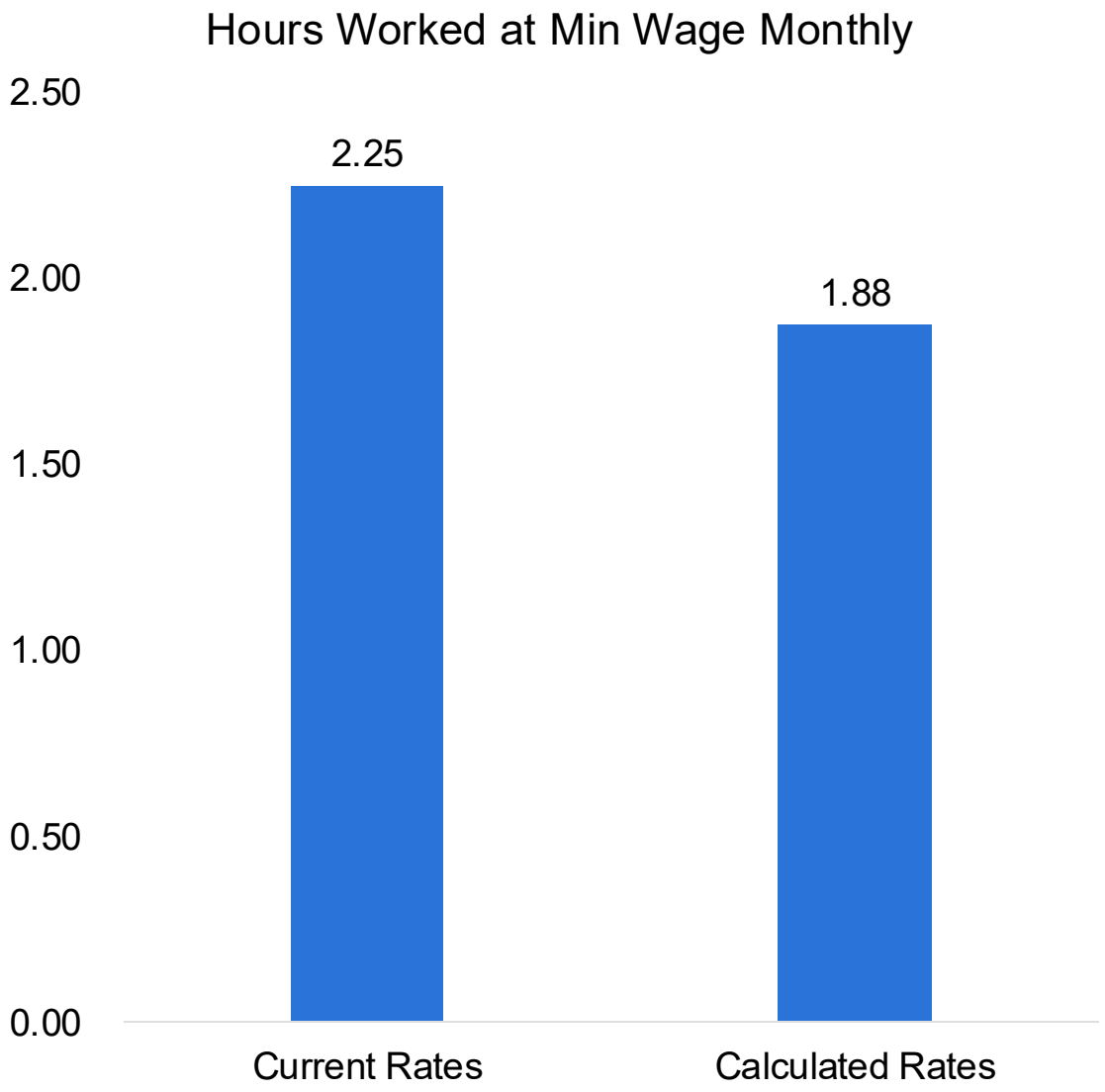
Overall: 100% of bill will increase

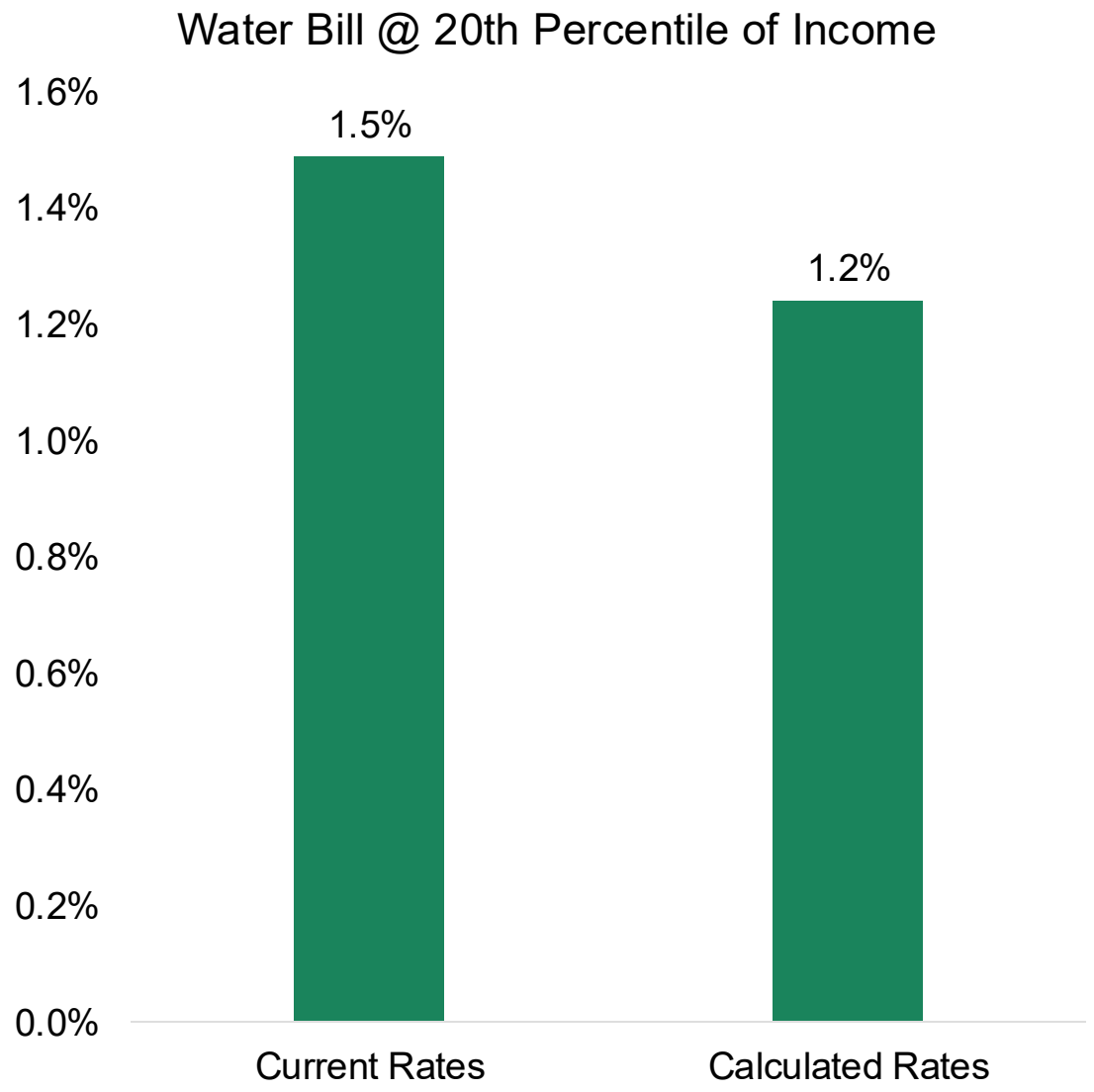
Rate Survey at 5 CCF Monthly



** Winter bill shown for Comparisons and steady use at 5 CCF*

Affordability Considerations





Assumes 5 CCF Use, $13.75 min wage and $24,920 of income at 20th percentile

4 Miscellaneous Fees

Miscellaneous Fee Calculation

Identify costs and activities for each service and populate in Stantec's cost template

Labor

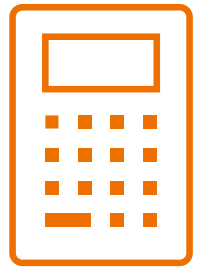
- How much time does each role spend to perform this service?

Equipment/Vehicles

- What pieces of equipment or vehicles are utilized to perform the service?

Materials

- What materials are used as part of this service?



Hours Spent (Customer Service, Utility Tech) X Costs per Hour (Labor, vehicles & equipment) + Unit Costs (Materials) = **Cost of Service**

Miscellaneous Fees

Fee/Charge Title	Current Charge	Full Cost Recovery Charge	Current Cost Recovery (%)	Proposed Charge	Change ($)	Proposed Cost Recovery
Service Initiation Fee	$6.00	$15.59	38.49%	$15.00	$9.00	96.22%
Disconnect/Reconnect Fee (Residential)	$30.00	$373.59	8.03%	$30.00	$0.0	8.03%
Disconnect/Reconnect Fee (All Other Customers)	$100.00	$373.59	26.77%	$100.00	$0.0	26.77%
Reconnect Fee - Same Day, Weekend, Holiday, After-Hours (Residential)	$90.00	$373.59	24.09%	$90.00	$0.0	24.09%
Reconnect Fee - Same Day, Weekend, Holiday, After-Hours (All Other Customers)	$200.00	$373.59	53.53%	$200.00	$0.0	53.53%
Security Deposits (Water Service)	$25.00	N/A	N/A	$25.00	$0.00	N/A
Tap Fee (Residential 1"-2")	$1,000.00	$1,278.44	78.22%	$1,250.00	$250.00	97.78%
Tap Fee (Commercial 1", 1.5", 2")	$335.00	$186.30	179.82%	$335.00	$0.00	179.82%
Tap Fee (Commercial 4" and Larger)	$575.00	$1,278.44	44.98%	$1,000.00	$425.00	97.00%
Appurtenance Fee (5/8“, 1")	$450.00	$1,237.09	36.38%	$1,200.00	$750.00	100.00%
Meter Fee (5/8")	$250.00	$675.10	37.03%	$675.00	$425.00	100.00%
Meter Fee (3/4")	$270.00	$689.04	39.18%	$689.00	$420.00	100.00%
Meter Fee (1")	$300.00	$563.63	53.23%	$710.00	$410.00	125.97%
Meter Fee (Larger than 1")	At Cost	At Cost	N/A	N/A	N/A	N/A
Special Meter Test (1" or Less)	$65.00	$65.00	0.00%	$65.00	$0.00	N/A
Special Meter Test (Larger than 1")	$120.00	$120.00	0.00%	$120.00	$0.00	N/A

Connection Fees (Water System Equity Charge)

Methodology	Description	Appropriate For
Buy-In Method	Fees are based on cost of constructing existing utility system	System with ample existing capacity to sell
Incremental Cost Method	Fees are based on planned growth-related capital improvements	System with limited or no existing capacity to sell
Combined Method	Fees are based on cost of existing system and planned capital improvements	System with existing capacity to sell and with planning growth-related capital projects

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Water System Equity Fee Calculation

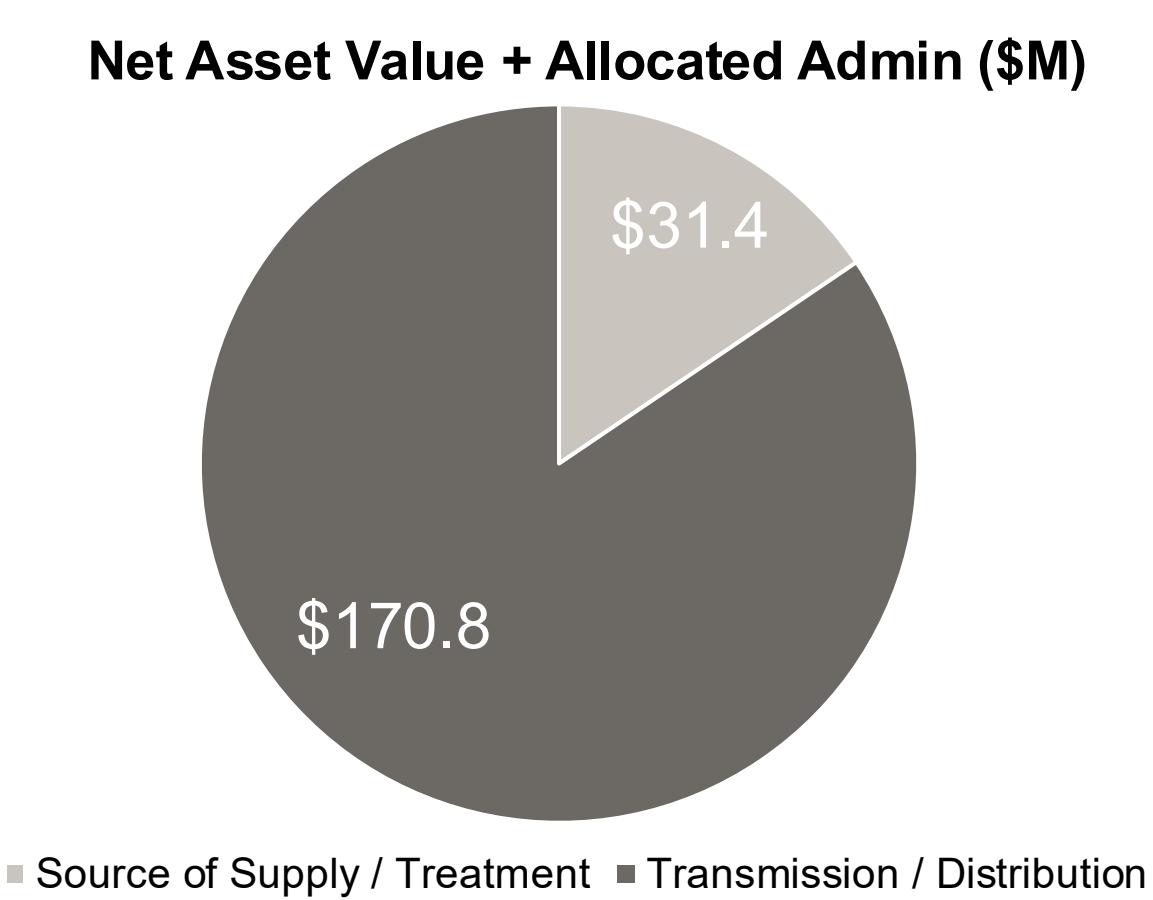
$$\text{Water System Equity Fee} = \frac{\text{Value of system - Debt}}{\text{System capacity}}$$

Value of system: Depreciated value escalated to current replacement cost (excludes contributed assets)

Debt: Outstanding principal on existing utility debt

System capacity: Volume capacity measured in equivalent units

Water System Assets and Capacity

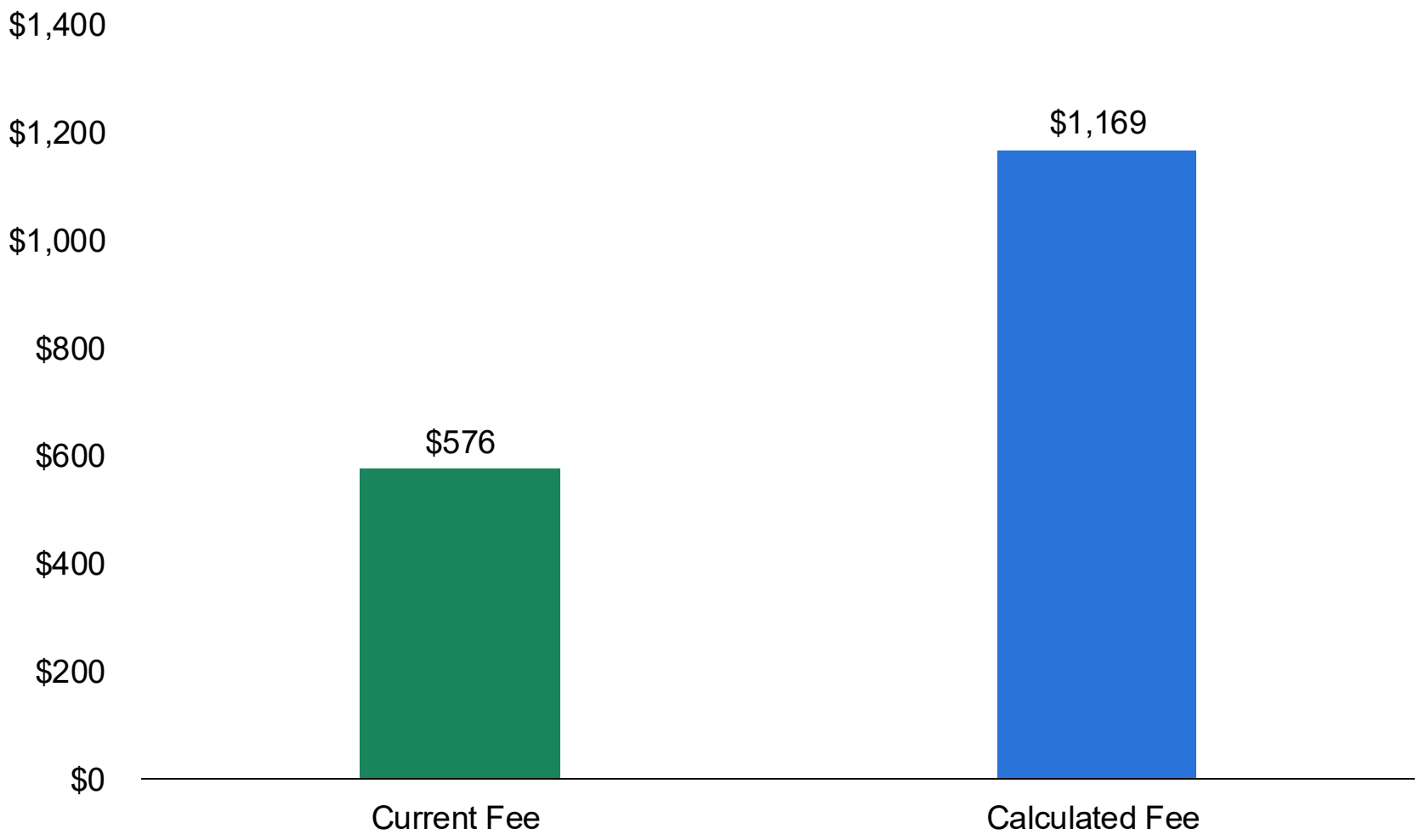


Water System Capacity	Existing Capacity (MGD)
Source of Supply / Treatment	32.00
Transmission / Distribution	32.00

Level of Service	LOS (GPD)
Source of Supply / Treatment	227
Transmission / Distribution	227

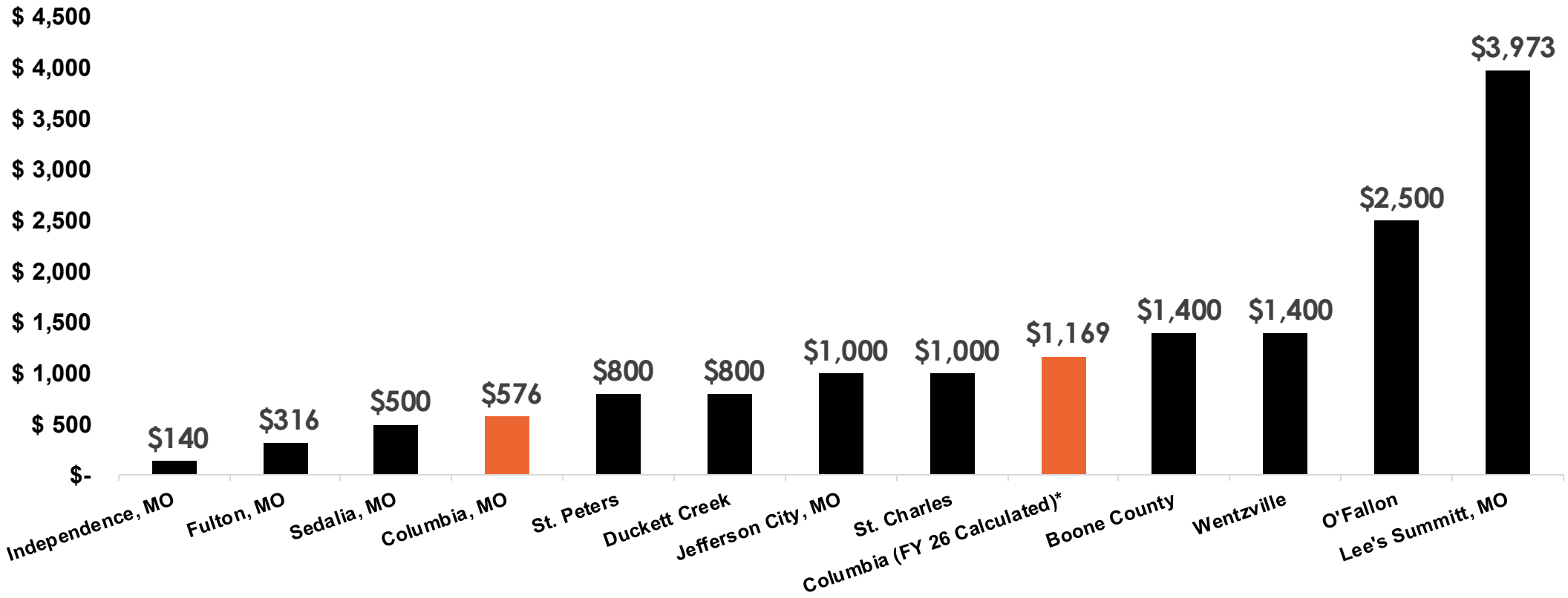
Water System Equity Fee Calculation

Buy-In Method Supports a doubling of the current Fee per ERU



- Water Equity Fee should be increased to reflect the value of the system that the City has invested in
- Phasing could be considered to manage impacts

Capacity Fee Survey (Water System Equity Fee)



5 Next Steps

Outlooks and Recommendations

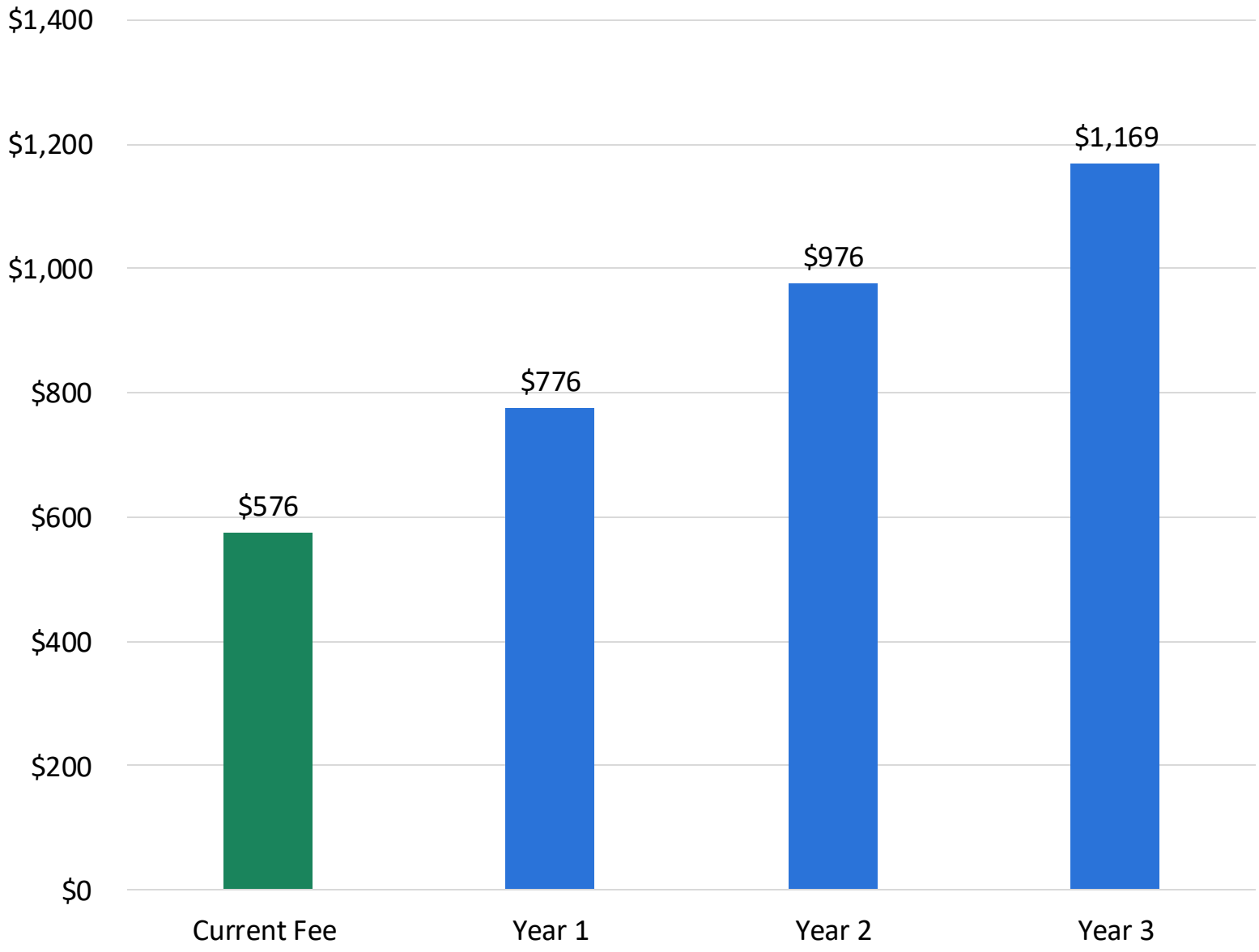
Financial Plan	• Recommended 12% and 10% revenue increases for FY26 and 27, followed by a 3% each year • Planned borrowing of ~$50M to accommodate higher levels of CIP spending in FY29-31
Cost of Service & Rate Design	• Implement Base-Extra Capacity Rates to reflect COS • Base Rate Charges for 1” to 2” are most out of alignment • Peak water users and irrigators would see the largest percent changes to their bill impacts
Equity Fee & Misc. Fees	• Buy-in Method Supports ~100% increase in Equity Fee • Majority of Miscellaneous fees are currently only recovering approximately 20-60% of costs

Stantec

Discussion & Next Steps

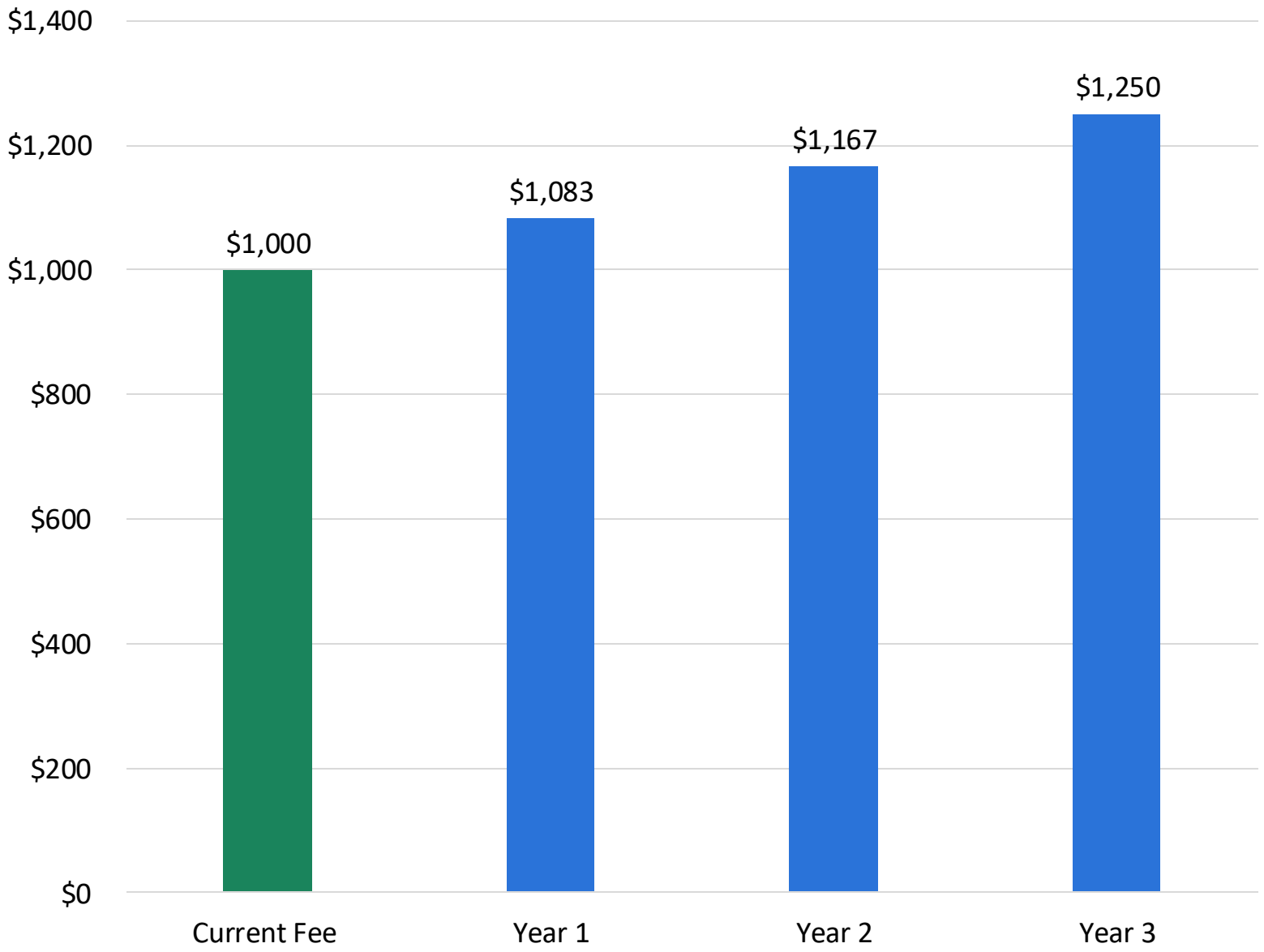
Water System Equity Fee

Three-year phase in, to manage impacts



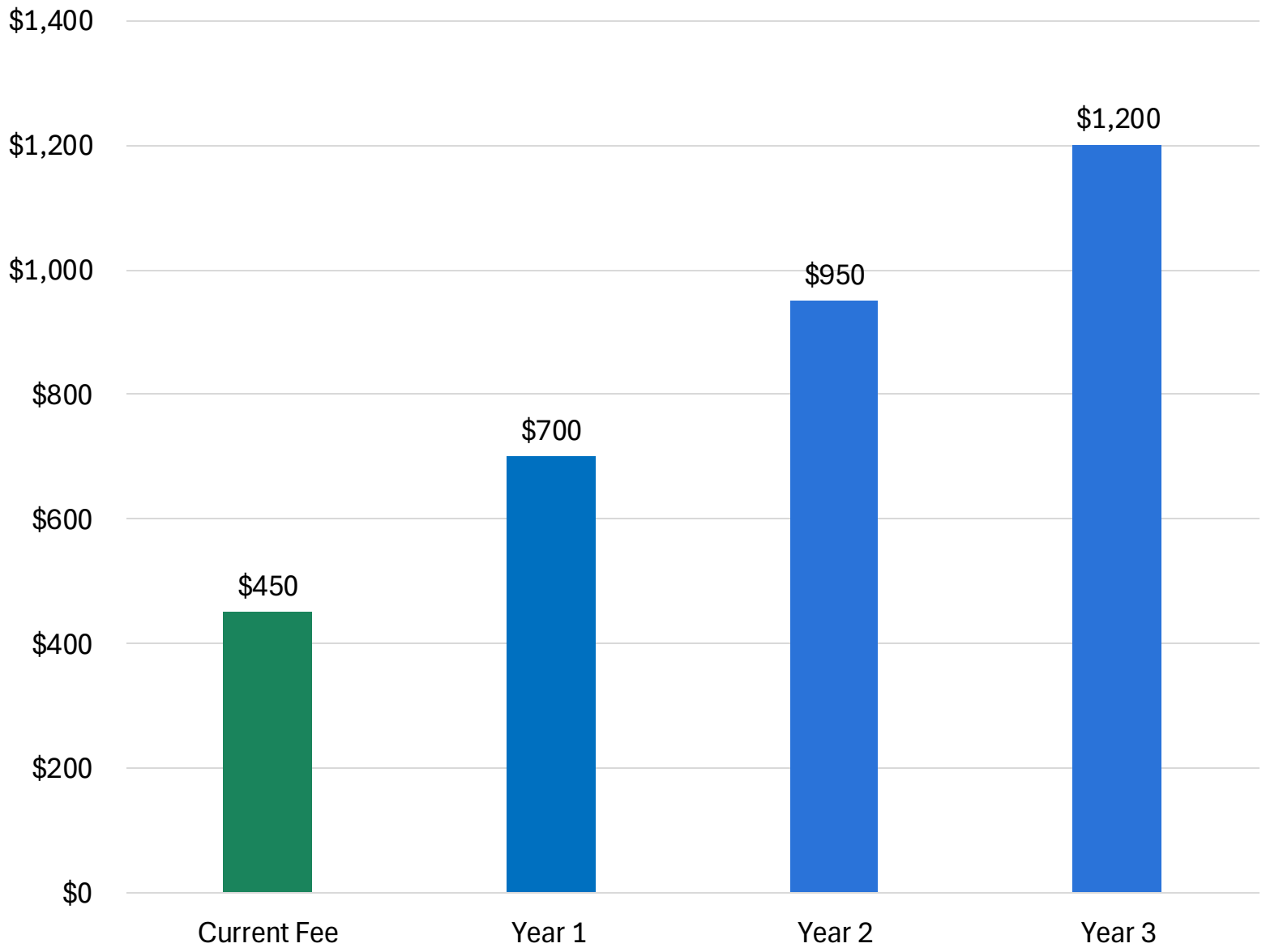
Tap Fee (Residential 1"-2")

Three-year phase in, to manage impacts



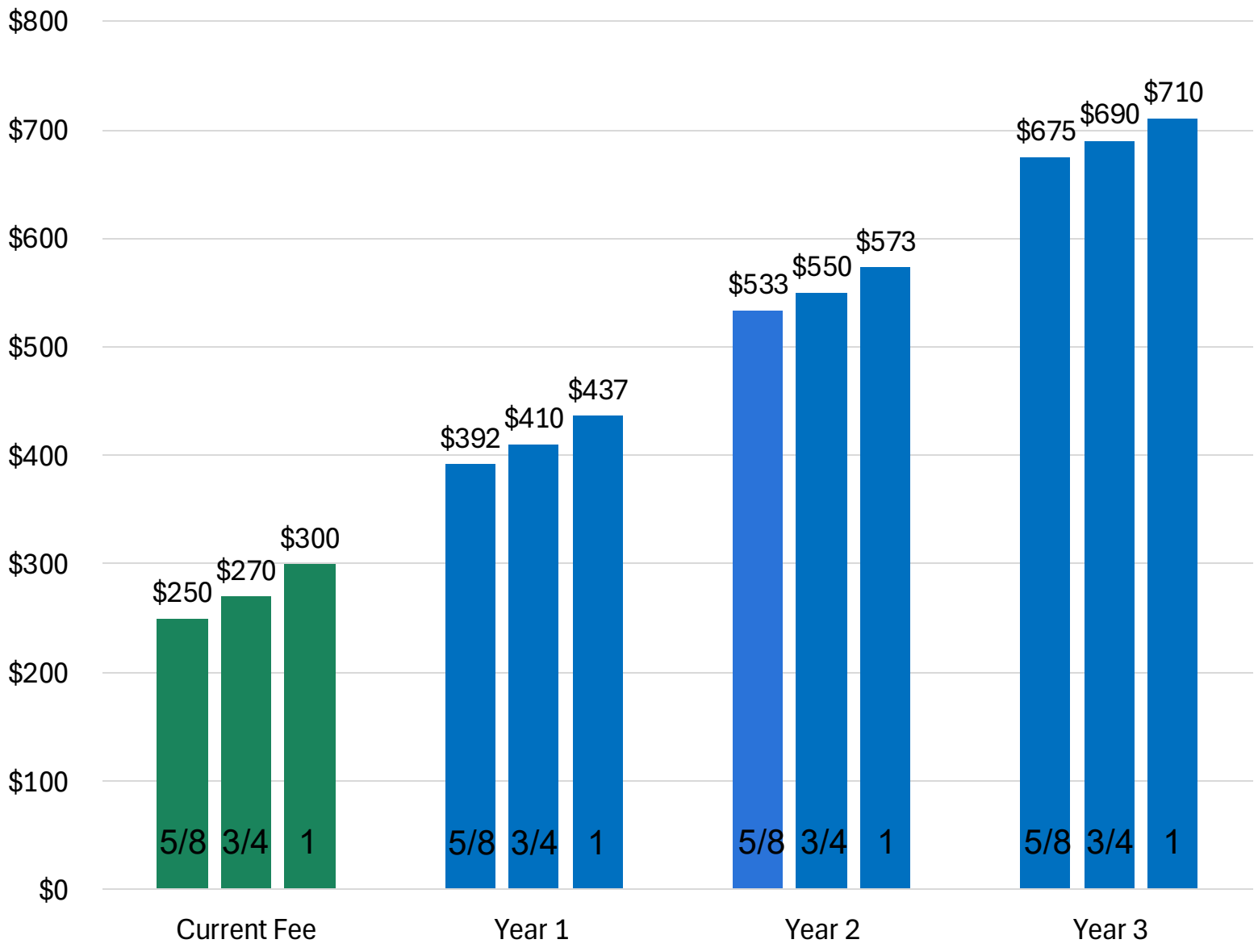
Appurtenance Fee (5/8“, 1")

Three-year phase in, to manage impacts



Meter Fees

Three-year phase in, to manage impacts



10-Year Financial Plan – Recommended Rate Increase W/ AMI

FAMS Financial Analysis & Management System | By Stantec

COLUMBIA, MO

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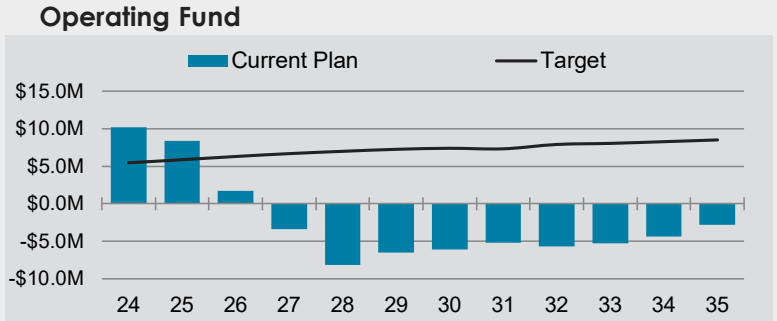
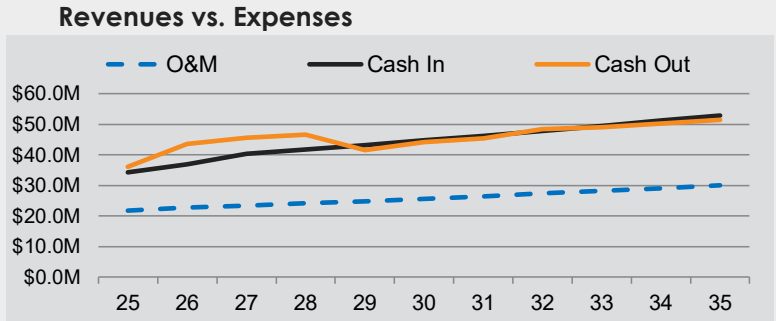
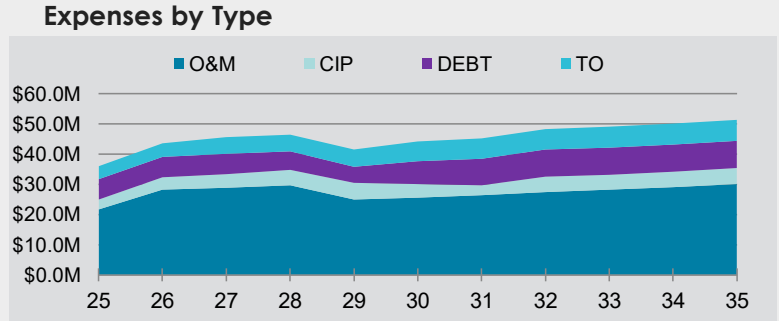
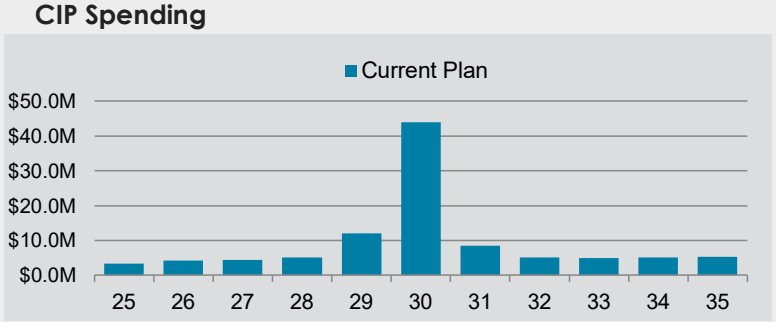
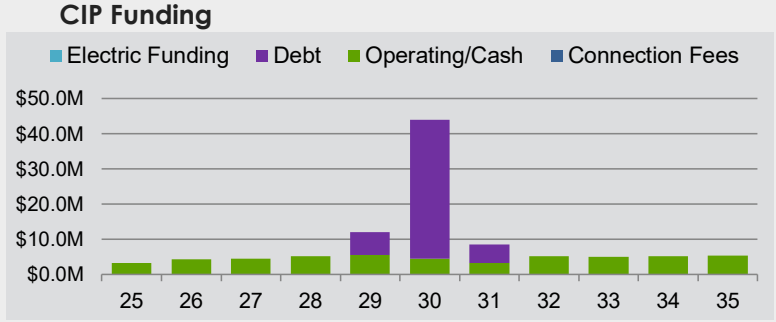
	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034	FY 2035	FY 2030	FY 2035
Water Rate Plan	0.00%	12.00%	10.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	34.70%	56.09%
Senior-Lien DSC	1.86	2.12	2.52	2.84	3.36	2.56	2.24	2.27	2.36	2.44	2.52	Scenario Manager	

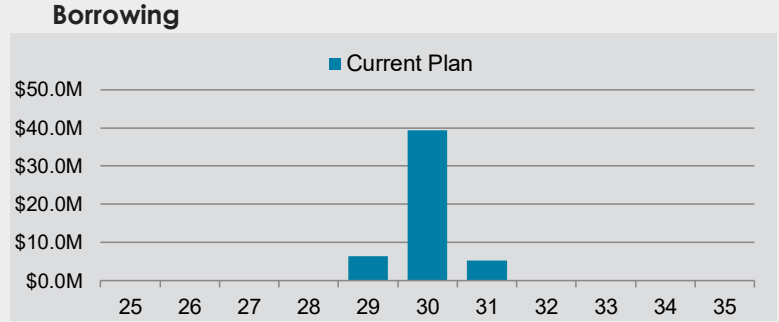












10-Year Financial Plan – Recommended Rate Increase W/ FTE

FAMS Financial Analysis & Management System | By Stantec

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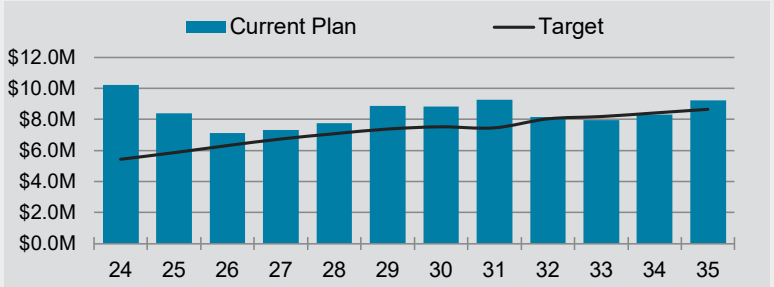
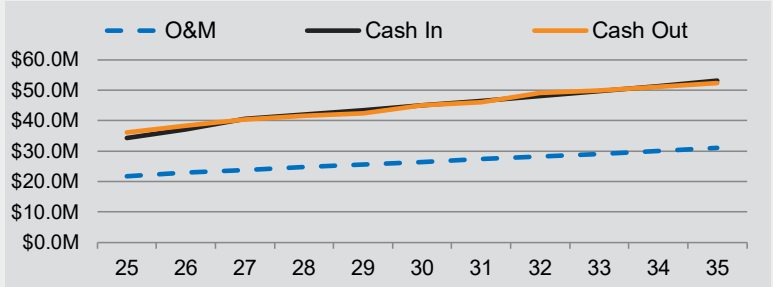
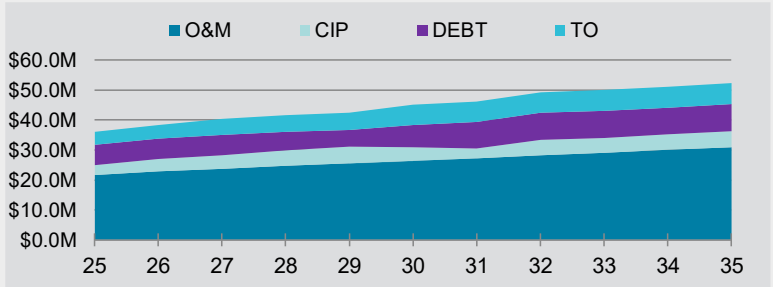
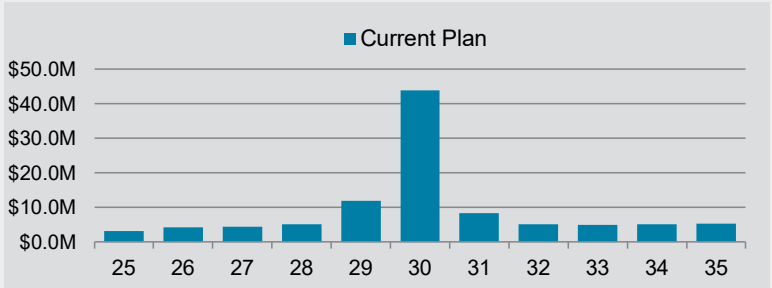
CALC | SAVE | CTRL | LAST | OVR

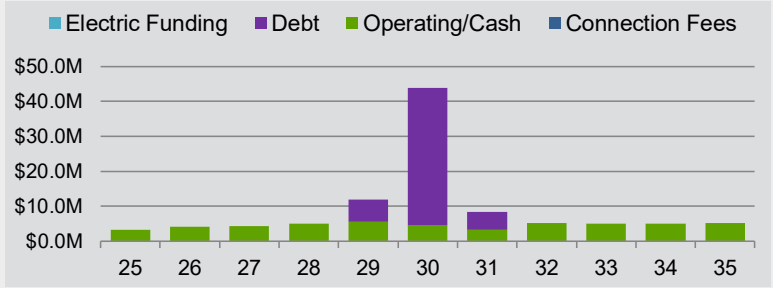
	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034	FY 2035	FY 2030 Cumulative	FY 2035 Cumulative
Override ►	0.00%	12.00%	10.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%		
Water Rate Plan	0.00%	12.00%	10.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	34.70%	56.09%

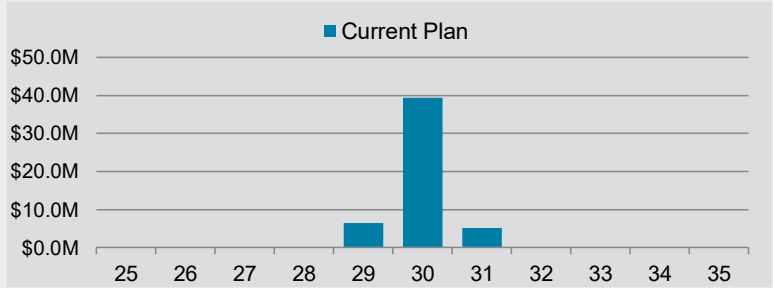












10-Year Financial Plan – Recommended Rate Increase W/ FTE

FAMS Financial Analysis & Management System | By Stantec

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CALC | SAVE | CTRL | LAST | OVR

	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034	FY 2035	FY 2030	FY 2035
Override ►	0.00%	12.00%	10.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	Cumulative	
Water Rate Plan	0.00%	12.00%	10.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	34.70%	56.09%