

Cost-of-Service and Rate Design Study for Rochester Public Utilities

August 2023



Overview

1. Objectives
2. Background
3. Study Components
4. Financial Forecast
5. Cost of Service
6. Rate Design



Objectives of the Study

- Update Five-Year Financial Plan
- Determine Cost of Providing Service to each class
- Prepare Recommended Adjustments to Rates
- Assess Other Rate and Fee Structures
- Provide Recommendations for Future Consideration

Background – National Rate Trends

- Highest inflation in 40 years is impacting operating and construction costs
- General trend in lower use per account has pressured revenue streams
- Some utilities are beginning to see accelerated growth in electric vehicles and solar
- Increasing environmental regulations (coal retirements and renewable requirements)
- Volatile energy markets continue to impact utilities and customers currently
- Aging infrastructure requires renewal and replacement

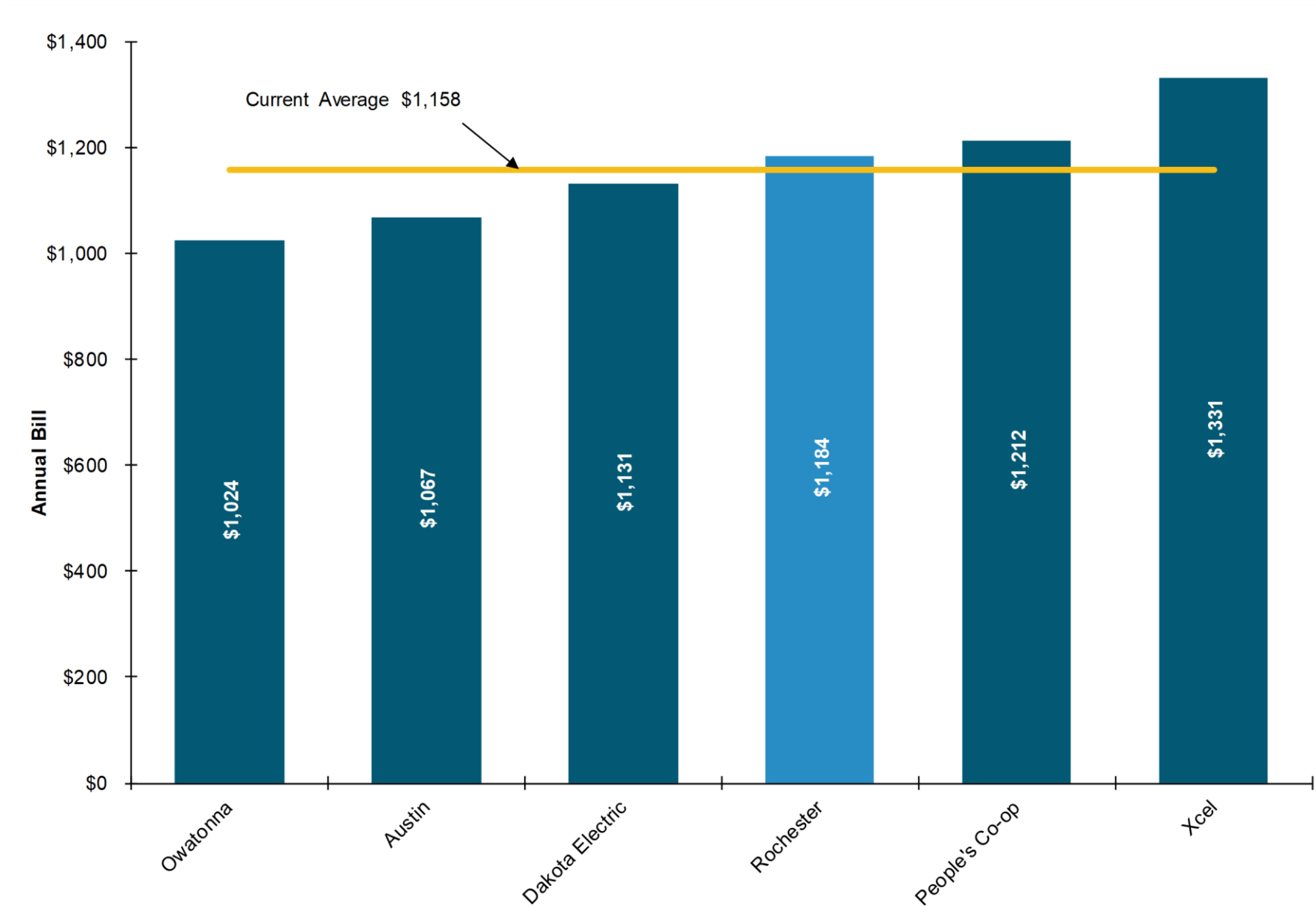


Background – National Trends

Survey or Publication	Period	Historical Increase per Year
Historical Average Annual CPI-U General Inflation	2012-2022	1.57%
Recent Average Annual CPI General Inflation	2021-2023 YTD	5.74%
S&P Global Minnesota Average Retail Rate Increase	2012-2022	3.39%
RPU Electric Utility Average Retail Rate Increases	2014-2023	1.90%

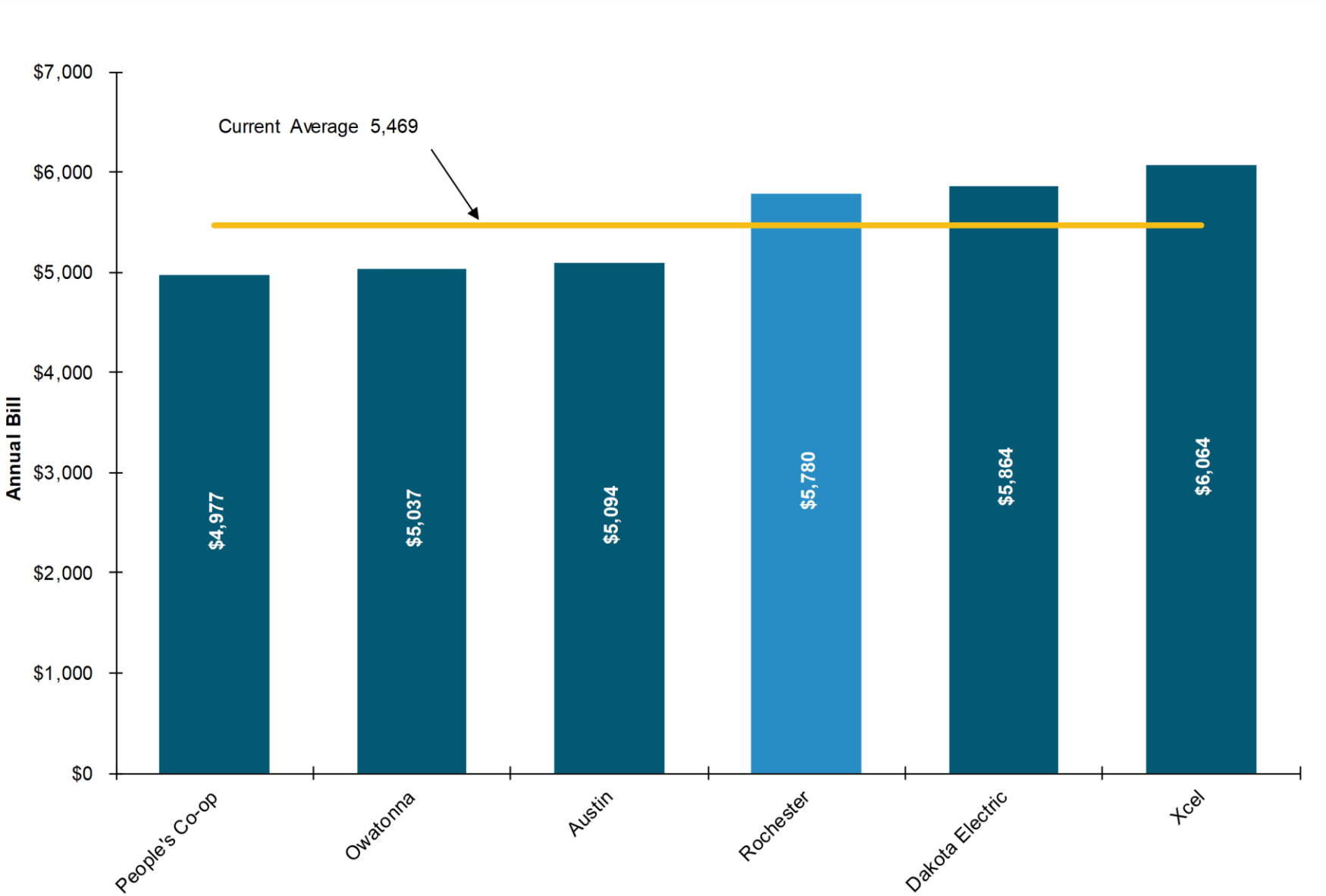
Residential Class Electric Rate Comparison

(Jan '22 through Dec '22)



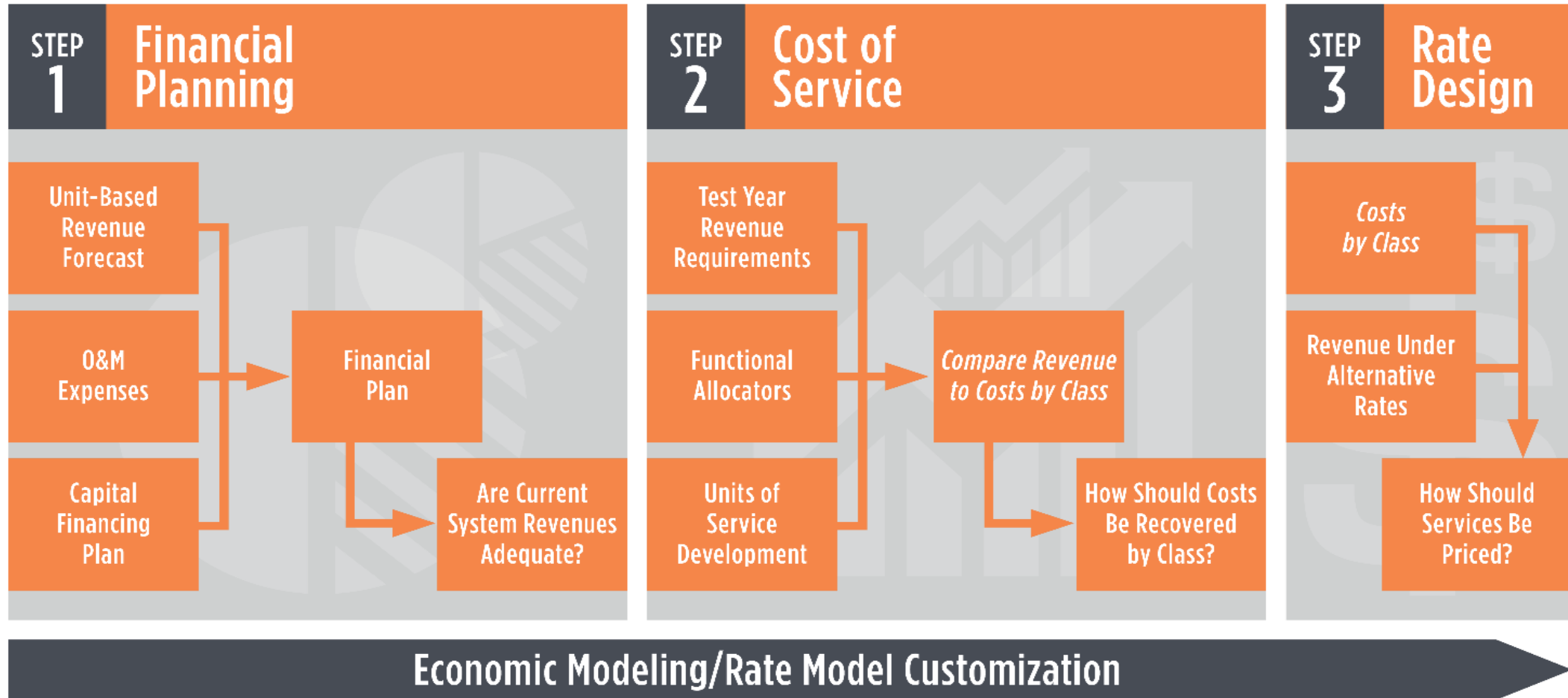
Commercial (SGS) Class Electric Rate Comparison

(Jan '22 through Dec '22)



SOURCE: OWATONNA PUBLIC UTILITIES

Study Components

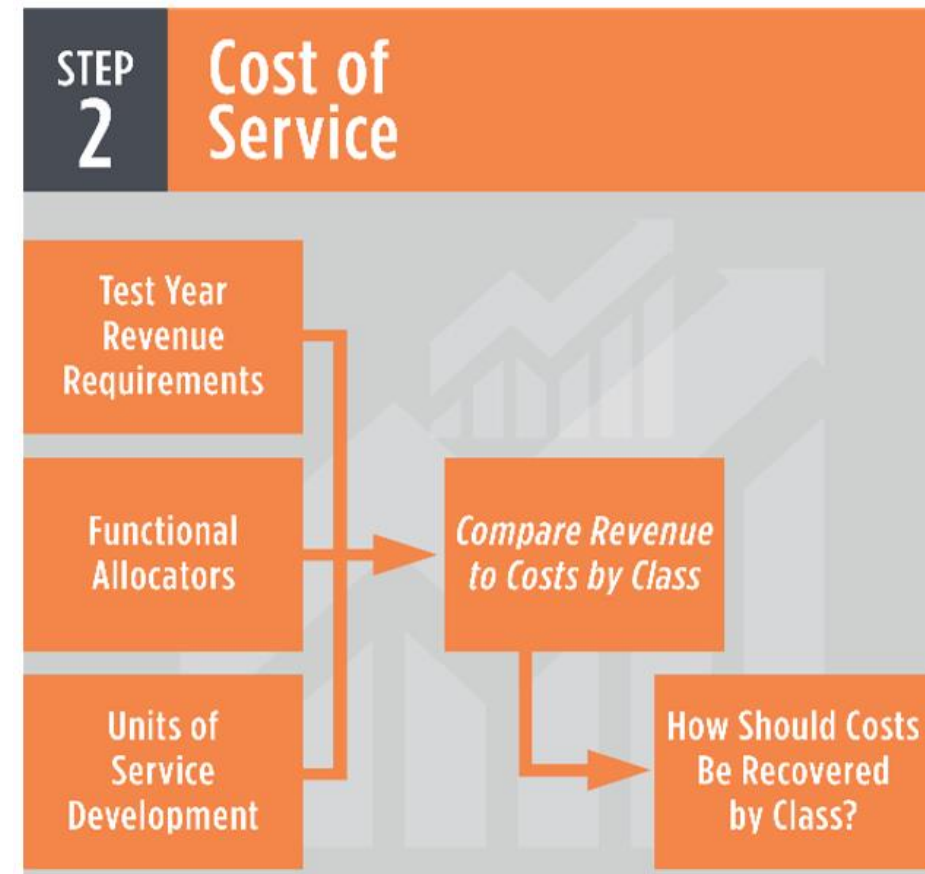


Financial Forecast

- Reviewed Cash Flow Analysis Results
 - Updated financial forecast model sales, power cost, capital, and O&M projections
 - Inflation and large distribution capital programs are increasing costs for the electric utility
 - Maintaining cash reserves, capital replacement reserves, coverage ratios.
 - Debt service coverage and net operating income are below target levels
- Reviewed Financial Plan with RPU management
 - Financial plan developed using RPU budget projections through 2026
 - 4.0% revenue increases per year recommended over three years to meet financial targets
 - RPU will continue to monitor financial conditions

Cost of Service Analysis Approach

- Step 1: Unbundle 2022 Test Year Annual Revenue Requirement
 - Power Supply Demand, Energy, and Generation
 - Distribution Costs (Primary, Secondary)
 - Customer Costs
- Step 2: Develop Cost Allocation Factors
 - Demand Allocation
 - Energy Allocation
 - Distribution Allocation
 - Customer Allocation
- Step 3: Assign Revenue Requirements
 - Determined Unit Costs of Service
 - Assign Costs to Customer Classes
 - Compare Costs with Revenues
 - Determine Target Revenue Adjustment



Cost of Service Analysis Results (2022 Test Year)

	2022 Revenue Requirement (\$)	2022 Revenue from Current Rates (\$)	2022 Indicated Level of Adjustment (\$)	2022 Indicated Level of Adjustment (%)
Total System	\$148,191,757	\$148,191,757	\$0	0.0%
Residential	\$60,458,679	\$58,727,873	\$1,730,806	2.9%
Small General Service	\$9,783,537	\$10,074,431	-\$290,894	-2.9%
Medium General Service	\$50,008,278	\$51,687,321	-\$1,679,043	-3.2%
Large General Service	\$18,270,991	\$17,421,663	\$849,328	4.9%
Large Industrial	\$7,948,456	\$8,680,451	-\$731,995	-8.4%
Rental Security Lights	\$174,802	\$195,210	-\$20,409	-10.5%
City Street Light	\$1,315,021	\$1,404,806	-\$89,785	-6.4%
Company Use, No Charge	\$231,992	\$0	\$231,992	0.0%

*Cost of service technical analysis indicates that Residential and LGS are under-recovering while other class are over recovering.

*Cost of service provides an indication of the target level of adjustment, not the requirement.

Rate Design Analysis

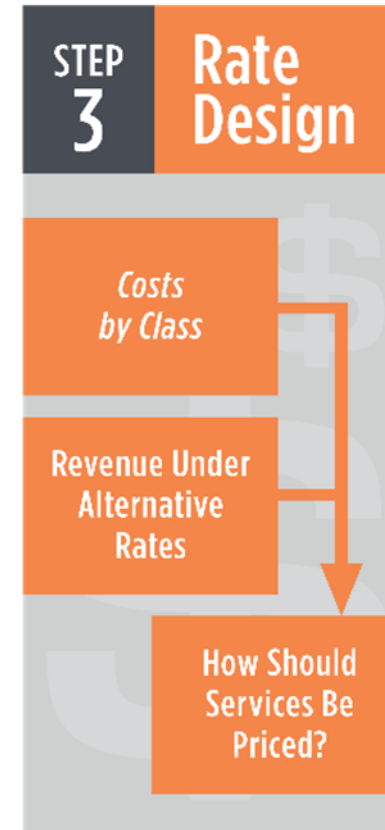
- 4.0% per year overall revenue increases projected to existing rates in 2024-2026
- Recommend increasing Residential slightly faster than other rate classes at 4.5%/year
- Recommend increasing commercial classes (SGS, MGS, LGS) slightly slower than other classes at 3.75%/year
- Recommend increasing Large Industrial Service (LIS) at 3.2%/year

Study Rate Increase Plan Recommendation (by class)

	Total System	Residential	Small General Service	Medium General Service	Large General Service	Large Industrial	Rental Security Lights	City Street Light	Company Use, No Charge
2022 Revenue Requirement (\$)	\$148,191,757	\$60,458,679	\$9,783,537	\$50,008,278	\$18,270,991	\$7,948,456	\$174,802	\$1,315,021	\$231,992
2022 Revenue from Current Rates (\$)	\$148,191,757	\$58,727,873	\$10,074,431	\$51,687,321	\$17,421,663	\$8,680,451	\$195,210	\$1,404,806	\$0
2022 Indicated Level of Adjustment (\$)	\$0	\$1,730,806	-\$290,894	-\$1,679,043	\$849,328	-\$731,995	-\$20,409	-\$89,785	\$231,992
2022 Indicated Level of Adjustment (%)	0.0%	2.9%	-2.9%	-3.2%	4.9%	-8.4%	-10.5%	-6.4%	0.0%
2022 Actual Adjustment	1.50%	2.50%	0.50%	1.00%	1.00%	1.00%	0.50%	2.50%	0.00%
2023 Actual Adjustment	2.57%	3.50%	1.50%	2.00%	2.00%	2.00%	1.50%	3.50%	0.00%
2024 Proposed Adjustment	4.00%	4.50%	3.75%	3.75%	3.75%	3.20%	3.00%	3.00%	0.00%
2025 Proposed Adjustment	4.00%	4.50%	3.75%	3.75%	3.75%	3.20%	3.00%	3.00%	0.00%
2026 Proposed Adjustment	4.00%	4.50%	3.75%	3.75%	3.75%	3.20%	3.00%	3.00%	0.00%

2024 - 2026 Electric Rate Design

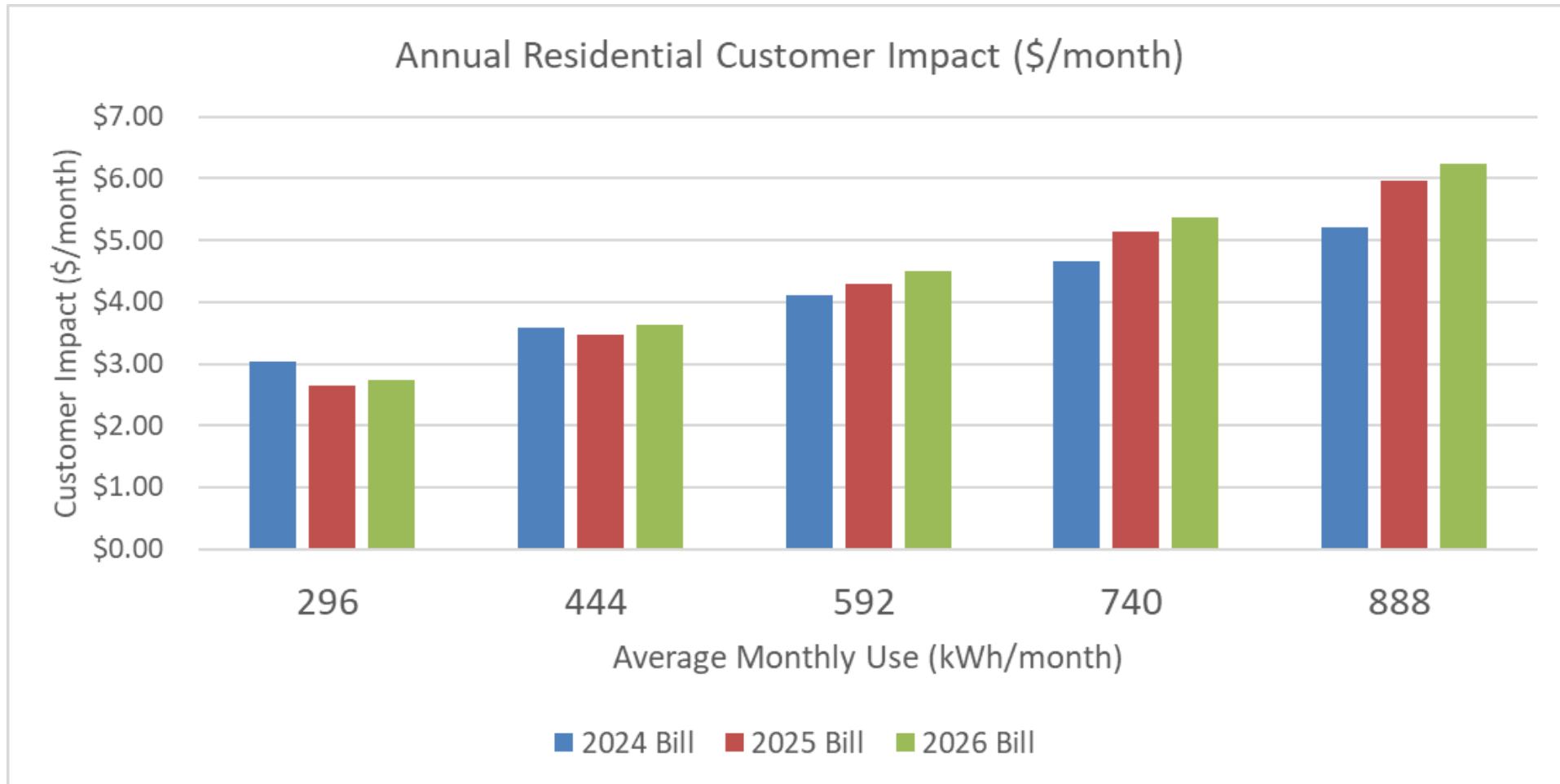
- Meet Revenue Targets
- Reflect Cost of Service
- Align fixed and variable rates with costs
- Adjust the primary discount



Residential Existing and Proposed Rates

		<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>
Residential Rate (RES)	Customer Charge	\$20.50	\$22.44	\$23.44	\$24.44
	Non-Summer Energy Charge / KWH	\$0.11203	\$0.11547	\$0.12068	\$0.12619
	Summer Energy Charge / KWH	\$0.13382	\$0.13792	\$0.14415	\$0.15074
Residential Time of Use (RES TOU)	Customer Charge	\$20.50	\$22.44	\$23.44	\$24.44
	<u>Non-Summer Energy</u>				
	Super-peak / KWH	\$0.14529	\$0.14975	\$0.15650	\$0.16366
	On-peak / KWH	\$0.14529	\$0.14975	\$0.15650	\$0.16366
	Off-peak / KWH	\$0.07364	\$0.07590	\$0.07932	\$0.08295
	<u>Summer Energy</u>				
	Super-peak / KWH	\$0.30082	\$0.31005	\$0.32404	\$0.33885
	On-peak / KWH	\$0.17892	\$0.18441	\$0.19273	\$0.20154
Off-peak / KWH	\$0.07364	\$0.07590	\$0.07932	\$0.08295	

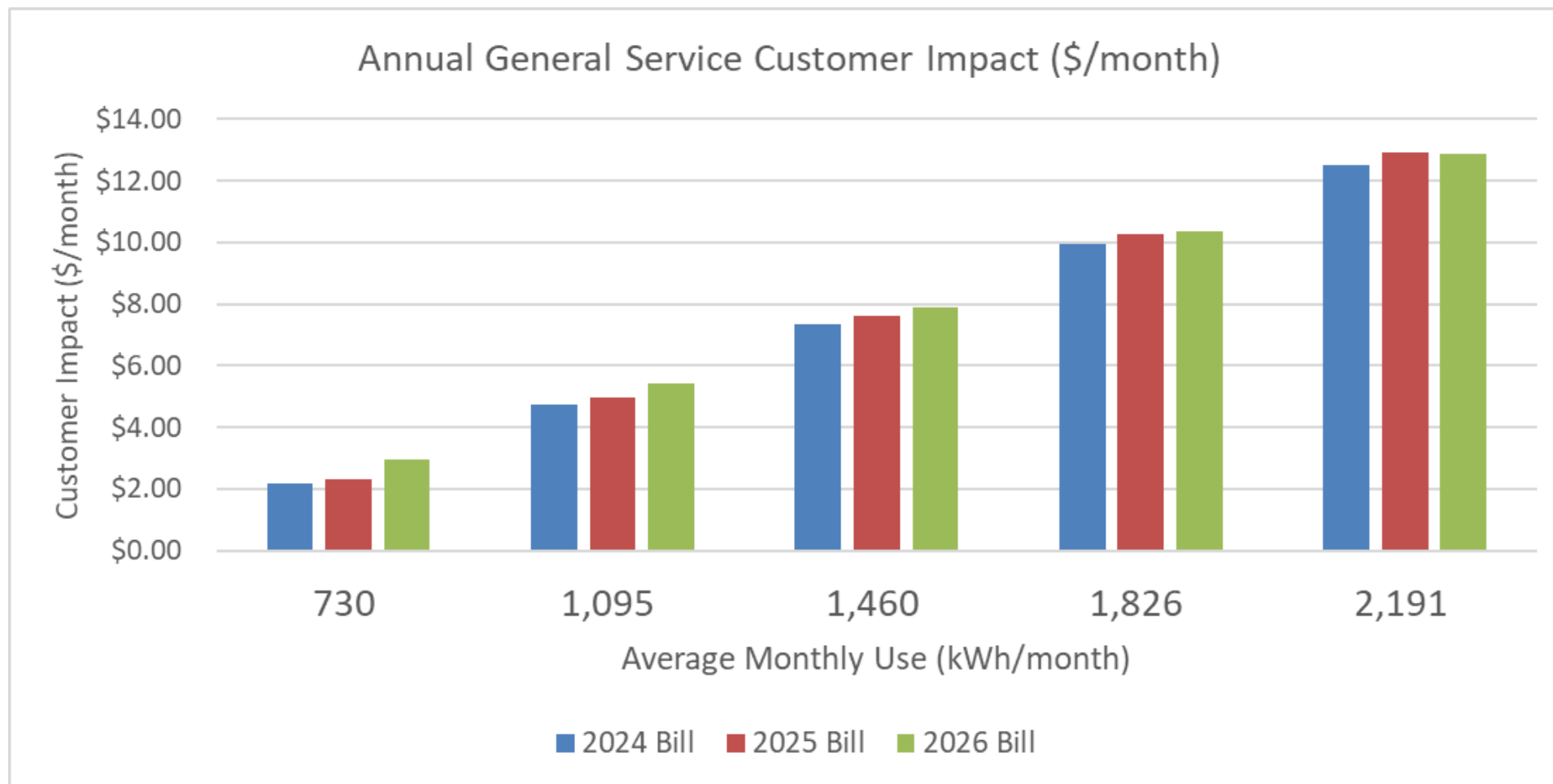
Residential Existing and Proposed Rates – Customer Impacts



Small General Service Existing and Proposed Rates

		<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>
Small General Service (SGS)	Customer Charge	\$35.00	\$32.00	\$29.00	\$27.00
	Non-Summer Energy Charge / KWH	\$0.10790	\$0.11484	\$0.12196	\$0.12861
	Summer Energy Charge / KWH	\$0.13887	\$0.14780	\$0.15697	\$0.16552
Small General Service Time of Use (SGS-TOU)	Customer Charge	\$35.00	\$32.00	\$29.00	\$27.00
	<u>Non-Summer Energy</u>				
	On-peak / KWH	\$0.18698	\$0.19901	\$0.21135	\$0.22287
	Off-peak / KWH	\$0.06419	\$0.06832	\$0.07256	\$0.07651
	<u>Summer Energy / KWH</u>				
	On-peak / KWH	\$0.23337	\$0.24838	\$0.26379	\$0.27816
Off-peak / KWH	\$0.06803	\$0.07241	\$0.07690	\$0.08109	

Small General Service Existing and Proposed Rates – Customer Impacts



Medium General Service Existing and Proposed Rates

		<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>
Medium General Services (MGS)	Non-Summer Demand Charge / KW	\$18.19	\$18.74	\$19.30	\$19.93
	Non-Summer Energy Charge / KWH	\$0.05875	\$0.06148	\$0.06434	\$0.06733
	Summer Demand Charge / KW	\$24.54	\$25.28	\$26.03	\$26.88
	Summer Energy Charge / KWH	\$0.05875	\$0.06148	\$0.06434	\$0.06733
Medium General Service Time of Use (MGS-TOU)	Non-Summer On-peak Demand / KW	\$18.19	\$18.74	\$19.30	\$19.93
	Non-Summer Off-peak Demand / KW	\$1.97	\$2.03	\$2.09	\$2.16
	Non-Summer Energy Charge / KWH	\$0.06066	\$0.06348	\$0.06643	\$0.06952
	Summer On-peak Demand / KW	\$24.54	\$25.28	\$26.03	\$26.88
	Summer Off-peak Demand / KW	\$1.97	\$2.03	\$2.09	\$2.16
	Summer Energy Charge / KWH	\$0.06066	\$0.06348	\$0.06643	\$0.06952

- MGS primary customers will continue to receive a primary meter discount of 1.25% on rate charges for measured demand and energy.
- MGS Customers owning transformers will receive a credit on each month's measured demand. The transformer demand credit will increase from \$0.35/kW to \$0.50/kW.

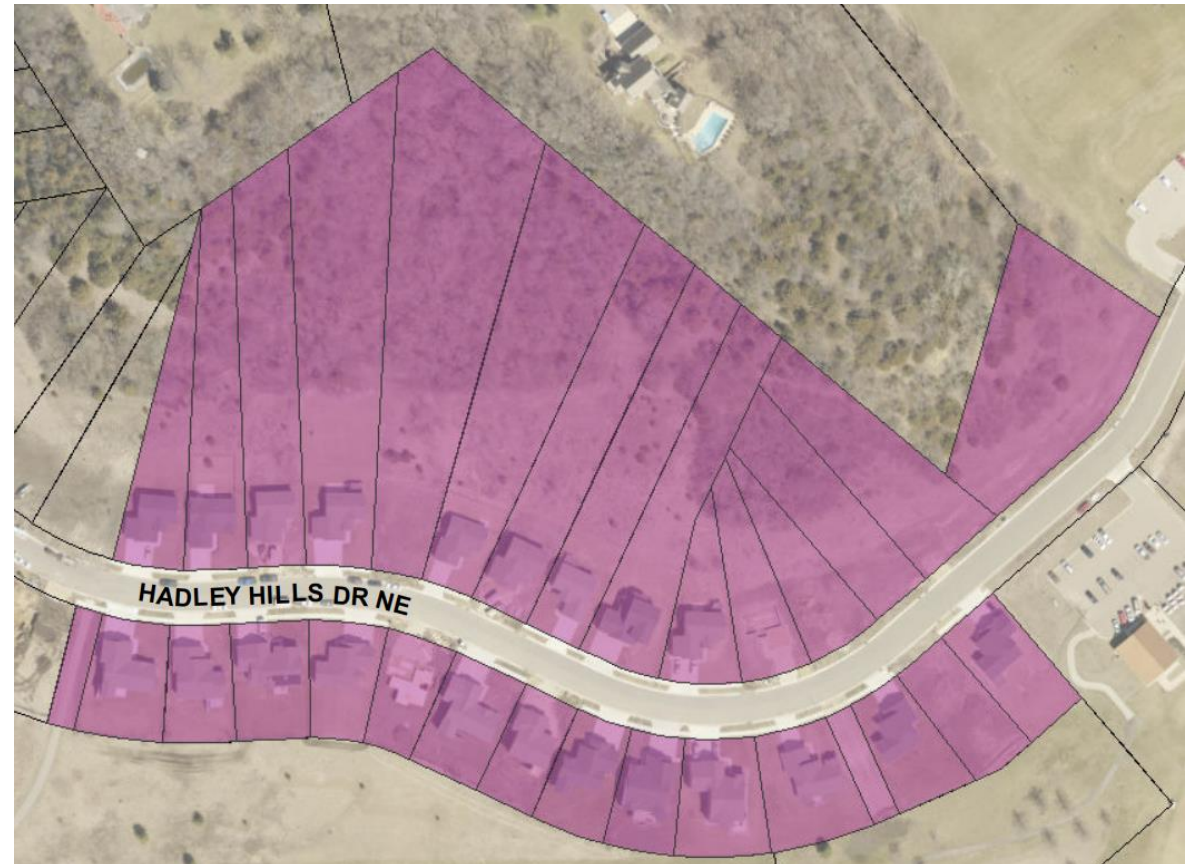
Large General Service and Industrial Service Existing and Proposed Rates

		<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>
Large General Service LGS	Demand Charge / KW	\$21.42	\$21.92	\$22.22	\$22.51
	Energy Charge / KWH	\$0.05875	\$0.06148	\$0.06434	\$0.06733
Large Industrial LIS	Demand Charge / KW	\$20.50	\$21.16	\$21.83	\$22.53
	Energy Charge / KWH	\$0.05550	\$0.05728	\$0.05911	\$0.06100

- LGS primary customers will continue to receive a primary meter discount of 1.25% on rate charges for measured demand and energy.
- LGS customers owning transformers will receive a credit on each month's measured demand. The transformer demand credit will increase from \$0.35/kW to \$0.50/kW.

Miscellaneous Fees - Line Extensions Existing and Proposed Rates

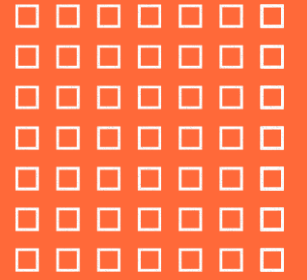
- Residential: \$900 to \$1,150
 - Increase Labor, Wire, Transformers costs
 - Based on Average 2022 residential development costs per lot
 - If > \$5,000 per lot - Negotiated
 - Give a credit to new residential development for the present value of 10 years of gross margin for an average user.



Miscellaneous Fees – Interconnection Fee

Existing and Proposed Rates

- Application Fee: 2023, 2024 & 2025 \$100
- Administrative Fee: 2024 & 2025 \$400
 - Total \$500
- Current Average Labor Cost \$900/application
- Cost Causation – Working toward COS
- Average Solar Installation (2023) 8.5 kW
- Average Solar Cost per Installation(2023) \$40,000 plus



Discussion And Questions

1898  **CO** SM

PART OF BURNS  MCDONNELL