The Water Rate and Fee Setting Process: What are your Needs?

Whidbey Island Water Systems Association

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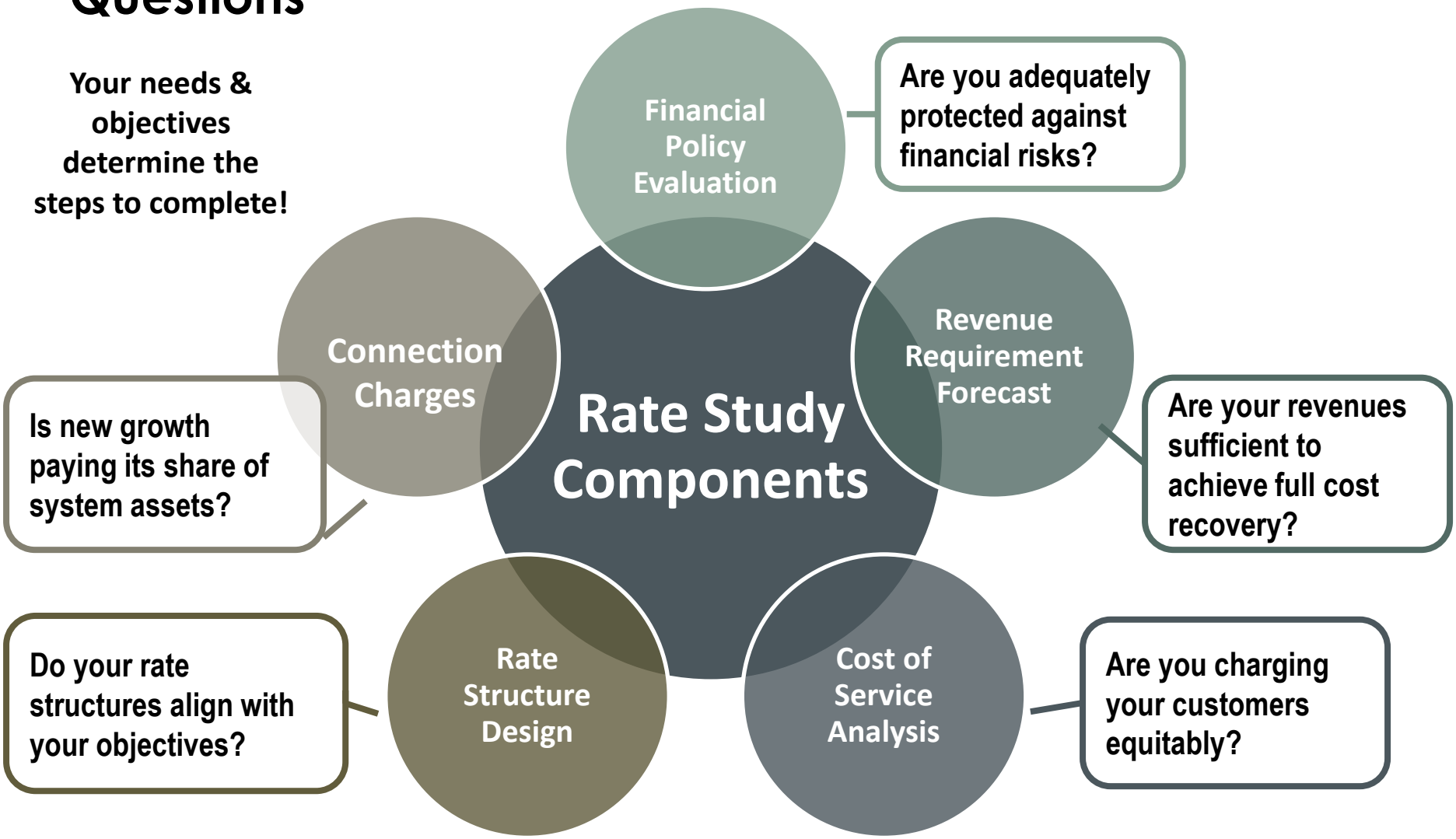
Utility Financial Planning & Rates

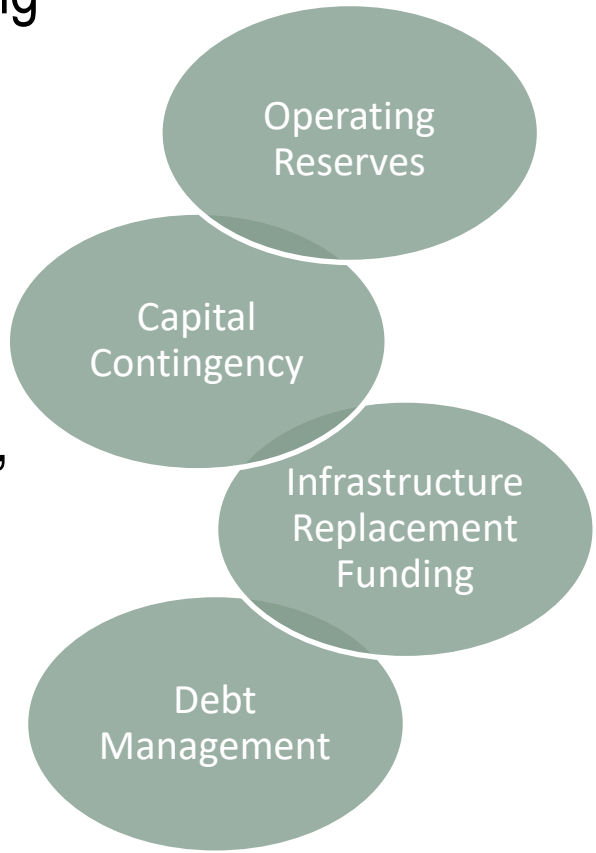
Rate and Fee Study Components Address Key Questions

Your needs & objectives determine the steps to complete!



Financial Policies: Overview

- Establishes the foundation for financial budgeting and performance
- Facilitates an appropriate segregation of resources, ensuring they are used for their intended purpose
- Improves ability to weather financial disruptions, allowing rates to be less conservatively set
- Identifies “needs-based” uses for cash reserves
- Offers guidance and consistency with financial management and planning decisions
- Stabilizes rates over time



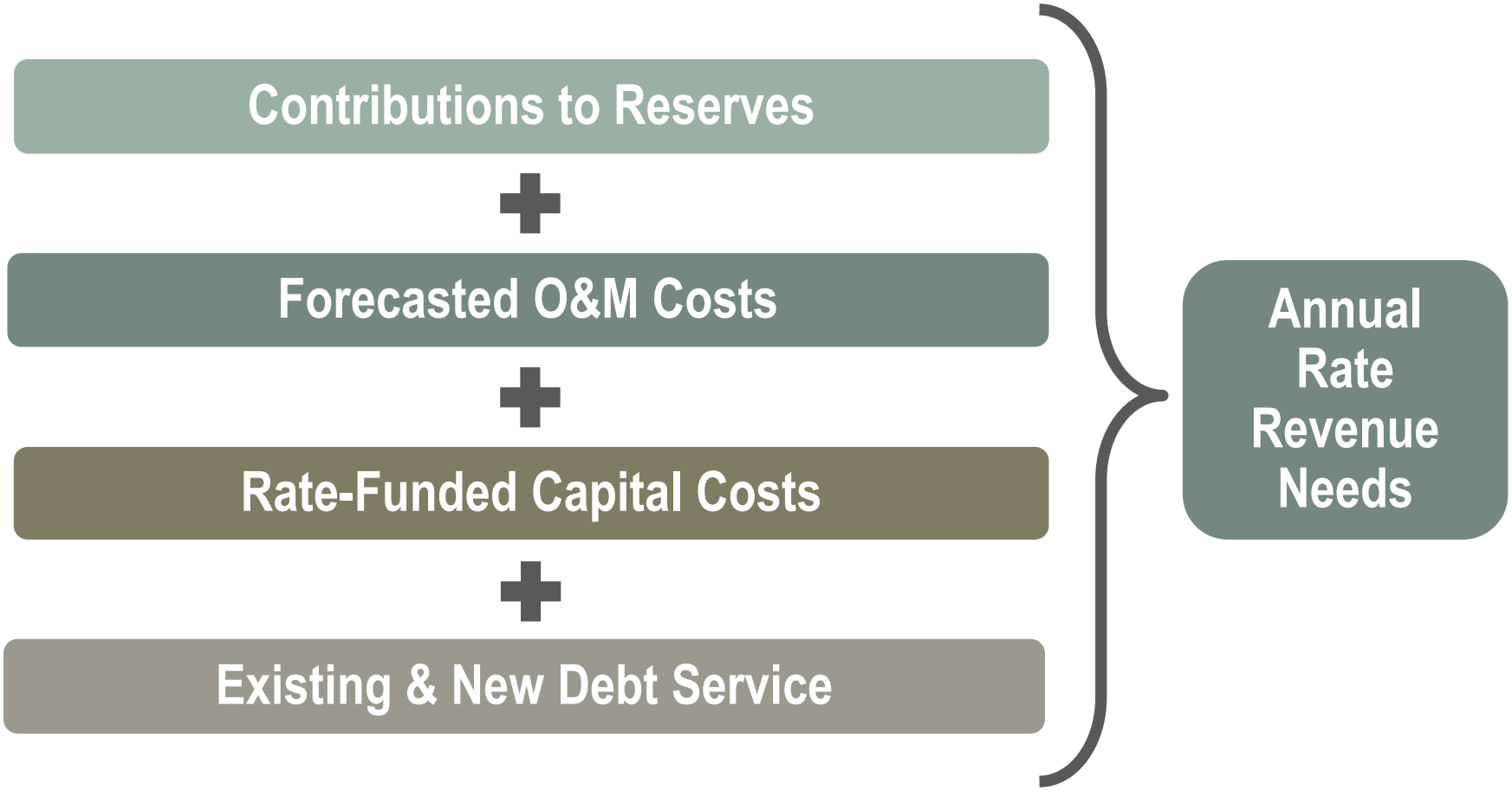
Cash Reserves

Operating Working Capital	• Covers temporary cash flow deficiencies due to variations in short-term revenue and expense cycles • Benchmark: 60 to 120 days of annual O&M expense
Rate Stabilization Reserve	• Protects against unexpected multi-year revenue fluctuations • Benchmark: 5-25% of rate revenues
Capital Reserve	• Provides a source of funding for unexpected capital needs • Benchmarks: 1-2% of original cost of system assets; rolling year average of capital spending; critical equipment cost
Debt Reserves	• Comply with debt covenants; protects against default risk • Benchmarks: per covenants; commonly set equal to average annual or maximum annual debt service

Debt Management

Infrastructure Replacement Funding	• Regular annual funding from rates for system replacement • Benchmarks: depreciation expense, asset replacement studies; targeted funding approach
Debt vs. Pay-As-You Go Capital Funding	• Intergenerational equity of funding long-lived assets • Benchmark: debt to fixed assets < = 35% = < 50%
Growth Pays for Growth (Connection charges)	• General facilities charges (GFCs) collected from new customers are a source of revenue for capital funding that helps to offset rate impacts • Benchmarks: establish charge at maximum allowable level
Debt Service Coverage	• Comply with debt covenants; annual revenues must cover O&M and debt service plus a multiplier on debt service • Benchmarks: range from 1.25 to 2.0 x annual debt service

How Much Revenue is Needed?



Capital & Operating Cost Distinctions

Capital Infrastructure

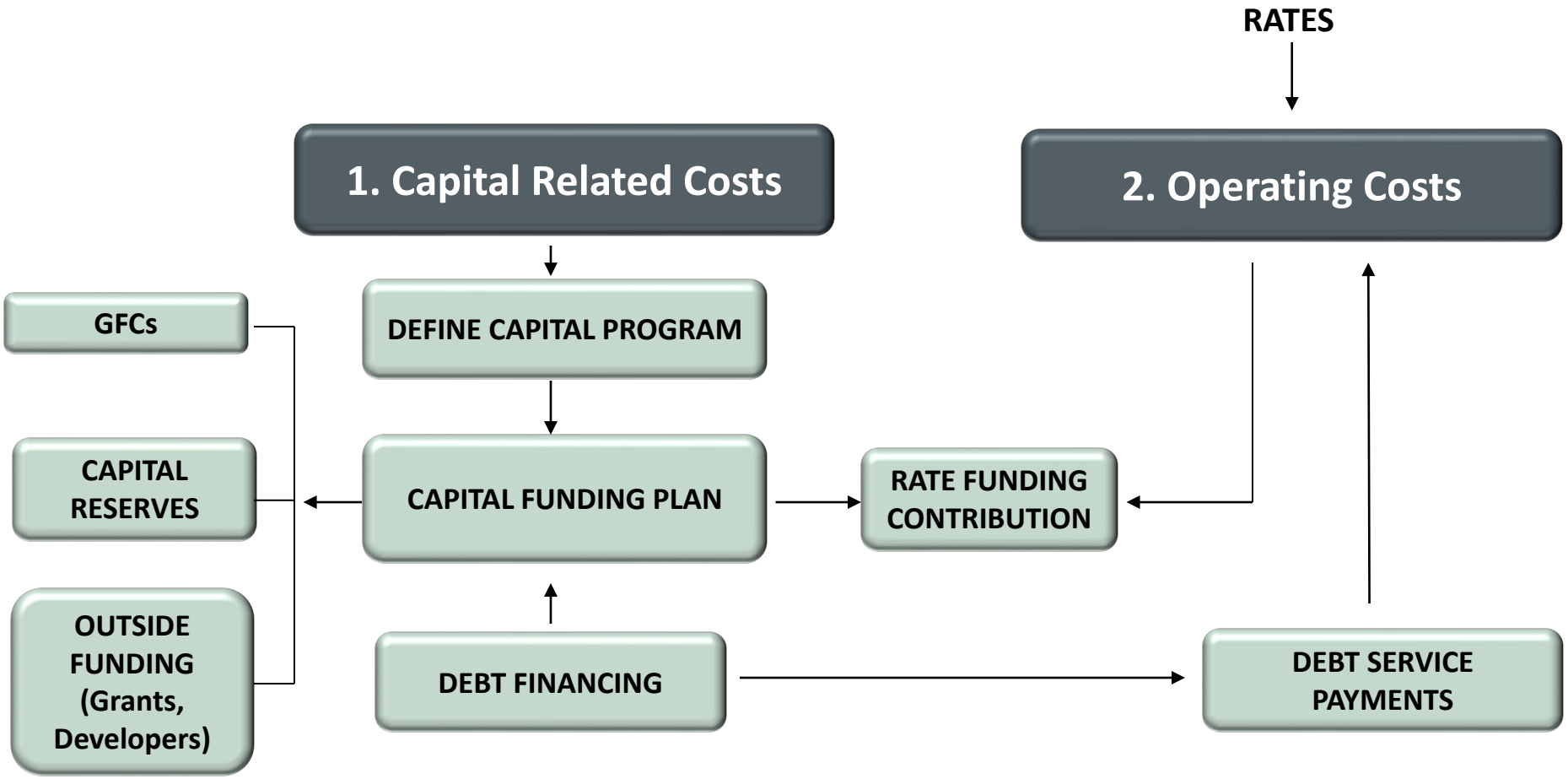
- Large, discrete projects
- Limited time, schedule sensitivity
- Long-term in nature
- Inconsistent, varied spending patterns
- Inconsistent, varied funding sources

Operations & Maintenance

- Regular, ongoing activities
- Highly time & schedule sensitive
- Predicable, steady spending patterns
- Predictable, regular funding source (rates)

Separating operating and capital activities facilitates more accurate forecasting and promotes clarity in financial reporting & rate setting

Interrelationship of Capital & Operating Costs



Capital Funding Options

Cash (pay-as-you-go)

Higher near-term rates

Existing customers pay 100% of costs

Debt Financing

Lowest near-term rates…but ongoing interest cost

Spreads cost between existing and future customers

Hybrid

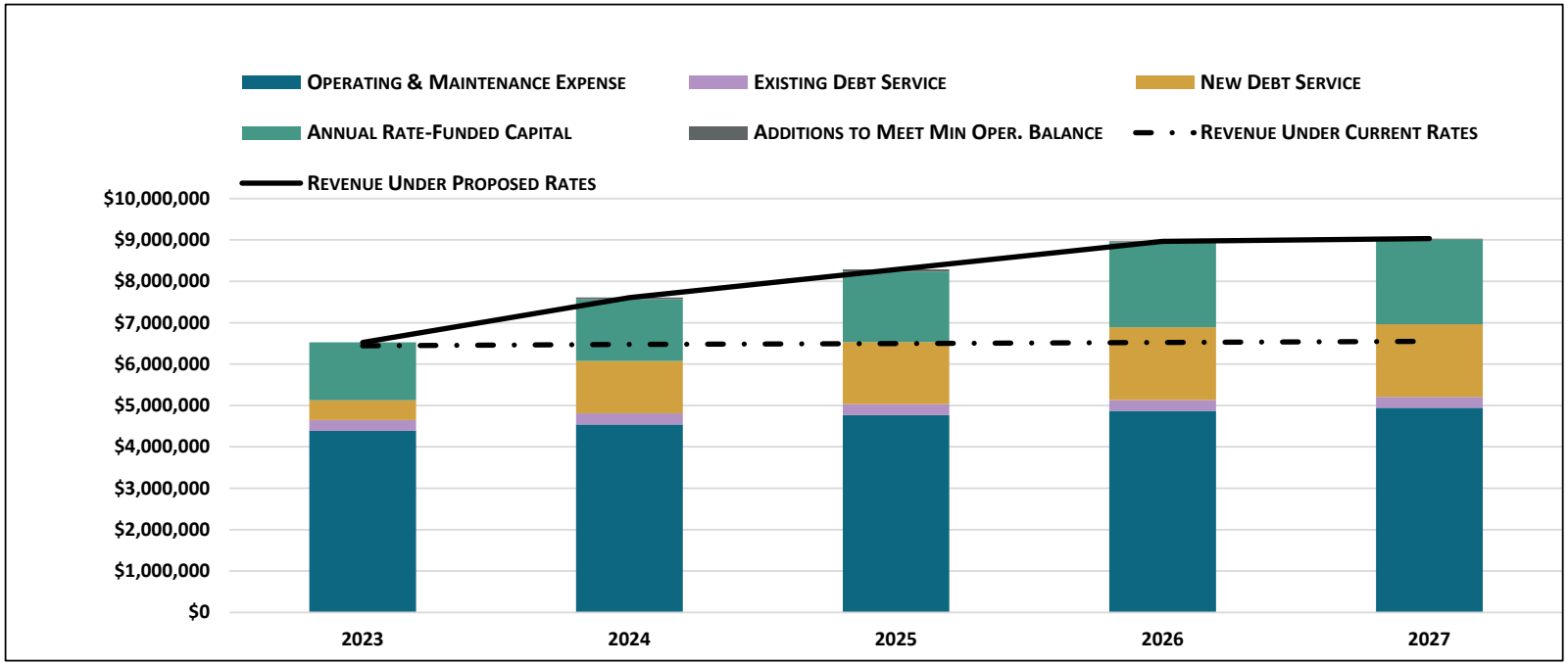
Cash fund ongoing repair and replacement projects

Debt fund larger upgrade and expansion projects

Forecast Total Costs for Rate Recovery

Operating and Maintenance Costs	• Salaries & benefits, services & supplies, materials & equipment, periodic maintenance, allocated shared costs
Rate-Funded Capital	• Policy-based annual contribution from rates to help fund replacement of infrastructure assets
Debt Service Payments	• Existing debt service and projected new debt service from the Capital Funding Plan
Contributions to Operating Reserves	• As needed to meet policy-based minimum operating reserve balance target

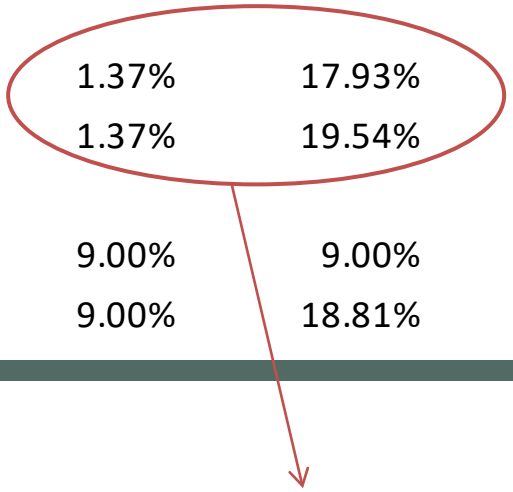
Revenue Requirement = Overall Revenue Need



- Identifies total annual financial obligations
- Evaluates sufficiency of existing rates
- Develops annual rate adjustment strategy to cover shortfall

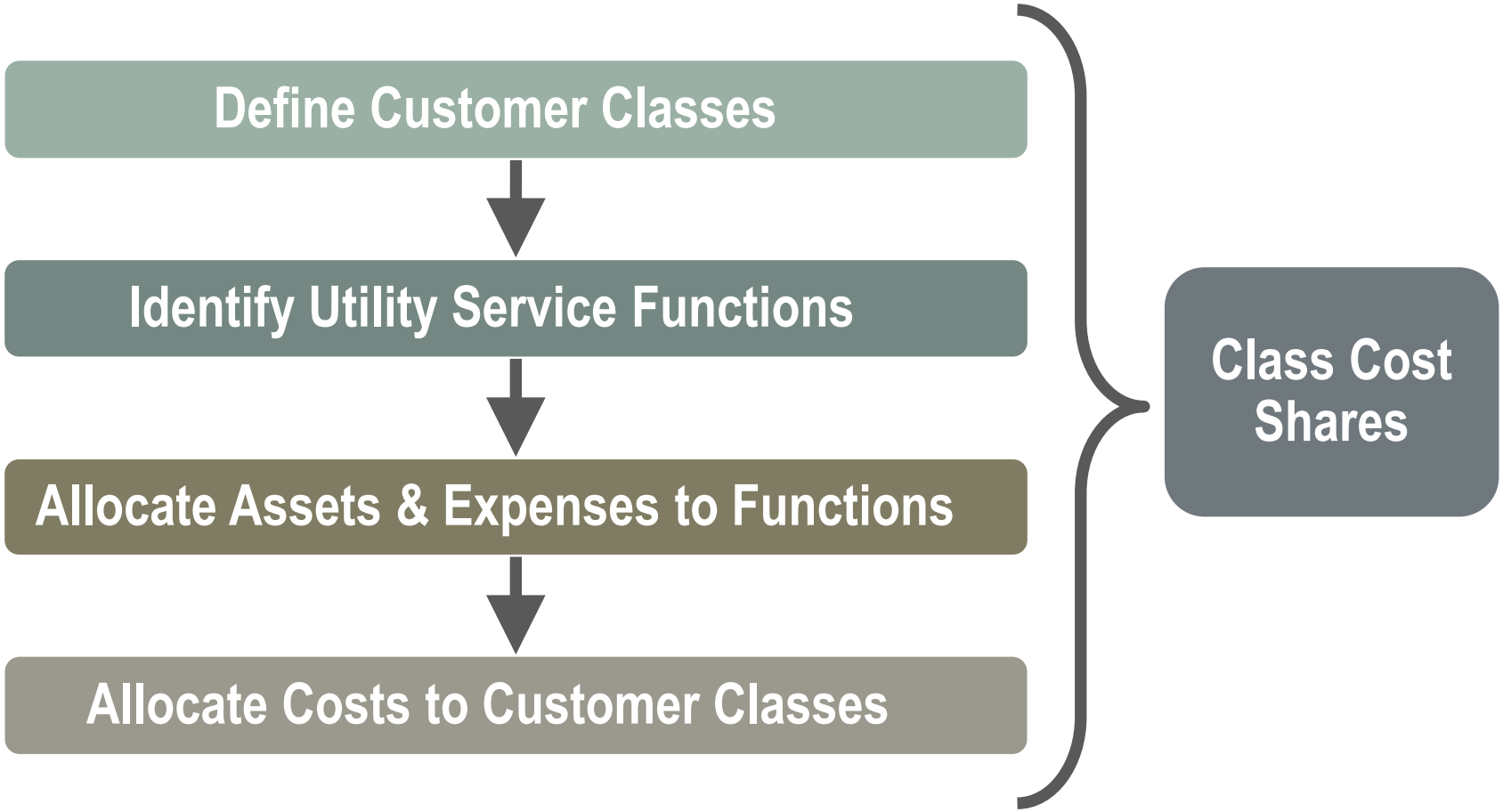
Rate Adjustment Strategy

RATE SMOOTHING	2023	2024	2025	2026	2027
Annual Surplus / (Deficiency)	**$ (79,193)**	**$ (1,135,192)**	**$ (1,789,734)**	**$ (2,444,582)**	**$ (2,483,120)**
Rate Adjustments as Needed	1.37%	17.93%	9.32%	8.46%	8.15%
Cummulative Rate Increase	1.37%	19.54%	30.69%	41.75%	53.30%
Smoothed Rate Adjustments	9.00%	9.00%	9.00%	9.00%	9.00%
Cummulative Rate Increase	9.00%	18.81%	29.50%	41.16%	53.86%



Smooth impact over 2-year period

Are You Charging Your Customers Equitably?



Sample Customer Classes

Single Family Residential (SFR)	Multi-family Residential (MFR)	Commercial/ Industrial	Parks, Irrigation & Agricultural	Other
• Often largest customer group; relatively low usage per unit; high peak demand; lowest fire flow requirement	• Lower usage per dwelling unit; usually master metered; relatively constant use; fire flow requirement between SFR & commercial	• Diversity in use per account; relatively constant use; highest fire flow requirement	• Often smallest customer classes in terms of accounts; majority of use in peak season; no fire flow requirement; economic sensitivity	• Low-income; governmental; institutional; contract / wholesale service; interruptible service; outside city retail; bulk water

The more diverse the customer base, the more complex cost of service evaluation and rate structure design

Cost of Service = Equity Evaluation

- Revenue requirement indicates the percentage adjustment needed for the utility as a whole
- Cost of service indicates how this adjustment should be distributed to and recovered from each customer class
  - Increases > 9.00% indicate current under cost recovery
  - Increases < 9.00% indicate current over cost recovery

CUSTOMER CLASS	REVENUE AT EXISTING RATES	COST OF SERVICE	INCREASE/ DECREASE
Single-Family	$ 3,703,108	$ 4,133,100	11.61%
Multi-Family	810,055	676,275	-16.51%
Commercial	925,777	1,002,987	8.34%
Irrigation	347,166	494,494	42.44%
TOTAL	$ 5,786,106	$ 6,306,856	9.00%

Do Rate Structures Align with Objectives?

Objective	Goal(s)	Ranking
Financial Sustainability	Reduce revenue volatility	1
Fairness & Equity	Recover costs equitably from customers without adverse impacts	2
Conservation & Efficiency	Reduce overall or peak water demand	3
Affordability	Keep cost low for basic “lifeline” users	4
Administrative Efficiency	Ease of administration and compatibility with billing system	5

Rate Design = Revenue Collection

Fixed Charges
$ per meter equivalent

Addresses revenue stability

Typically recovers costs for…

- Customer/account servicing
- Meters & services repair/ maintenance
- Fire protection services
- Portion of peak demand

Volume Charges
$ per unit of water

Addresses equity & conservation

Typically recovers costs for…

- Base demand (average annual usage)
- Portion of peak demand

Guideline for cost recovery = 30% - 40% fixed charges / 60% -70% volume charges

Often higher fixed charge portion for small systems or systems experiencing seasonal influx of tourists; balance with prioritized goals

Example Rate Structure Options

Fixed Charges

- Fixed charge per account (unmetered systems)
- Fixed charge increasing by size of meter (most common)
- Can be same fixed charge for all customer classes or can be designed by customer class
- Can include usage allowance in fixed charge

Volume Charges

- Uniform volume rate (same unit cost for all customer classes)
- Class-specific single block rate (unit cost varies by customer class)
- Increasing/tiered block charges (unit cost increases as usage increases)
- Seasonal rates (unit cost varies between winter/summer)

Selection based on prioritized goals; customer demographics; and available data

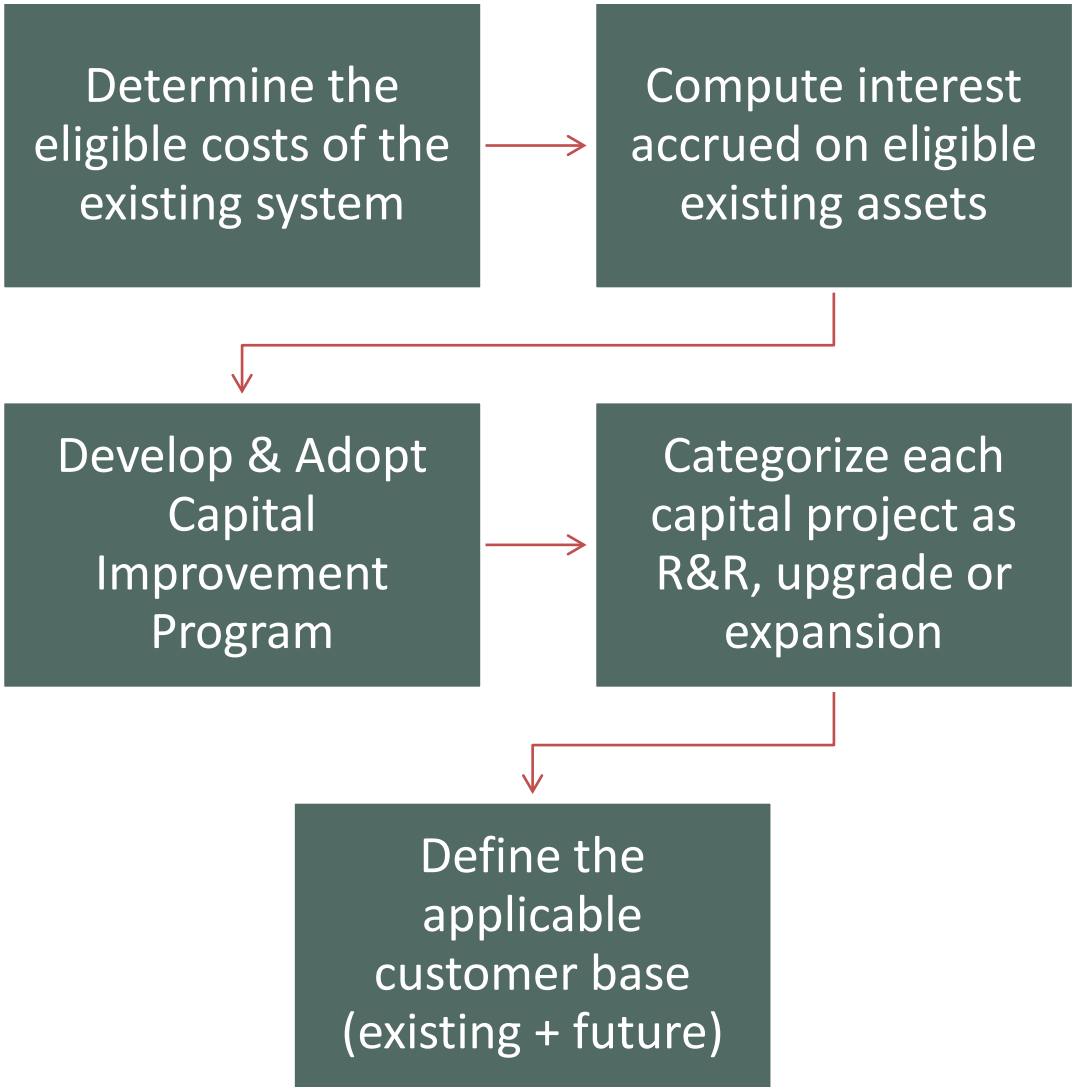
General Facilities Charges (GFC)

- A GFC is a form of connection charge imposed on new development (or redevelopment) as a condition of service
  - Intended to recover a pro rata share of system costs from new growth demands
  - Provides equity between existing and future customers
  - GFC revenue can be used to pay for capital projects or to pay debt service incurred to fund capital projects…but cannot be used to pay operational costs
- Authorized and guided by:
  - RCW 57.08.005 (Districts)
  - RCW 35.92.025 (Cities)

GFC Calculation

- GFC = Eligible Existing System Costs *plus* Eligible Future System Costs *divided* by Applicable Customer Base

- Data Needs
  - Detail listing of plant assets (original cost, purchase dates, contributed assets)
  - Current outstanding debt principal
  - Adopted 5 -10-year Capital Program
  - Existing and projected customer base (Water System Plan)



GFC: Defining Eligible Costs

What can it include?

- Original cost of existing assets
- Interest accrued on assets (up to 10 years)
- Capital Improvement Program (current day $)

What should it exclude?

- Assets funded by external sources (grants, developers)
- Local facilities paid for through other charges
- Outstanding debt principal (net of cash balances)
- Provision for retirement of existing assets

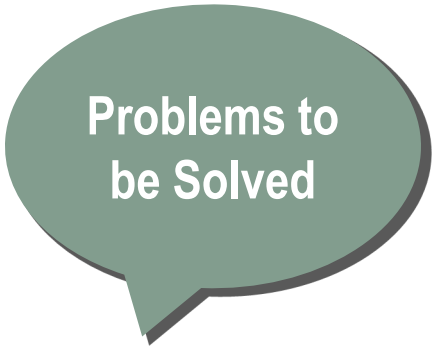
Sample GFC

Existing Cost Basis		Notes
Plant-in-Service		
Total Capital Assets	$ 50,000,000	Original cost of plant assets as of 2022
less: Contributed Assets	(10,000,000)	Excludes grants and developer funding
plus: Interest on Non-Contributed Backbone System Assets	20,000,000	Interest on assets up max 10-yeas
less: Net Debt Principal Outstanding	(3,000,000)	Debt principal outstanding, net of cash reserves
Total Existing Cost Basis	**$ 57,000,000**	
Future Cost Basis		
Capital Improvement Plan		
Total Future Projects	$ 25,000,000	CIP (Years 2023 - 2032)
less: Future Projects Ineligible for Recovery through GFCs	(15,000,000)	Excludes repair & replacements
less: Contributed Future Upgrade & Expansion Assets	(1,000,000)	Not eligible for recovery through GFC
Total Future Cost Basis	**$ 9,000,000**	
Customer Base		
No. of Meter Capacity Equivalents (MCEs)		
Existing Meter Capacity Equivalents	13,000	Exising No. of MCEs
Future Meter Capacity Equivalents (Incremental)	1,000	Projected Incremental MCEs
Total Customer Base	**14,000**	No. of MCEs (2032)
Resulting Charge		
Existing Cost Basis	$ 57,000,000	
Future Cost Basis	9,000,000	
Total Cost Basis	$ 66,000,000	
Total Customer Base	14,000	
Maximum Allowable GFC per MCE	**$ 4,714**	

Meter Size	Meter Ratio	Max Allowable
Up to 1"	1.00	$ 4,714
1 1/2"	5.00	$ 23,571
2"	8.00	$ 37,714
3"	16.00	$ 75,429
4"	25.00	$ 117,857

Key Take Aways

- No one strategy meets all utility objectives equally, and not all objectives are valued the same by the utility or its customers; requires an appropriate balance
- Identifying your unique goals and challenges guides your level of analysis and rate structure choices
- Understanding the outcome of each rate study component can help you focus on policies, strategies, and rate structures that align with *your* priorities and community values



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