Utility Rate Setting

2015 IACC Annual Conference

October 21, 2015

FCS GROUP
Solutions-Oriented Consulting

Angie Sanchez Virnoche
Principal

2014 CSI Infrastructure Crisis Report

- Report highlighted a number of issues:
  - ✓ State and federal funding sources are shrinking
  - ✓ Agencies are not setting aside enough funds to replace aging facilities
  - ✓ Budgets are under serious strain as systems age and costs escalate
  - ✓ <u>Many infrastructure systems rely on revenue sources that are inadequate to meet ongoing capital, as well as operations and maintenance (O&M)needs</u>

Infrastructure Crisis, Sustainable Solutions: The Evergreen State College, Center for sustainable infrastructure (2014)

Why Are Rate Studies Important?

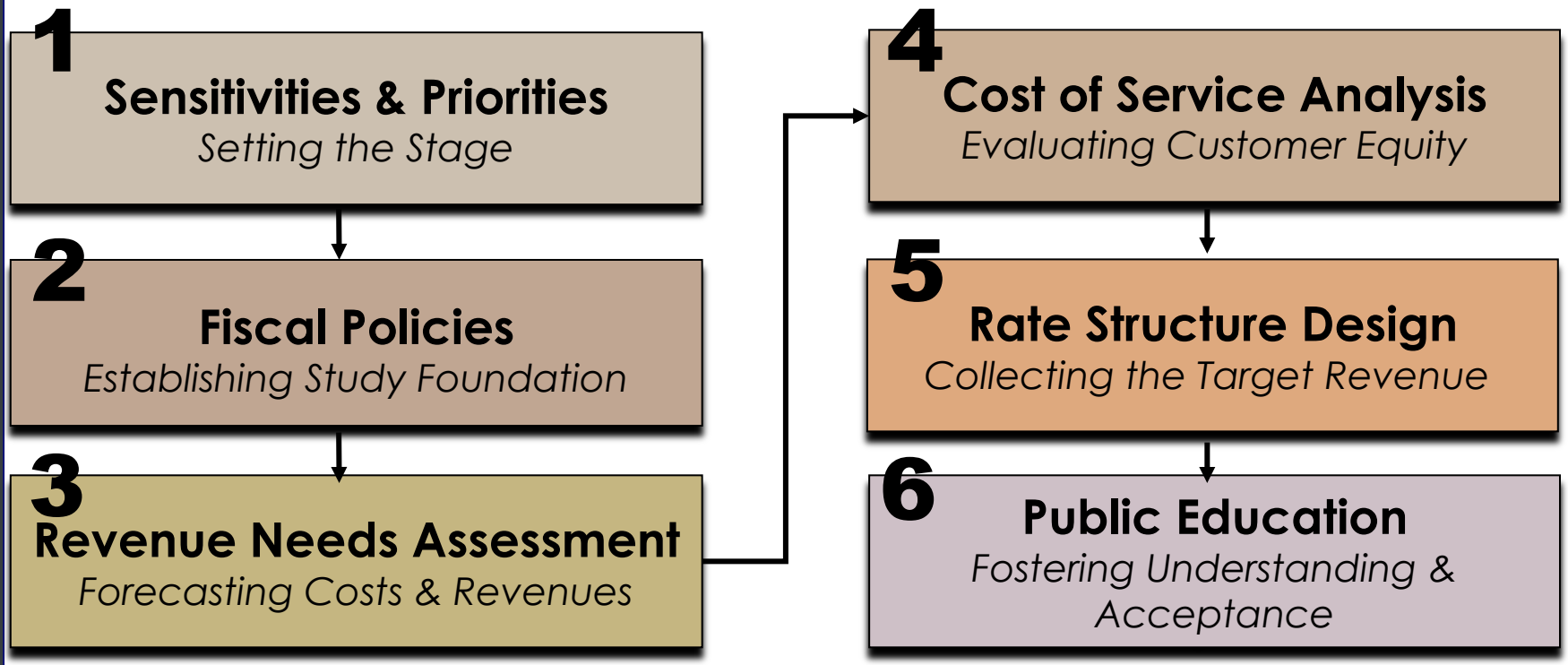
- Helps to maintain the long-term health and integrity of the utility system
- Quantifies policies, priorities, and initiatives
- Tells the "true" cost of providing service
- Tracks cost information
- Evaluates equity between customer groups
- Communicates financial decisions and their impact
- Management tool

A Successful Rate Study is…

- A blend of information and expertise from ALL departments:
  - Finance
  - Engineering
  - Customer Service
  - Administration

…….**<u>NOT</u> simply just a financial exercise!**

Key Rate Study Steps



Your needs and objectives determine the steps to complete!

Role of Financial Policies

- Basis for financial performance and budgeting
- Plan for weathering financial disruptions
- Foundation for consistent financial/rate decisions
- Documentation of management philosophy
  - To customers and outside financial community

Documentation of Policies Ideal

Example Fiscal Policies

	Purpose	Target
Operating Reserve	Liquidity cushion to accommodate cyclical cash flow fluctuations	Water = 90 Days O&M Sewer = 45-90 Days O&M Storm/Solid Waste = 30 Days O&M
Capital Contingency Reserve	To meet emergency repairs, unanticipated capital, and project cost overruns	1% - 2% of Original Cost Asset Values; Cost of Emergency Repair
Capital Replacement Funding	Promote ongoing system integrity through reinvestment in the system.	Annual Depreciation Expense; Annual Depreciation less debt principal
Debt Service Coverage	Compliance with existing loan/debt covenants and maintain credit worthiness for future debt issuance.	Target 1.50-1.75; Minimum Requirement 1.25

Debt Capacity

- How much debt can you support?

Ratio	Formula	Range
Debt to Equity Ratio	Total Debt ÷ Total Net Assets	35%-45% debt in general range
Debt Service Coverage Ratio	(Total Revenue less Total O&M expenses) ÷ debt service (P&I)	1.25 minimum; Target 1.70 or greater ideal
Debt as % of Operating Revenue	Annual Debt Service ÷ Total Operating Revenue	15% - 35%; median 25%

Example Debt Service Coverage Calculation					
A	Total Revenue*	$ 2,500,000	$ 2,625,000	$ 3,000,000	$ 5,000,000
B	Operating Expenses	$ 2,000,000	$ 2,000,000	$ 2,000,000	$ 2,000,000
C =(A -B)	Net Revenue or Available for Capital	$ 500,000	$ 625,000	$ 1,000,000	$ 3,000,000
D	Revenue Bond Debt Service	$ 500,000	$ 500,000	$ 500,000	$ 500,000
C/D	**Debt Service Coverage**	**1.00**	**1.25**	**2.00**	**6.00**
Debt Service as % of Operating Revenue					
D/A	**Operating Expenses**	**20%**	**19%**	**17%**	**10%**

* does not include connection charges or beginning fund balance

* may excludes pledge of City tax collections

FCS GROUP
Solutions-Oriented Consulting

Role of a Revenue Requirement Analysis

- Multi-year financial plan
- Determines the amount of revenue necessary to meet all utility financial obligations
- Evaluates sufficiency of current rates on a stand-alone basis
- Develops annual rate implementation strategy

Overview of Revenue Requirement

Key Rate Components	
	Operating & Maintenance
+	Debt Service (existing & new)
+	Rate Funded Capital (routine)
=	**Total Revenue Requirement**
-	Miscellaneous Revenue
=	**Revenue from Rates**

Fund Balance	
	Beginning Balance
-	Target Balance (days O&M)
=	**Available for Capital**

Major Capital	
	Total Capital Projects
-	Contributions (grants/developer)
-	Development Charges (SDC/GFC)
-	Rate Funded Capital
-	Cash Reserves/Fund Balance
=	Debt Funding (loans/bonds)

Revenue – Considerations

- Forecast of revenue generated by customer class
- Should consider 3-5 year historical revenue trends and future initiatives
- Include revenue from other operating fees/charges
- Do not include beginning balance
  - One time revenue that can mask rate evaluation

Operating Cost Considerations

- Historical cost review
- Inflation factors, CPI, CCI, labor contracts
- Strategic program initiatives
- Additional or enhanced needs (staffing, regulatory requirements)
- Increasing costs (purchases, materials, supplies, electricity)
- Indirect costs (overhead allocation up to date?)
- Taxes (state excise, city utility)
  - Periodically review state excise tax calculations

Capital Cost Considerations

- Basis for costs is comprehensive plan or internally developed CIP
  - Cost Escalated? What is year of construction?
- Funding Philosophy
  - Cash (pay-as-you-go)- Higher Near Term Rates
    - Existing customers pay 100% of initial costs
  - Debt Financing – Lowest near-term Rates
    - Mitigates immediate rate impacts of costly capital
    - More closely matches costs to useful life of asset
  - Hybrid
    - Define a reasonable basis for cash/rate funding (R&R projects?)
    - Evaluate need for debt (large, long life projects)
    - Aligns funding with nature of capital project

Lack of Infrastructure Funding

- ASCE Report card on America's infrastructure graded water/sewer a "D"
- Current cost of doing business is to provide something for future R&R of the system
- Risk of not funding infrastructure
  - Equity (net assets) will erode
  - Debt capacity may not be available when needed
  - Rate spikes will prevail
  - Level of service delivered will decline

2013 American Society of Civil Engineers (ASCE) Report Card for America's Infrastructure

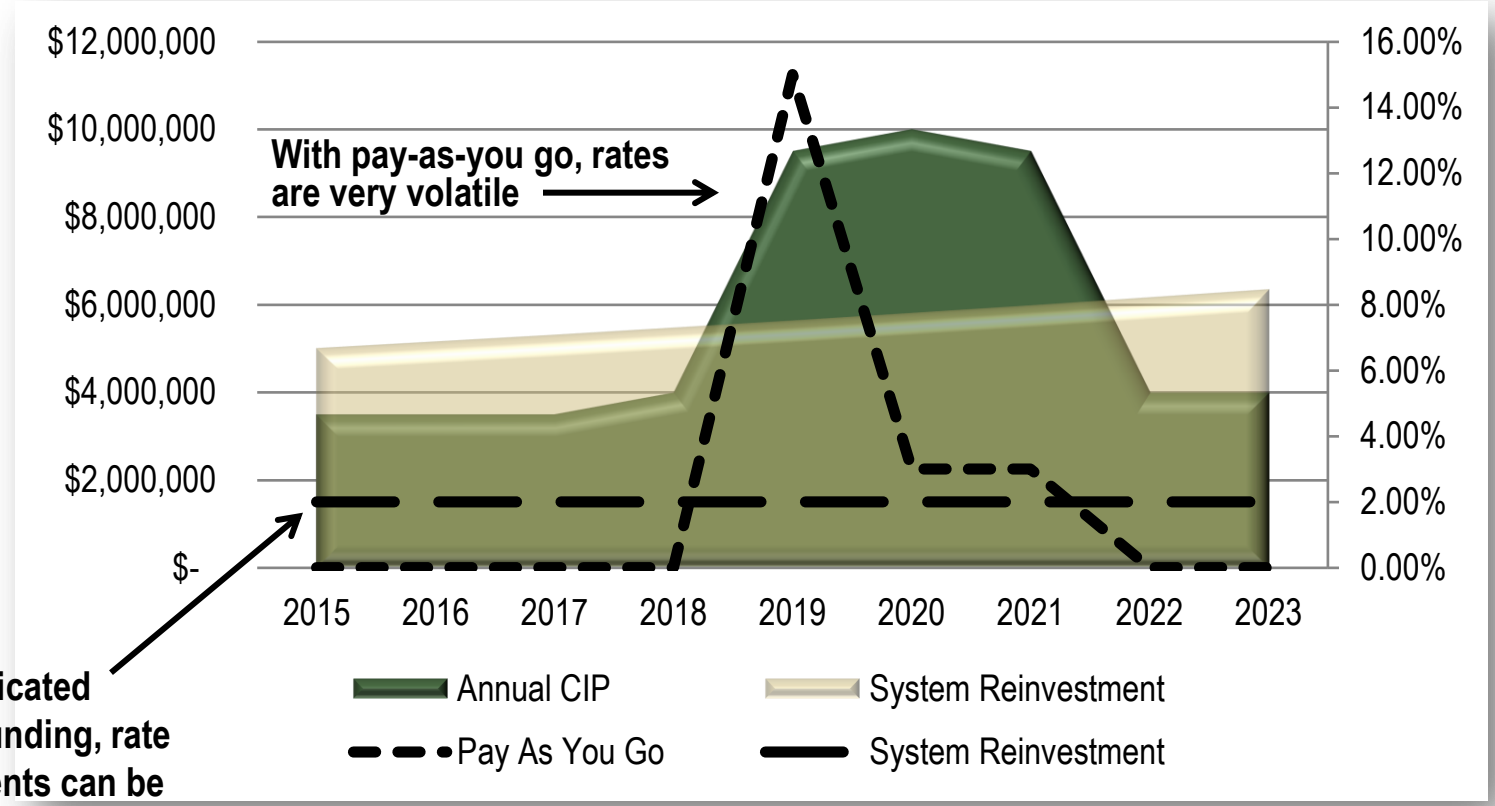
Capital Funding Impacts

	Key Rate Components
	Operating & Maintenance
+	Debt Service (existing & new)
+	Rate Funded Capital
=	Revenue Requirement
-	Miscellaneous Revenue
=	**Revenue from Rates**

	Capital Funding
	Total Capital Projects
-	Contributions (grant/developer)
-	Development Charges (SDC/GFC)
-	Rate Funded Capital
-	Cash Reserves
=	Debt Funding (loans/bonds)

System Reinvestment Funding

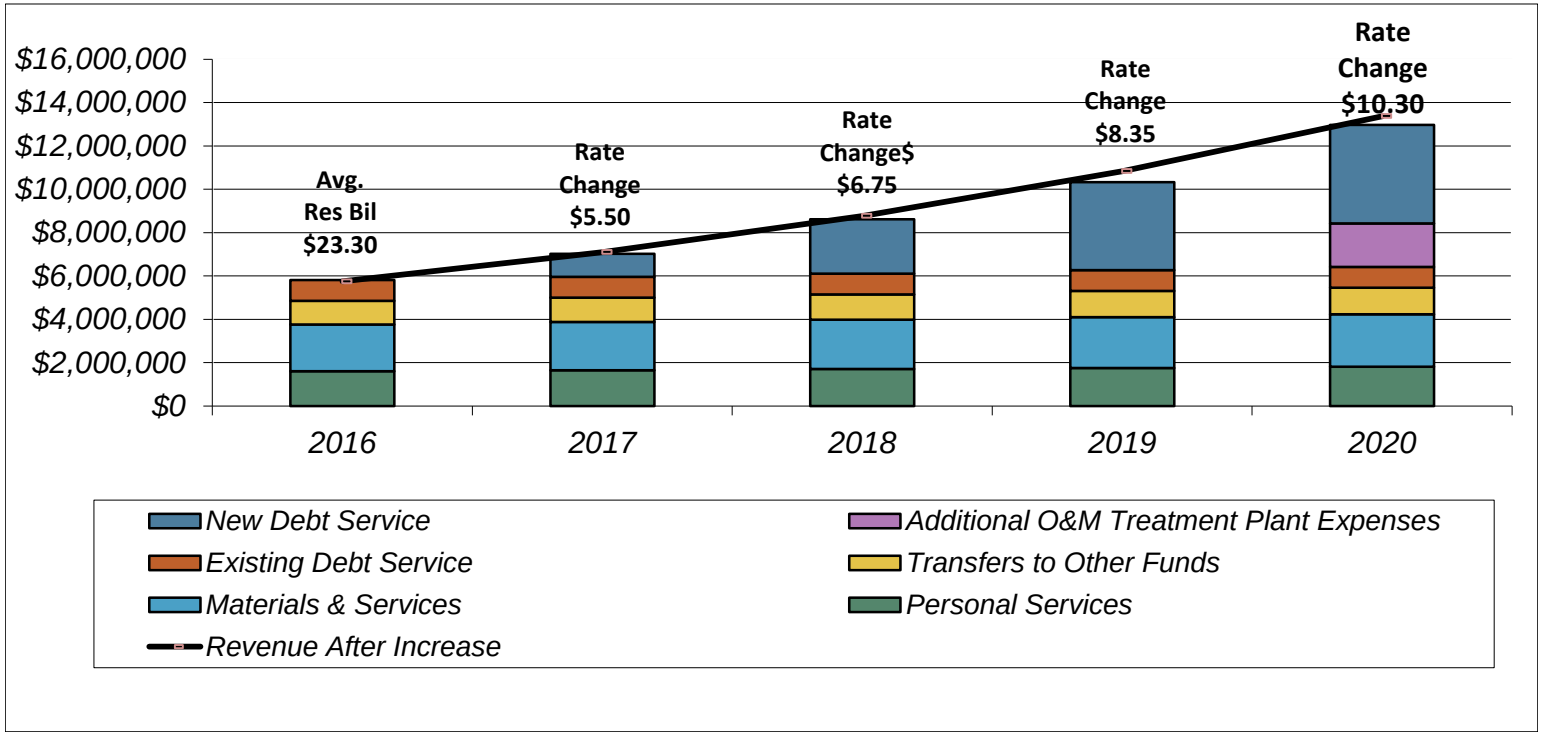
- System reinvestment funding recognizes annual CIP spending may not be uniform



With dedicated annual funding, rate adjustments can be smoothed over time

FCS GROUP
Solutions-Oriented Consulting

Revenue Requirement = Overall Revenue Needs



- Identifies total annual financial obligations
- Evaluates sufficiency of existing rates
- Develops annual rate strategy

FCS GROUP
Solutions-Oriented Consulting

Rate Design = Revenue Collection

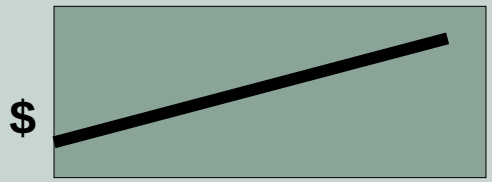
- Creation of rate structures that recover the target level of revenue
- Primary communication with customers
- Composed of fixed and/or variable charges
- Considerations:
  - Equity of rates
  - Complexity of rates (understandable & implementable)
  - Rate Impacts
  - Revenue stability and predictability
  - Social objectives (affordability, economic development, conservation, etc.)

Types of Rate Structures

Flat Rate

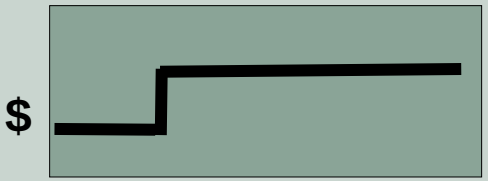
Fixed Charge $40/mo.

Uniform Rate



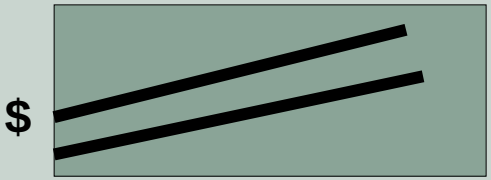
Fixed Charge $10/mo.
Volume Charge $0.60/ccf

Allowance Rate



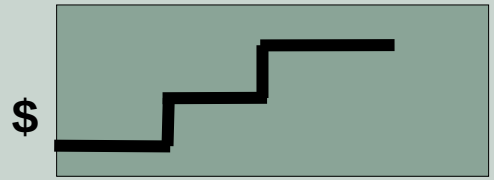
Fixed Charge $12/mo.
0 - 10 ccf $0.00/ccf
Use >10 ccf $1.00/ccf

Seasonal Rate



Fixed Charge $10/mo.
Winter Charge $1.00/ccf
Summer Charge $1.50/ccf

Inclining/Tiered Rate



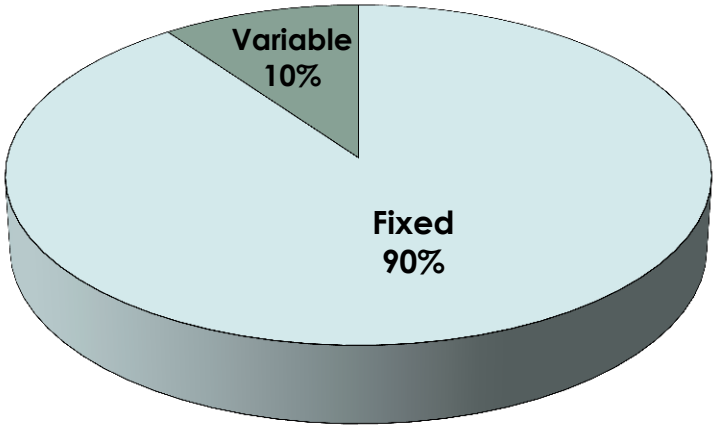
Fixed Charge $10/mo.
0-10 ccf $0.50 / ccf
10-20 ccf $0.75 / ccf
> 20 ccf $1.00 / ccf

- Fixed charges for water utilities are typically charged by meter size
- Flat rates are common for Sewer and storm rates
- Sewer moving to volume based rates

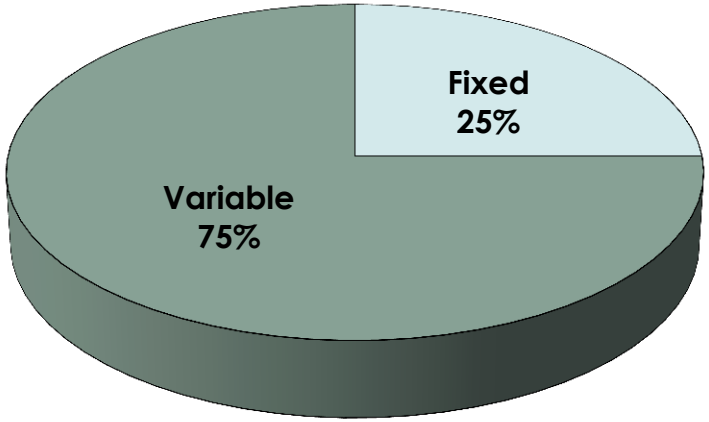
Rate Design Issue

- Costs and revenues are not aligned

Sample Breakdown of Costs



Sample Breakdown of Revenues



Note: Distribution of costs/revenues between fixed/variable components varies by utility.

Public Education/Communication

- Greater public scrutiny requires public **engagement**, **education** and **transparency**
- Multiple options available
  - Dedicated website
  - Open house
  - Rate committee
  - Bill calculators
  - Frequently asked questions
  - Newsletters
  - Bill stuffers/notices
  - Traveling public meetings
  - Radio/television interviews

Action Items

1. Evaluate if ongoing revenue is meeting annual revenue requirements
2. Identify or establish fiscal policies
3. Review operating and capital fund balances for sufficiency
4. Do rates support consistent level of annual capital funding?
5. Calculate % of revenue coming from fixed charges and variable charges

Summary

- Understand your sensitivities & priorities
- Review rates every year as part of the budget process
- It is never to early to start funding infrastructure replacement
- A multi-year plan will help identify future needs
- Set up appropriate reserves to help weather unforeseen events
- Transparency and communication is key!

Thank You!

Angie Sanchez Virnoche
Principal
angies@fcsgroup.com

Contact FCS GROUP:

(425) 867-1802
www.fcsgroup.com

FCS GROUP
Solutions-Oriented Consulting