



Smart Management for  
Small Water Systems

# Setting the Right Rates for Your Water System

Rutland, VT  
6/20/2019



UNC  
ENVIRONMENTAL  
FINANCE CENTER



NADO  
NATIONAL ASSOCIATION OF DEVELOPMENT ORGANIZATIONS  
RESEARCH FOUNDATION



Government Finance  
Officers Association

*This program is made possible under a cooperative agreement with the US EPA.*



# Workshop Objectives

- Understand common rate setting objectives for water systems
- Learn how to structure rates to meet those objectives
- Provide forum for sharing finance and management perspectives, ideas, and experiences



# Housekeeping and Introductions



# Water Operator CEUs

**If you need a CEU certificate, you will need to confirm the following on the roster today before you leave:**

- Is your name spelled correctly?
- Did you provide an email address UNIQUE TO YOU? A unique email address is required to receive your certificate.
- Did you provide your water system operator number?

Within 30 days of the training, you will receive an email with instructions to print your certificate. Emails from EFCN may be blocked or go to your Junk mail. To avoid this issue, add [Smallsystem@syr.edu](mailto:Smallsystem@syr.edu) to your email Contacts or check your Junk mail frequently.

EFCN will apply to the water operator state licensing agency for CEU preapproval when applicable. You may be awarded CEUs by your agency. It is your responsibility to confirm with the agency that training meets relevancy criteria established for your license type as some agencies may not apply CEUs to your license if the training topic is not relevant to your position.

**EFCN follows the IACET Standard of CEU calculation.**

0.1 CEU = 1 Contact Hour or 1 Professional Development Hour

**Questions?** Please contact [Smallsystem@syr.edu](mailto:Smallsystem@syr.edu)



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# Environmental Finance Center Network (EFCN)

The Environmental Finance Center Network (EFCN) is a university-based organization creating innovative solutions to the difficult how-to-pay issues of environmental protection and improvement. The EFCN works with the public and private sectors to promote sustainable environmental solutions while bolstering efforts to manage costs.

# The Small Systems Program Team

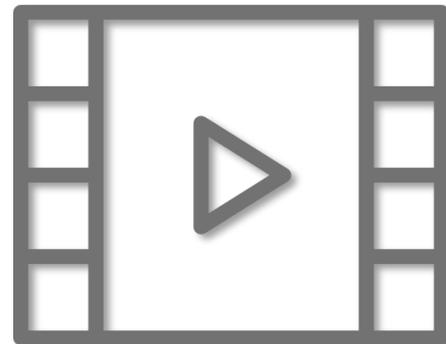
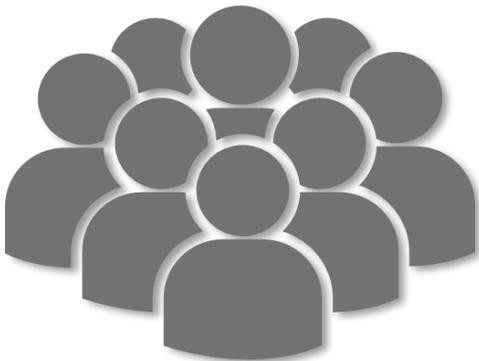
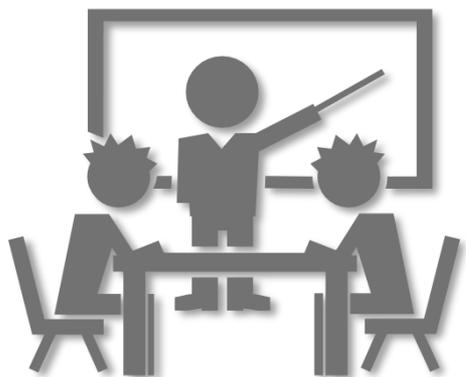
- Environmental Finance Center at The University of North Carolina at Chapel Hill
- Southwest Environmental Finance Center at the University of New Mexico
- Syracuse University Environmental Finance Center
- Environmental Finance Center at Wichita State University
- EFC West
- Environmental Finance Center at the University of Maryland
- New England Environmental Finance Center at the University of Southern Maine
- Great Lakes Environmental Infrastructure Center
- Government Finance Officers Association (GFOA)
- National Association of Development Organizations (NADO)





Smart Management for  
Small Water Systems

# Smart Management for Small Water Systems Program



# Areas of Expertise



Asset Management



Rate Setting and Fiscal Planning



Leadership Through Decision-making and Communication



Water Loss Reduction



Energy Management Planning



Accessing Infrastructure Financing Programs



Workforce Development



Water Conservation Finance and Management



Collaborating with Other Water Systems



Resiliency Planning



Managing Drought



*This project has been funded wholly or in part by the United States Environmental Protection Agency under assistance agreement A18-0408-001 to the University of North Carolina at Chapel Hill. The contents of this document do not necessarily reflect the views and policies of the Environmental Protection Agency, nor does the EPA endorse trade names or recommend the use of commercial products mentioned in this document.*



SCHOOL OF GOVERNMENT

Environmental Finance Center



*Supporting fair, effective,  
and financially sustainable  
delivery of environmental  
programs through:*

- Applied Research
- Program Design and Evaluation
- Teaching and Outreach
- Advising
- Policy Analysis

*How you pay for it matters*

# Environmentalfinance.org





# Quick Introductions

1. Name, organization, title?
2. Details on your water system
3. What are you most proud of at your water system?
4. What is the biggest challenge you encounter at your water system?
5. Why are you here?



# Polling

1. Take out your phone
2. Open a web browser (Safari, Chrome, etc.)
  - *Not* your Google or other search app
3. In the address bar, type in and go to <http://pollev.com/austinthomps954>
  - Do *not* search for it, but go straight to the webpage
4. The webpage will change when I launch the poll in the next slide

# What organization do you work for?

Local government  
water system

Non-governmental  
water system

State agency

Assistance provider  
/ consultant

Other

# How many people do you serve?

Up to 500

501 to 3,000

3,001 to 10,000

More than  
10,000

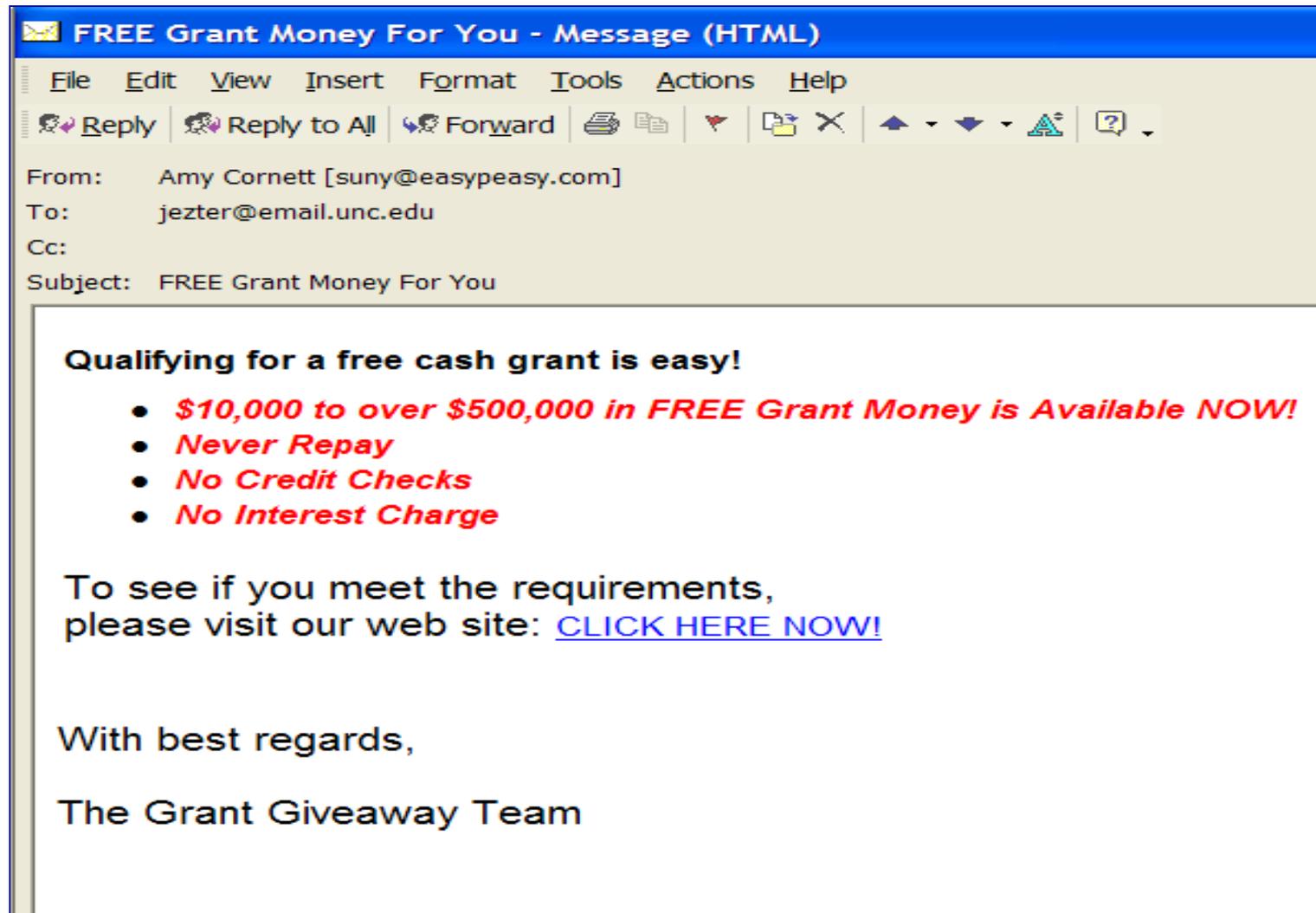
I don't work at  
a water system.



# Agenda

- A little about infrastructure funding programs
- Rate setting objectives
- Calculating costs for your water system
- Setting rates that cover the full cost of operations
- Achieving other rate objectives
- Using an interactive tool to communicate rates

# Topics Not Covered



The image shows a screenshot of an email client window. The title bar reads "FREE Grant Money For You - Message (HTML)". The menu bar includes "File", "Edit", "View", "Insert", "Format", "Tools", "Actions", and "Help". The toolbar contains icons for "Reply", "Reply to All", "Forward", "Print", "Delete", "Move", "Copy", "Paste", "Undo", "Redo", "Zoom", and "Help". The email header shows: "From: Amy Cornett [suny@easypeasy.com]", "To: jezter@email.unc.edu", "Cc:", and "Subject: FREE Grant Money For You". The main body of the email contains the following text:

**Qualifying for a free cash grant is easy!**

- ***\$10,000 to over \$500,000 in FREE Grant Money is Available NOW!***
- ***Never Repay***
- ***No Credit Checks***
- ***No Interest Charge***

To see if you meet the requirements,  
please visit our web site: [CLICK HERE NOW!](#)

With best regards,

The Grant Giveaway Team



# Funding Programs



# Infrastructure Funding Programs



40 Years



Building Better Neighborhood





# Rate Setting Objectives



# Session Objectives

- Introduce “right” rates
- Understand common types of rate setting objectives
- Learn how to match rate structure elements with rate setting objectives



What single word comes to mind when you hear “water rates”?

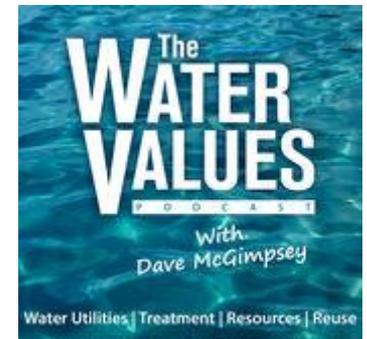


Why are rates so important?

# Let's hear from an expert



Dave McGimpsey interviews George Hawkins, former CEO of DC Water, on the Water Values Podcast (Change Leadership episode)



<http://www.podcasts.com/the-water-values-podcast-44/episode/change-leadership-with-dc-water-ceo-george-hawkins>



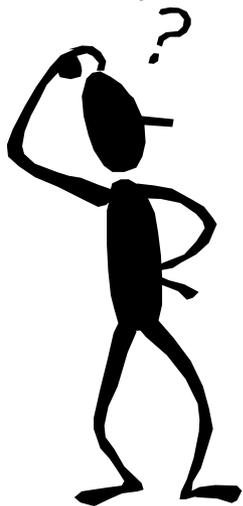


Rate structures are the primary way that we as water systems “communicate” with our customers

Here’s a question we hear often...



Are our  
rates right?



It depends...

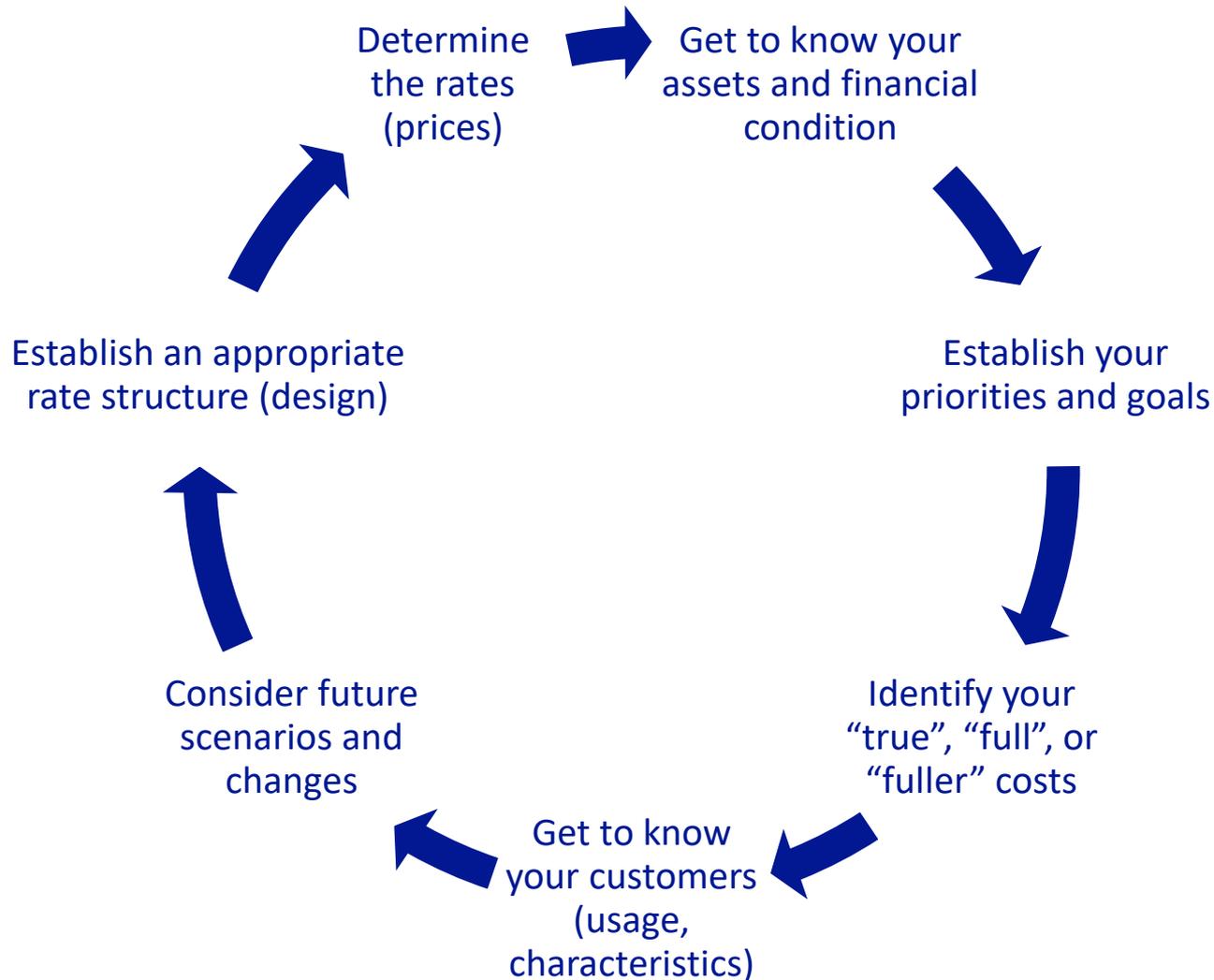




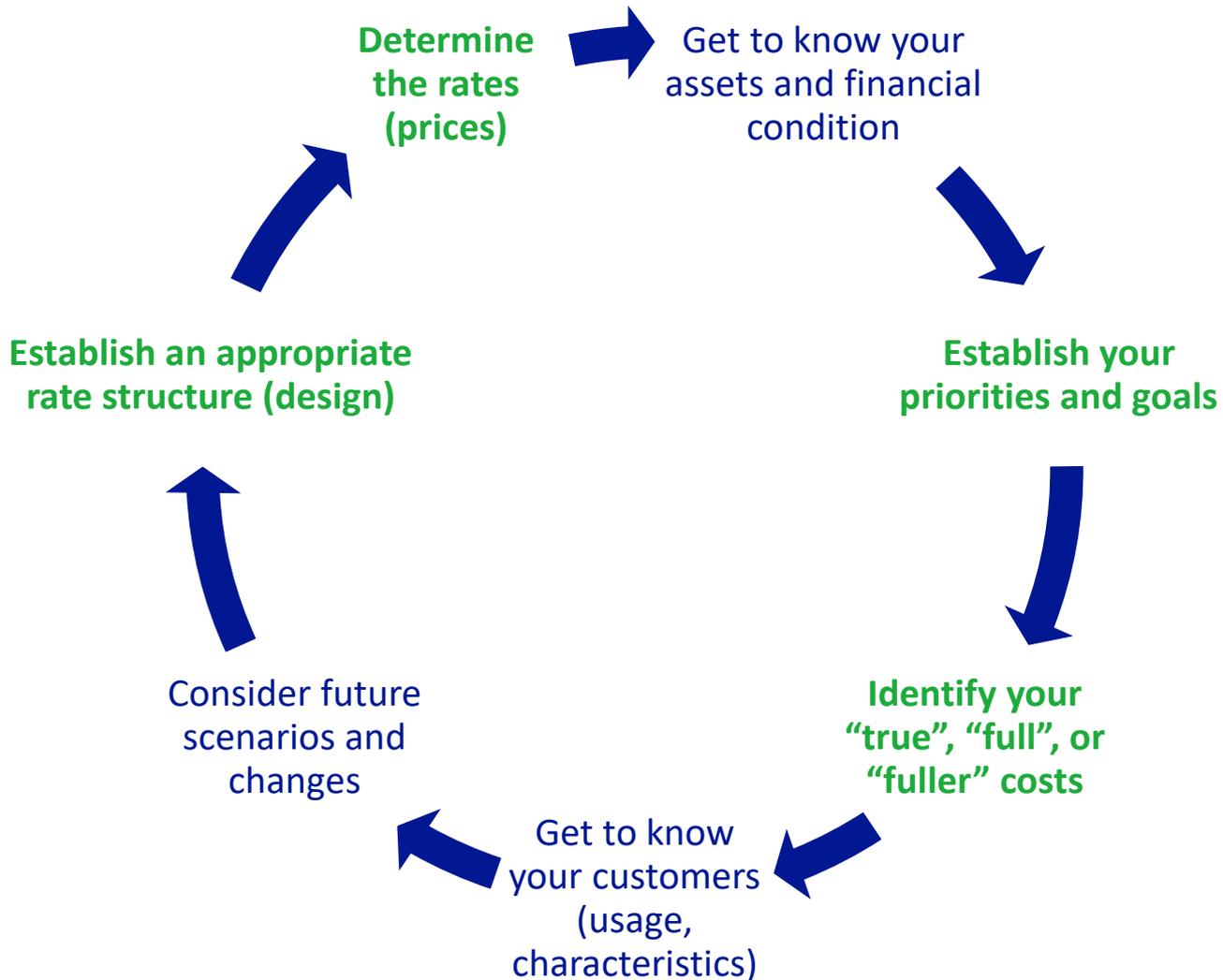
## Rates that are “right” can:

- ✓ Provide adequate funds to support public health
- ✓ Provide adequate funds to support environmental protection
- ✓ Support local and state policies and objectives
- ✓ Communicate in a certain way with customers
- ✓ Allocate costs in an intentional and fair way

# Path Towards Financial Sustainability



# Today we will cover



# How happy are you with your water rates?

Not happy. They need some work!

Meh. They're okay.

Neutral

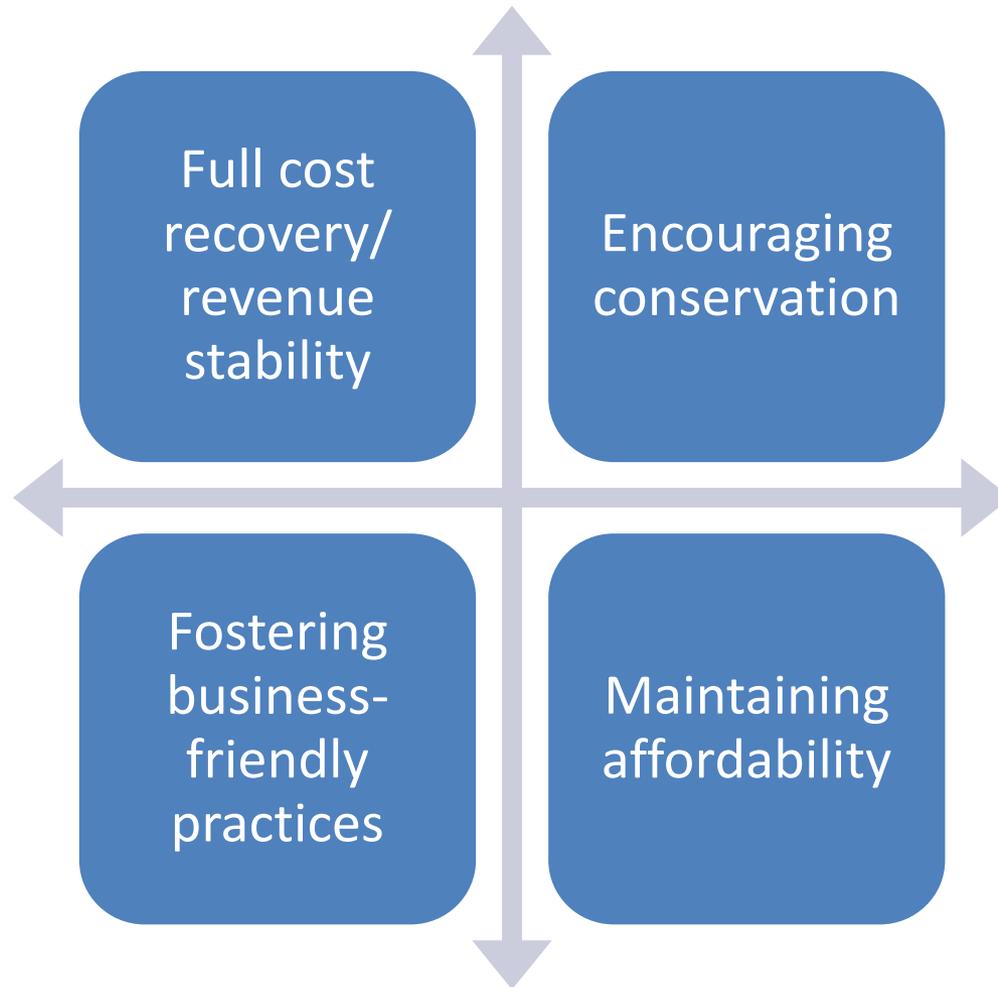
Pretty Happy

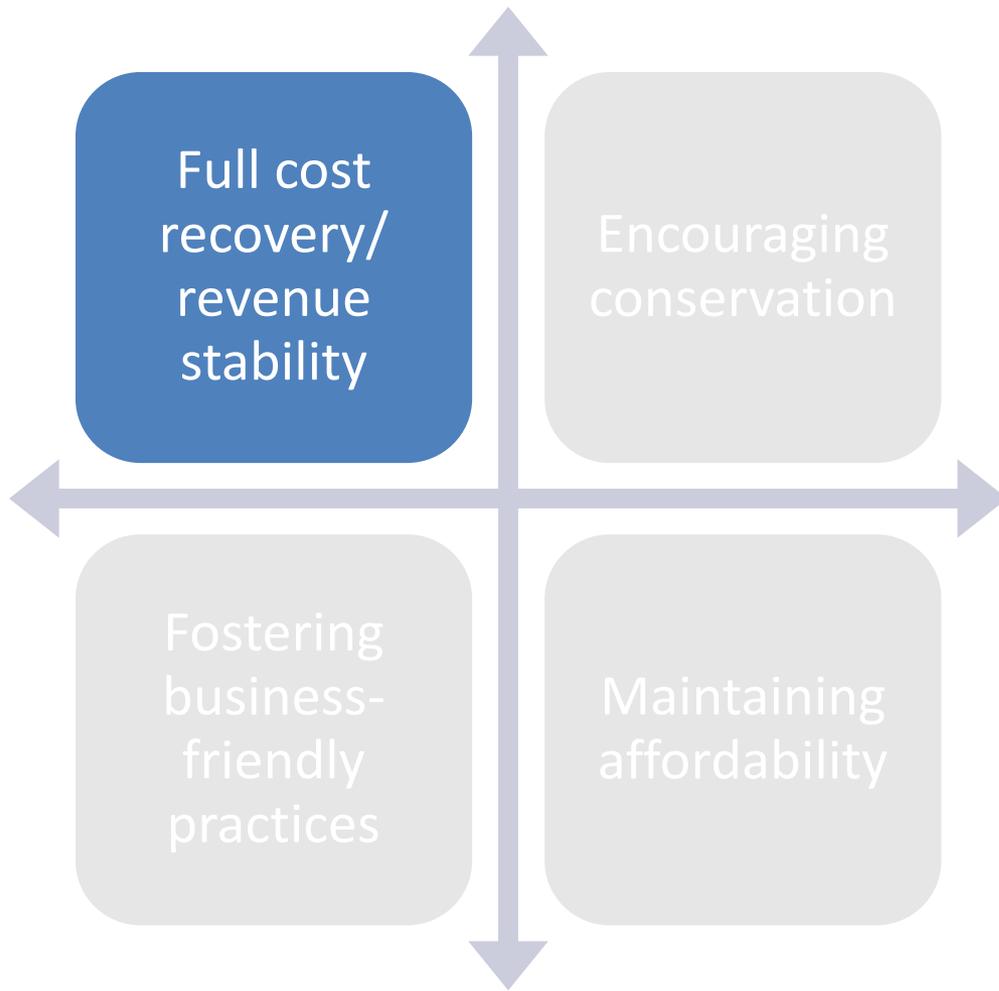
Very Happy

N/A



# Water System Objectives





Bring in enough revenue to cover the full cost of running the water system:

- O&M
- Capital needs
- Debt service
- Reserves

# How important is full(er) cost recovery to your system?

Very

Somewhat

Not very

Not at all

N/A



Use pricing to encourage customers to reduce their water consumption

Full cost recovery/  
revenue stability

Encouraging conservation

Fostering business-friendly practices

Maintaining affordability

# How important is encouraging conservation to your system?

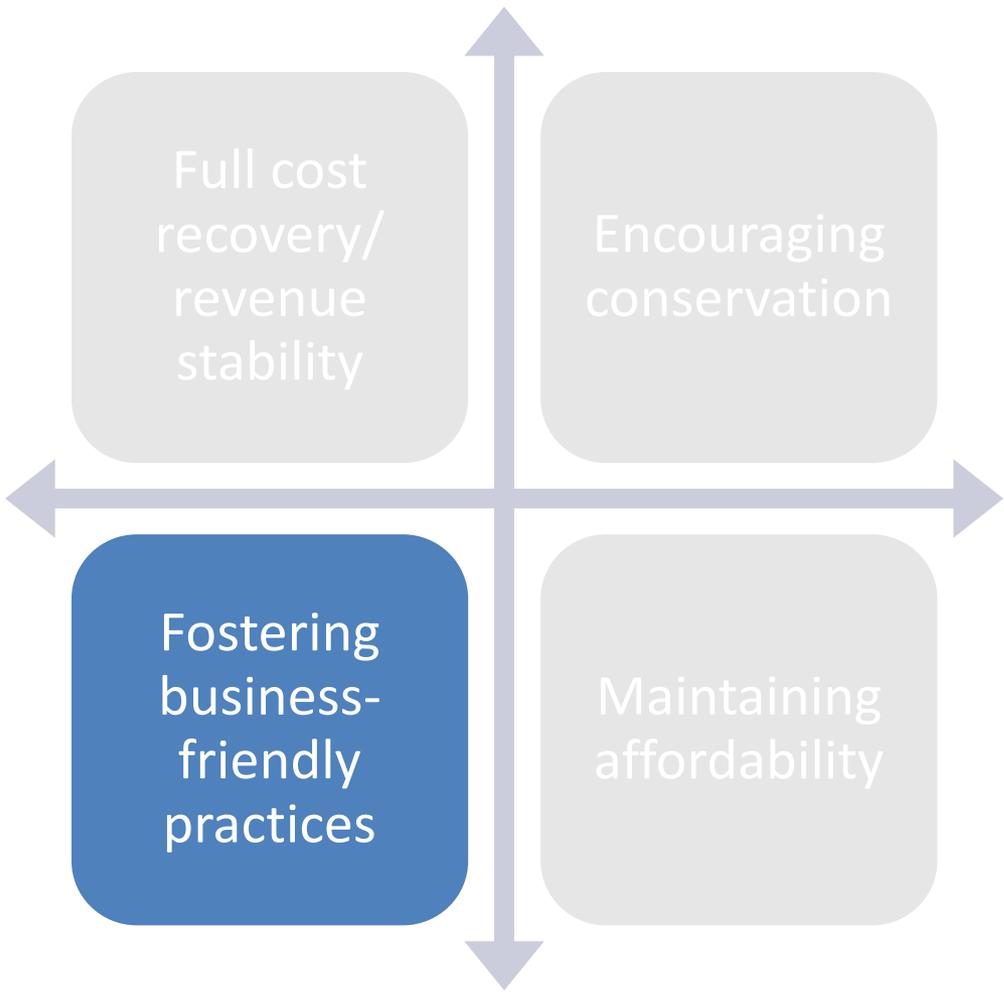
Very

Somewhat

Not very

Not at all

Not applicable



Use pricing to encourage businesses and agriculture to locate to your community or stay in your community

# How important is fostering business-friendly practices to your system?

Very

Somewhat

Not very

Not at all

Not applicable



Ensure that all customers in your water system are able to afford enough water to live on

Full cost recovery/  
revenue stability

Encouraging conservation

Fostering business-friendly practices

Maintaining affordability

# How important is maintaining affordability to your system?

Very

Somewhat

Not very

Not at all

N/A



# What are some other objectives?

- Keep it simple
- Charge seasonal customers fairly
- Maintain steady cash flow
- ?
- ?



# So, based on these objectives...

Which of these does your system prioritize first and foremost?

Which of these is the second most important objective for your system?

# Which of these objectives is MOST important to your system

Assuring adequate cost recovery

Encouraging conservation

Supporting new businesses & business retention

Affordability

Something else

# Which of these objectives is the second most important to your water system?

Assuring adequate cost recovery

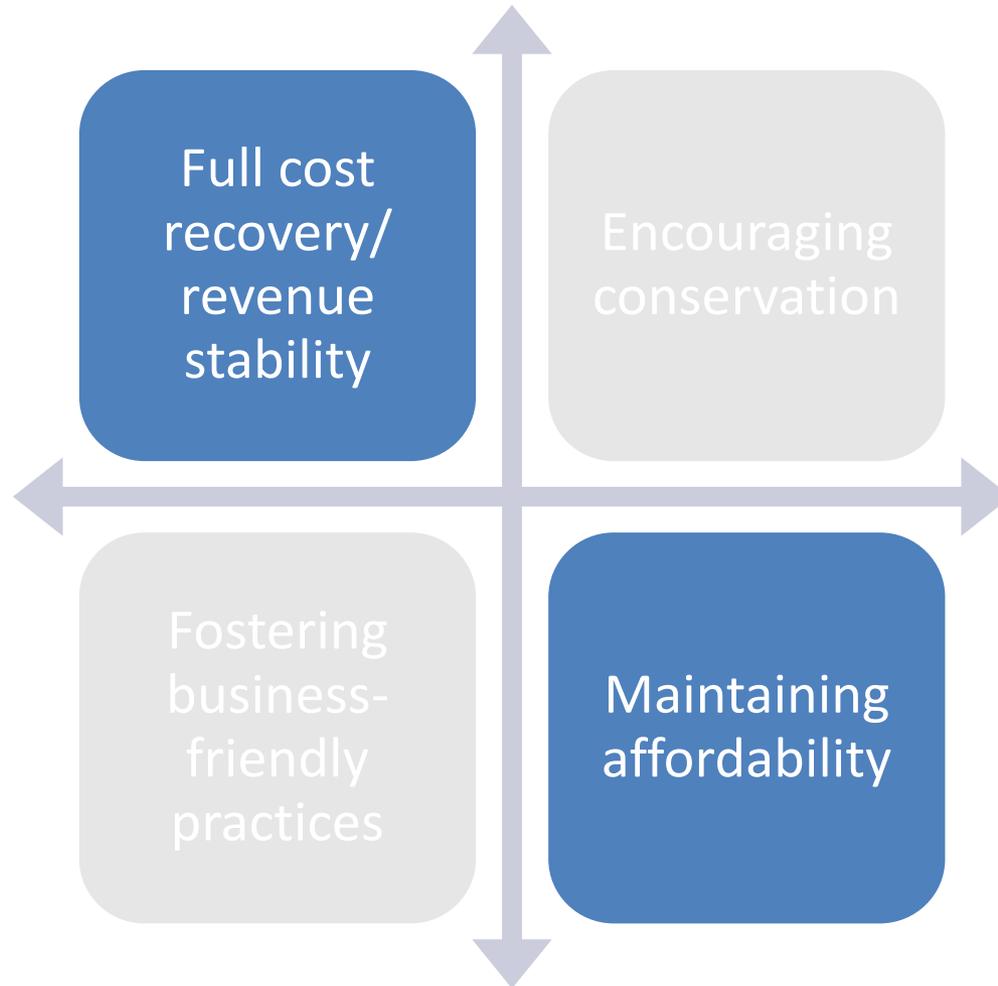
Encouraging conservation

Supporting new businesses & business retention

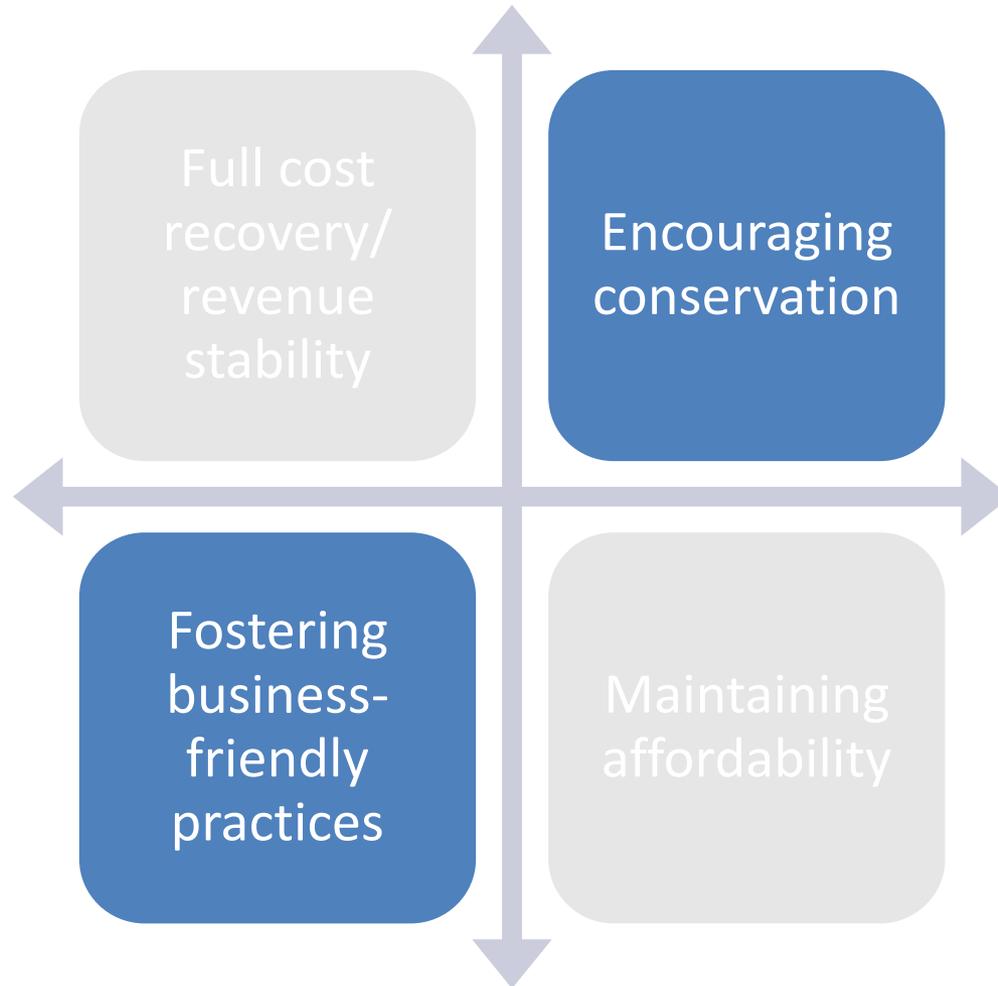
Affordability

Something else

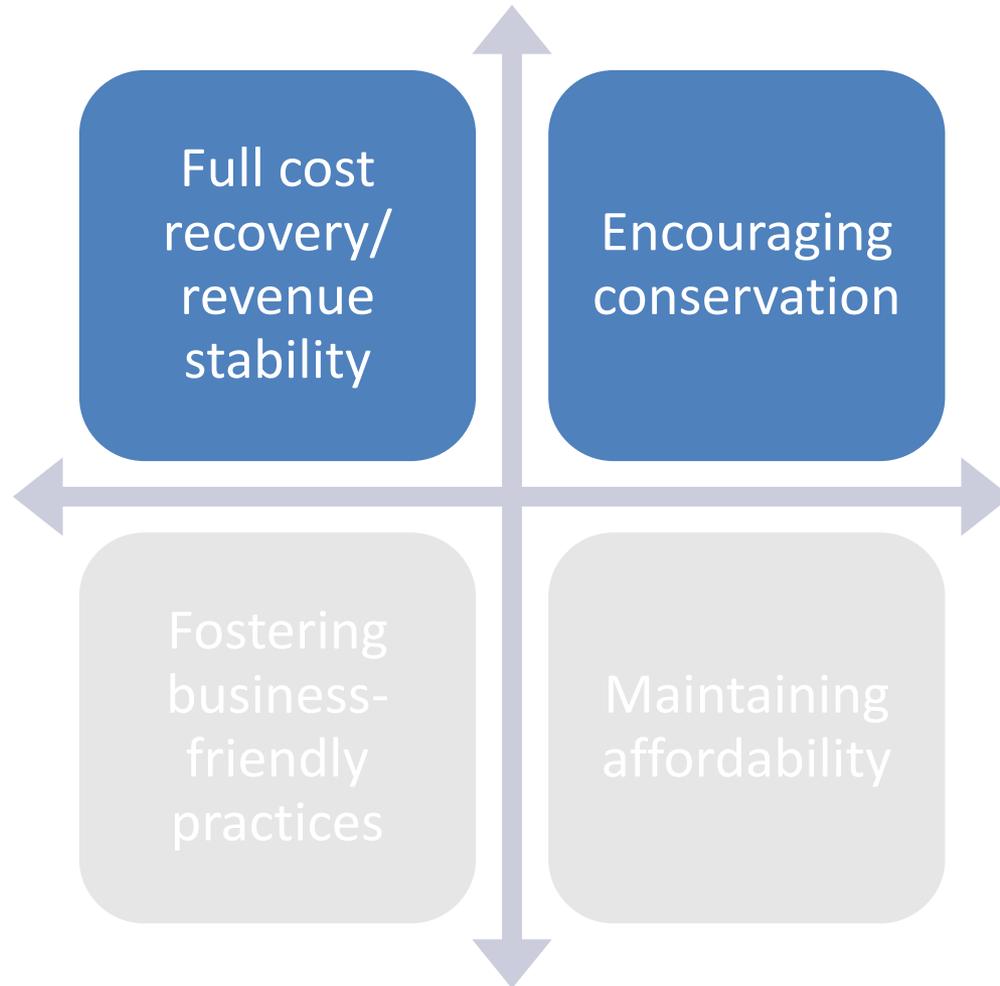
# Competing Objectives



# Competing Objectives



# Competing Objectives





# Rate Setting Objectives

Your rate structure is a tool to help you meet your rate setting objectives

- Frequency of billing
- Base charges and allowances
- Volumetric charges



# Rate structures in the room today





# Rate structures in the room today\*

- Billing period: Quarterly
- Base charges: \$39.95 - \$95.00
- Consumption allowances: 0 – 11,500 gallons
- Volumetric rates above consumption allowance:  
Uniform
- Separate rate structures: None
- Res. water bill for 1,200 cubic feet or about 16,000 gallons: \$61.91 - \$168.36

\*Based on information readily available online for 5 utilities

# How frequently do you bill?

Monthly

Bi-monthly

Quarterly

Other

# Do you have a base charge?

Yes

No

# What is your consumption allowance?

0 Gallons

1,000 Gallons

2,000 Gallons

3,000 Gallons

>3,000 Gallons

# What is the structure of your residential volumetric rates?

Fixed Charge

Flat Rate

Increasing Block

Decreasing Block



## Exercise:

Matching rate setting objectives and rate structures with the circumstances of small water systems





# Irwindale, USA Exercise

Small town with a water and wastewater system



Population: 1,100



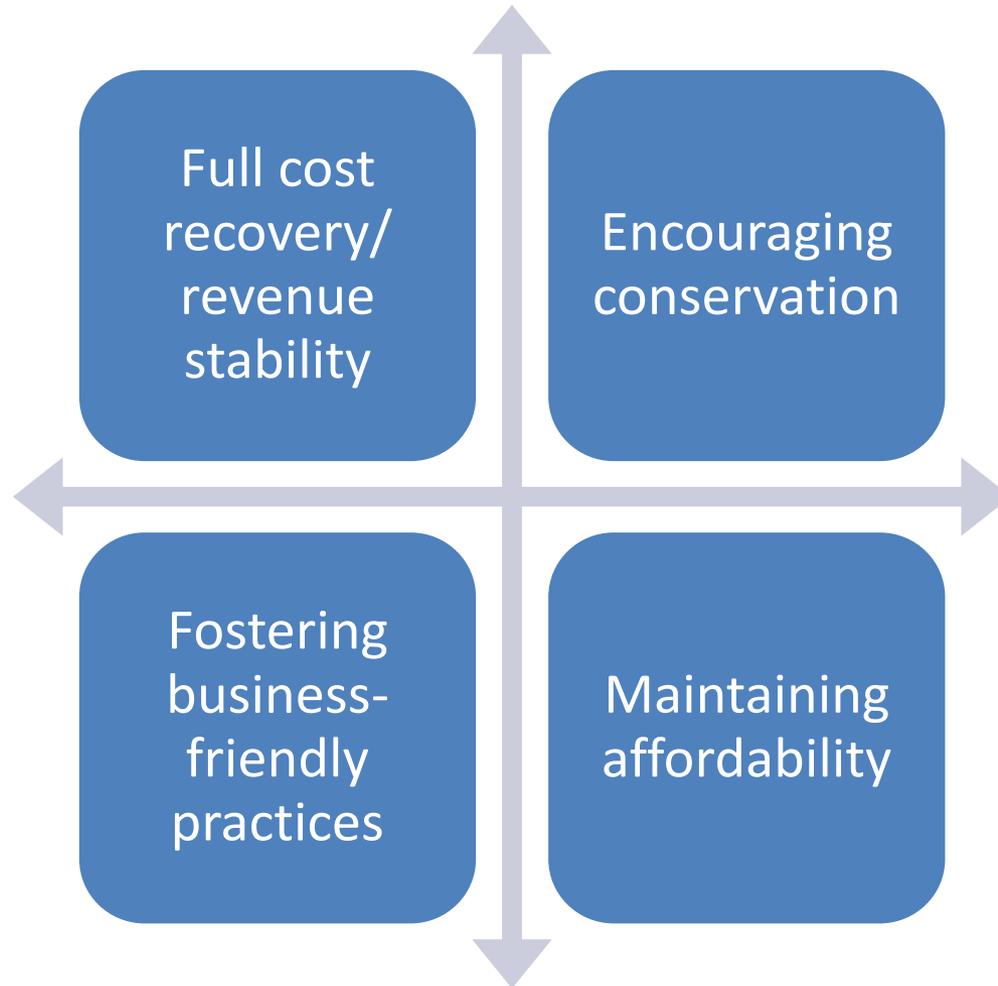
Service Connections: 450



MHI: \$24,432



# Which Water System Objectives?





# Rate structures for all customers

1. Flat charge for unlimited use
2. Increasing block
3. Decreasing block with large first block
4. High base charge, low uniform
5. Low base charge, high uniform



# Next up...

- Costs!