



Smart Management for
Small Water Systems

Designing Water Rate Structures that Support Your Utility's Objectives

Thursday, August 24, 2017
1:00-2:00pm MT/3:00-4:00pm ET

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



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American Water Works
Association



About the 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 Smart Management for Small Water Systems Program

This program is offered free of charge to all who are interested. The Program Team will conduct activities in every state, territory, and the Navajo Nation. All small drinking water systems are eligible to receive free training and technical assistance.

What We Offer

Individualized technical assistance, workshops, small group support, webinars, eLearning, online tools & resources, blogs

The Small Systems Program Team

- Environmental Finance Center at The University of North Carolina at Chapel Hill
- Environmental Finance Center at Wichita State University
- EFC West
- New England Environmental Finance Center at the University of Southern Maine
- Southwest Environmental Finance Center at the University of New Mexico
- Syracuse University Environmental Finance Center
- Environmental Finance Center at the University of Maryland
- American Water Works Association (AWWA)



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EFCWest

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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

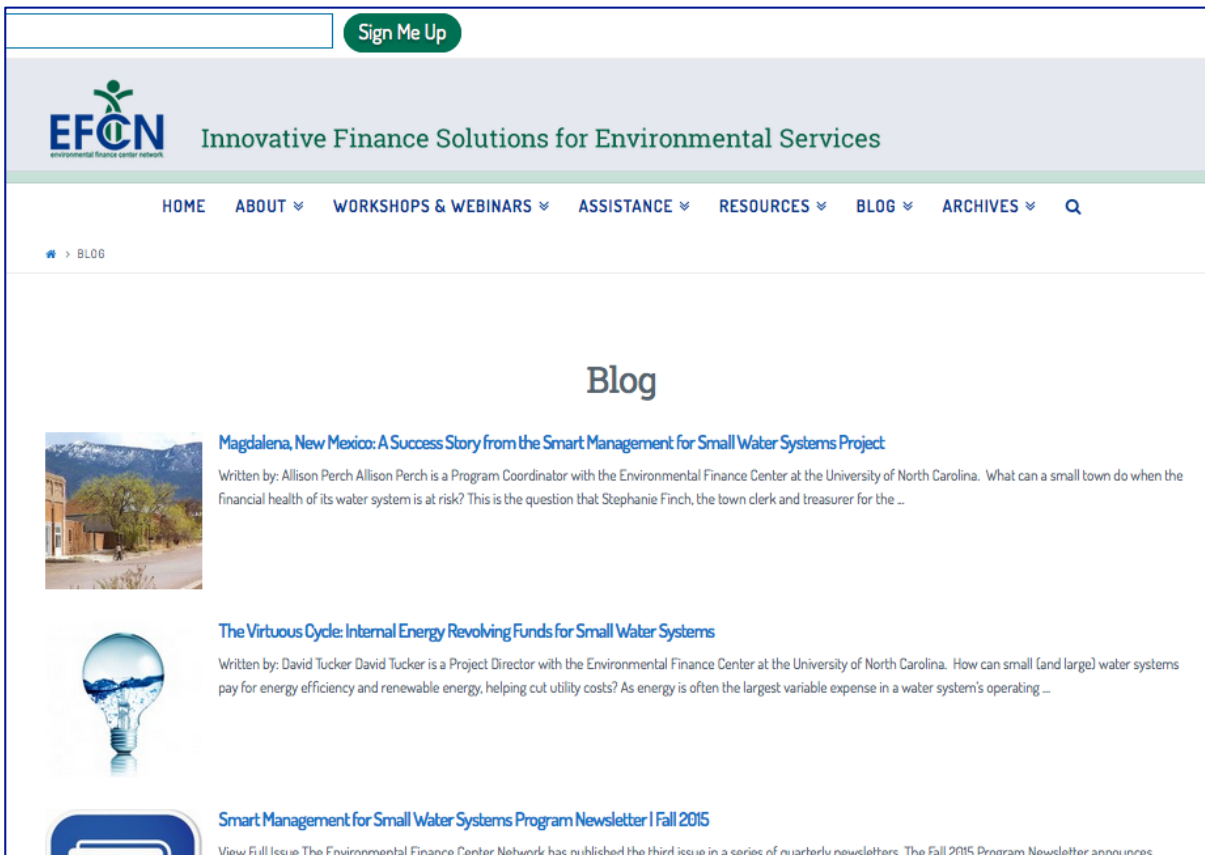


Managing Drought

Small Systems Blog

Learn more about water finance and management through our Small Systems Blog! Blog posts feature lessons learned from our training and technical assistance, descriptions of available tools, and small systems “success stories.”

efcnetwork.org/small_systems_blog/



The screenshot shows the EFCN website's blog page. At the top, there is a search bar and a "Sign Me Up" button. The EFCN logo and tagline "Innovative Finance Solutions for Environmental Services" are prominently displayed. A navigation menu includes links for HOME, ABOUT, WORKSHOPS & WEBINARS, ASSISTANCE, RESOURCES, BLOG, and ARCHIVES. The main heading is "Blog". Two featured articles are visible: "Magdalena, New Mexico: A Success Story from the Smart Management for Small Water Systems Project" and "The Virtuous Cycle: Internal Energy Revolving Funds for Small Water Systems". A footer section promotes the "Smart Management for Small Water Systems Program Newsletter | Fall 2015".

Sign Me Up

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HOME ABOUT WORKSHOPS & WEBINARS ASSISTANCE RESOURCES BLOG ARCHIVES

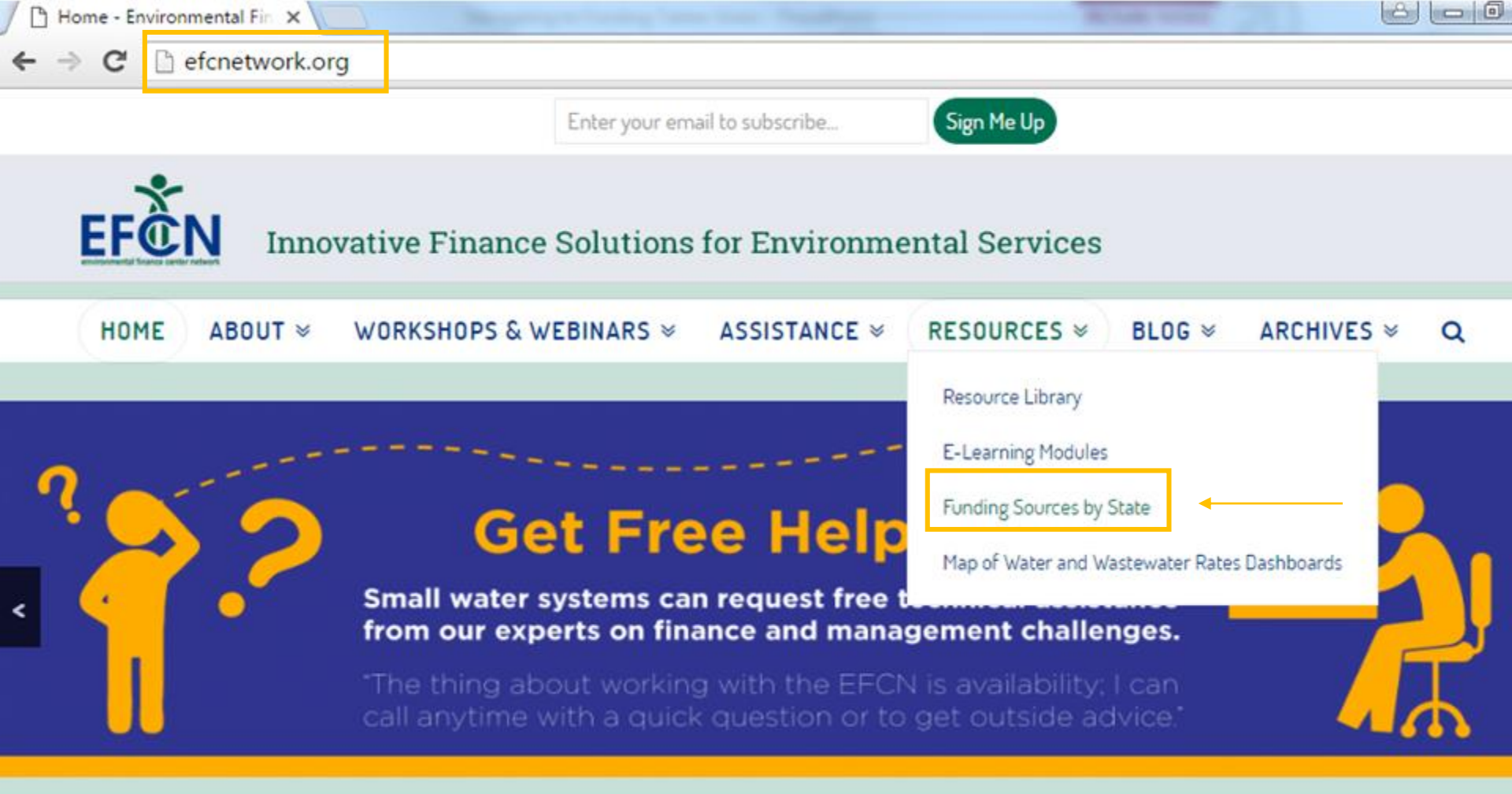
» BLOG

Blog

Magdalena, New Mexico: A Success Story from the Smart Management for Small Water Systems Project
Written by: Allison Perch Allison Perch is a Program Coordinator with the Environmental Finance Center at the University of North Carolina. What can a small town do when the financial health of its water system is at risk? This is the question that Stephanie Finch, the town clerk and treasurer for the ...

The Virtuous Cycle: Internal Energy Revolving Funds for Small Water Systems
Written by: David Tucker David Tucker is a Project Director with the Environmental Finance Center at the University of North Carolina. How can small (and large) water systems pay for energy efficiency and renewable energy, helping cut utility costs? As energy is often the largest variable expense in a water system's operating ...

Smart Management for Small Water Systems Program Newsletter | Fall 2015
View Full Issue: The Environmental Finance Center Network has published the third issue in a series of quarterly newsletters. The Fall 2015 Program Newsletter announces



Navigating to Funding Tables

Step 1: efcnnetwork.org

Step 2: Select "Funding Sources by State" under the Resources Tab

Funding Sources by State

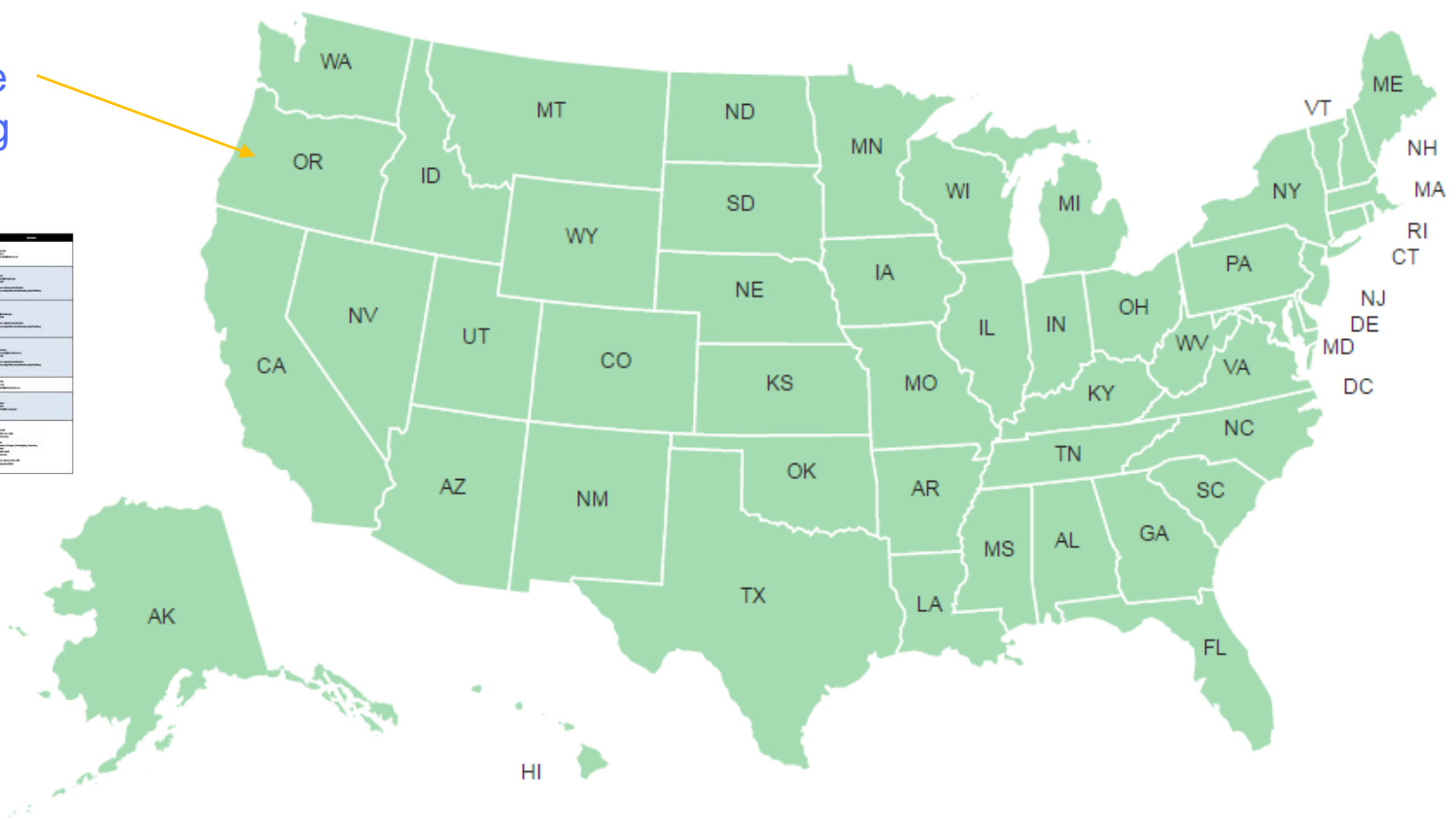
Note: Some states may have additional resources listed below the map.

Click on the map below to view funding sources for each state:

Click on an individual state to view funding table.



State	Funding Source	Link
AK
AL
AR
AZ
CA
CO
CT
DC
DE
FL
GA
IA
IL
IN
KS
KY
LA
MA
MD
ME
MI
MN
MO
MS
MT
NC
ND
NH
NJ
NM
NV
NY
OH
OK
OR
PA
RI
SC
SD
TN
TX
UT
VA
VT
WA
WI
WV
WY





Webinar Outline

- Present the basics of different rate structure design components
- Discuss when it is appropriate to favor some elements over others
- Introduce tools and resources to help you with rate setting

Terminology: Rates vs. Rate Structure



Rates

\$ 32.00 / month, includes the first 2,000 gallons

+ \$ 2.00 / 1,000 gallons for use between 2,000 and 5,000 gallons

+ \$ 5.00 / 1,000 gallons for use between 5,000 and 20,000 gallons

+ \$ 6.00 / 1,000 gallons for all use above 20,000 gallons



Rate Structure

Terminology for Rate Structure

Base Charge

Consumption Allowance

\$ 32.00 / month, includes the first 2,000 gallons

- + \$ 2.00 / 1,000 gallons for use between 2,000 and 5,000 gallons
- + \$ 5.00 / 1,000 gallons for use between 5,000 and 20,000 gallons
- + \$ 6.00 / 1,000 gallons for all use above 20,000 gallons

Volumetric Rates

Blocks

There is no one rate structure that works perfectly for all utilities

Rate Setting Resource

“Designing Rate Structures that Support Your Objectives”

Free guide written for utility managers.

<http://efc.sog.unc.edu/>

Find it in Resources /
Publications

[Click here for the direct link](#)

Designing Rate Structures that Support Your Objectives:
Guidelines for NC Water Systems

June 2009



Funding support for these guidelines provided by the Public Water Supply Section of the North Carolina Department of Environment and Natural Resources, and the United States Environmental Protection Agency

What Goes Into Reviewing Rates for the Next Year?

Will it provide sufficient cost recovery?

What exactly does this include?

Are we following the applicable laws?

Will revenues be resilient to changing water demands?

Are we allocating the costs to the right customers?

Do these rates send the right signals to our customers, based on our objectives?

Will our customers understand these rates?

Will our customers be able to pay these rates?



The Process of Setting Rates

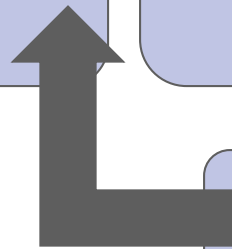
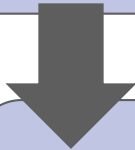
Learn essential background information about rates

Determine critical characteristics of your utility and community and utility priorities

Design the most appropriate rate structure

Cost-of-Service Study
Compute the rates using projected costs and revenues

Re-evaluate/adjust rate structure to fit primary objectives





Understanding Your Utility and Served Community

- How are your customer demands changing?
- Do you expect to meet demands comfortably?
- What is the make-up of your served community?
 - **Serve many large families?** What is the community's ability to pay? **Is it a seasonal community?** Is there growth or decline in customers? **Does a large fraction of your revenues come from a small number of customers?** What is the mix of residential and non-residential customers? **Who are your biggest customers?**
- How often have customers been unable to afford their bills?

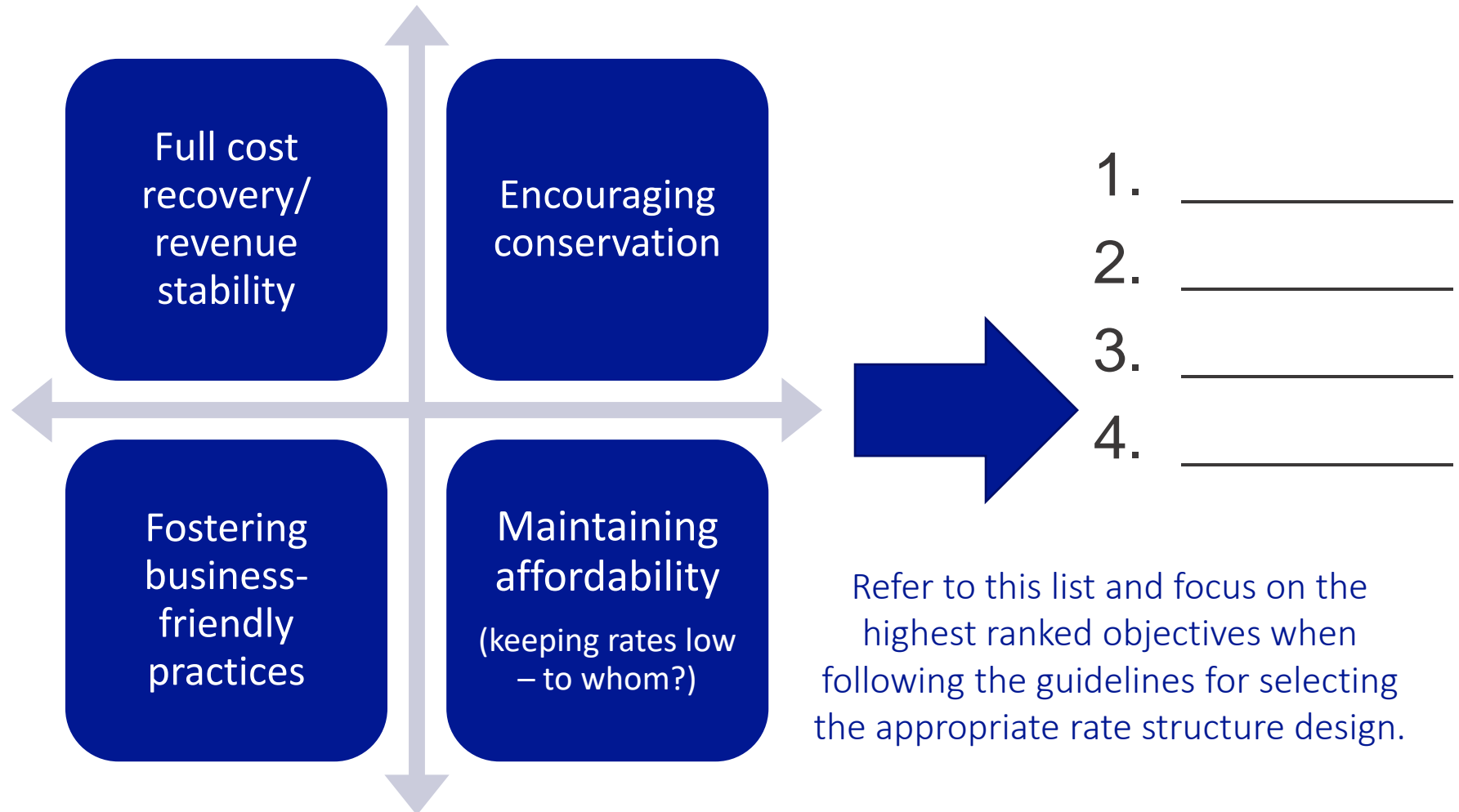


Understanding Your Utility and Served Community

- In the past few years, how much of your revenues and costs were fixed vs. variable?
- How have your operating expenses changed recently?
- Do you know what your capital expenses and debt service payments will be going forward?



Before You Begin: Rank Your Utility's Rate Setting Objectives



Refer to this list and focus on the highest ranked objectives when following the guidelines for selecting the appropriate rate structure design.



Elements of Rate Structure Designs

1. Customer classes/distinction
2. Billing period
3. Base charge
4. Consumption allowance included with base charge
5. Volumetric rate structure
6. (If applicable) Number of blocks, block sizes and rate differentials
7. (Optional) Automatic adjustments

Also: frequency of rate reviews and rate changes



Elements of Rate Structure Designs:

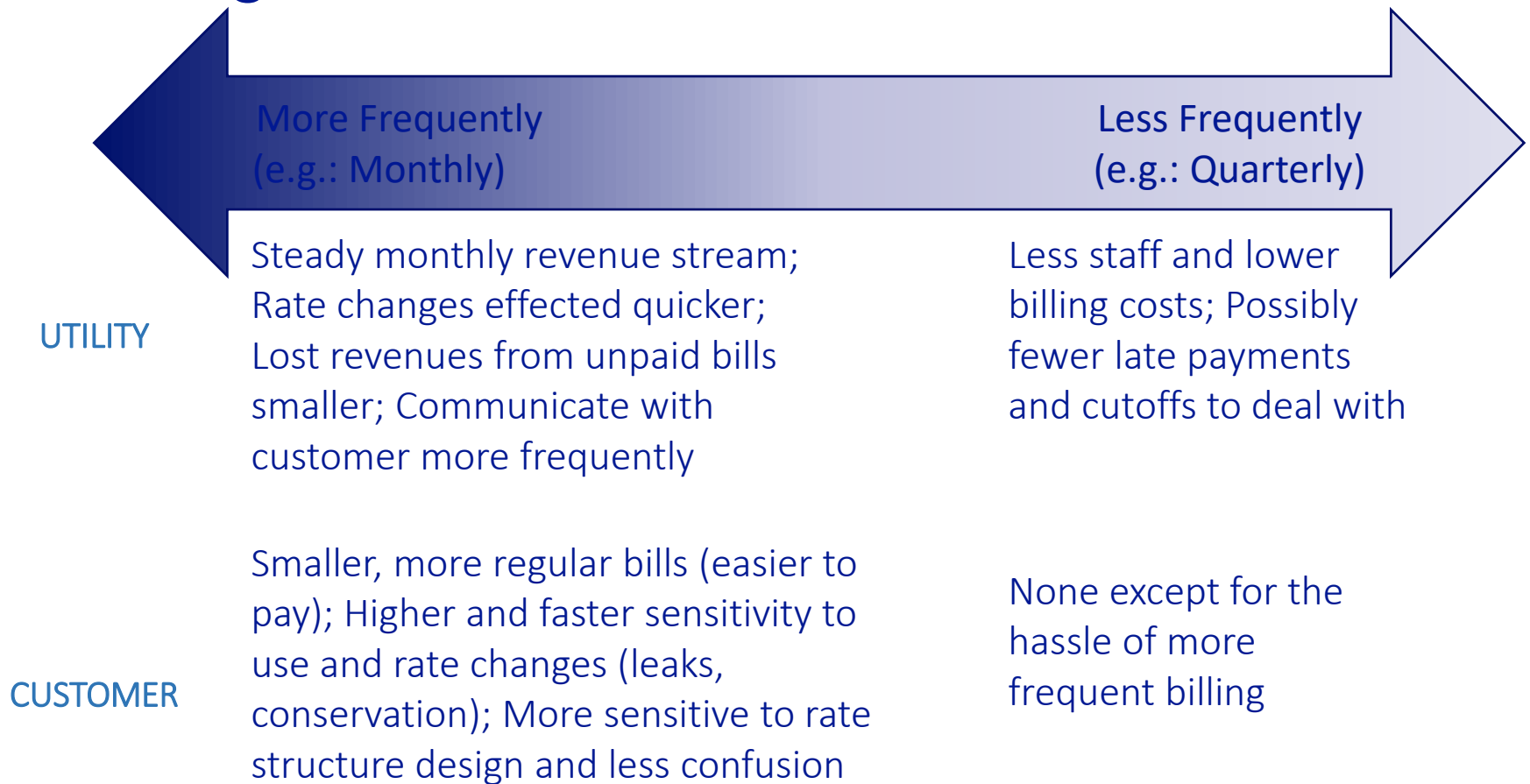
1. Customer Classes/Distinction

Alternative	Targets
One rate structure for all	All are equal
Separate rate structure for residential, irrigation, commercial, industrial, governmental, or wholesale customers	Specific type of customer
One rate structure, but with different base charges based on meter size	Non-residential or multi-family housing
One rate structure for all, but with blocks that implicitly only target non-residential use	Non-residential
Negotiated rate structure with individual high-use customers (typically an industrial customer)	Only one customer
Different rates for customers outside municipal limits/service area boundaries	“Outside” customers



Elements of Rate Structure Designs:

2. Billing Period



Suggestion: Use a monthly billing period if you can afford it

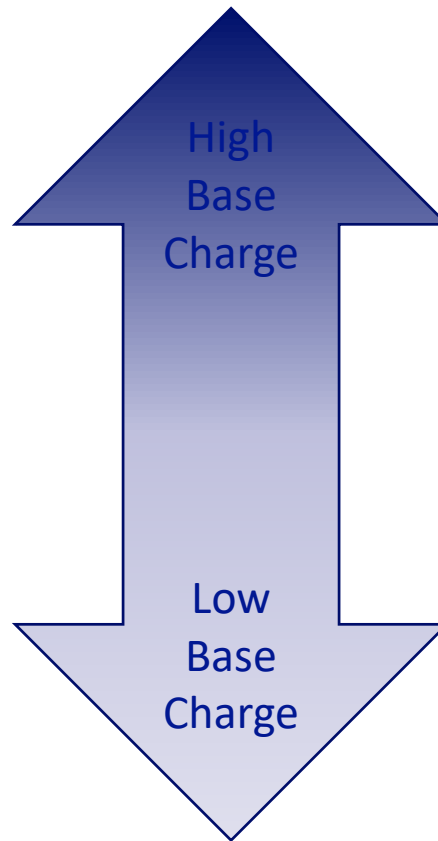
Elements of Rate Structure Designs:

3. Base Charges

PROS

Higher “guaranteed” revenue to pay off the fixed costs;
Higher month-to-month revenue stability

Provides strong incentive to keep use low;
Customers more likely to notice month-to-month change in bill due to change in use



CONS

Customers with very low use are paying a high unit price;
Customers do not witness a significant change in bill if conserve water

Revenues less stable for utility;
Revenues are highly seasonal

Suggestion: Smaller utilities with high fixed costs should lean towards higher base charges



Elements of Rate Structure Designs:

3. Base Charges

Two common ways to charge:

- Constant (by customer class): \$35.00/month
- By meter size:
 - \$35.00/month for 5/8" or 3/4" meter
 - \$55.00/month for 1" meter
 - \$105.00/month for 2" meter, etc.



Elements of Rate Structure Designs:

4. Consumption Allowance with Base Charge

Bills and revenues are more sensitive to use changes

Provides a lifeline amount of water to offset some of the effects of high base charges

Provides a greater offset for the customer, but discourages conservation

Do not include any (0 gallons)

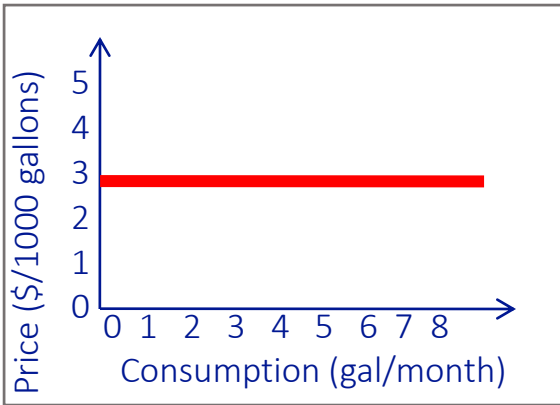
Include some amount (e.g.: 1,000 gallons/month)

Include high amount (e.g.: 3,000 gallons/month)

Suggestion: For systems with low base charges, do not include any consumption allowance. For systems with high base charges but wish to encourage conservation, keep consumption allowance low, if any.

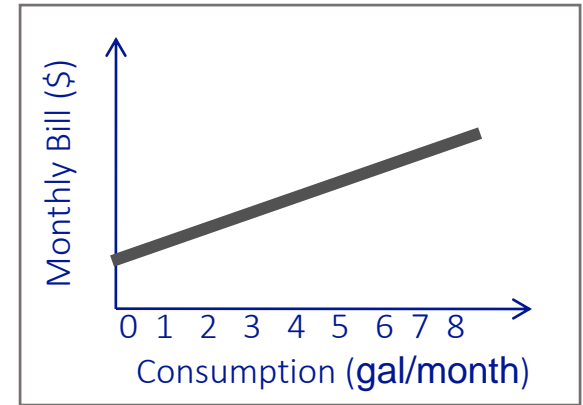
Elements of Rate Structure Designs:

5. Volumetric Rate Structure



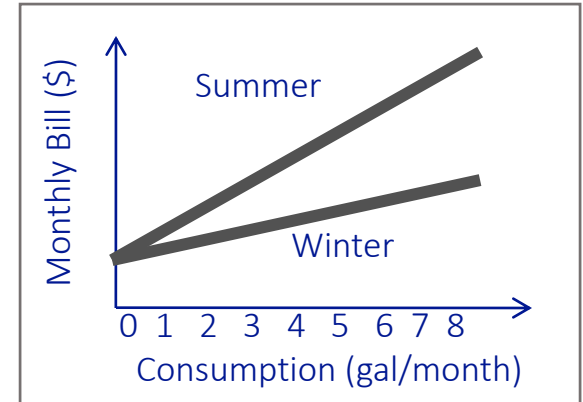
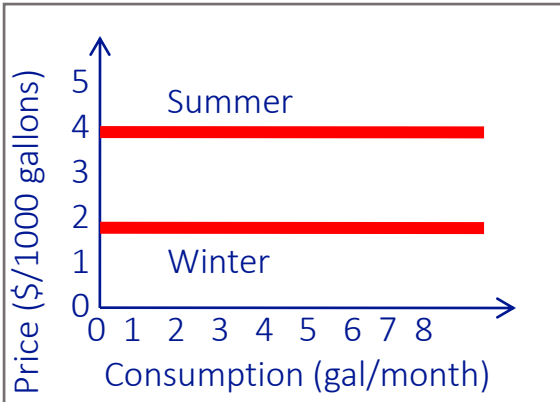
Uniform (“Flat”) Rates

Simple and Fair



Seasonal (Uniform) Rates

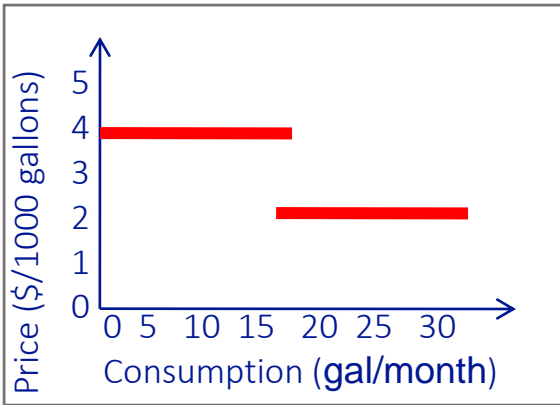
Conservation-oriented, good for seasonal communities



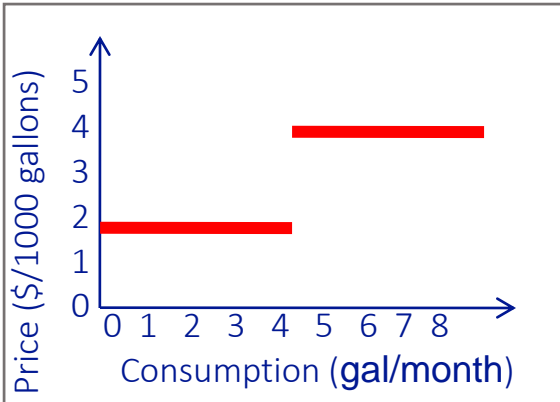
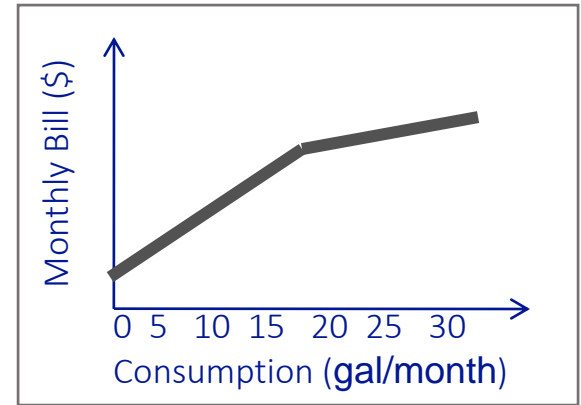
Suggestion: Pick the volumetric rate structure that fits your stated primary objectives best. Do not use decreasing blocks for residential consumption.

Elements of Rate Structure Designs:

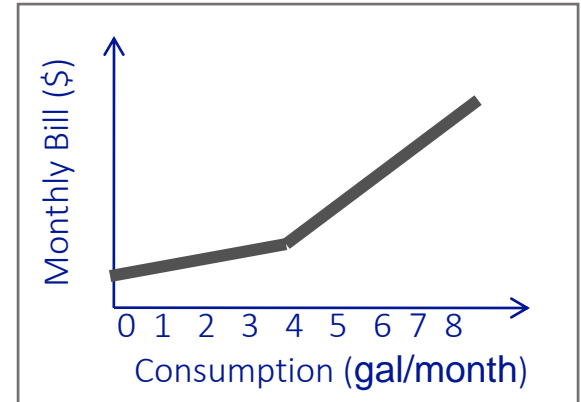
5. Volumetric Rate Structure



Decreasing Block Rates
Provide price break for large users (e.g.: commercial). Not recommended for residential.



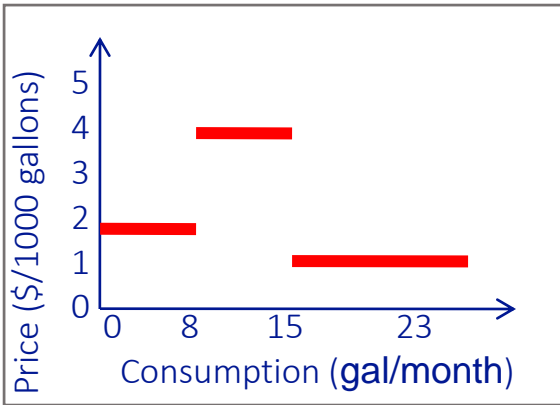
Increasing Block Rates
Conservation-oriented. Consider large families.



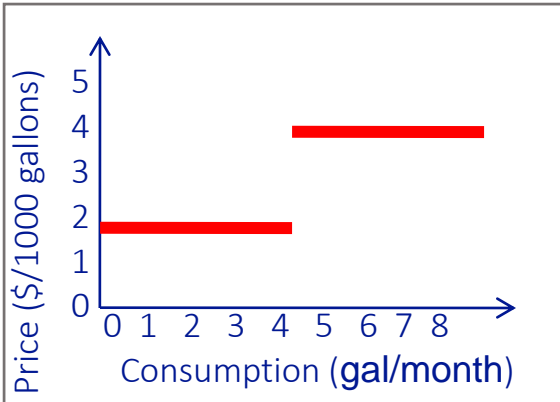
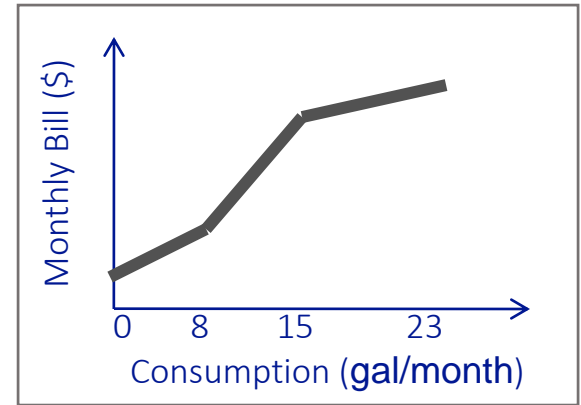
Suggestion: Pick the volumetric rate structure that fits your stated primary objectives best. Do not use decreasing blocks for residential consumption.

Elements of Rate Structure Designs:

5. Volumetric Rate Structure

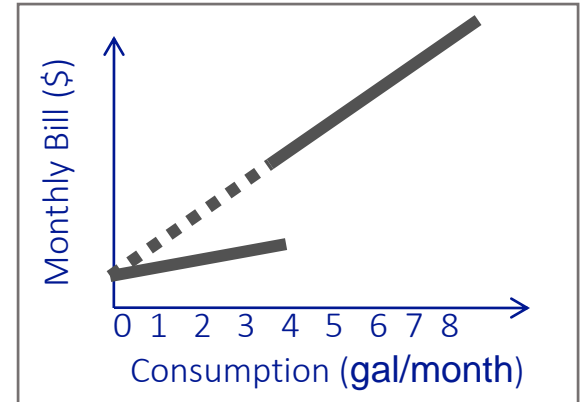


Targeted Block Rates
Increase *and* decrease
based on desired targets:
increasing for residential,
decreasing for
commercial



Uniform At One
Block

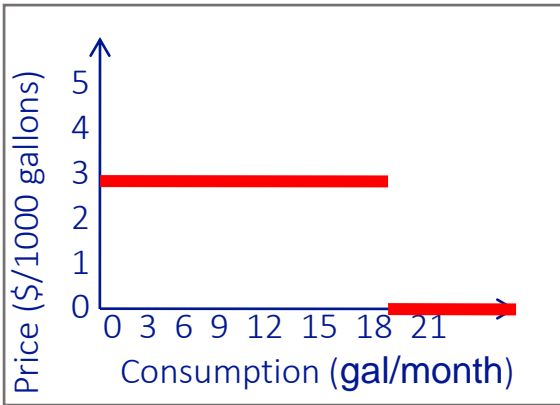
Complex, but greater
price incentives over
traditional block rate
structures



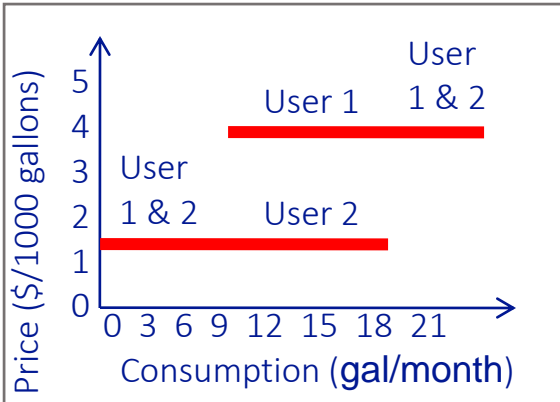
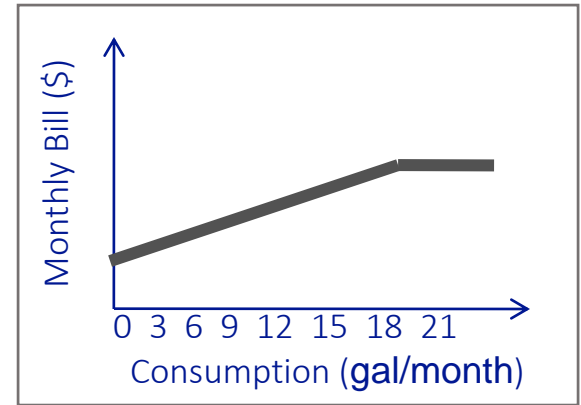
Suggestion: Pick the volumetric rate structure that fits your stated primary objectives best. Do not use decreasing blocks for residential consumption.

Elements of Rate Structure Designs:

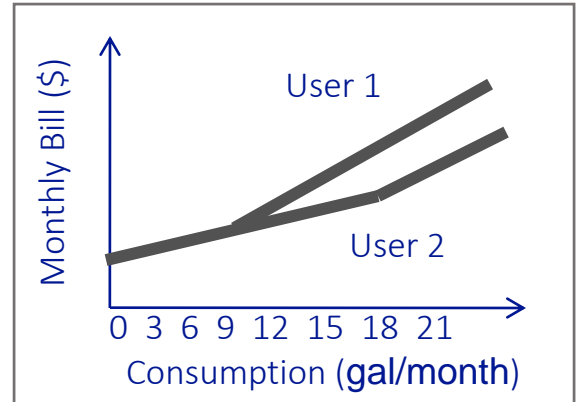
5. Volumetric Rate Structure



Uniform Rates with Cap
Only appropriate for residential **sewer**, cap at max. indoor use level



Budget-based Rates
Tailored to each customer, most equitable, accounts for family size and industry, conservation-oriented, but complex



Suggestion: Pick the volumetric rate structure that fits your stated primary objectives best. Do not use decreasing blocks for residential consumption.



Elements of Rate Structure Designs:

5. Volumetric Rate Structure

Another rate structure option:

Non-volumetric. Only charge a periodic fixed (base) charge and not based on volume, or include water with rent.

Not reading meters. Simplest and cheapest option.
Gives the customer zero financial incentive to be efficient in their water use while utility incurs



Elements of Rate Structure Designs: 6. (If Applicable) Block Designs

For block rate structures to be effective:

- **Decide on the correct number of blocks**

How many targets should you set on residential use? Do you want all non-residential use to be charged at a uniform rate, or provide blocks for non-residential use as well?

- **Decide on where the blocks should end/start**

Start the second block only where summertime residential use ends and non-residential use continues (i.e.: charge residential use at uniform rates)? Set increasing block rates for residential customers where the blocks end at average use (e.g.: 5,000 gal/month), then double it (e.g.: 10,000 gal/month), and then over that (to target irrigation use more specifically)?



Elements of Rate Structure Designs:

6. (If Applicable) Block Designs

For block rate structures to be effective:

- **Set significant rate differentials between blocks**

Charging only 50 cents/1,000 gallons more in one block than in the preceding block defeats the purpose of using an increasing block rate structure. If you select a block rate structure, select significant rate differentials to see any added value of your rate structure.

- **Keep in mind your base charge and consumption allowance**

High base charges and consumption allowances may be significant portions of the total bill, greatly diluting the effect of an increasing block rate structure on providing incentives to conserve. Offset high base charges by reducing the consumption allowance, or setting high block rates.



Elements of Rate Structure Designs: 6. (If Applicable) Block Designs

For block rate structures to be effective:

- Meter reading must be punctual

If the meter is read a few days too late, it may unjustly place the last few days' of a customer's use in a higher block.

- Replace meters frequently and repair lines quickly

Faulty meters or leaking pipes will cause the customer to be billed at the wrong block levels, costing either the utility lost revenue or the customer more.



Elements of Rate Structure Designs: 6. (If Applicable) Block Designs

For block rate structures to be effective:

- Consider the adverse effect on large families

Large families consistently use high amounts of water throughout the year and may not have capacity to conserve. An increasing block rate structure therefore negatively affects the customer, without achieving any conservation objectives. Investigate your billing records to estimate the number of residential accounts that consistently use high amounts of water and use this knowledge to select the appropriate block sizes to mitigate this effect. Consider using uniform rates or budget-based rate structures if the community has many large families.



Elements of Rate Structure Designs:

7. (Optional) Automatic Adjustments

- Prepare for drought in advance: create an ordinance to give the utility the ability to raise rates temporarily during a water shortage scenario (sometimes called “drought surcharges”).
- Specify the potential rate increases precisely.
- Rate increases should be substantial to encourage conservation.
- Explicitly state the conditions that would trigger the temporary rate changes on and off. Tie the triggers to your water shortage response plans and water reservoir/well levels.

Note: Temporary rate increases that are significant in magnitude have been shown to be effective methods of encouraging conservation while recovering lost revenue.



Frequency of Rate Changes

Decide when and how often you will review your rates. Some alternatives:

- Always review your rates annually (recommended)
- Review your financial health indicators annually, and then review your rates if any of the indicators reflect poor financing



Fixed vs. Variable Revenues

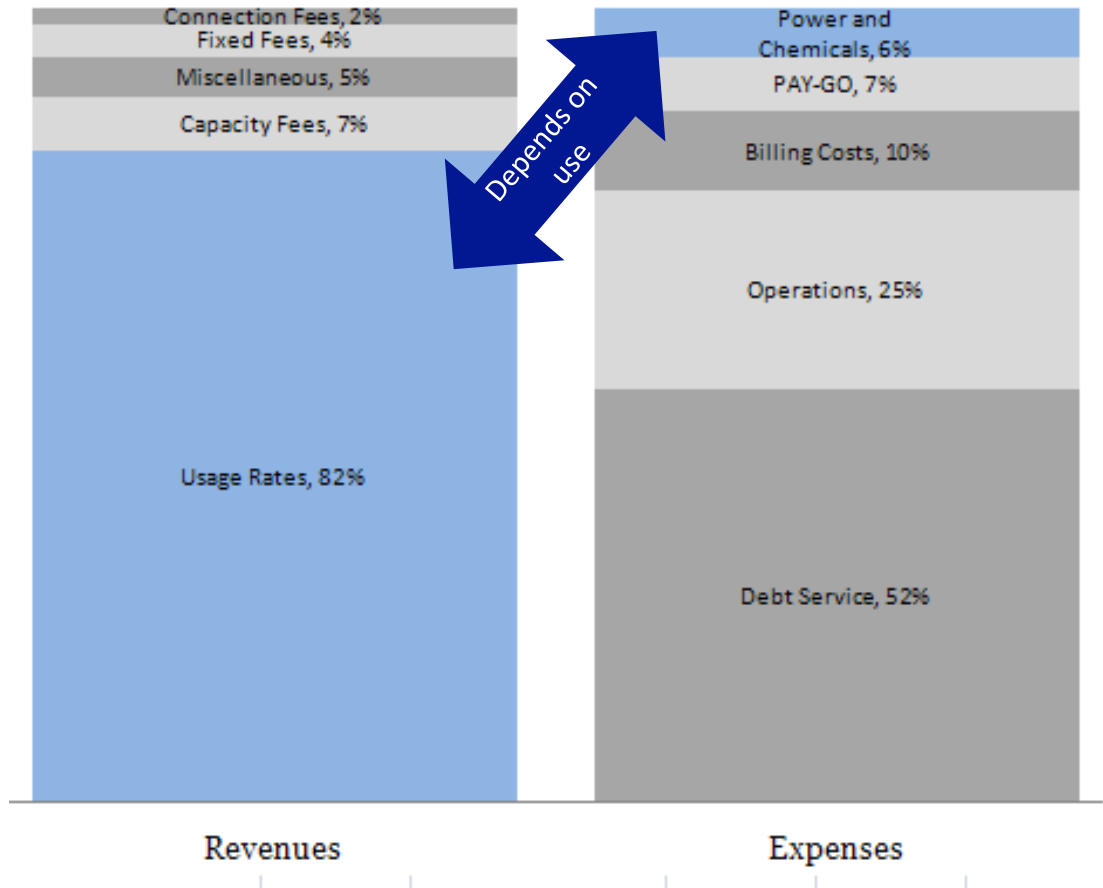
- Variable revenues are 100% dependent on the volume of water:
 - The volumetric rates
- Fixed revenues do not depend on volume of water in the short-term:
 - Base (minimum) charges, flat fees, penalties and charges, connection fees, etc.



How Rates and Water Use Interact

Utilities' costs are mostly fixed, not dependent on the amount of water sold/used by the customers. But the majority of revenues come from the amount of water sold. If demand decreases, revenues drop significantly but not costs.

Revenue and Expenses for Charlotte-Mecklenburg Utilities in a Given Year



Source: Charlotte Water Director Doug Bean's presentation to the Charlotte City Council on December 1, 2008.

Important

Avoid maintaining low rates at the expense of your utility's financial health.

It will either lead to a sudden, massive rate increase in the future or to failing systems and endangering public health.



Examples of rate structures



A Few Scenarios

Keep in mind:

No one rate structure design fits all utilities, even in each of the following scenarios.

Showing the starting point of discussion – each utility would then have to evaluate and tailor rate structure according to own conditions.



Scenario: Groundwater System with a Very Small Customer Base

High fixed costs, small number of customers

- High base charges, possibly with a consumption allowance.
- Monthly billing if very small number of customers; bi-monthly if cost savings outweigh cash flow stability (phase the meter reading over the two months)

Warning: No one rate structure design fits all utilities, even in this scenario.



Scenario: Small, Purchase Water System

High variable costs, small number of customers

- Lower base charges (sufficient to pay off the monthly fixed/minimum charge to the seller utility plus at least most of own fixed costs),
- No consumption allowance (unless included by the seller utility)
- High volumetric rates that exceed the variable rates you are paying the utility

Warning: No one rate structure design fits all utilities, even in this scenario.



Scenario: Worried About Affordability of Rates for Residential Customers

- Do not compromise revenue sufficiency to maintain artificially low rates
- Create separate residential rate structure:
 - Low base charges with no consumption allowance
 - Increasing block rates with a first block only up to lifeline amount (~ 2,000 gallons/month)
 - Relatively steep increases in rates between blocks
 - Monthly billing
- Consider separate “Customer Assistance Programs”
- Find out if it is legal to charge different rates for low-income or fixed-income customers (in many cases, it is not)

Warning: No one rate structure design fits all utilities, even in this scenario.



Scenario: Water Demands are Decreasing

- Increase base charges and the percent of revenues from fixed charges.
- If using block rates, considering consolidating some of the blocks and/or decreasing the size of the blocks accordingly.

Warning: No one rate structure design fits all utilities, even in this scenario.



Scenario: Want to Encourage Conservation

- Monthly billing
- Lower base charge with no consumption allowance, higher volumetric rates
- Uniform rates, increasing block rates, or budget-based rates.
- Seasonal rates during peak demand season.
- Many, small block sizes and steep differentials in rates between blocks. Low rate for the first block.
- Have a water shortage rate structure

Warning: No one rate structure design fits all utilities, even in this scenario.



Scenario: Have Highly Seasonal Demands

Resorts, second home communities, etc.

- Charge a base charge year-round
- Consider seasonal rate structure: higher rates during high season(s)
- If seasonal demand is due to irrigation water, have a separate irrigation rate structure where rates are higher than standard water rates

Warning: No one rate structure design fits all utilities, even in this scenario.



**You Have a General Rate
Structure Design in Mind.
Now What?**

The Process of Setting Rates

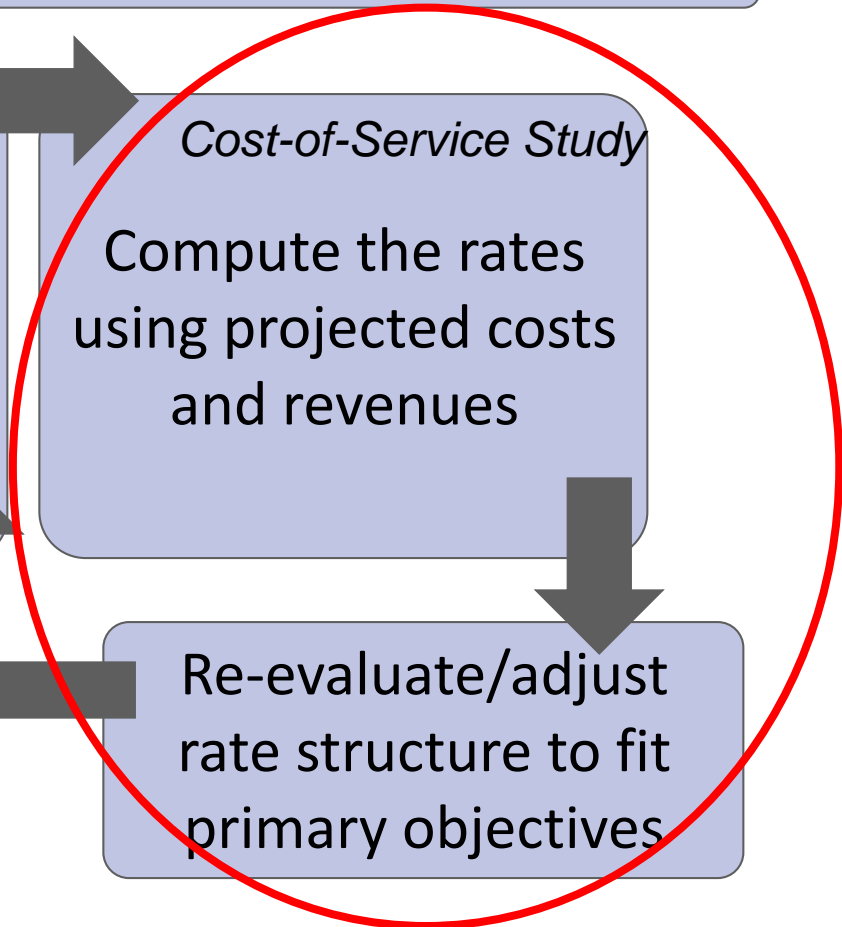
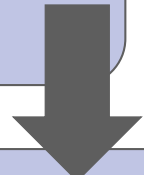
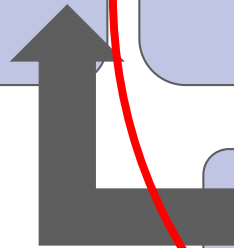
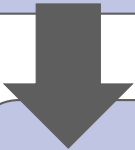
Learn essential background information about rates

Determine critical characteristics of your utility and community and utility priorities

Design the most appropriate rate structure

Cost-of-Service Study
Compute the rates using projected costs and revenues

Re-evaluate/adjust rate structure to fit primary objectives





Compute the Rates

- Assess your budgeted expenses and allocate them to different customer groups
- Assess water usage patterns and accounts in each of the customer groups
- Attempt to charge rates that would generate revenues from each customer group that is proportional to their allocated expenses
- Resources available

Rate Setting Resources



Setting Small Drinking Water System Rates for a Sustainable Future

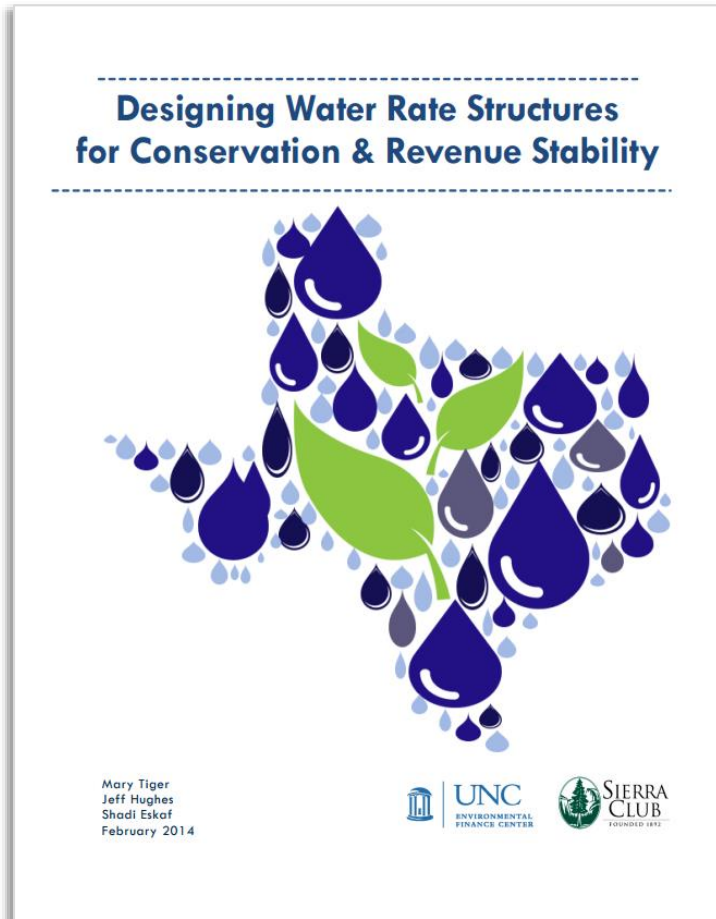
One of the Simple Tools for Effective Performance (STEP) Guide Series



<http://www.awwa.org>

<https://www.epa.gov/dwcapacity/resources-setting-small-system-water-rates-0>

Setting Rates for Conservation



<https://efc.sog.unc.edu/reslib/item/designing-water-rate-structures-conservation-and-revenue-stability>

The screenshot shows the website's header with the Alliance for Water Efficiency logo and the tagline 'Promoting the Efficient and Sustainable Use of Water'. A navigation menu includes Home, DONATE, Calendar, News, Resource Library, Our Work, Committees, Join, and About. A search bar is located on the right. The main content area is titled 'AWE Resource Library' and 'Water Rates and Rate Structures'. It describes the 'Financing Sustainable Water' initiative and provides a list of topics covered in a handbook. A small image of a faucet with a dollar sign is also visible.

Alliance for Water Efficiency
Promoting the Efficient and Sustainable Use of Water

Home DONATE Calendar News Resource Library Our Work Committees Join About search Go

home > resource library

AWE Resource Library
Water Rates and Rate Structures

AWE has launched Financing Sustainable Water, an initiative to provide helpful tools and data to water managers, elected officials, and consumers on rate structures that balance revenue management, resource efficiency and fiscal sustainability. The Financing Sustainable Water website also provides case studies on successful utility ratemaking and financial planning, and a Resource Search to help managers find relevant research, reports and tools. Below is an overview of new tools that are now available.

FINANCING SUSTAINABLE WATER
Rates. Revenue. Resources.

Visit www.FinancingSustainableWater.org to access tools, research and more information on water rates and financial planning.

Building Better Rates in an Uncertain World: A Handbook for Balancing Revenue Management, Resource Efficiency and Fiscal Sustainability

This new Handbook provides the latest thinking, guidance and real world examples on the following topics:

- Ratemaking Principles and Concepts
- Steps for Building a Better (Efficiency-Oriented) Rate Structure
- Implementing an Efficiency-Oriented Rate Structure
- Financial Policies and Planning for Improved Fiscal Health
- Public Engagement and Communications

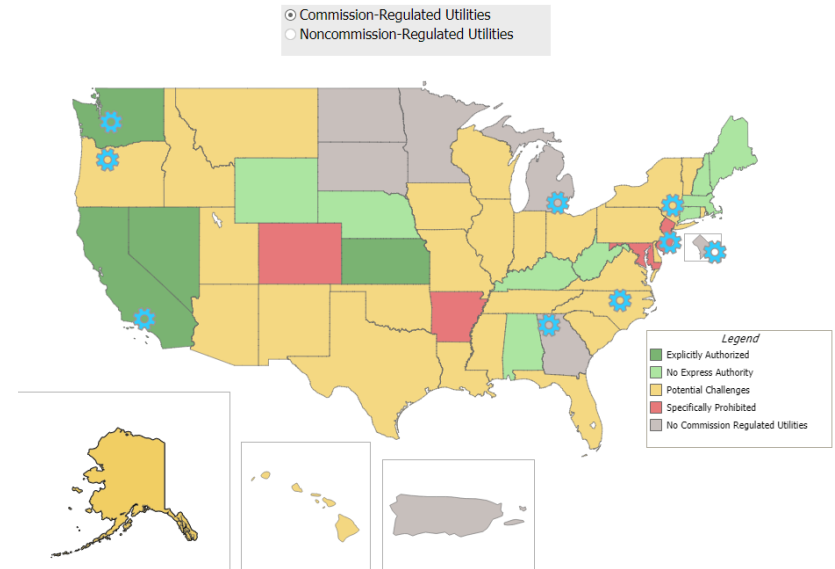
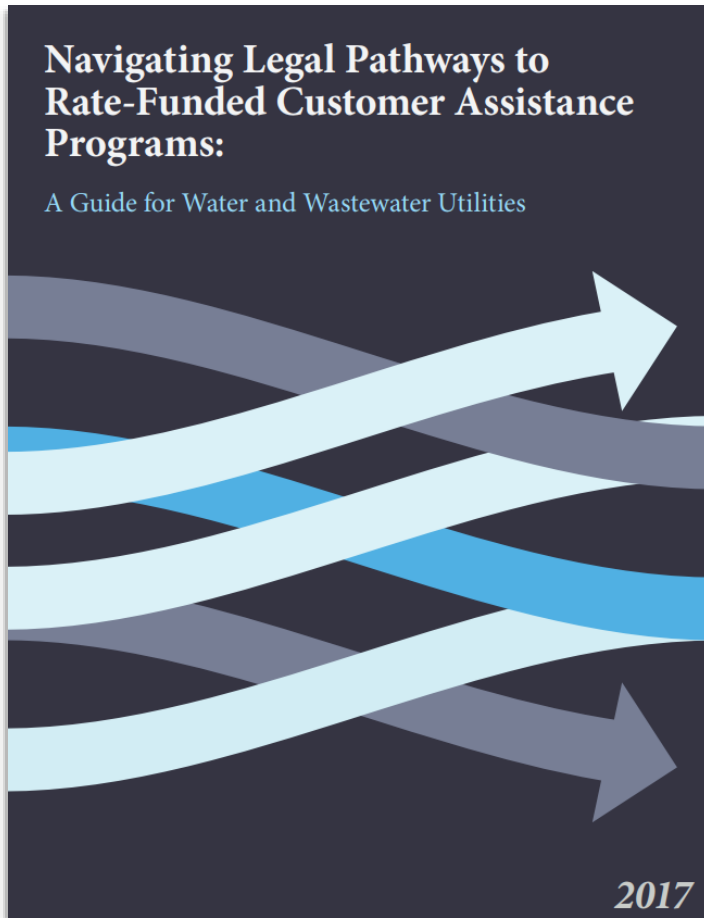
Buy printed copies of the Handbook here.

AWE Sales Forecasting and Rate Model

A new analytical tool that can explicitly model the effects of rate structures (examples from model below). Typical water rate models assume that future sales are known with certainty, and do not respond to price, weather, the economy, or supply shortages—that is to say, not the world we live in. The AWE Sales Forecasting and Rate Model addresses this deficiency and enables analysis of the following:

<http://www.a4we.org>

Customer Assistance Programs



<https://efc.sog.unc.edu/project/navigating-legal-pathways-rate-funded-customer-assistance-programs>

What can do and what can you not do, legally, to help customers with their bills

Various Decision-Making Tools

<http://www.efc.sog.unc.edu/project/utility-financial-tools>

or <http://efcnetwork.org/resources/tools/>



The EFC has created several free tools to assist water utilities in addressing the challenges and questions we commonly see in our teaching and advising. These tools cover a broad range of finance and management topics, including rates and revenue, financial benchmarking, affordability, capital finance, communicating with the board, and evaluating loans and grants.

Rates and Revenue



Water and Wastewater Rates Analysis Model

Use this tool to review your rates to ensure projected revenues cover projected expenses. This tool will help you determine whether proposed rates will keep the utility financially self-sufficient for the next few years.



Water Utility Revenue Risk Assessment Tool

Use this tool to assess how much revenues might be affected by changing demand patterns. The tool will help you compare effects on existing rates and on alternative rate structures.

Benchmarking



Financial Sustainability and Rates Dashboards

Our flagship tools for water utilities, these interactive dashboards allow you to benchmark your utility's rates against other utilities with similar characteristics. The dashboards also help you evaluate rates, cost recovery, affordability, pricing signal, and other financial benchmarks. Use the dashboards to communicate important information about your rates with your board, the media, and the public.

Water & Wastewater Rates Analysis Model

<http://efc.sog.unc.edu> or <http://efcnetwork.org>

Find the most up-to-date version in Resources / Tools

Free, simplified Excel tool allowing you to model and compare two rate structures on your projected fund balance

Water & Wastewater Rates Analysis Model
Version 2.8.2 (last updated August 4, 2015)

Developed by the Environmental Finance Center at the University of North Carolina, Chapel Hill <http://efc.sog.unc.edu>

Funded by the U.S. Environmental Protection Agency and the Public Water Supply Section of the North Carolina Department of Environment and Natural Resources

DESCRIPTION
A do-it-yourself, simplified financial model to assist utility managers and private system owners in setting water and wastewater rates.

FEATURES
Comparisons of annual fund balance projections (for up to 20 years) under proposed new rates vs. staying with existing rates
Adjust rates for the next 1-5 years
Model changes to accounts and water use
Compare monthly bills under new rates vs. existing rates
Up to 12 rate structures
Customizable list of operating and capital expenses
Assess revenue sufficiency and fund balance
Uniform or block rates (up to 10 blocks)
Building up reserves through rates
Error notifications

INSTRUCTIONS
1) Navigate using worksheet tabs at bottom of screen or following arrows and clicking on buttons
2) In the green "Data Input" worksheets, input data in the dark green cells

View Results
Financial forecast of the next few years under 'Existing' rates versus 'New' rates (graphs of cost recovery and end-of-year fund balance)
How new rates compare to existing rates (graphs of monthly bills)

Year	2015	2016	2017	2018	2019	2020
Existing	\$15.00	\$13.00	\$11.00	\$17.00	\$20.00	\$21.00
New	7.00	7.00	7.00	7.00	7.00	7.00

Block End	4,000 gpm/mo	7,000 gpm/mo	10,000 gpm/mo	13,000 gpm/mo	16,000 gpm/mo	19,000 gpm/mo
Existing	\$2.78	\$2.78	\$2.78	\$3.00	\$3.50	\$4.00
New	\$4.00	\$4.00	\$4.00	\$4.00	\$4.00	\$4.00
Block size	\$6.50	\$6.50	\$7.00	\$2.00	\$1.00	\$9.00

Watch out for red "Error" messages describing where data entry errors


Financial Health Checkup for Water Utilities

<http://efc.sog.unc.edu> or <http://efcnetwork.org>



Find the most up-to-date version in Resources / Tools

Free, simplified Excel tool allowing you to track and benchmark financial performance metrics for your water/sewer fund in the past 5 years

Financial Health Checkup for Water Utilities



Developed by the Environmental Finance Center at the University of North Carolina, Chapel Hill
<http://efc.sog.unc.edu>



A resource for water systems through the Environmental Finance Center Network's Smart Management for Small Water Systems project, funded under a cooperative agreement with the U.S. Environmental Protection. <http://efcnetwork.org>

What does this tool do?


This tool assists in the assessment of the financial performance of a water (and/or wastewater) utility fund. Financial data readily available in annual financial statements are copied into this tool, which computes key financial indicators that measure a variety of important metrics, such as the ability to pay debt service, availability of cash to pay for operations and maintenance, the sufficiency of revenues generated, etc. Each metric is color-coded for the user. The tool demonstrates the financial strengths and weaknesses of the utility fund in the past 5 years.

Features:

- Simple data entry (uses data already reported in your audited financial statements)
- 6 financial performance indicators with explanations
- Set your own targets
- Assessment of last year's financial ratios, improvements since previous year, and five-year trends
- Guided navigation through hyperlinked images

What are financial indicators?

Watch a whiteboard video explaining financial performance indicators in lay terms.



Assessment for Town of Anywhere

Did you generate the revenues needed to pay for O&M and a little for capital?

Year	Operating Ratio, including depreciation
2010	1.00
2011	1.05
2012	0.95
2013	0.95
2014	0.95

Did you generate the revenues needed to pay for O&M by itself?

Year	Operating Ratio, not including depreciation
2010	1.25
2011	1.35
2012	1.15
2013	1.15
2014	1.15

Did you have enough liquidity to pay your current liabilities at the end of the year?

Year	Quick Ratio
2010	4.00
2011	4.50
2012	6.50
2013	4.50
2014	5.50

How many days could you continue to operate the utility with the cash levels available?

Year	Days Cash on Hand
2010	400
2011	550
2012	450
2013	450
2014	400

Water & Wastewater Rates Dashboards

<http://efc.sog.unc.edu> or <http://efcnetwork.org>

Find the most up-to-date version in Resources / Tools

Free online interactive tools allowing hundreds of utilities to compare and benchmark their rates, financial performance, and other metrics

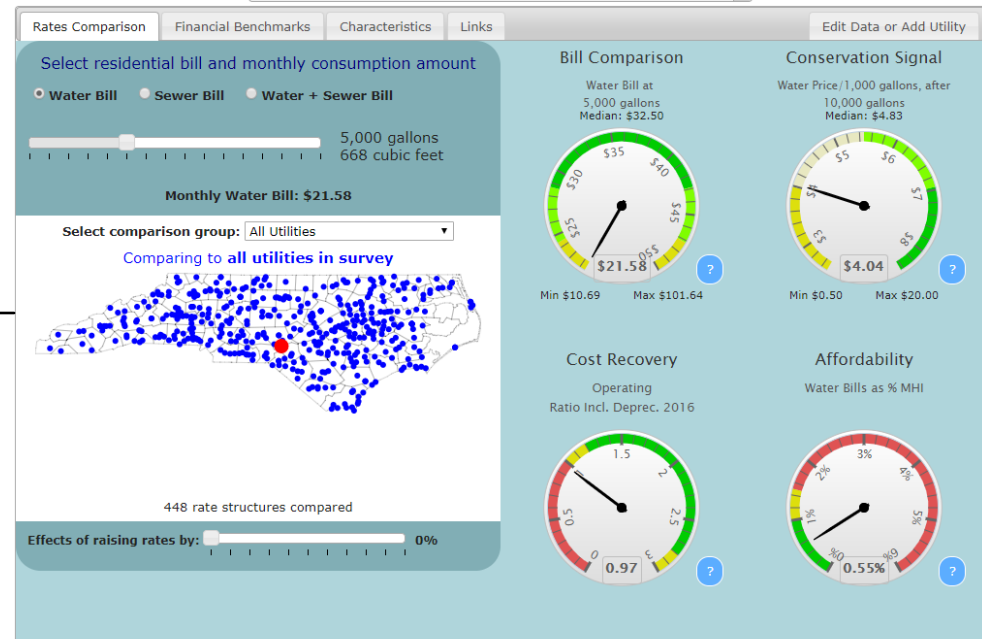


NC Water and Wastewater Rates Dashboard

Rates as of January 1, 2017
Last updated: May 3, 2017



Aberdeen



Subscribe to Keep Up-to-Date with the *Environmental Finance* Blog

<http://efc.web.unc.edu>

Blog posts include topics on:

- Declining demands
- Increasing rates
- Financial performance indicators
- Conservation pricing
- Debt
- What's wrong with %MHI
- Affordability
- Financial strategies
- Communication strategies
- Inflation for cost of capital
- And much more!



10 Statistically-Proven Tips for

Small water systems

www.EFCNetwork.org

Workshops,
webinars,
and recordings

Sign up for free in-depth
(multi-day or multi-hour)
direct assistance

Collection of resources
for small water systems
(tools, guides)

The screenshot shows the EFCN website homepage. At the top, there is a search bar with the text "Enter your email to subscribe..." and a green "Sign Me Up" button. Below this is the EFCN logo and the tagline "Innovative Finance Solutions for Environmental Services". A navigation menu includes links for HOME, ABOUT, WORKSHOPS & WEBINARS, ASSISTANCE, RESOURCES, BLOG, and ARCHIVES. A large banner image shows hands writing on a document, with the text "Smart Management for Small Water Systems: Improving small water systems through sustainable finance and management". Below the banner are three smaller images: a woman presenting in a meeting, a globe surrounded by water droplets, and hands holding a document with charts.

Free, thanks
to a
cooperative
agreement
with the U.S.
E.P.A.



Thank you.



Shadi Eskaf

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