User Rates

Rate Setting for Financing Infrastructure Costs

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Rate Goals

- Cover Expenses
- Public Support
- Equity or Fairness
- Impact on Users
- Ease of Implementation
- Water Conservation or Discharge Control

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- **Sufficient Revenues** to ensure compliance and improve performance
- **Equitable Recovery** of Collection/ Distribution and Treatment Costs
- **Rate Affordability** and Competitiveness
- **Defensible Decisions** with Widespread Understanding and Acceptance

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Rate Design

Goals: Simple and Fair

Classes of system users: Residential, Commercial, Industrial,

Institutional (schools, etc.)

Water metering or not

Outside users ?

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Allocation of Costs

Capacity Fee, based on maximum usage.

Reserves, for repair and or replacement of equipment. Also often by maximum use.

Variable Fees, based on costs per gallon (chemicals, power, etc.)

Metering or not

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Expenses / Costs

Identify ***all*** costs, including:

- Operation and Maintenance Expenses
- System Debts
- Replacement of Short-Term items
- General and Administrative
- Reserves

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Reserves

- Not for Current Operation Costs – separation of funds
- Capital and/or Repair Reserves Accounts
- Reserve Account use for Same Tax Base Area
- Create Capital Reserve need Town Board Resolution - Subject to Permissive resolution
- May need OSC approval if in Adirondack Park

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More on Reserves….

Reserve Accounts: Repair **OR** Capital

Can transfer from Repair to Capital Account

Capital Reserves Purposes: Specific project or Type (land, buildings, etc.)

See OSC guidance for info on accounting, investments, etc.

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Revenues/User Fees

User Fees are not a tax

Charge all users. (Town Buildings, Churches, Parks, etc.)

Increase rates gradually

Logical, justifiable rate increases

Anticipate Expense Increases if possible

Use Reserves to reduce need for Rate Jumps

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Revenue Requirements

- Last year's actual expenditures as basis
  - Good record keeping - uniform system of accounts
  - Annualize - normalize out past anomalies
    - Extraordinary repairs
    - Expenses end or begin (debt financings)
  - Anticipate expense increases –
    - wage hike, inflation, or Energy cost increases
  - Growth or Decline in User base?

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Metering

Positives:

Accuracy/Reliable Data

Distributes costs per gallon

Negatives:

Billing Complication/Data Transfer

Cost of Implementation

Cost of Reading

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Rate Types

Flat Rate – νFlat Rate/Fixed Fee - Rate structure under which all customers pay a set monthly fee for water service that is not tied to the amount of water used.

By user type

(all homes pay the same – no metering)

Flow estimate for Businesses or can meter only large water customers

No discount for water conservation

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Increase rate with more use –

Water conservation

Decrease rate with more use –

Attract or keep large water user

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More Rate Options…

- Incremental rate – all pay minimum charge then each user pays per gallon on more than standard usage
- Ad Valorem (water)

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- **νDecreasing Block Rate -** A rate structure under which

the price of water per block decreases as the amount used increases.

- Blocks are set according to consumption (e.g., up to 2,000 gallons used; 2,000 to 6,000 gallons used; etc.).

- **νIncreasing Block Rate -** Rate structure under which
- the price of water per block increases as the amount used increases.
- Blocks are set according to consumption (e.g., up to 2,000 gallons used; 2,000 to 6,000 gallons used; etc.).

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New York State Town Districts

- Sewer Districts – Benefit Basis
- Water Districts – Benefit or Ad Valorem
- Basis of charges established in petition or hearing notice
- Any Extensions charged on same basis as original district
- O & M charges on same basis as capital costs

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New York State Villages

- Water Rents – per household, per gallon, etc.
- Sewer Rents – water consumption, number of plumbing fixtures, volume and character of sewage/industrial waste, per dwelling, etc.
- Charges relate to cost of service
- Outside users – may be greater at discretion of municipal board

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Amount of Increase

Projected expenses

-- minus Revenue forecast (at existing rates)

= revenue increase needed

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Annual Review

Review System rates with annual budget process

Public notification and comments

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Annual Review

Keeping up with repair and replacement reserves? Pump useful life?

Use committee or consultant for rate analysis.

Justify rate changes

Public Notification

Explain in bills

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Fee Collection

Send Bills Promptly

Maintain Assertive Collection Policies

Inform Users of Billing Policies

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Customer Bills

Simple understandable.

Frequency (cash flow, ease): monthly, quarterly ?

All necessary info

Rates – base or minimum fee? then add per gallon or all as per gallon charges?

Meter readings: past, actual, estimate, next

Other news? Flushing dates? Reasons for Upcoming increases? Water Conservation needed? Info on water quality/ consumer confidence reports?

Contact info

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Realistic Rates

Includes all costs.

Does not defer maintenance.

Does not move costs to general fund or hide expenses in general activities (i.e., upkeep of grounds in highway budget)

Uses gradual increases / or reserves as costs rise to prevent need for jump in rates

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Benefits of Systematic Rate-Setting

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A good rate analysis will do several things:

- Show current and future financial status under various scenarios
- Help you develop new rates that are adequate and equitable
- Show your affordability index, operating ratio, coverage ratio and other important indicators
- Show the rate effects of fixed and variable costs, repair and replacement costs, interest rates and inflation rates
- Show the annual annuity needed for repair and replacement
- Give graphical illustrations for management decisions and public meetings.
- Help you make grant and loan applications

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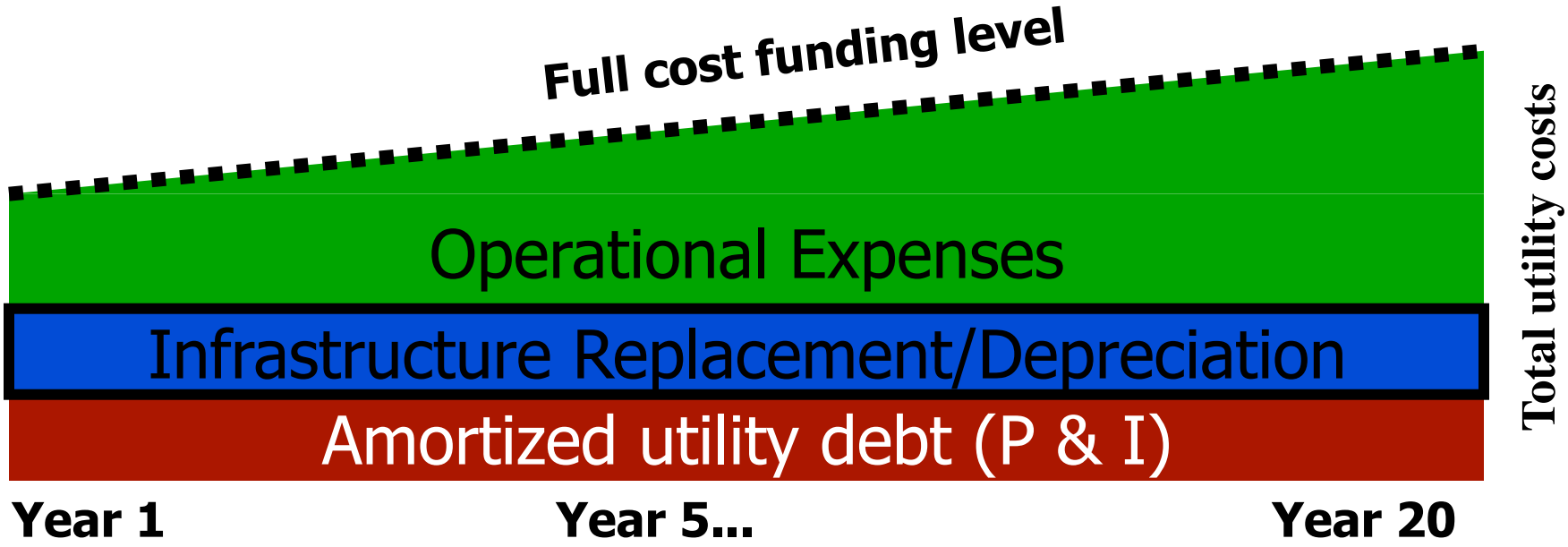

Financial needs should be reviewed ***annually*** to keep up with the full costs the system

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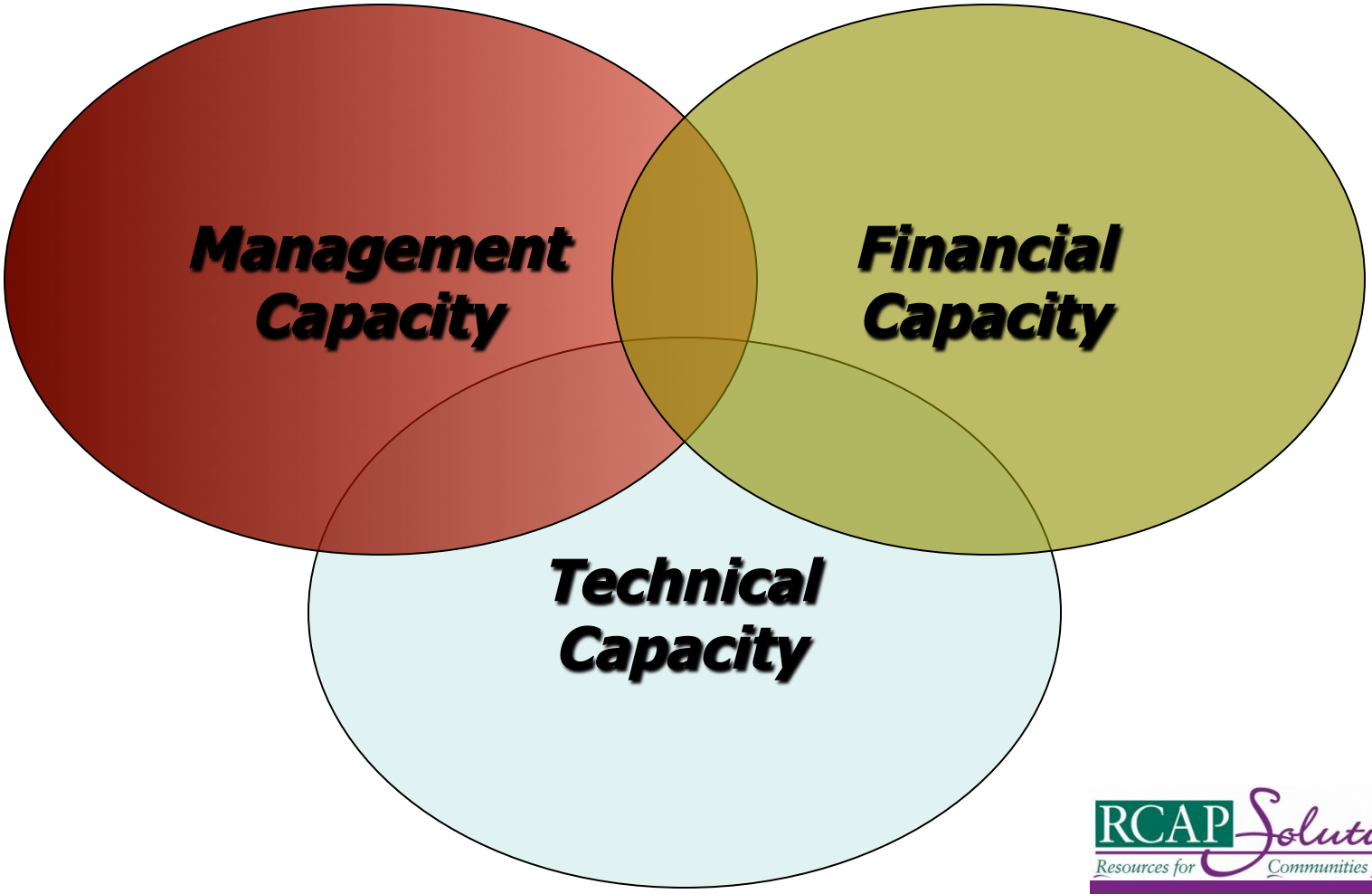
Building Resiliency into Your System



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Data Requirements and Key Ratios

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What information is needed to perform a user charge analysis?

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1. Current rates, surcharges, hookup fees, other revenue sources, etc.
2. Actual operating and debt expenses for the past 12 months.
3. Water losses or sewer system infiltration/inflow (I/I) for the past 12 months.
4. Account balances at the start of the past 12-month period.
5. Customer volume usage (billed amounts) for past 12 months.
6. Total actual water produced or sewage treated for

   past 12 months to determine water loss or I/I.

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Key Ratios

- Operating ratio.
- Coverage ratio.
- Affordability index.

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Key Ratios

- Operating Ratio

Total System Operating Income /
Total System Operating Expenses =
Operating Ratio

Does not include debt, that comes later . . .

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Key Ratios

- What to include in the ***income*** for operating ratio:
  - User fees
  - Hook-up and impact fees
  - Interest
  - Cash carry-over and fund transfers
  - And income not dedicated to something else

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Key Ratios

- What to include in the ***expenses*** for operating ratio:
  - Administration
  - Wages and benefits
  - Utilities
  - Supplies
  - Other operating expenses

  - *No debt! That comes next . . .*

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Key Ratios

What does the operating ratio mean?

- = 1 and the system is breaking even.
- <1 and the system is losing money (in the red)
- >1 revenues are ahead of expenses (in the black)

- 1.15 is a normal target for systems with >2,000 connections
- 1.35+ is better for smaller systems with <1,000 connections

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Key Ratios

- Coverage Ratio:

Income Available for Debt Service / Annual Debt Service Expenses = Coverage Ratio

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Key Ratios

- What does the coverage ratio mean?
  - It is an indicator of the system's financial ability to repay debt.
  - <1 and banks, bond buyers, and lending agencies are unlikely to lend the system the money.
  - 1.25 is a normal target for larger systems.
  - 1.90 can often be preferred for smaller systems.

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Key Ratios

- Affordability Index:

Annual fee for a typical residential user /

Median Household Income (MHI) for the rate paying area =

Affordability Index

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Key Ratios

- What does the affordability index mean?
  - <0.5% Rates are “very” affordable
  - 0.5% - 1.5% Rates are “fairly” affordable
  - >1.5% Rates are considered “high”

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Annual Review of Water & Sewer Rates

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Annual Review

- Review System rates with annual budget process
- Public notification and comments

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Annual Review

- Keeping up with repair and replacement reserves? Pump useful life?
- Justify rate changes
- Public Notification
- Explain in bills

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Public Relations

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Preconditions to Gaining Community Support

- Your customers must have an understanding of what you do.
- They need to accept that what you do has value!
- They need to determine that the way you do your work (your practices) are at least competent, if not exceptional.

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An Overview of Rate-Setting Tools & Approaches

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To examine your rates, you have options:

- You can devise your own analysis
- You can hire a financial consultant to analyze your system
- You can purchase commercial analysis software
- You can use the free tools that are out there, and ask RCAP to help you with the analysis

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Devising your own analysis:

Hand Calculations:

Can be done. Initially faster than a database or spreadsheet. In the long run slower as EVERY calculation must be done by hand.

Develop a spreadsheet or database:

With basic information on cash in and out and a few equations a spreadsheet can be developed. But you have to know what you're doing.

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Use some kind of Accounting Software:

Like QuickBooks or Microsoft Money.

The Positive: these programs take into account all accounting needed and can be user friendly.

The Negative: Not a precise match for a water or wastewater utilities accounting needs.

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Use an Existing Spreadsheet:

There are a number of existing spreadsheets that can be used (an example is included in this presentation).

No reinventing the wheel!

. . .Very helpful for running comparisons and "what if" scenarios that are much more difficult with paper calculations.

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Rate-Setting Software Tools: Get One Free Online!

KDHE Rate Checkup:
http://efc.boisestate.edu/Tools/tabid/58/Default.aspx

Let's take a look . . .

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