Budgeting for Municipal Enterprises

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Participants will leave here …

… with greater knowledge of the legal and financial framework for municipal enterprises

… with an understanding of challenges in setting budgets for enterprises, and specific practices that support enterprises

(1) Electric power generation, transmission, and distribution systems.
(2) Water supply and distribution systems.
(3) Wastewater collection, treatment, and disposal systems of all types, including septic tank systems or other on-site collection or disposal facilities or systems.
(4) Gas production...
(5) Public transportation systems.
(6) Solid waste collection and disposal systems and facilities.
(7) Cable television systems.
(8) Off-street parking facilities and systems.
(9) Airports.
(10) Stormwater management programs designed to protect water quality by controlling the level of pollutants in, and the quantity and flow of, stormwater and structural and natural stormwater and drainage systems of all types.
From Authority to Implementation

From Authority to Implementation

**Local ordinance**

Local government decides to charge rates and fees

**G.S. 160A-314**

Local governments given authority to charge rates and fees for services

**G.S. 160A-315**

Local government decides to charge rates and fees

**ENTERPRISE/UTILITY IS BORN**

Guiding Principle for Enterprise Funds

**Self-sufficiency**

Revenues collected = Costs expended

*(in a given year or over time)*

Characteristics of Municipal Enterprises

- Capital intensive
- Diverse use charges, fees and pricing strategies
- Financial structure varies from operational structure
- Self-regulated monopolies
- Often impact public health and environmental protection
- Service industries
- Production industries
The Budget for the Enterprise

An instrument to implement and manage public policy by obtaining (through rates and fees) and allocating (through the budget process) resources for service delivery.

The Role Budgets Play

- Appropriation/Allocation of funds
- Setting rates and fees
- Public education
- Measuring and promoting financial and operational performance
- Tool for keeping Public Works Directors in line

Budget System or Approach

As long as a utility in North Carolina complies with state law, it may implement any system or approach to budgeting that it deems as most efficient and effective
- Line-item
- ZBB-based
- Target-based
- Performance-based

Source: Bill Rivenbark, UNC School of Government
Before you set the budget, remember the Mission (of the municipality or Enterprise)

**Municipal Enterprise Missions**

- The Public Works Department's goal is to provide a high level of services to our residents / customers at the lowest possible cost.
- County provides services to all retail and wholesale customers with full assurance of accountability, equity, reliability and reasonable cost.
- To provide the kind of service that is so good, that if our customers had others to choose from, they would still choose us.

**BUDGETING CHALLENGES:**

**REVENUES**
Budgeting Challenges: Revenues

- Calculating revenue requirements
- Revenue sensitivity
- Pricing strategies

Revenue Requirements

- How much is needed in total
- How to allocate (fairly, equitably, legally) between different customers

“Full Cost Pricing”

- Operations & maintenance expenditures
- Taxes and accounting costs
- Contracts
- Principal and interest on long-term debt
- Contingencies for emergencies
- Reserves for capital improvement
- Indirect costs (fleet, buildings, shared expenditures, etc.)
- Related services (e.g.: source water protection for drinking water enterprise fund?)
- Opportunity costs
Revenues Do Not Always Recover Costs

Combined residential bill in FY2011-12 for 5,000 gallons/month for utilities with reported data on Total Operating Revenues and Total Operating Expenses for the Water & Wastewater Enterprise Fund in FY2011-12 among 265 North Carolina local governments.

Allocating Revenue Requirements

- Charge everyone equally
- Charge more to those who use more
- Charge more to those who cost you more
- Charge based on location
- Charge based on ability to pay

Many of these are interrelated.
Not all options are legal for all enterprises!
Municipal utilities’ authority G.S. 160A-314

(a) A city may establish and revise from time to time schedules of rents, rates, fees, charges, and penalties for the use of or the services furnished by any public enterprise. Schedules of rents, rates, fees, charges, and penalties may vary according to classes of service, and different schedules may be adopted for services provided outside the corporate limits of the city.

Revenue Sensitivity

Predicting revenue generation requires assumptions on demand/usage levels, billing and collection rates, ability of customers to pay their bills, etc.

Looking at recent trends helps, but you must be wary of changing local conditions. Set a budget that can (partially) weather the unexpected.

Be Aware of Changing Conditions

Source: Orange Water and Sewer Authority, North Carolina
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 customers conserve, revenues drop significantly but not costs.
In Fact, Raising Fees/Rates Will Likely Also Affect Demand

Revenues will be less than anticipated if did not already plan for this decrease in demand

Customers use less

Raise rates/prices to increase revenue

Factor in a "price elasticity" factor for services (water, electricity, gas, transportation, etc.).

E.g.: for water/wastewater, average residential demand drops by 2%-5% for every 10% increase in rates

When Setting a Budget, Model your Revenue Sensitivity

Pricing Strategies

- How will you balance competing objectives?
- How exactly will you charge your customers?
Balancing Multiple Objectives

- Full cost recovery/revenue stability
- Encouraging conservation
- Fostering business-friendly practices
- Maintaining affordability (keeping rates low – to whom?)

Objectives that Influence North Carolina Utilities’ Water/Wastewater Rates and/or Rate Structure (in 2010)

- Maintaining affordability for residential cust.
- Recover costs
- Comparability to other utilities’ rates
- Encouraging conservation/reduction of use
- Encouraging economic development
- Simplicity of the bill
- Increasing sales due to excess supply/capacity


Drinking Water Pricing Strategies

- Structure (uniform, decreasing block, increasing block)
- Use and structure of “minimums”
- What customers pay up front
- Outside vs. inside
Tap Fees

- Intended to recover costs associated with connecting the residence to the nearest water or sewer line. Costs may include:
  - Tap
  - Pipe material
  - Installation/Labor
  - Water meter and meter box
  - Other related expenses

Impact Fees

- Also called system development fees/charges
- Intended to recover the cost associated with developing system capacity including:
  - Source water supply and collection
  - Treatment facilities
  - Storage
  - Pumps and distribution
Impact Fees

Figure 3  System Development Charges (Impact Fees) in January 2006 Typically Charged to Residential Customers with a 5/8” or 3/4” Water Meter or 1” Sewer Line, in a 3-Bedroom, 1,700 Square Foot Home on a Half Acre Lot that Uses 300 Gallons/day

Solid Waste Full Cost Accounting

- Required by statutes GS 130A-309.08
- Essential for setting fees, and communicating costs to customers
- Cost per ton disposed in landfill
- Cost per ton collected
- Cost per collection point

Solid Waste Revenue Options

- Collection fee
- Recycling fee
- Disposal fee
- Property tax
- Tipping fees
- Yard waste fee
- Pay as you throw fee
Electricity Pricing Options

<table>
<thead>
<tr>
<th>Source: EFC, Residential Electricity Rates and Pricing in North Carolina 2014</th>
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Stormwater Revenue Options

- Property taxes
- Plan review fees
- Inspection fees
- Utility user fees (HH and ERU)

BUDGETING CHALLENGES: EXPENSES
Budgeting Challenges: Expenses

- How to budget for capital expenses
- How to handle depreciation

Capital Finance: Ways to Pay

- Pay as you go (current receipts)
- Save in advance and pay (fund balance, capital reserve fund)
- Pay later (someone loans you money)
- Grants (let someone else pay)

Where Capital Funding Comes From

- Rates / Monthly bills, periodic fees
- Special assessments to current customers
- Impact fees to new customers
- Debt market (many sources)
- Transfers from the General Fund (tax revenue)
- Grants
Grants Aren’t Completely Free Money

- Application for the grant can be expensive – staff time and money
- Applications can take months to process
- Often lots of strings attached
- Often require a percentage match
- Lots of competition
- Difficult to sustain

Remember: self-sufficiency is the guiding principle

Capital Improvement Program - Timelines

- Use Asset Management Plan to plan for capital expenses in the long term (~20 years)
- Create a Capital Improvement Plan with a narrower timeline (5-10 years) in more detail. Specify the projects and accurate estimates of cost. Plan where money will come from.
- Create a Capital Improvement Budget with an even narrower timeline (1 – 2 years) committing funds for the planned capital projects. Get it approved/adopted.

Capital Cost Accounting

- Book value
- Existing debt
- Future debt
- Depreciation
- Replacement value
- Depreciation based on replacement value
- Cost of new capacity for buyer
- Cost of new capacity for seller
- Present value of capacity’s cash flow
This Funny Thing Called Depreciation

- This is an accounting solution to the problem of things getting old
- You have a "cost" every year of your infrastructure wearing out, a percentage of its value

Depreciation

- If you are not doing any capital improvements in the next year, you should at least include depreciation in your budget
- If you are implementing a CIP, you don’t necessarily have to include depreciation
Depreciation

- By including depreciation into rates, you collect money for future capital improvements
  - Could put it all into fund balance and keep track of it with a spreadsheet
  - Better is to put it into a capital reserve fund that is separate and only for capital projects

- Capital costs higher than depreciation, so depreciation alone is under-estimating capital costs

CLOSING THOUGHTS

Targeted Budgeting: Line Items

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<thead>
<tr>
<th>Total</th>
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<tbody>
<tr>
<td>Transmission and distribution expenses</td>
</tr>
<tr>
<td>Operation labor</td>
</tr>
<tr>
<td>Operation supplies and expenses</td>
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<tr>
<td>Maintenance of distribution reservoirs</td>
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<td>Maintenance of mains</td>
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<td>Maintenance of meters</td>
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<td>Maintenance of hydrants</td>
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<tr>
<td>Maintenance of other plant</td>
</tr>
<tr>
<td>Total transmission and distribution expenses</td>
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</tbody>
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Budgets and Performance

- How does your budget promote efficiency and innovation?
- Does an individual or team have control of a section of your budget?
- Is your budget set up so that it can be used easily for performance measures?
- Can you use the budget to predict the effects of changing conditions on financial performance?
- Does your budget prioritize what’s most important in your mission/strategic goals?

School of Government resources on Enterprise Funds

http://www.sog.unc.edu/, click on Publications

(Kara Millonzi)

“The Painful Art of Setting Water and Sewer Rates”
(Jeff Hughes)