

Full Cost Pricing: A Best Practice

Introduction	
Purpose	<p>This guide will help you understand:</p> <ul style="list-style-type: none"> • The definition of “Full Cost” and “Full Cost Pricing”. • Why full cost pricing is important to your utility. • How to implement full cost pricing.
Target Audience	<p>This guidance is intended for owners, managers, and operators of water, sewer, and stormwater systems, local officials, technical assistance providers and state personnel. The primary focus of this guidance is for Massachusetts’ water, sewer and stormwater systems.</p>

Full Cost Pricing
<p>This best practice document presents the basic concepts and techniques of full cost pricing. Measuring the cost of government services is useful for a variety of purposes, including setting user fees and charges, managing for efficiency and effectiveness, and providing for the long-term sustainability of the utility. The full cost of a service encompasses all direct and indirect costs related to that service. Full cost pricing is considered one of several best practices to promote and maintain long-term financial sustainability for water, sewer and stormwater activities.</p> <p>Costing is a management and policymaking tool that helps to answer questions about the costs to provide utility services and helps policy makers with cost information for increasing or decreasing service levels, fee setting, and other important information. The purpose of costing is not simply to collect cost data, but to provide utility managers and officials with information they can use to make better management decisions in several areas. One of those areas is fee setting. The recovery of full costs through fees and charges is an important element in the long-term sustainability of the utility. Providing sufficient revenues to finance the operating and capital needs of the utility is essential.</p>

Challenges faced by Utilities	Benefits of Full Cost Pricing
<ul style="list-style-type: none"> • Lack of timely and complete financial data. • Increased cost to produce and treat water. • Decreasing revenues. • Increasing pressure to conserve water. • The need for efficient use of water. • Depletion of groundwater. • Degradation of water quality. • Aging infrastructure. • Maintaining long-term financial sustainability. • Consumers are price conscious. • Assuring sufficient water and sanitation for all consumers, including low-income individuals and communities. 	<ul style="list-style-type: none"> • Establishes fees and charges that are based on full costs to ensure long-term financial sustainability. • Identifies a total cost of service including direct and indirect costs. • Identifies all operating and non-operating revenues and capital contributions. • Identifies all operating and capital reserves. • Provides useful information to make decisions on user charges and other financing items. • Identifies revenue requirements for a test and rate year.

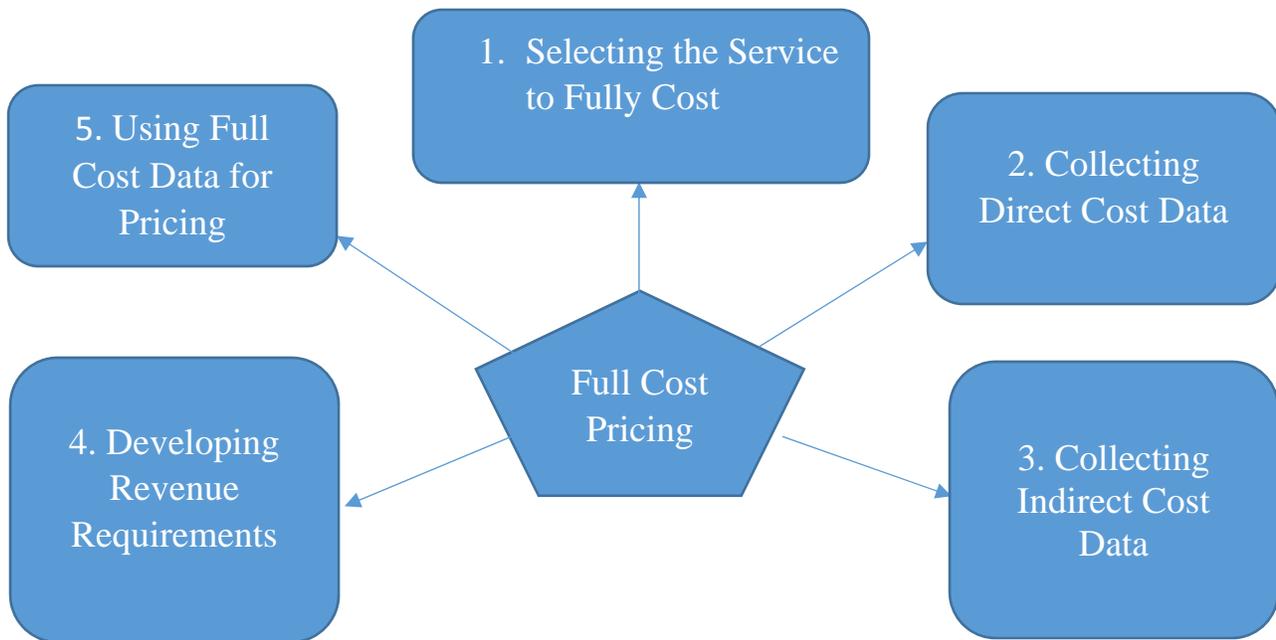
Implementing Full Cost Pricing: The Core Framework

The following framework should be followed to implement full cost pricing. This framework includes:

- (1) Selection of the service you wish to fully cost.
- (2) Collecting direct cost data.
- (3) Collecting indirect cost data.
- (4) Developing revenue requirements.
- (5) Using full cost data for pricing purposes.

Several full cost pricing best practices are listed for each framework element.

Flow Chart: The Five Core Elements of Full Cost Pricing



1. Selecting the Service to Fully Cost

The first step in full cost pricing is to select which service or services are to be fully costed.¹ This may include water, sewer, and or stormwater service(s). For example:

- Are you trying to cost your total water department to set user fees to recover the total costs of service?
- What does it cost to provide water, sewer and/or stormwater services?
- Are you trying to cost a particular activity within a service such as turn ons/turn offs to set a specific fee?

Successful costing requires a team effort by department heads, employees, and community officials. Before any data is gathered, all people involved in the study need to understand the purpose of the study and their role in it. Study guidelines should be put in writing.

The time frame for the study should also be considered. The answer to this question depends on the purpose of the study. If the goal is to determine the annual cost of providing a service, cost information will be needed for an entire fiscal year. However, the study need not be carried out over the whole year. Data from the most recent fiscal year can be collected and estimates made of subsequent changes in costs, or figures on current service levels and costs. Many studies require a multiple year approach, for example, to set rates based on a five or ten-year projection. In these instances, project data over that time frame will be needed. Thus you will need to obtain multi-year obligations for accounts such as debt service, contracts and the like.

The primary source of cost data are expenditure records: general and subsidiary ledgers, warrants for payments, debt service records, and revenue and expenditure reports. Information is also contained in budgets and non-financial records such as equipment purchase and maintenance records, building records, mileage reports, and payroll and personnel records. Year-to-date budget to actual reports are also a good source of information.

You should ask:

- What service do you want to fully cost?
- What is the purpose of costing this service?
- What information needs to be collected?
- What is the cost of all resources used to provide the service?
- For what period of time is the service to be costed?
- How can the service be measured?
- What is the cost of performing one job?
- What would it cost to expand the service?
- What costs would be avoided if some or all of the service were dropped, or if a different service delivery method (e.g., contracting) were used?

Best practices are:

- Determining what service to cost.
- Determining the time frame of the study.
- Determining the full cost of that service.
- Setting fees and charges to recover the full costs of that service.

¹ For additional full cost information, refer to the Massachusetts Department of Revenue's publication Costing Municipal Services

2. Collect Direct Costs

The second step in establishing full costing is collecting direct costs. Full cost data includes direct and indirect costs for the selected service. Direct costs include the salaries, wages, and benefits of employees that are exclusively working on the delivery of the service, along with operating costs such as contract services, supplies, assessments, debt service, other operating costs and capital outlay. Likewise, they include costs that may not be fully funded in the current period such as compensated absences, interest expense, depreciation or a use allowance, and pensions. Cost data should be consistent with the Uniform Massachusetts Accounting System (UMAS) regarding expenditure accounts.²

You should work with the accounting officer to identify direct personal services expenditure costs, including:

Salaries and Wages:

- Expenditures for full-time and part-time work performed by employees who are directly part of the work unit.
- Overtime- Amounts earned by employees for work performed in excess of normal requirements.
- Differentials- Amounts paid to employees above and beyond compensation in recognition of special circumstances such as merit, shift, weekends, and the like.
- Fringe Benefits- Expenditures for fringe benefits paid directly to or on behalf of employees such as maternity leave, workers' compensation and the like.
- Professional Development- Expenditures for continuing professional education and development
- Regulatory compliance, permitting and reporting expenses

Ordinary maintenance:

- Purchase of services for heat, power, professional services, rents, repairs.
- Supplies for energy, vehicles, buildings, office.
- Intergovernmental charges for federal, state, regional or other assessments.
- Debt service for principal and interest payments on maturing debt.
- Appropriate operating reserves.

Capital:

- Capital outlay consistent with the asset management plan.
- Appropriate capital reserves.

Best practices include:

- Collecting all direct costs of a service.
- Collecting all indirect costs of a service.
- Determining the full costs of a service.

² The Uniform Massachusetts Accounting System published by the Massachusetts Department of Revenue, <http://www.mass.gov/dor/docs/dls/publ/misc/umas.pdf>

3. Collecting Indirect Cost Data

The third step in full costing is to collect indirect cost data. Indirect costs include departmental costs within the work unit and central services costs. An example of departmental indirect costs would be the Director of Public Works who may be in charge of water, sewer, stormwater, roads, cemetery and other functions. Thus the DPW Director and staff may be allocated as an indirect cost to the utility. In addition, indirect costs include one or more support functions outside the work unit for central services (e.g., legal, finance, human resources, facilities, maintenance, technology). These shared costs should be apportioned by some systematic and rational allocation methodology and that methodology should be disclosed.

Indirect costs are generally appropriated in the general fund operating budget and are allocated to the enterprise fund for funding. Indirect costs are not to be appropriated in the enterprise fund. For further guidance on indirect costs refer to the Enterprise Fund Manual.³

You should work with the accounting officer to identify indirect expenditure costs, including:

- Central services for costs incurred by the municipality on behalf of the enterprise for accounting, auditing, treasury, collections, data processing, purchasing, law, and similar services.
- Costs that are budgeted centrally such as telephone, insurances, fringe benefits, maintenance, and the like.
- Departmental costs that can be allocated to the utility.

Best practices include:

- Establishing a written, internal policy regarding indirect cost allocation and review this policy annually. The policy should be reasonable and calculated in a fair and consistent basis. Local financial officials should understand and agree on what indirect costs are appropriated as part of the General Fund operating budget and what percentage of these costs should be allocated to the enterprise fund.
- Developing the full costs of services including direct and all indirect costs.
- Developing a revenue budget that finances the full costs of providing service.

³ Enterprise Fund Manual published by the Massachusetts Department of Revenue, <http://www.mass.gov/dor/docs/dls/publ/misc/enterprisefundmanual.pdf>

4. Developing Revenue Requirements

The fourth step in establishing full cost pricing is to determine revenue requirements for the service you selected. Every utility must receive sufficient revenues to fund the full cost of providing for operating, maintaining and repairing the utility. A significant portion of the utility's revenue requirements are from fees and charges from providing services to their customers based on the full costs of providing those services. A utility is allowed to collect revenues from rates that recover its full costs. Revenue data should be consistent with the Uniform Massachusetts Accounting System (UMAS) regarding expenditure accounts.

Revenue requirements may be made for any length of time depending on the purpose of the study. For budgetary purposes utilities typically budget and set rates for a one year period. Many project revenue requirements over a two to five-year period. The utility should review its projections at least annually to see if rate changes are needed.

Revenue requirements are often established on the cash or utility basis. Since Massachusetts accounting is primarily cash basis, this discussion will focus on the cash basis revenue requirements.⁴ Basic revenue requirement categories include operations and maintenance expenditures, debt service payments, operating and capital reserve contributions, and capital outlay.

Revenue requirements often begin with an analysis of a base or test year, typically a 12 month period. While there are several test years, the best practice is to select a historical year such as the previous actual fiscal year as the test year. Revenue requirements typically include operating and non-operating revenues and contributions. Operating revenues include metered sales, rentals, fire protection, and administrative charges. Non-operating revenues include interest earnings, tax subsidies, and transfers in. Capital contributions include developer and customer contributions and capital grants. The test year is then projected to a rate year based on known and measurable and other adjustments to account for changes in operating or capital costs and operating and non-operating revenues and capital contributions.

You should:

- Review prior year budgets and actual results and current year budget and year to date expenditures for operations and maintenance expenditures, debt service payments, operating and capital reserve contributions, and capital outlay.
- Review prior year budgets and actual results and current year budget and year to date revenues for operating and non-operating revenues.
- Identify known and measurable adjustments from the test year.
- Review enterprise fund financial statements to see the balances in operating and capital reserves.

Best practices are:

- Compiling a test year of full costs, including all direct and indirect costs.
- Compiling a test year of revenue projections including all operating, non-operating and capital contributions.
- Developing a rate year of operating and capital costs and operating and non-operating revenues and capital contributions

⁴ For further revenue requirements' discussion, refer to Principles of Water Rates, Fees, and Charges: Manual M1 of Water Supply Practices published by the American Water Works Association.

5. Using full costs for full cost pricing

The fifth step in full cost pricing is using full costs for setting user fees. Utilities set charges and fees to help fund services. In providing adequate service to customers, every utility must receive sufficient revenues to ensure proper operations and maintenance of the system in the short-term and financial sustainability in the long-term. For any utility to be self-sufficient, the utility must recover its full costs of service, based on its revenue requirements on an ongoing basis.

When certain services provided especially benefit a particular group, then governments should consider charges and fees on the direct recipients of those who receive benefits from such services. However, many governments provide subsidies to various users for policy reasons, including the ability of residents or businesses to pay. Well-designed charges and fees not only reduce the need for additional revenue sources, but may also promote service efficiency and policies such as conservation. This could include a model of pricing which provides a baseline quantity of water and sanitation service for basic human consumption and building charges on top of this use for higher volume users – the “particular groups” mentioned above which benefit most from more intensive use of the utility provided.

You should ask :

- What are applicable laws and statutes regarding charges and fees?
- Are formal policies in place articulating pricing factors or rationale for any subsidies or conservation?
- What is the full cost of providing the service (both direct and indirect)?
- Are rates periodically reviewed and updated?
- Are long-term forecasts and plans consistent with the decision-making in the rate setting process?
- How will the public be involved in the fee-setting process, and how will the public be informed of the result?

Best practices include:

- Considering applicable laws and statutes before the implementation of specific fees and charges.
- Adopting formal policies regarding charges and fees.
- Setting fees and charges that are based on full costs while protecting basic right to water and sanitation for human uses.
- Reviewing and updating charges and fees periodically based on factors such as the impact of inflation, other cost increases, adequacy of cost recovery, use of services, and the competitiveness of current rates.
- Benchmarking individual fees and charges with those charged by comparable or neighboring jurisdictions.
- Utilizing long-term forecasting to ensure that charges and fees anticipate future costs in providing the service.
- Convening a public meeting or creating representative public advisory group to explain process and received public feedback, including consumer advocacy representatives who are able to provide context and resources for the community members.