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Tariff Construction: Methodology Variable Cost Elements Overview

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22 July 2008



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Variable Cost Elements: Operating Revenue and Operating Expenses

- As we have seen earlier, establishment of total revenue involves three steps:
 - Determination of costs of operation
 - Determination of the value of property, minus depreciation (rate base)
 - Determination of rate of return
- Operating costs make up the largest sum that must be covered in setting rates
- Operating income is the result of subtracting operating expenses from operating revenues.
 - In the context of rates, adjusted net operating income is compared with “required” operating income to determine whether an income deficiency exists.



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The “Test Year” Concept

- Ultimate objective of rate setting is to predict operating results during the period for which rates being set will be effective – calculated properly, the use of a test year allows the utility to recover all expense + reasonable return. No more. No less.
- Operating revenues and expenses are calculated using the “test year” concept; either a projection of future operating income or review of historic operating income
 - Test year to be utilized determined by Commission regulation
 - Historic year:
 - based upon actual data; easily obtained and identified
 - Has the disadvantage of being “stale;” may not reflect actual conditions or future conditions
 - Future year
 - Based upon a projection
 - Harder to verify and obtain



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Historic Test Year

- Looks at utility's operations in previous year
- In initial analysis, requires removal of abnormal, non-annual events to ensure that such events are not unfairly captured in rates
 - Recovery of non-recurring expenses can be
 - Excluded altogether under theory that future ratepayers should not have to pay for that which may never occur again
 - Amortized: appropriate for expenses that MAY occur again, although irregularly or infrequently
 - Damaged caused by a major storm.
 - Normalized: appropriate for expenses that are regularly recurring



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Future Test Year

- Traditionally reserved for application in instances where the unadjusted historical experience of the utility is no longer a valid indicator of future expectations
 - Usually during times of very high cost of capital
 - Dwindling growth in demand for service
 - Periods of high inflation
- Eliminates or greatly reduces need for amortization/normalization
- Predicts future results: equivalent to a budgeting process.



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The “test year” concept, continued

- The selection of an appropriate test year can be a source of disagreement among the parties in a rate case.
- Where selection of a test year is not mandated by rule, or is ambiguous, the following factors should be considered in selecting a test year
 - Expected inflation
 - Expected time that the new rates are to be in effect
 - Expected changes in investment, revenues or expenses
 - Effects of technological change on utility
 - Availability of accurate data within the rate case schedule
- Pennsylvania Commission utilizes historic test year, although a utility may request future test year selection.



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Operating Expenses

- Necessity for supervision
 - Commissions have legal right to supervise a utility's operating expenses
 - Whether expenses are “necessary” or “prudent”
 - Problems that may arise
 - Management votes themselves high salaries and pension
 - Affiliated companies receive excessive payments for fuel and/or services
 - Expenses for advertising, rate investigations and litigation overstated



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Operating Expenses, continued

- Methods of Supervision
 - Operating expenses may be controlled in two ways
 - Disallowing improper charges in the context of a rate proceeding
 - Prohibiting extravagant or unnecessary charges before they are incurred
 - “Below the line” versus “Above the line”
 - Below the line expenses are disallowed (non-recoverable) and are charged to shareholders
 - Expenses incurred as a result of non-utility business
 - Extravagant charges
 - Above the line expenses are allowed and charged to ratepayers



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Operating Expenses, continued

- “Above the line” (i.e., utility revenue) may include
 - Cost of fuel used in operations
 - Cost of purchased power, gas or water
 - Labor costs
 - Depreciation
 - Taxes and levies
 - Materials and supplied used in operations
- “Below the line” (i.e. not allowable) may include
 - Advertising
 - Abnormal bad debt experience



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Supervision of Specific Expenses

- Fuel costs
 - For electric and gas utilities, fuel costs can represent nearly 60% of operating expenses
 - Many commission allows automatic adjustment clauses for fuel costs
 - Provides for automatic adjustments by tracking the fluctuations in the cost of fuel over the year
 - In PA, gas utilities may update fuel costs quarterly, with review annually.
 - Allows the utility to avoid constantly filing rate cases to capture fuel costs
 - Criticisms
 - Permit rates to increase or decrease without a full hearing of a determination of the costs of service
 - The permit certain expenses other than fuel costs to be passed on to ratepayers
 - They can reduce the utility's incentive to minimize fuel costs



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Supervision of Specific Expenses

- Regulation and/or Rate Case Expense
 - Regulatory expenses in Pennsylvania are assessed to public utilities. These are allowable expenses.
 - Rate case expense: more complex problem
 - Consumers should not be forced to pay elaborate defenses of private interest.
 - “Reasonable and necessary” expenditures to prepare and present rate case are allowed and generally amortized over two to five years
- Salaries, Wages and Fringe Benefits
 - Wage rates are usually not controlled by Commission
 - Salary and fringe benefits may be challenged as excessive on occasion where they may be seen as a source of “concealed profit”



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Supervision of Specific Expenses

- Advertising, Promotion and Public Relations
 - Public relation activities (promotional advertisement) is not recoverable
- Uncollectible expense
 - The unpaid bills of other customers are appropriately included in a utility's operating expense.
 - Especially acute for those utilities servicing low income areas.



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Depreciation as an expense

- Depreciation as an annual charge to operating expenses, as opposed to accrued depreciation which is recorded from rate base.
- Basic purpose is to recover through revenues the costs invested in the physical plant that contribute to the production of those revenues
- Thus, capital employed to purchase utility plant is recovered from ratepayers for repayment to the investors
- “Straight line” depreciation
 - Cost of property is allocated in equal amounts over the estimated life of the asset



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Operating revenue

- Operating income is the result of subtracting operating expenses from operating revenue
 - Expenses are one part of the equation, revenue must also be considered
 - Operating revenue includes revenues from the provision of utility service
 - May include re-sales to other utilities
 - Rent from utility property
 - Forfeited discounts
 - Recreation fees for using utility-owned land



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Revenue Adjustments

- Weather normalization
 - For electric, gas and water utilities the level of sale can vary substantially when there are abnormal weather conditions.
 - Rates are to be established based on “normal” conditions, thus, where an abnormal weather situation has affected sales, it may require adjustment
 - Restates test year revenues
- Annualization adjustment
 - Calculates revenues based on an “average” number of customers since levels of customers may fluctuate over time
- Unbilled revenue
 - Revenues which the utility has earned by supplying service to customers, but which have not been billed to customers yet because of staggered meter reading dates
 - Usually estimated and included in total revenues



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Considerations

- Cost of service should reflect legitimate and reasonable operating expense and analysis should give consideration to:
 - Whether test year revenues and expenses reflect normal operations
 - Whether regulatory accounting is consistent with accounting methods employed for financial reporting purposes
e.g. taxes normalized for financial reporting, but charged through for rates)
 - Whether test year operating expenses are reasonable, prudent and actually incurred in the test year
- Review of submitted operating expenses are examined for appropriateness and whether allowed or disallowed is governed by agency rules