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Gainesville Regional Utilities

Revenue Requirement, Cost of Service Study, and Rate Design

October 11, 2012

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an independent member of BAKER TILLY INTERNATIONAL

Who is Baker Tilly?

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Company Overview

- Established in 1931
- One of the 20 largest accounting and advisory firms in the United States according to Accounting Today's 2012 "Top 100" list
- Over 170 partners and more than 1,400 professionals
- Offices in Wisconsin, Illinois, Michigan, Minnesota, New York, and Washington, D.C.

Nationwide energy practice

- More than 100 electric utility clients across North America
- Audit and consulting services, including rate studies
- Energy and Utilities Group focused exclusively on utilities

Baker Tilly Energy and Utility Clients

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Arizona
- Arizona Corporation Commission

California
- California Public Utilities Commission
- PG&E
- SCE
- SDG&E
- Burbank Water and Power
- Sacramento Municipal Utility
- Modesto Irrigation District
- Lassen Municipal Utility District

Colorado
- Colorado Springs Utilities

Florida
- Orlando Utilities Commission
- Florida Municipal Power Agency
- Gainesville Regional Utilities
- Lakeland Electric

Guam
- Guam Power Authority

Idaho
- Idaho Power

Illinois
- Illinois Municipal Electric Agency

Indiana
- Indiana Municipal Power Agency

Iowa
- Cedar Falls Utilities
- Muscatine Power and Water
- Waverly Light and Power

Kentucky
- Kentucky Municipal Power Agency

Massachusetts
- MMWEC

Michigan
- MI South Central Power Agency

Midwest Region
- Midwest Reliability Organization

Minnesota
- Otter Tail Power
- Utilities Plus
- Xcel Energy
- Laurentian Power Authority

Missouri
- Columbia Utilities
- Kansas City Power and Light

Nebraska
- Lincoln Electric System

New Mexico
- New Mexico Public Utilities Commission

North Carolina
- Charlotte Utilities

North Dakota
- Missouri Basin Power Project

New York
- Long Island Power Authority
- New York Public Service Commission
- Iberdrola USA

Ohio
- PUC of OH
- AMP-Ohio

Oklahoma
- OG&E
- Oklahoma Municipal Power Authority
- Grand River Dam Authority

Oregon
- Northern WASCO PUD

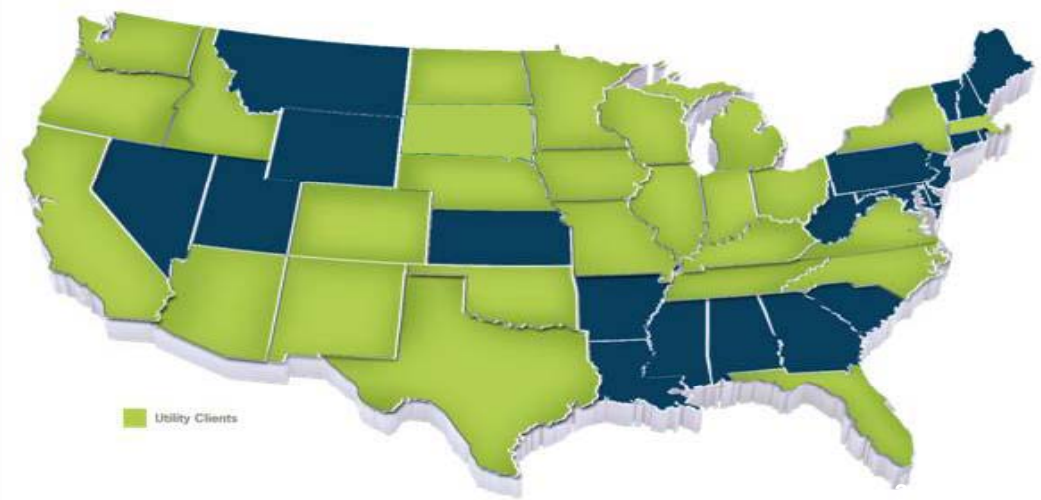
South Dakota
- Missouri Basin Municipal Power Agency
- Missouri Basin Municipal Electric Cooperative Association

Tennessee
- Pulaski Electric System

Texas
- Entergy
- CPS Energy
- Lower Colorado River Authority
- New Braunfels Utilities
- Bryan Texas Utilities

Washington
- Seattle City Light
- Snohomish PUD
- Avista

Wisconsin
- ATC
- PSCW
- WEnergies
- WPPI
- Madison Gas & Electric



Project overview

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Baker Tilly performed utility rate studies for GRU based on industry standard methods

- Electric
- Water
- Wastewater
- Natural Gas

GRU provided raw data for rate studies

What is a rate study?

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Purpose of a rate study

- Do rates provide enough revenue to meet utility costs?
- Does each customer class pay a fair portion of utility costs?

Utilities typically revise rates every three to five years.

A rate study compares revenue to cost for a defined interval of time, called a test period.

What is a customer class

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A customer class is a group of customers with a similar pattern of use it for a similar purpose.

Examples of customer classes are:

- Residential
- Commercial
- Large Industrial
- Wholesale

Other classes, such as irrigation, are used for specialized customers.

What is a test period?

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A rate study defines revenues, expenses, plant in service for a specific interval of time.

Only expenses and revenues pertaining to the test period are considered in the rate study.

Typically the test period is 12 months long, so it is called a test year.

Baker Tilly used a test year from October 2012 through September 2013, which coincides with GRU's 2013 fiscal year.

What are the parts of a rate study?

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Revenue Requirement

Cost of Service Study

Rate Design

What is a revenue requirement?

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A revenue requirement is a forecast of the total cost to provide utility service for the test year.

To continue operating, a utility needs revenues equal to its total cost.

How did Baker Tilly forecast the revenue requirement?

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Two industry standard methods of calculating a revenue requirement:

- Utility Basis
- Cash Basis

Often, the two methods produce a similar result.

GRU has calculated a cash basis revenue requirement in the past.

Baker Tilly used a utility basis revenue requirement

How did Baker Tilly forecast the revenue requirement? (cont.)

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The revenue requirement is divided into accounts based on the FERC Chart of Accounts.

FERC is the Federal Energy Regulatory Commission.

Baker Tilly forecasted the test year expense or plant in service for each FERC account.

How do cash basis and utility basis differ?

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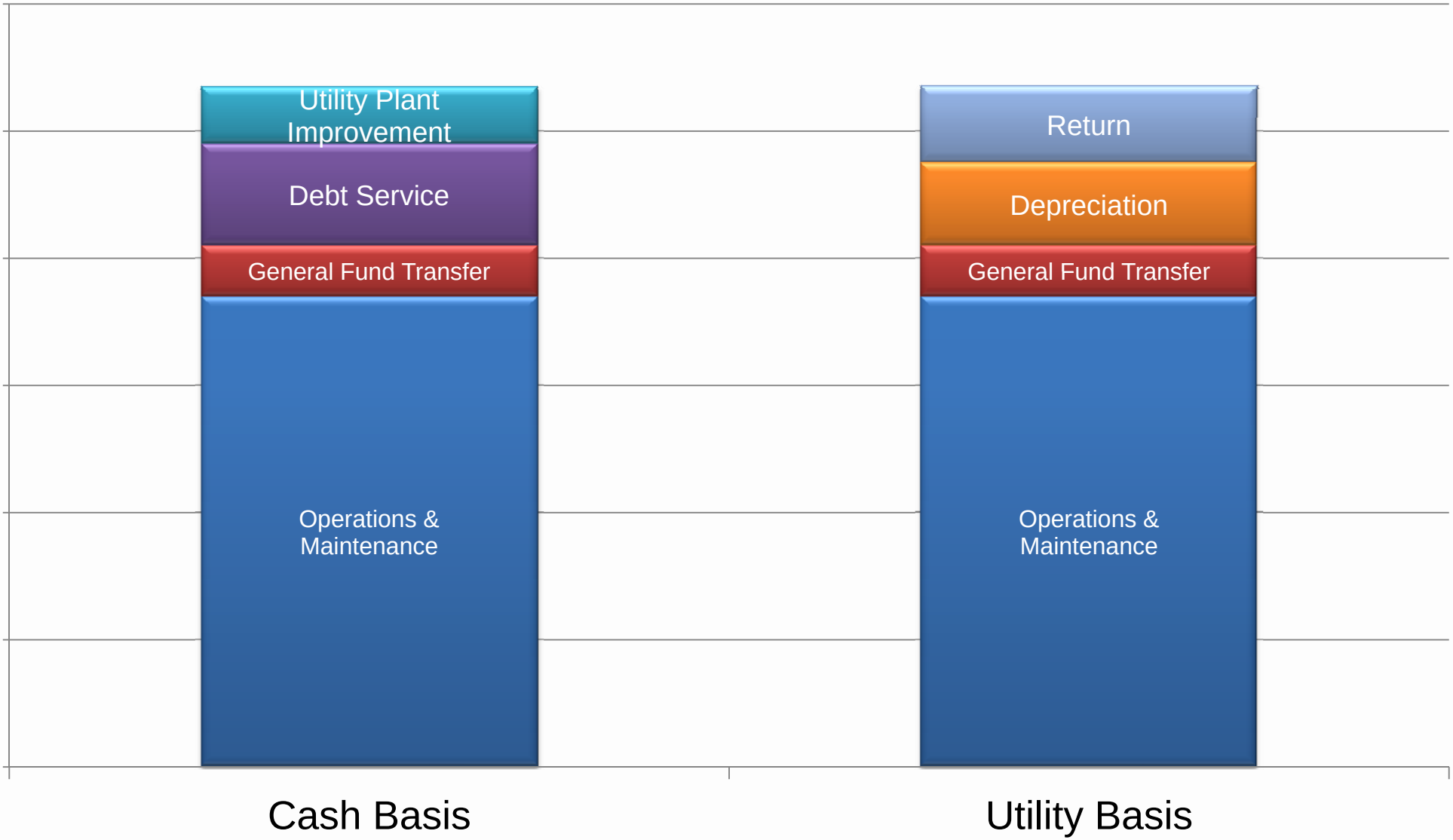

What are the parts of a revenue requirement?

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In the utility basis, a revenue requirement has six parts:

1. Operation and maintenance expenses
2. Depreciation
3. Return
4. General fund transfer
5. Rate stabilization transfer
6. Other revenues

What are operation and maintenance expenses

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Operation and maintenance expenses are the costs incurred to operate the utility and maintain infrastructure.

Examples of operation and maintenance:

- Fuel for generating electricity
- Labor to operate the generating plant
- Tree trimming around power lines
- Meter reading
- Bill processing

What is depreciation?

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Depreciation is the loss of an asset's value through wear and tear.

Baker Tilly used the industry standard of straight line depreciation.

What is a straight line depreciation?

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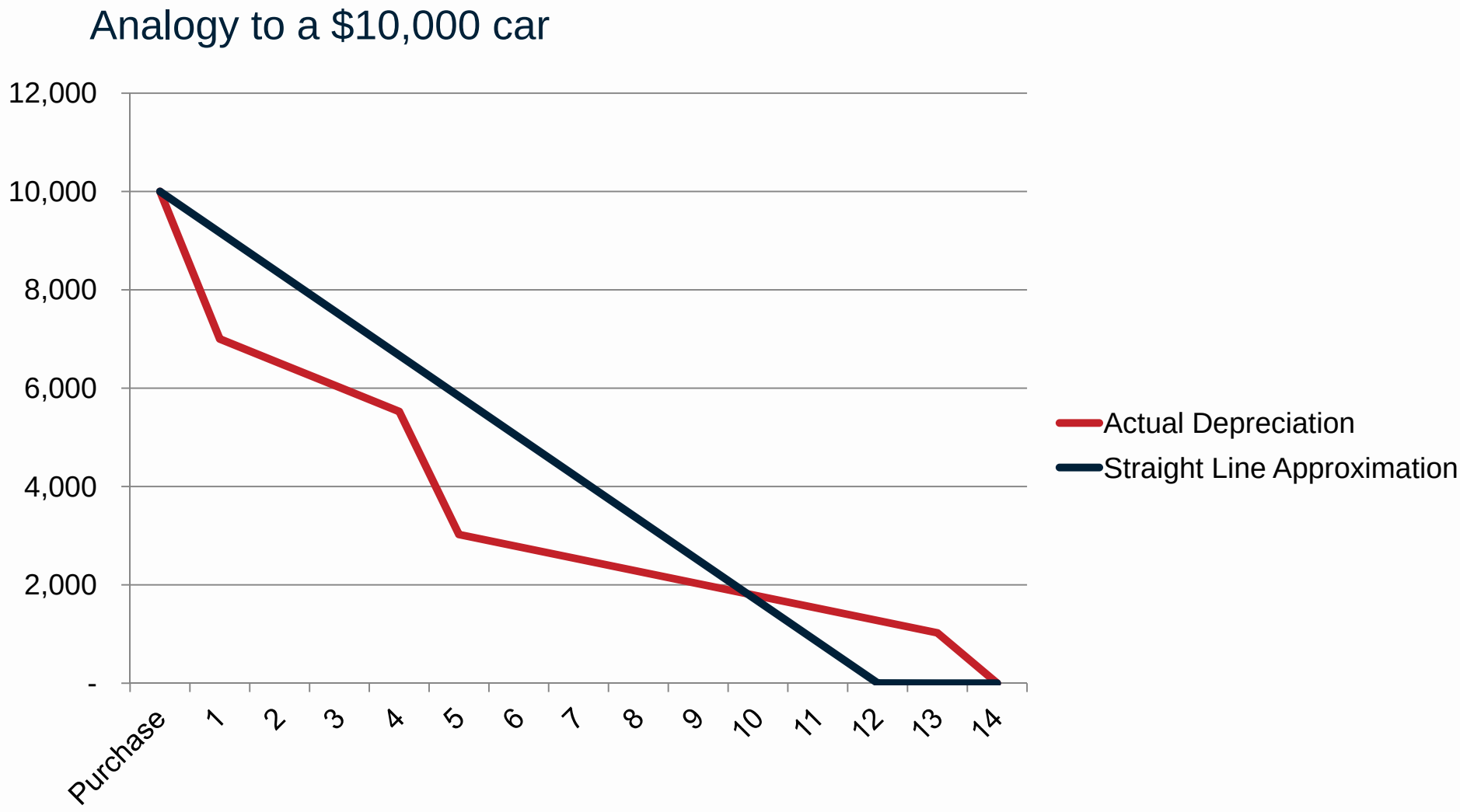

What is return?

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Return is the opportunity cost of the utility's investment in infrastructure to provide service.

Return pays bond holders and maintains the utility plant improvement fund.

Baker Tilly set return plus depreciation equal to debt service plus utility plant improvement.

An alternate way to think of return

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Cost of a car at time of purchase	$10,000
Cost of a car 14 years later	$15,500
Change in cost	$5,500

What is general fund transfer?

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As a municipal utility, GRU is exempt from property taxes.

But GRU makes a payment to the City of Gainesville in lieu of property taxes.

What is rate stabilization?

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Rate stabilization is the utility best practice of retaining unexpected revenue in one year to meet unexpected expenses in a future year.

This practice allows the utility to match revenues to expenses without changing rates.

What is rate stabilization? (cont.)

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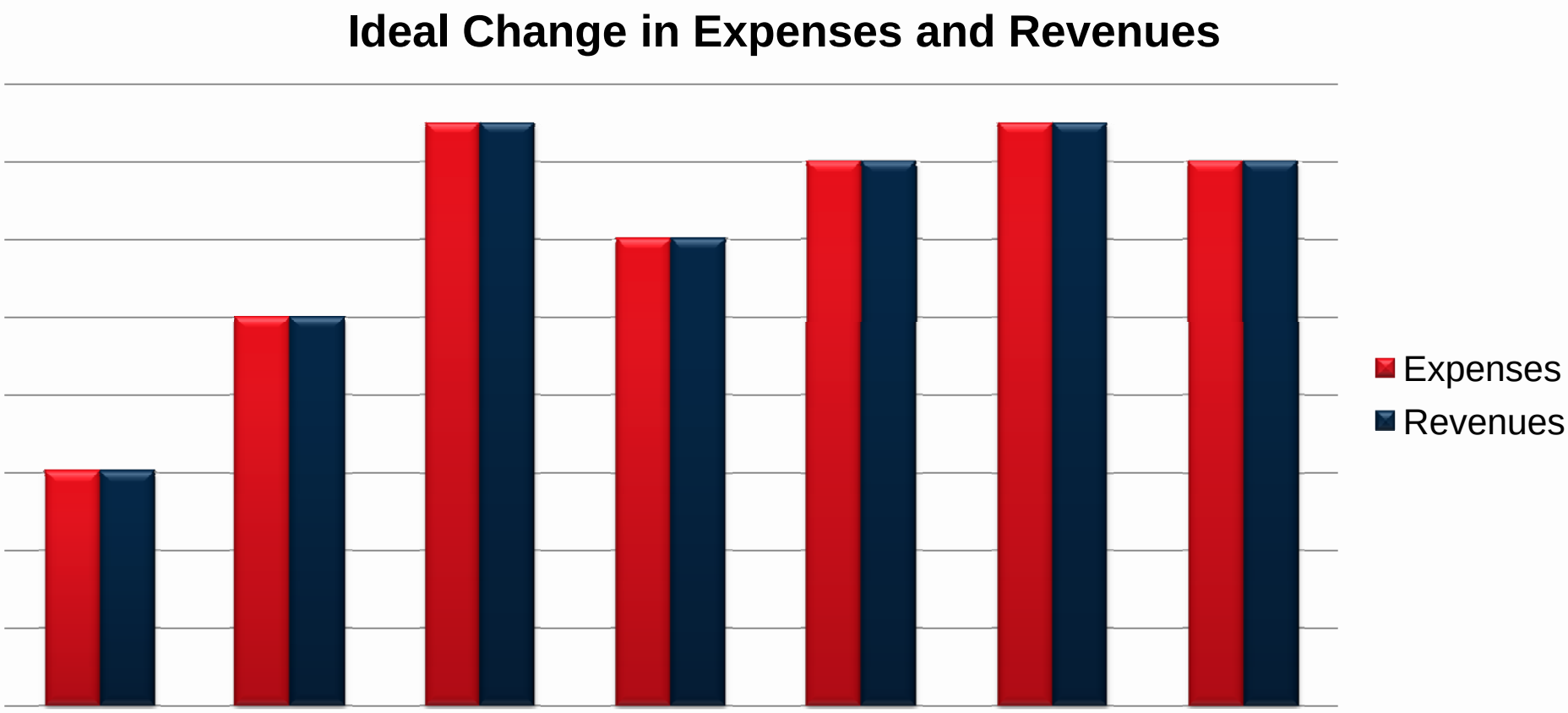
No rate changes required.



What is rate stabilization? (cont.)

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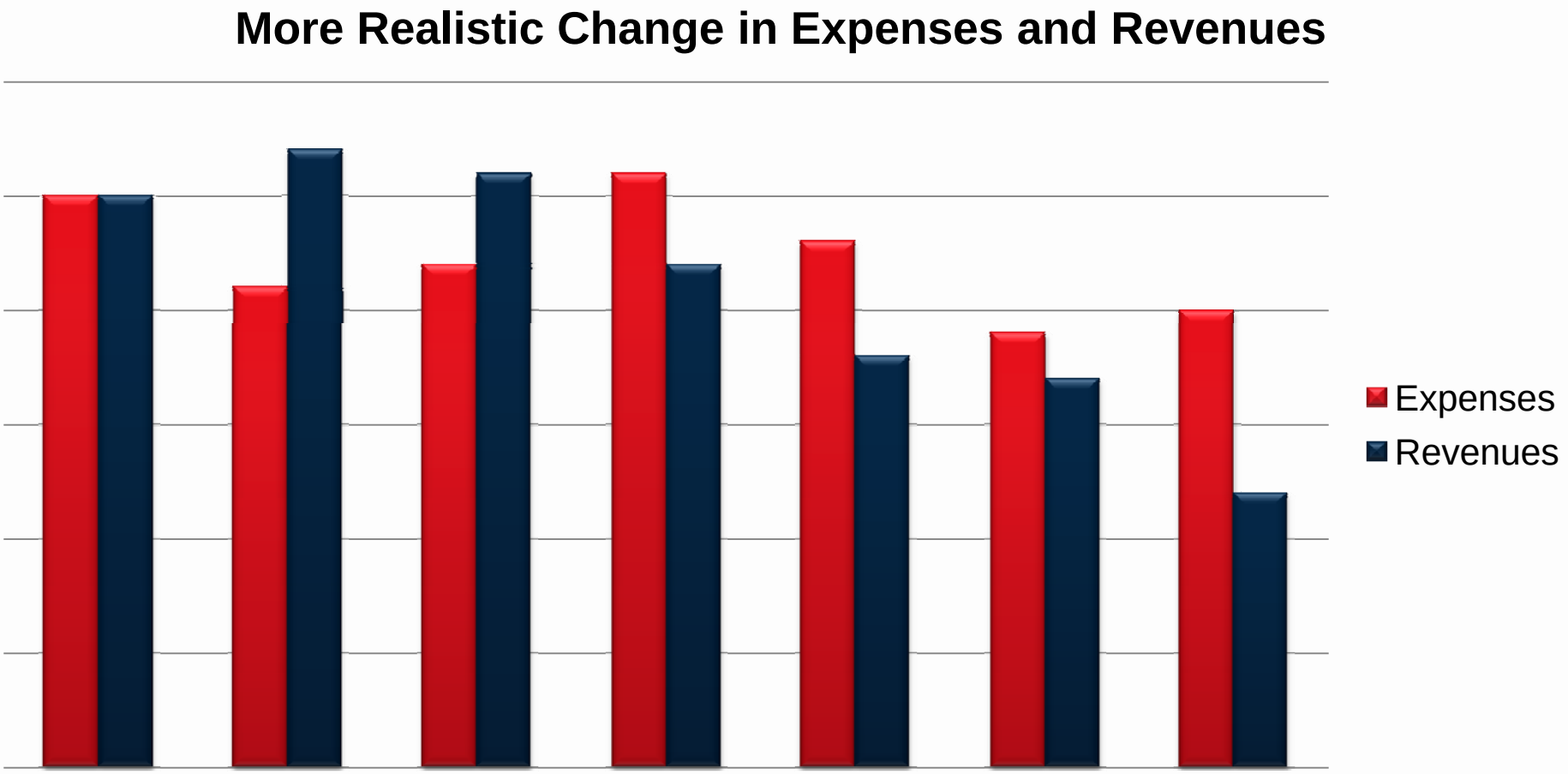
Frequent rate changes required to match revenue to expenses.



What is rate stabilization? (cont.)

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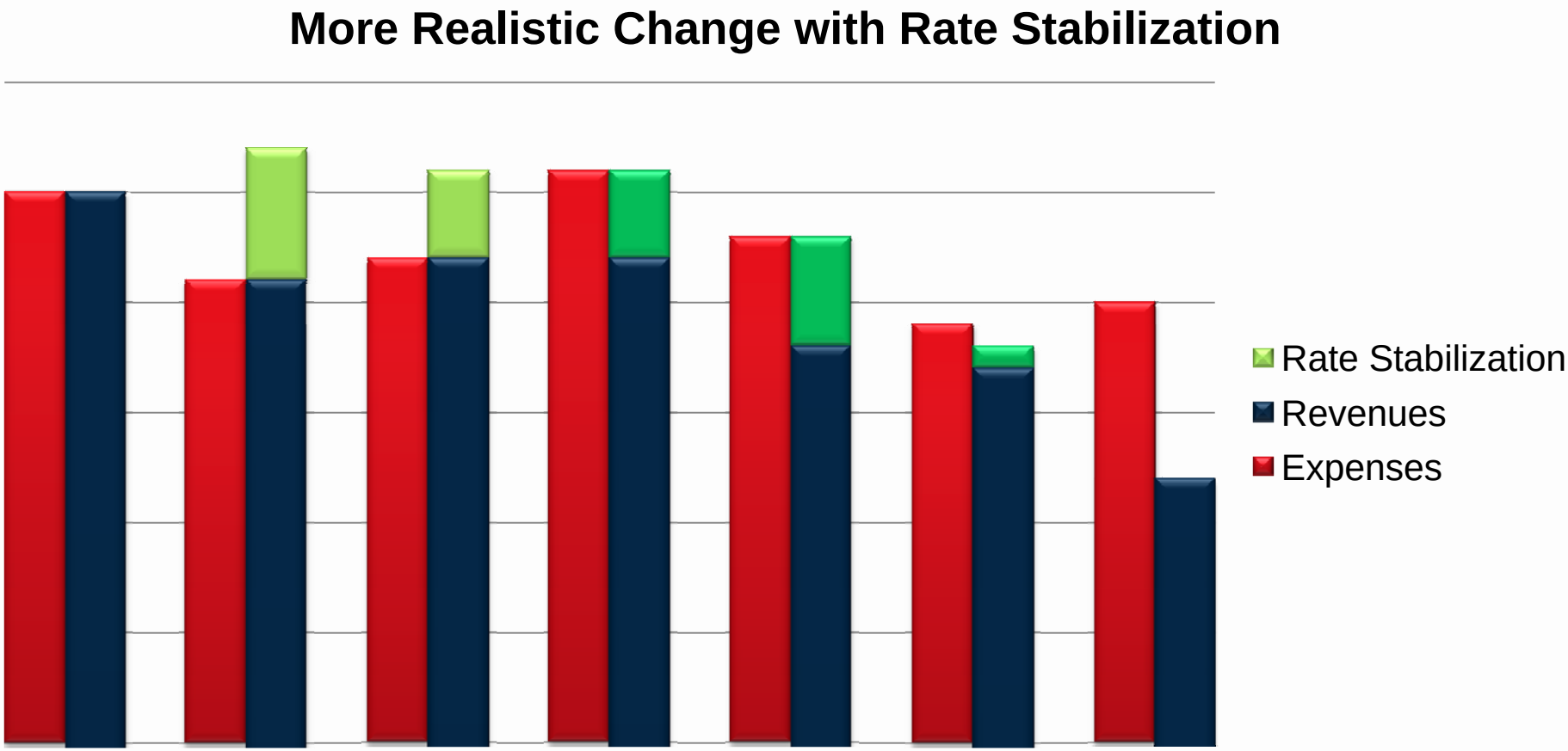
Rate stabilization fund delays the need for a rate change.



What are other revenues?

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Other revenues are revenues coming into GRU from any source other than sales of electricity.

- Electric surcharge
- Interest on utility savings
- Late charges
- Rent from utility property

Other revenues are subtracted from the revenue requirement.

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Cost of Service Study

What is a cost of service study?

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The cost of service study calculates how much each customer class should pay for service.

The cost of service breaks apart the revenue requirement and matches the cost for each class with the benefit received by that class.

What is a cost of service study? (cont.)

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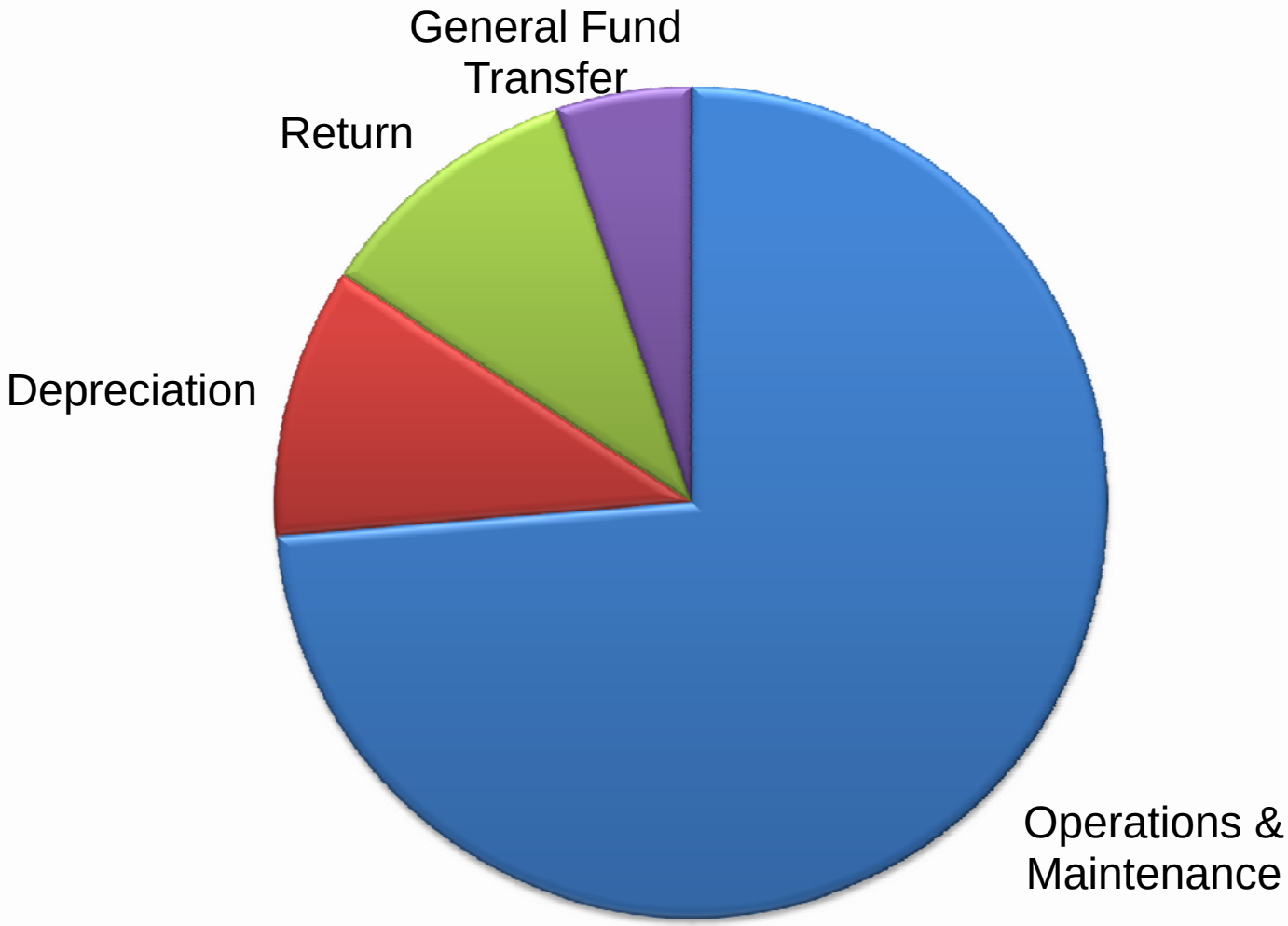

What is a cost of service study? (cont.)

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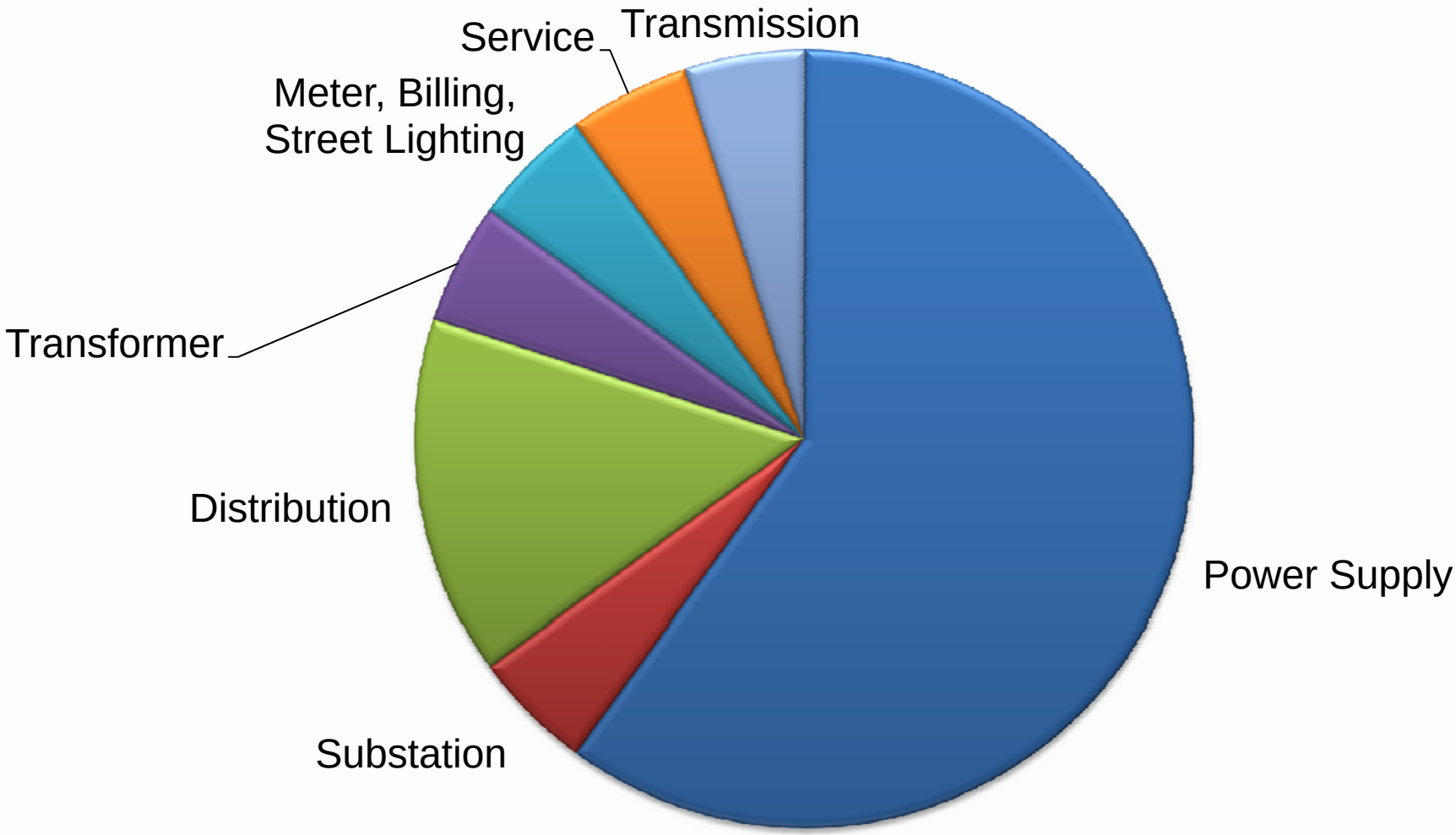

What is a cost of service study? (cont.)

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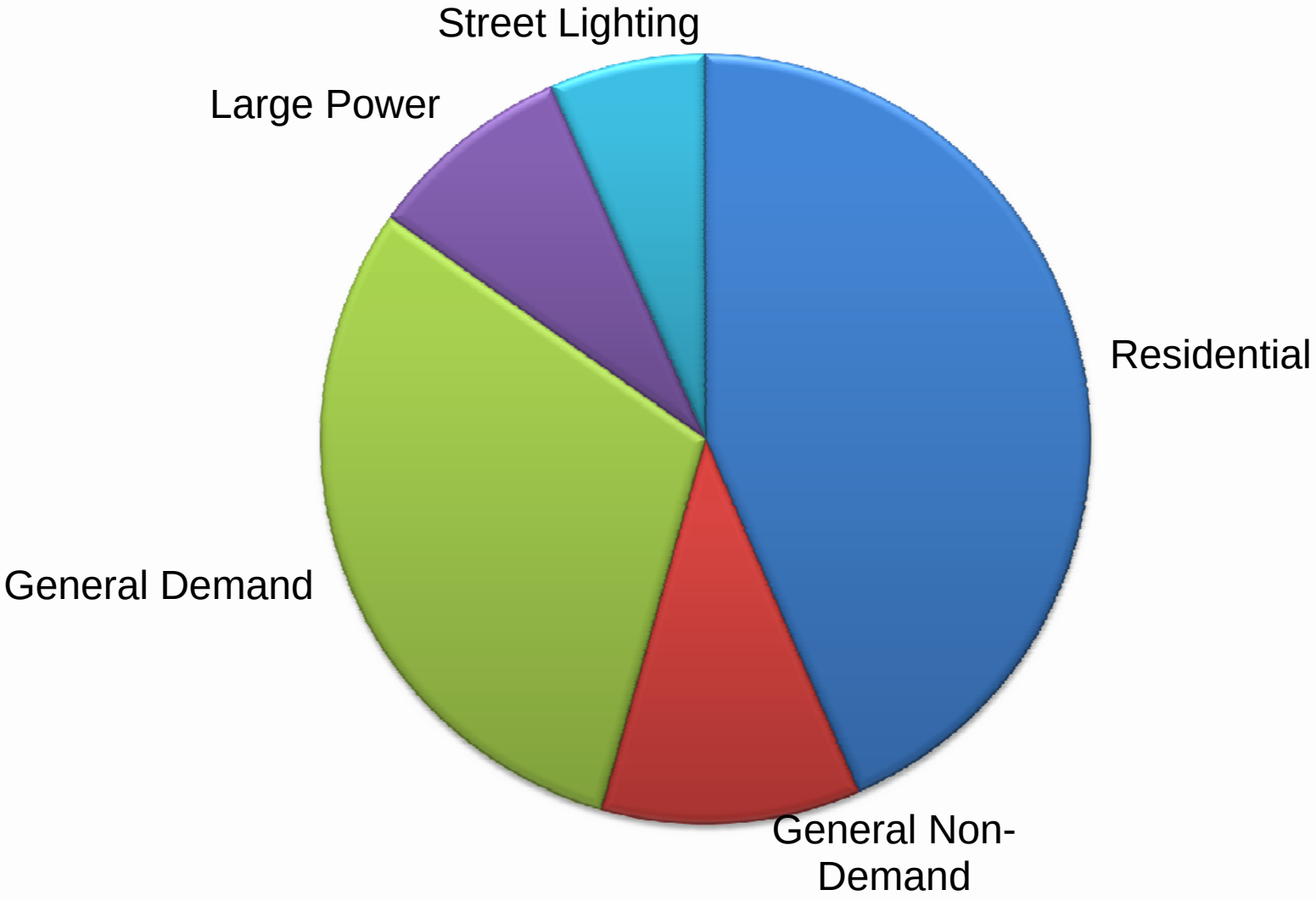

How does Baker Tilly perform a cost of service study?

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Use industry standard average embedded cost approach

Assign a utility function to each FERC account

Develop allocators to assign costs

- Number of customers
- Customer size
- Annual energy consumption
- Energy consumption during peak demand

Use allocators to distribute costs to customer classes

Fuel cost is allocated on the energy consumed by each class, so the per kWh fuel cost is the same for every class.

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Rate Design

What is a rate design?

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Baker Tilly revises GRU's rates to recover the appropriate revenue overall and from each customer class.

Customer related costs are recovered through a monthly charge per customer.

Demand costs are recovered through a charge per kW.

Energy costs are recovered through a charge per kWh.

How does Baker Tilly design rates?

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Divide customer costs by the number of customers.
Divide energy costs by the number of kWh.
Divide demand costs by the number of kW.

Other considerations:

- Continuity with existing rates
- Fairness to customers
- Promotion of efficient use
- Straightforward
- Based on costs
- Contractual obligations

Tiered rates add complexity, but may make rates more fair and promote efficient use.

What costs are in the customer charge?

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Costs incurred by the utility regardless of whether it sells any electricity.

Part of the cost for:

- Substations
- Wires
- Transformers
- Maintenance of generators

All of the costs for:

- Meters
- Services
- Meter reading
- Billing

What costs are in the customer charge? (cont.)

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Costs incurred by the utility that change with the amount of electricity provided.

Part of the cost for:

- Substations
- Wires
- Transformers

All of the costs for:

- Purchased power
- Fuel
- Transmission
- Capital cost of generators for some customer classes

What costs are in the demand charge?

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Costs incurred to meet peak system demand.

- Capital cost of generators
- Purchased power demand charges

Generators are sized to meet peak system demand, so the capital cost of generators is recovered through demand charges.

Questions?

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Thank you!