

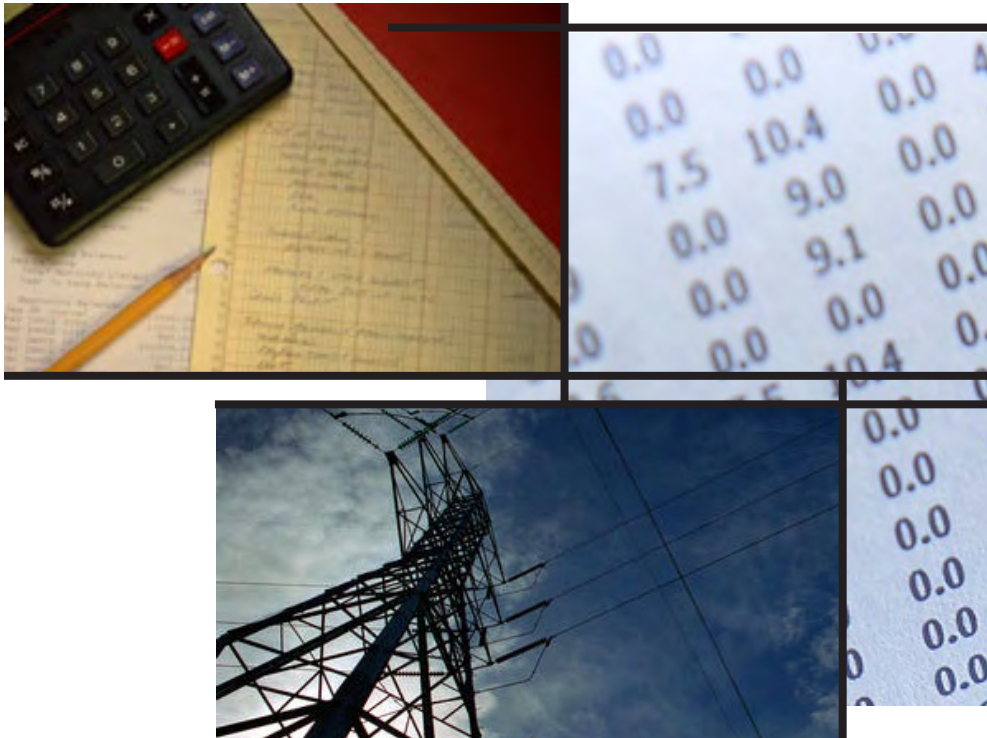
EUCI Presents Two Courses:

Introduction to Cost of Service Concepts and Techniques for Electric Utilities

August 4 – 5, 2008

Introduction to Rate Design for Electric Utilities

August 6 – 7, 2008



Testimonials from Previous Attendees

'I thought each speaker brought a new, different perspective and found each very engaging and informative.' -- M.F., Attorney, Winstead PC

'Appropriate length, good exercises, a good introduction to Cost; I thought the presenters collaborated well.' -- Z.A., Utility Analyst, Gridpoint, Inc.

'This class was very beneficial for me. It has given me more of a high level view of the 'Cost of Service' concepts and techniques.' -- O.W., Regulatory Affairs Coordinator, Entergy

**Hyatt Regency Minneapolis
Minneapolis, MN**



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Education for Energy
Professionals

Introduction to Cost of Service Concepts and Techniques for Electric Utilities

August 4 – 5, 2008

OVERVIEW

This two-day course will lead participants in detail through the cost of service process from start to finish. We will discuss and compare differences between investor owned utilities, municipal utilities, and electric cooperatives in cost of service principles and techniques. Both traditional and unbundled cost of service analytical techniques will be discussed. Each participant will complete a sample cost of service analysis during the course. Training materials will be provided.

WHO SHOULD ATTEND

This course is recommended for policy makers, managers, attorneys, regulators, key accounts representatives, accountants, engineers, and analysts who would like introductory hands-on training related to cost of service concepts and techniques for electric utilities.

RECOMMENDED BACKGROUND & REQUIREMENTS

No prior cost of service experience is required, although knowledge of utility system infrastructure, business environment, and operations will be helpful. **To participate in model development, a laptop computer with Microsoft Excel is required.**

PROGRAM AGENDA

MONDAY, AUGUST 4, 2008

Registration and Continental Breakfast: 7:30 – 8:00 a.m.
Course Timing: 8:00 a.m. – 4:30 p.m.

- **8:00 – 8:30 a.m.**
Course Overview and Introduction
 - Course objectives
 - Reference materials
 - Course overview
 - Steps in ratemaking process
 - Steps in cost of service process
 - Developing cost of service analysis – different perspectives
 - Interpreting cost of service results
- **8:30 – 9:00 a.m.**
Overview of Cost of Service Process
 - Process overview
 - Introduction
 - State regulatory process
 - Local regulatory process
 - Federal mandates
 - The cost of service team
 - Stakeholders
- **9:00 – 10:00 a.m.**
Study Preparation
 - Introduction
 - Four important considerations
 - Common supporting analyses to ensure success
 - Financial planning
 - Study period selection
 - Load research study
 - System loss study
 - Resource planning studies
 - Lighting study
 - Minimum system studies
 - Accounting for direct assignment
 - Load forecasting

Morning Break 10:00 – 10:15 a.m.

- **10:15 – 11:30 a.m.**
Policies, Objectives and Strategies
 - Introduction
 - Policies
 - Objectives
 - Strategies
 - Marginal vs. embedded costs
 - Cost unbundling
 - Competitive pricing
 - Time-of-use pricing support
 - Real-time pricing support
 - Varying return on investment
 - Cost recovery through rules and regulations
 - Other strategies

Group Luncheon 11:30 a.m. – 12:30 p.m.

- **12:30 – 3:15 p.m.**
Revenue Requirements
 - Introduction
 - Steps in rate design process
 - Definition
 - What is included in revenue requirement?
 - Test year concept
 - Known and measurable adjustments
 - Used and useful adjustments
 - Components
 - Utility approach (IOU)
 - Rate base
 - Components
 - Definitions
 - Return on rate base
 - Weighted Average Cost of Capital (WACC)
 - Cost of debt
 - Cost of equity
 - Utility approach (Regulated Cooperative)

Agenda Continued on Next Page

Introduction to Cost of Service Concepts and Techniques for Electric Utilities

August 4 – 5, 2008

MONDAY, AUGUST 4, 2008 (CONTINUED)

- o Cash approach (Municipal)
- o Debt service coverage ratio
- o Comparison
- o Adjustments to base rates
- o Introduction to cost of service model
- o Classroom exercise 1: Revenue requirement test year adjustment – Adding a new load
- o Classroom exercise 2: Revenue requirement test year adjustment – Adding a new resource

Afternoon Break 3:15 – 3:30 p.m.

- **3:30 – 4:30 p.m.**
Cost Allocation Methodologies
 - o Introduction
 - o Steps in ratemaking process
 - o Cost allocation – Common approaches
 - o Traditional bundled approach
 - o Embedded cost
 - o Marginal cost
 - o Unbundled approach
 - o Embedded cost
 - o Marginal cost

TUESDAY, AUGUST 5, 2008

Continental Breakfast: 7:30 – 8:00 a.m.
Course Timing: 8:00 a.m. – 4:30 p.m.

- **8:00 – 8:30 a.m.**
Review of Day 1
 - **8:30 – 10:00 a.m.**
Functionalization of Costs
 - o Introduction
 - o Steps in ratemaking process
 - Traditional bundled approach
 - Unbundled approach
 - o Business unit concept
 - o Products and services
 - o Allocations
 - Direct
 - Derived
 - o Classroom exercise 3: Functionally unbundling costs
- Morning Break 10:00 – 10:15 a.m.**
- **10:15 – 11:15 a.m.**
Classification of Costs
 - o Introduction
 - o Steps in ratemaking process
 - o Basic cost categories
 - o Fixed and variable costs
 - o Cost classifications
 - o Demand-related
 - o Energy-related
 - o Customer-related
 - o Revenue-related
 - o Direct assignments
 - o Classification of functions
 - o Special studies
 - o Minimum systems
 - o Zero intercept
 - o Special cases
 - o Substituting classifications
 - o Classroom exercise 4: Classification of distribution plant

- **11:15 – 11:45 a.m.**
Rate Class Determination
 - o Overview of issues
 - o Rate classes
 - o Number of classes
 - o Type of classes
 - o Classes within classes
 - o Cost of service support

Group Luncheon 11:45 a.m. – 12:45 p.m.

- **12:45 – 2:15 p.m.**
Development of Allocation Factors
 - o Introduction
 - o Steps in ratemaking process
 - o Demand allocation factors
 - o Coincident peak
 - o Non-coincident peak
 - o Sum of max demands
 - o Average and excess
 - o Other
 - o Energy allocation factors
 - o Customer allocation factors
 - o Revenue allocation factors
 - o Direct assignment
 - o Time-of-use implications
 - o Classroom exercise 5: Development of demand allocation factors
- **2:15 – 3:15 p.m.**
Allocation of Costs
 - o Classroom exercise 6: Allocated cost of service

Afternoon Break 3:15 – 3:30 p.m.

- **3:30 – 4:00 p.m.**
Interpreting Cost of Service Results
 - o Introduction
 - o Subsidization
 - o Interclass subsidization
 - o Intraclass subsidization

Course Wrap-up 4:00 – 4:30 p.m.

Introduction to Rate Design for Electric Utilities

August 6 – 7, 2008

OVERVIEW

This two-day course will introduce rate design concepts to participants. The course will build upon information discussed and developed in the Introduction to Cost of Service Concepts and Techniques for Electric Utilities. Each participant will work through sample rate design exercises during the course. Training materials will be provided.

WHO SHOULD ATTEND

This course is recommended for policy makers, managers, attorneys, regulators, key account representatives, accountants, engineers, and analysts who would like introductory hands-on training related to rate design concepts for electric utilities.

RECOMMENDED BACKGROUND AND REQUIREMENTS

No prior rate design experience is required, although knowledge of utility system infrastructure, business environment, and operations will be helpful. **To participate in model development, a laptop computer with Microsoft Excel is required.**

PROGRAM AGENDA

WEDNESDAY, AUGUST 6, 2008

Continental Breakfast: 7:30 – 8:00 a.m.

Course Timing: 8:00 a.m. – 4:45 p.m.

• **8:00 – 8:30 a.m.**

Course Overview and Introduction

- Introduction
 - Building on cost of service
 - Overlap
 - Background and requirements
- Instructors
- The process

• **8:30 – 9:30 a.m.**

General Ratemaking and Regulatory Principles

- Overview
- Introduction
- Bonbright principles
- Regulations
 - Factors
- Objectives
- Ratemaking guidelines
 - Factors
 - Rate adjustments
 - Competing objectives
- Equity
- Rate levels
- Social engineering
- Competition
- Simplicity

• **9:30 – 10:30 a.m.**

Applying Cost of Service Results

- Cost of service overview
- Developing cost curves
 - Bundled embedded cost
 - Unbundled embedded cost
 - Marginal cost

Morning Break 10:30 – 10:45 a.m.

• **10:45 – 11:30 a.m.**

Applying Cost of Service Results (cont'd)

- Evaluation of competitive alternatives

Group Luncheon 11:30 a.m. – 12:30 p.m.

12:30 – 1:30 p.m.

Applying Cost of Service Results (cont'd)

- Classroom exercise 1: Developing cost curves

• **1:30 – 3:15 p.m.**

Traditional Rate Design

- Rate overview
- Flat rate (energy only)
- Two part rate (customer/energy or energy/demand)
- Three part rate (energy/demand/customer)
- Blocked rates
 - Declining
 - Inclining
- Wright rate
- Relationship between rate design and cost curves
- Classroom exercise 2: Designing bundled rates

Afternoon Break 3:15 – 3:30 p.m.

• **3:30 – 4:30 p.m.**

Unbundled Rate Design

- Unbundled rate overview
- Traditional bundled vs. unbundled
- Examples of unbundled rate design
- Unbundling strategies
- Classroom exercise 3: Unbundled rate design

Introduction to Rate Design for Electric Utilities

August 6 – 7, 2008

THURSDAY, AUGUST 7, 2008

Continental Breakfast: 7:30 – 8:00 a.m.

Course Timing: 8:00 a.m. – 4:45 p.m.

• **8:00 – 9:00 a.m.**

Time Based Rates and Demand Management

- Review of EAct 2005
- Time of use overview
- Real time pricing
- Critical peak pricing
- Load reduction credits
- Other approaches
- Smart metering
- TOU
 - Seasonal
 - Daily
 - Hourly
 - Cost differentials
 - Variations
- Designing time-of-use rate
 - Time periods
 - Cost differentials
 - Price elasticity
 - Changes – Class load characteristics
 - Changes – Revenue
 - Changes – Time related costs
 - Rate level adjustments
- Demand management

• **Marginal Cost Pricing 9:00 - 10:15 a.m.**

- Resources
- Application and use
- Short run and long run
- Marginal cost of service process
- Develop functional marginal costs
- System peak plus margin
- Loss of load probability
- Marginal production costs
- Marginal transmission costs
- Plant investment method
- Planning method
- Marginal distribution costs
- Allocation method
- Revenue reconciliation method
- Inverse elasticity method
- Price elasticity
- Equi-proportional method
- Lump sum method
- Dilemma of reconciliation

Morning Break 10:15 – 10:30 a.m.

• **10:30 – 11:30 a.m.**

Classroom Exercise 4a – Residential Rate Design

Group Luncheon 11:30 a.m. – 12:30 p.m.

• **12:30 – 1:30 p.m.**

Classroom Exercise 4b – Commercial Rate Design

• **1:30 – 2:45 p.m.**

Electric Utility Pricing

- Overview
- Fundamental trends affecting electric utility pricing
 - Global changes
 - Utility environment
 - Customer environment
- Pricing implications
- Customer intimacy and competition
- Pricing implications
- Competitive assessment
- Transactional risk
- Risk management
- Pricing strategies

Afternoon Break 2:45 – 3:00 p.m.

• **3:00 – 3:30 p.m.**

Electric Utility Pricing (cont'd)

- Classroom exercise 5 – Special rate design: Solar installation

• **3:30 – 4:00 p.m.**

Special Rate Provisions

- Minimum bills
- Demand ratchets
- Power factor
- Service voltage
- Customer ownership of facilities
- Energy cost adjustment charges
- Net metering
- Others

• **4:00 – 4:30 p.m.**

Interclass Transitions and Communicating the Plan

- Introduction
- Rate form transition problems
- Promotional and special rates
- Confidence in data
- Summarize the process
- Known and measurable changes to test year
- Do not hide the facts
- Conclusions

Course Wrap-up 4:30 – 4:45 p.m.

Introduction to Cost of Service Concepts and Techniques for Electric Utilities and Introduction to Rate Design for Electric Utilities

ABOUT THE INSTRUCTORS

David A. Berg, P.E.

North Dakota State University: B.S. and M.S. in Electrical Engineering

As the Principal and National Director of R. W. Beck's Rates, Valuation, and Finance Practice, Mr. Berg brings 23 years of consulting experience to the public utility sector. His electric industry restructuring and pricing work has helped utilities stabilize their customer base and revenues in an increasingly complicated environment as well as in educating them on the particular industry changes that could affect their operations most significantly. His project feasibility, financing, and system acquisition projects have provided clients with a sound technical and financial basis upon which to make decisions on purchasing, selling, or modifying facilities. He understands the special issues confronting small and medium size municipal utilities, as well as the joint action agencies serving these utilities. He has also assisted industrial customers in analyzing particular industry issues that impact their operations.

Mr. Berg has been involved in financial and technical evaluation of power generation projects that utilize alternative fuels. These have included landfill gas, biomass, and wind generation projects.

Mr. Berg is a popular speaker at utility training sessions and at state and national conferences, due to his ability to focus on the essential points of complicated issues and to recommend actions appropriate to the audience.

Kenneth J. Mellor, P.E.

University of California, Berkeley: B.S. in Electrical Engineering

Ken Mellor is a Senior Director of Consulting in R. W. Beck's Sacramento office. Mr. Mellor has 44 years of experience in the utility industry. He spent 23 of these years in engineering and management positions at a large publicly owned utility. This included 10 years as the Chief Financial Officer.

Mr. Mellor served as Chairman of the American Public Power Association Rate Committee for two years. He has worked with a number of utilities on strategic rate design and competitive positioning and is the Firm's foremost expert on electric industry restructuring. Projects have included rate unbundling, market pricing, and the development of competitive changes to service rules and regulations.

Mr. Mellor has had lead responsibility for the issuance of over \$1 billion in long-term revenue bonds, \$120 million of intermediate put bonds, and has established and managed a commercial paper program of \$125 million. He has negotiated and implemented bank lines of credit and served as treasurer of three joint-action agencies, one utility district, and one non-profit agency. He has also had responsibility for investment of a portfolio averaging in excess of \$200 million.

Mr. Mellor has also worked in the Independent Engineer role for utilities, cities, joint-action agencies, lenders, and Independent Power Producers on a large number of transactions. This extensive experience with utility financing has reinforced the importance of effective revenue and rate design.

Jill Sangster, P.E.

University of Missouri: B.S. in Mechanical Engineering

University of Colorado: M.B.A.

Ms. Sangster is a Project Manager and Senior Engineer with R. W. Beck. Primarily responsible for engineering and economic analyses pertaining to regulated and the deregulating of power markets, she also assists the firm in teaching cost of service and rate design methodology courses. Her experience includes accountability for conducting cost of service, unbundling analysis, and rate design studies.

Ms. Sangster works not only for private but also public sector clients as she has a history of providing Consulting Engineer Reports for multiple municipalities. Additional experience Ms. Sangster contributes to R. W. Beck includes: dispatch modeling, feasibility studies, fuel price forecasting, market research, demand-side management evaluations, litigation support, and expert witness testimony.

Brown D. Thornton, P.E.

Tennessee Technological University: B.S. in Electrical Engineering

Vanderbilt University: M.B.A.

Mr. Thornton is a Vice President and Principal with R. W. Beck. He has more than 24 years of utility experience in consulting, management, operations, engineering, and construction. Mr. Thornton is involved in providing management consulting services, strategic and business planning, organizational reviews, financial and economic feasibility plans, system valuation studies, cost of service analysis and rate design, power supply planning, and contract negotiation.

Prior to joining R. W. Beck, Mr. Thornton worked for a major generation and transmission electrical utility as a strategic consultant, wholesale power contract administrator, billing analyst, project manager, operations supervisor, and field engineer. He leverages his broad experience base to work with utility management and governing bodies in engagements involving strategic planning, examination of complex issues, and decision making.

COURSE LOCATION

A room block has been reserved at the Hyatt Regency Minneapolis, 1300 Nicollet Mall, Minneapolis, MN 55403, for the nights of August 3-6, 2008. The rate is \$189 single/double for guest rooms. Call 612-370-1234 for reservations and mention the EUCI Conference to get the group rate. Make your reservations prior to July 15, 2008. There are a limited number of rooms available at the conference rate. Please make your reservations early.



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Web site: www.nasba.org

CPE CREDITS

Upon successful completion of this event, program participants interested in receiving CPE credits will receive a certificate of completion.

Introduction to Cost of Service Concepts and Techniques for Electric Utilities CPE Credits: 14.5
Introduction to Rate Design for Electric Utilities CPE Credits: 15

There is no prerequisite for these courses.
Program Level 1: Beginner
Delivery Method: Group-Live
Advanced Preparation: None

REMEMBER, EVERY 4TH REGISTRANT IS FREE!

REGISTRATION INFORMATION

For instant registration call (201) 871-0474 or fax Registration Form to (201) 767-1928.

Register 3, Send 4th Free!!

Any organization wishing to send multiple attendees to these conferences may send 1 FREE for every 3 delegates registered. Please note that all registrations must be made at the same time to qualify.

All cancellations received on or before July 4, 2008 will be subject to a \$195 processing fee. Written cancellations received after this date will create a credit of the tuition (less processing fee) good toward any other EUCI conference or publication. This credit will be good for six months. In case of conference cancellation, Electric Utility Consultants' liability is limited to refund of the conference registration fee only. For more information regarding administrative policies such as complaint contact our offices at (201) 871-0474

EUCI reserves the right to alter this program without prior notice.

MAIL DIRECTLY TO:

The Power Marketing Association (PMA)
P.O. Box 2303
Falls Church, VA 22042

FAX TO:

Form to (201) 767-1928

PHONE:

(201) 871-0474

PLEASE REGISTER THE FOLLOWING

Discounted Registration fee for Attending Introduction to Cost of Service Concepts and Techniques AND Introduction to Rate Design for Electric Utilities, August 4-7, 2008: \$2495
Early Bird Before July 25, 2008: \$2195

Introduction to Cost of Service Concepts and Techniques for Electric Utilities August 4-5, 2008 : \$1495, **Early Bird Before July 25, 2008: \$1295**

Introduction to Rate Design for Electric Utilities August 6-7, 2008: \$1495, **Early Bird Before July 25, 2008: \$1295**

Check here if you have any dietary or accessibility needs. We will contact you for more details.

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