Highlights of the Five Separate Courses

**ELECTRIC**
- Technology, History, Statutory Foundations, Restructuring
- Vertically Integrated vs. Distribution-Only Utilities
- Revenue Requirements & Adjustments to Test-Year Data
- System/Class Load Characteristics & Class Cost-of-Service Studies
- Basic Cost-Based Rate Design, Block Rates & Time-of-Use Rates
- Rate-Case Procedures, Integrated Resource Planning
- Demand-Side Management, Demand Response and Revenue De-coupling
- Regulatory Treatment of Renewable Energy and Net Metering

**WATER**
- Technology: System Design and Water Sources
- System and Customer Demand Characteristics
- Revenue Requirements
- Cost Allocation and Rate Design
- Water Conservation Rates
- Regulatory Procedures

**TELECOMMUNICATIONS**
- History and Industry Structure Technology: Circuit Switched, Packet Switched, and Wireless Networks
- State Regulatory Responsibilities
- Cost-of-Service Methods
- Alternative Forms of Regulation
- Universal Service Funding
- Intercarrier Compensation
- Local and Rural Competition
- Broadband Initiatives
- Activities at the New FCC

**NATURAL GAS: LDCS**
- Technology, Industry Structure, State Regulation
- LDC Interaction with Pipelines and the FERC
- Gas Procurement, Gas Cost Recovery, and Hedging
- Issues Facing Gas Utilities and State Commissions
- Outsourcing Options for LDC's
- The Process of Revenue Requirements
- Conducting a Cost-of-Service Study
- Designing Rates for LDC Customers

**NATURAL GAS: INTERSTATE PIPELINES**
- Technology, Industry Structure, Impact of FERC Orders
- Role of the FERC in Pipeline Regulation
- The Legal Process of Filing Rate Cases at the FERC
- The Process of Determining Revenue Requirements
- Conducting a Cost-of-Service Study
- Designing Rates for Various Pipeline Services
- Cost-Based Rates v. Market Based Rates
- Recent FERC Decisions Impacting the Pipeline Industry

Practical Regulatory Training for the Electric, Natural Gas, Telecommunications and Water Industries

May 10–15, 2009
Embassy Suites
Albuquerque, NM
PROGRAM OUTLINE
Electric Industry

SUNDAY, MAY 10
6:30 – 8:00 p.m.: Registration and Reception

INSTRUCTORS

MONDAY, MAY 11
8:00 – 8:15 Welcome, and Overview of Course
Doug Gegax
8:15 – 12:00 Introduction to the Technology, Institutions and History of the Electric Industry
Doug Gegax
Electricity, Generation Technologies, Network Components
System Operations, Ancillary Services & Interconnected Utilities
The Basic Structure of Electric Utility Regulation
Key Federal Statutes Affecting the Industry and FERC Orders 888 & 2000
Wholesale & Retail Restructuring – Regional Differences in Industry Structure
Distribution-Only Utilities vs. Vertically-Integrated Utilities
1:00 – 4:45 Overall Cost of Service/Revenue Requirements
Bill Steele
Components of Revenue Requirements – Rate Base, Expenses
Taxes, Depreciation and Net Operating Income
The Components of the Weighted Average Cost of Capital
What Triggers a Rate Case and Who are the Players
The Book Data, Uniform System of Accounts & FERC Form 1; Test Year
Adjusted Revenue Requirements at Present & Proposed Rates
4:45 – 5:15 Set up Revenue Requirements Problem
Doug Gegax

TUESDAY, MAY 12
8:00 – 11:15 Revenue Requirements Problem
Gegax/Steele
11:15 – 12:00 Discussion of Revenue Requirements Problem
Bill Steele
1:00 – 3:00 Total System and Class-Specific Load Characteristics
Larry Blank
Load Curves, Load Factor, Coincidental Peak Demand
Non-Coincidental Peak Demand, Average-Excess Demand
Overview of Class Cost-of-Service (COS) Studies
3:15 – 5:00 COS Studies: Cost Functionalization
Doug Gegax
COS Studies: Cost Classification

WEDNESDAY, MAY 13
8:00 – 10:00 COS Studies: Cost Allocation
Blank/Gegax
Summary of Revenue Requirements and COS Studies
10:15 – 12:00 Introduction to Rate Design
Blank/Gegax
Components of a Tariff and Criteria for a Sound Rate Design
Base Rates & Automatic Adjustment Clauses
Billing Determinants & Customer, Energy and Demand Charges (Rates)
Class Rate Design Alternatives: Determining Rate Elements by Class
1:00 – 7:00 p.m. Trip to Santa Fe (optional)

THURSDAY, MAY 14
8:00 – 10:30 Issues Surrounding Fixed-Cost Recovery through the Energy Charge
Blank/Gegax
Metering Issues and Class Demand versus Billing Demand
Block Rate Design, Interruptible-Service Rates and Time-of-Use Rates
Rate Design Issues for Distribution-Only Utilities and Standard-Offer Service
10:45 – 12:00 Integrated Resource Planning
Tim Scanlon
1:00 – 3:00 Demand-Side Management (DSM) & Demand Response
Tim Scanlon
Revenue De-Coupling: What is it; Where and Why is it Used
3:30 – 5:00 Green Power, Renewable Portfolio Standards, Renewable Energy Credits
Net Metering

FRIDAY, MAY 15
8:30 – 9:30 Service Tariff Terms and Conditions
Larry Blank
9:30 – 11:00 Step-by-Step Process and Procedures of a Rate Case: The Utility Application,
Building the Written Record, Settlement vs. Contested Hearing,
The Final Order and Procedures for Appeals
PROGRAM OUTLINE
Water Industry

SUNDAY MAY 10  6:30 – 8:00 Registration and Reception

MONDAY, MAY 11
8:00 – 12:00  Total System and Customer-Class Demand Characteristics: Tom McGuckin
  Time pattern of consumption:
  Peak and Average Demand vs. Consumption
    Non-Coincidental vs. Coincidental Peak Demand, Maximum Day vs. Maximum Hour Measurements, Diversity Factors
  The Extra Capacity Requirement for Fire Protection
  Computing and Using Demand vs. Commodity Allocators

1:00 – 5:00  What is Cost-of-Service and the Purpose of Rates? Tom McGuckin
  Overall Cost- of-Service/Revenue Requirements
  Test -Year Data
  Expenses, Taxes and Depreciation
  Rate Base
  Capital Structure, Cost-of-Capital, and Fair Return

TUESDAY, MAY 12
8:00 – 12:00  Trends and Technology Tom McGuckin
  Basic Water System Design and Water Sources
  The Extra Capacity Requirement for Fire Protection
  Redundancy and Metering Issues
  Industry Structure and History of the Water Industry
  Impact of Federal Regulations on Water Providers
  The Need to Refurbish, Upgrade, and Build New Infrastructure

1:00 – 5:00  Class Cost-of-Service: Dividing the Total Revenue Requirement Jim Sarikas
  Functionalization
  Classification
  Allocation

WEDNESDAY, MAY 13
8:00 – 12:00  Revenue Requirements and Cost-of-Service Problem Jim Sarikas

1:00 – 7:00  Trip to Santa Fe (optional)

THURSDAY, MAY 14
8:00 – 12:00  Cost-Based Rate Design Alternatives: Tom McGuckin
  Introduction to Rate Design:
    Components of a Tariff and Criteria for a Sound Rate Design
  Metering Issues
  Determining Class Rate Elements: Commodity and Customer Charges
  Interruptible Rates/Load-Factor Rate Design

1:00 – 2:30  Water Conservation Rate Design Tom McGuckin
  Increasing Block Structures
  The Issue of Lifeline Rates
  Seasonal and Time-of-Use Rates

2:45 – 5:00  Water Utility Acquisitions Gary Shambaugh

FRIDAY, MAY 15
8:30 – 9:30  Service Tariff Terms and Conditions Larry Blank
9:30 – 11:00  Step-by-Step Process and Procedures of a Rate Case: The Utility Application, Building the Written Record, Settlement vs. Contested Hearing, The Final Order and Procedures for Appeals
PROGRAM OUTLINE

Telecommunications Industry

SUNDAY, MAY 10
6:30 – 8:00 p.m. Registration and Reception

MONDAY, MAY 11
8:00 – 9:00
Orientation and Overview of the Course

9:00 – 11:00
Telecommunications History & Current Industry Structure
Larry Blank
Communications Act of 1934
Policy and Regulation with Old Ma Bell
How Competitive Pressures Instituted Policy Change
The Break-up of AT&T
The Telecommunications Act of 1996 (State Responsibilities)
Recent Policy Issues
The Industry Today

10:15 – 1:00
Calling Area Issues & Intercarrier Compensation
Gary Duncan
Local Exchange Calling Area
Wireless Calling Area/Major Trading Area
Extended Area Service (EAS)

11:00 – 12:00
Interfacing Technology, Cost Methodology, and Pricing
Bill Steele

1:00 – 7:00 pm
Trip to Santa Fe (Optional)

THURSDAY, MAY 14
8:00 – 9:45
Universal Service Funds
Bonnie Lorang
Federal Universal Service High Cost Program
State Universal Service Programs
Universal Service Funds Definitions
Universal Service Funds Contributions
Universal Service Funds Distribution
Rural vs. Non-rural LECs

10:00 – 12:00
Universal Service Funds Eligible Telecommunications Carriers (ETCs)
Bonnie Lorang
Certification of Eligibility (ETC)
Study Area Determination
Incumbent and Competitive ETCs
ETC Responsibilities
FCC and State Oversight of ETCs
Other FCC and State USF Responsibilities:
Federal Low Income, Schools and Libraries, and Health Care Programs

1:00 – 3:00
Intercarrier Compensation
Carey Roesel
The Basis for Intercarrier Compensation
Federal Access Charges
Intrastate Access Charges
Reciprocal Compensation
Interconnection Agreements
ISP Traffic
Virtual NXX Issues
Phantom Traffic Issues

3:15 – 5:00
Local Competition and State Regulation
Joe Gillan
Types of Local Competition
Interconnection Agreements and Arbitrations
Rural Exemption Waivers
Wholesale Service Rates
VoIP Policy, Competition, and Regulation
Packet Interconnection

FRIDAY, MAY 15
8:00 – 11:00
Bringing it all together on Telecommunications Regulation
Joe Gillan
Industry Structure & Technologies
Retail Service Regulation
Wholesale Service Regulation
Universal Service
Intercarrier Compensation
Local Competition
Broadband Initiatives
Activities at the New FCC

TUESDAY, MAY 12
8:00 – 11:00
Tour of Qwest Facilities (Bus will depart at 8:15)

11:00 – 11:45
The State Regulatory Agency
Gary Duncan
Statutory Authority
Administrative Rules
Due Process Operations

1:00 – 2:45
Cost-of-Service Methods
Duncan/Steele
Revenue Requirements
(Embedded or Historical Total Cost-of-Service Methods)
Separation of Costs between Federal and State Jurisdictions
Separation of Costs between Regulated and Unregulated Services
Allocation of Costs among Regulated Local Services
Total Service Long Run Incremental Cost (TSLRIC)
Total Element Long Run Incremental Cost (TELRIC)
Cost Proxy Models
Avoided Cost-of-Service

3:00 – 4:00
Alternative Forms of Regulation
Gary Duncan
Traditional Rate-of-Return Regulation
Price Regulation/Price Caps
Revenue Sharing
Profit Sharing
Price Floors for Competitive Services

4:00 – 5:00
Why Tariffs and What's in a Tariff?
Bill Steele
Tariff filings
Terms and Conditions
Select Rules
Service Rate Schedules

WEDNESDAY, MAY 13
8:00 – 9:00
Service Quality Regulation
Bill Steele
Wholesale vs. Retail
Quality Measures Utilized
Recourse for Below Standard Performance

9:00 – 10:00
Numbering Issues
Duncan/Steele
North American Numbering Plan Administration
Number Pooling, Number Blocks, and Safety Valve
Number Portability
The Process of Adding an Area Code
The Basics of E-911
Other N11 issues

11:00 – 12:00
Networks and Technology Basics
Larry Blank
The Public Switched Telephone Network
The Internet and Packet Switched Networks
Wireless Networks

1:00 – 3:00
Networks and Technology Basics (continued)

3:15 – 4:00
Voice over Internet Protocol (VoIP)
VoIP Categories and History
Larry Blank

4:00 – 5:00
Introduction to State Telecommunications Regulation
Larry Blank
Regulated Carriers/Services
Non-regulated Carriers/Services
Wholesale vs. Retail Regulatory Functions

1:00 – 2:45
Cost-of-Service Methods
Duncan/Steele
Revenue Requirements
(Embedded or Historical Total Cost-of-Service Methods)
Separation of Costs between Federal and State Jurisdictions
Separation of Costs between Regulated and Unregulated Services
Allocation of Costs among Regulated Local Services
Total Service Long Run Incremental Cost (TSLRIC)
Total Element Long Run Incremental Cost (TELRIC)
Cost Proxy Models
Avoided Cost-of-Service

3:00 – 4:00
Alternative Forms of Regulation
Gary Duncan
Traditional Rate-of-Return Regulation
Price Regulation/Price Caps
Revenue Sharing
Profit Sharing
Price Floors for Competitive Services

4:00 – 5:00
Why Tariffs and What's in a Tariff?
Bill Steele
Tariff filings
Terms and Conditions
Select Rules
Service Rate Schedules

WEDNESDAY, MAY 13
8:00 – 9:00
Service Quality Regulation
Bill Steele
Wholesale vs. Retail
Quality Measures Utilized
Recourse for Below Standard Performance

9:00 – 10:00
Numbering Issues
Duncan/Steele
North American Numbering Plan Administration
Number Pooling, Number Blocks, and Safety Valve
Number Portability
The Process of Adding an Area Code
The Basics of E-911
Other N11 issues
PROGRAM OUTLINE
Natural Gas Industry: Interstate Pipelines

SUNDAY, MAY 10
6:30 – 8:00 p.m.: Registration and Reception

MONDAY, MAY 11
8:00 – 8:15 Welcome and Overview of Course
Welcome and Overview of Course
8:15 – 12:00 Overview of the Natural Gas Industry
Technology
Moving Gas from the Wellhead to the Burner Tip
Segments and Players of the Natural Gas Industry
Production
Processing
Transportation
Storage
Marketers
Asset Management
Marketing Hubs
Retail Distribution

Federal Jurisdiction
The Federal Energy Regulatory Commission
The Role of FERC
Pipeline Services Regulated by FERC
Pipeline Services Not Regulated by FERC
How Have FERC Orders Altered the Structure of the Gas Industry?

1:00 – 5:00 The Legal Procedure of Filing a Rate Case At The FERC
Types of Proceedings:
Section 4 and 5 Cases
Filing Requirements
The "Just and Reasonable" Standard
Section 7 Cases
Filing Requirements
The "Public Interest" Standard
Other Ratemaking Methods Used by the FERC
Litigation vs. Settlement
Why are Most Rate Cases Settled at the FERC?
What are FERC "Top Sheets"?

TUESDAY, MAY 12
8:00 – 12:00 FERC Requirements for Determining "Just and Reasonable" Rates
Overview of the 5 Steps Involved in Cost-of-Service Ratemaking
Step 1: Establishing a Cost-of-Service
Base Period vs. Test Period
O&M/A&G Expenses
Rate Base
Rate of Return
What should be included in the Test Period?

1:00 – 5:00 Cost of Service Problem
Introduction of Cost of Service Problem
Presentation of Group Solutions
Review and Summary of Cost of Service

WEDNESDAY, MAY 13
8:00 – 12:00 Step 2: Functionalization of Cost of Service
Direct Assignment vs. Allocation
Kansas-Nebraska (" KN") Methodology
Step 3: Cost Classification
Fixed vs. Variable
Reservation vs. Delivery
Changes to Rate Design Policy over Time
Impact of Load Factor

1:00 – 7:00 Trip to Santa Fe (Optional)

THURSDAY, MAY 14
8:00 – 5:00 Steps 4 & 5: Cost Allocation and Rate Design
Allocation Factors and Billing Determinants
Firm Rates
Interruptible Rates
Types of Cost-Based Rate Design
Alternate Rate Design Methodologies
Discount Adjustments
Rate Design Problem
Introduction of Rate Design Problem
Presentation of Group Solutions
Review and Summary of Rate Design
Rate Design Proposals on the Horizon

FRIDAY, MAY 15
8:30 – 10:00 What's Hot at the FERC
10:00 – 11:00 Summing it All Up

INSTRUCTORS
David Smith
Todd Piczak
Johnson/Russell
Johnson/Russell
Johnson/Russell
Smead/Smith
PROGRAM OUTLINE
Natural Gas Industry: Local Distribution Companies

SUNDAY, MAY 10  6:30 – 8:00 p.m. Registration and Reception

MONDAY, MAY 11
8:00 – 8:15 Welcome and Overview of Course
8:15 – 12:00 Overview of the Natural Gas Industry Technology
Moving Gas from the Wellhead to the Burner Tip
Segments and Players of the Natural Gas Industry
Federal and State Rate Regulation
Federal Jurisdiction - The Federal Energy Regulatory Commission
State Jurisdiction - State Regulatory Commissions
Local Distribution Companies
Role of the LDC
LDCs and Pipelines
LDCs and the FERC
Gas Procurement
Procuring Gas
Interstate Pipeline Services
Storage
1:00 – 3:00 Gas Cost Recovery
PGA Recovery
Automatic Adjustments
Performance Based Rates
Gas Cost Hedging
Physical Hedges
Financial Hedges
3:00 – 5:00 Key Issues Facing Gas Utilities and State Public Utility
Financial Speculation in Natural Gas
Regulatory Oversight of Gas Supply Planning and Procurement
Recent Developments in Natural Gas Markets
Outsourcing of Gas Utility Functions

TUESDAY, MAY 12
8:00 – 12:00 The Process of Determining Revenue Requirements
Rate Base, Expenses, Taxes, Depreciation and Net Operating Income
Determining the Components of the Rate of Return
The Test-Year, Adjusted Revenues at Present and Proposed Rates
1:00 – 5:00 Revenue Requirements or the Total Cost of Service
Revenue Requirements Problem

WEDNESDAY, MAY 13
8:00 – 12:00 Assigning Costs to Various Customer Classes
What is a Class Cost-of-Service Study?
Steps Involved in a Class Cost-of-Service Study:
Functionalization
Classifying
Allocation
Class Cost-of-Service Problem
1:00 – 7:00 Trip to Santa Fe (optional)

THURSDAY, MAY 14
8:00 – 10:00 Cost-of-Service Study (Continued)
10:00 – 5:00 The Final Step: Rate Design—Recovering Assigned Costs From Various Customer Classes
What is Rate Design?
Criteria Used to Determine Rates
Components Found in a Tariff
Types of Rate Designs Used by LDC’s Today
Rate Design Problem

FRIDAY, MAY 15 (Combined Session for Gas and Electric)
9:30 – 11:00 Step-by-Step Process and Procedures of a Rate Case: The Utility Application,
Building the Written Record, Settlement vs. Contested Hearing
Procedures, The Final Order and Procedures for Appeals
GENERAL INFORMATION

LOCATION and HOTEL RESERVATIONS: The conference will be held at the Embassy Suites Uptown, 1000 Woodward Place NE, Albuquerque, NM. A block of rooms has been reserved at a special rate of $129. To guarantee this rate, reservations must be received on or before April 9, 2009. Reservations can be made by calling 1-800-EMBASSY and mention Basics of Regulation or you can register online at www.embassysuites.com – Convention Code BAS.

COST: The registration fee is $1095 for company representatives; $995 for center sponsors, state commissions and all other governmental entities. The fee covers all instructional materials presented, the reception, transportation to Santa Fe, breakfast each morning, and coffee breaks. The fee does not include travel, hotel accommodations or meals other than those specified.

CLE and CPE CREDIT: While NMSU does not apply to each state as a sponsor, CLE and CPE credits have been given by numerous states on an individual basis. Each individual requesting CLE and CPE credits should contact their state board individually prior to the course and notify the CPU if there are special requirements. You will receive a certificate of completion for this course.

REGISTRATION: MUST BE MADE IN ADVANCE. To reserve a space, telephone 575-646-4876 or 575-646-3242, send a fax to 575-646-6025, e-mail to jeanewal@nmsu.edu, or mail your completed enrollment form to the address below. You will receive confirmation of your registration prior to the course. Payment by check or credit card with enrollment is preferred.

CANCELLATION POLICY: If notice is received more than five working days prior to the meeting, the tuition fee will be refunded in its entirety. Cancellations after that time are subject to a $100 service charge per person. No refunds will be made after the start of the program; however, tuition may be applied to future programs. Substitutions can be made at any time.

FOR MORE INFORMATION CONTACT: Center for Public Utilities MSC 3MPD, New Mexico State University, Box 30001, Las Cruces, NM 88003-8001, 575-646-4876 or 575-646-3242, Fax: 505-646-6025, E-Mail: jeawalte@nmsu.edu Web Site: http://business.nmsu.edu/programs-centers/cpu/

ENROLLMENT FORM - MAY 2009

Name_________________________________________________
Title_________________________________________________
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City________________________________________________
State____________________________________ Zip____________
Phone_____________________________________________
Fax___________________________________________________
Email__________________________________________________

Payment enclosed _____
Please Bill PO Number ______________________________
Credit Card _____ MC _____ Visa _____ Discover
#______________________________ Exp ______________

I will attend:
Electric Course _____ Telecommunications Course _____
Natural Gas Course: LDC _____ Pipeline _____
Water Course _____

REGISTRATION FEE:
$1095 for Energy, Telecommunications and Water Companies
$995 for Center Sponsors, Commissions and All Governmental Entities

MAKE CHECK PAYABLE TO:
New Mexico State University

MAIL CHECK AND PAYMENT TO:
Center for Public Utilities MSC-3MPD
NMSU
P.O. Box 30001
Las Cruces, NM 88003-8001
WHO SHOULD ATTEND

Attendees with less than one year’s experience in the regulatory arena and anyone wishing to obtain a basic understanding of the principles involved should attend this course. Commissioners, economists, rate analysts, accountants, attorneys, public information officers, administrative law judges, consultants, and consumer advocates will all benefit from the basic skills acquired in this course.

WHY EMPLOYEES SHOULD ATTEND THIS PROGRAM

The issues confronting the Energy, Telecommunications and Water Industries can be very complex and confusing to the employee with newly acquired responsibilities in the area of regulation. It is essential, therefore, for the employee not only to be able to understand these issues but also to be provided with an integrated framework that shows the interrelationships of the topics and how they fit together. This course will give the attendees the analytical skills necessary to be more productive in this changing environment.

FACULTY

Randi Aldridge, Supervisor/Revenue Requirements, Southwest Gas Corporation
Larry Blank, Economist, CPU, New Mexico State University
Ray Blatter, Regulatory Supervisor, Pacific Gas and Electric
Ken Costello, Principal, National Regulatory Research Institute
Gary Duncan, Montana Public Service Commission
Doug Gegax, Director, CPU, New Mexico State University
Ed Gieseking, Director, Pricing and Tariffs, Southwest Gas Corporation
Joe Gillan, President, Gillan Associates
Ken Jacobs, Senior Specialist/Resource Planning, Southwest Gas Corporation
Ben Johnson, Manager of Rates, TransCanada Pipeline
Bonnie Lorang, General Manager, Montana Independent Telecommunications System
Tom McGuckin, Economist, CPU, New Mexico State University

Mike McFadden, McFadden Consulting, Inc.
Todd Piczak, Attorney at Law, Hogan and Hartson LLP
Carey Roesel, Vice President and Economist, TMI Consulting
Scott Russell, Regulatory Analyst, TransCanada Pipeline
John Roscher, Director, Rates & Regulatory Affairs, TransCanada Pipeline
James Sarikas, Vice President, Foster Associates
Tim Scanlon, Commercial & Federal Market Lead, Energy Efficiency
Grant Siwinski, Manager of Safety and Quality Assurance, Public Utilities Commission of Nevada
Gary D. Shambaugh, Principal and Director, AUS Consultants
Rick Smead, Director, Navigant Consulting Inc.
David Smith, Director Emeritus, CPU, New Mexico State University
Bill Steele, Principal Financial Analyst, Colorado Public Utilities Commission