

ATTACHMENT #1

Michael T. O'Sheasy

Mr. O'Sheasy received his Bachelors of Industrial Engineering from the Georgia Institute of Technology in 1970 and his Masters of Business Administration from Georgia State University in 1974.

Mr. O'Sheasy's experience and expertise is clearly seen with his 35+ years of experience with Cost of Service Studies beginning with his work providing assistance in the development of Cost-of-Service Studies for rate case filing in the early 1980's with Southern Company Services, his work developing embedded and marginal cost of service studies with Georgia Power Company to his work as a consultant providing assistance to utilities in terms of developing both embedded and marginal cost of service studies.

Mr. O'Sheasy routinely testifies before various commissions on rate design issues and cost of service principles including the Georgia Public Service Commission, the Illinois Commerce Commission, Florida Public Service Commission, North Carolina Utilities Commission, The Energy Commission (Bermuda), Public Service Commission (Kentucky), and Corporation Commission of the State of Oklahoma.

Mr. O'Sheasy has published numerous articles in journals such as *Natural Gas and Electricity*, *TAPPI Journal*, *EUCI*, *Public Utilities Fortnightly*, *Electric Perspectives*, *ERPI Journal*, *Energy Customer Management* and *The Electricity Journal* and has been requested to present workshops, webinars, and industry conference presentations on Cost of Service principles and preparation of Cost of Service Studies.

Manitoba Hydro requests that Mr. O'Sheasy be qualified as a professional engineer with expertise in hydro electric utility regulation with a particular emphasis on cost allocation and rate design as well as the development, preparation and review of cost of service studies.

Michael T. O'Sheasy

RESUME

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Academic Background:

MBA, Georgia State University, 1974
Bachelors of Industrial Engineering, Georgia Institute of Technology, 1970

Positions Held:

Vice President, Christensen Associates Energy Consulting, LLC, May 2001-present
Manager, Product Design, Georgia Power Company, 1990-April 2001
Economic and Costing Analysis Dept, Southern Company Services, 1980-1990

Professional Experience:

I help utilities develop successful rate cases and new tariff filings based on both embedded and marginal cost of service and contemporary ratemaking principles. Expert testifying is available for both costing and pricing. Clients are encouraged to review and revise their retail portfolios to take advantage of the opportunities of improved pricing efficiency. I advise clients in developing and implementing innovative pricing products that extend utility customers' choices and improve the utility's bottom line and margin coverage. Some other examples of the expertise provided to clients are real time pricing, graduated fixed charges, cost-effective self-generation, advanced marginal costing, more accurate cost allocations methodologies, and fuel cost recovery clause enhancements. Prior to joining Christensen Associates, I directed real-time pricing and other innovative break-through rate structures including Price Protection Products, Daily Energy Credits, and FlatBill at Georgia Power Company, the largest operating company in the Southern Company system. I was responsible for retail and other regulatory requirements. I have routinely testified before various commissions on both costing and pricing. I have published numerous articles on pricing in many journals including *Natural Gas and Electricity*, *TAPPI Journal*, *Public Utilities Fortnightly*, *Electric Perspectives*, *EPRI Journal*, *Energy Customer Management*, and *The Electricity Journal*. On a national media level, I have been interviewed in *USA Today*, *Newsweek*, and National Public Radio. I have been featured on the front page of the *Wall Street Journal*, and I have appeared in a live interview on CNN FN.

Major Projects:

May 2001–Present: Vice President, Christensen Associates Energy Consulting

Expert Witness on Rate Design regarding distributed energy generation and net energy metering for South Carolina Electric & Gas in their 2014 filing and eventual settlement.

Expert Witness on Rate Design for Wisconsin Electric Company's 2014 rate case.

Expert Witness on Cost of Service for Georgia Power Company's 2013 rate case.

Advised Duke Energy Carolinas regarding redesign of their large business tariff.

Expert Witness on Cost of Service for Gulf Power Company's 2013 rate case.

Expert Witness on Rate Design for Progress Energy Company's 2012 rate case.

Expert Witness on Cost of Service for Gulf Power Company's 2011 rate case.

Advised large mid-west investor owned utility and presented report to the regulatory commission on distribution costing 2012.

Advised a mid-west regulatory commission staff on Base-Intermediate-Peaking (BIP) philosophy.

Expert Witness and Project Manager on costing and pricing for Bermuda Electric Light Company's 2011 rate case.

Project Manager for municipality investigating best applications of energy efficiency and demand response products.

Advised large Midwest IOU and presented to Commission staff and other stakeholders the advantages and disadvantages of performance-based and formulary-based ratemaking.

Led a cost of service and rate redesign project for a Midwest municipality.

Project Manager for a rate strategy project for TVA.

Project Manager and witness for Barbados Light and Power Company for their rate case filing.

Expert witness on cost of service for Georgia Power Company's 2007 rate case.

Consultant to Nova Scotia Power Inc. on Real Time Pricing.

Expert witness for EKPC for their Real Time Pricing pilot filing with the Kentucky Public Service Commission.

Expert witness on cost of service for Gulf Power's rate case.

Consultant to major IOU in Southwest for a retail rate case filing in 2007.

Consultant to Lincoln Electric Service on a cost of service audit.

Consultant to Georgia Power Company on a fixed bill product for mid-size business customers including product design, market research, approval, marketing, and training.

Witness and consultant to Oklahoma Gas & Electric on fixed bill project. Design was completed and approved for implementation.

Consultant to the Electric Power Board on fixed bill design, approval, and tracking.

Consultant to two separate Southeastern utilities on pricing strategy and pricing portfolio design.

Project Manager for Southeastern utility on design of an economic development rate for their largest customer.

Witness for large commercial customers in a major rate case requesting implementation of Real Time Pricing.

Consultant to large Pacific Northwestern utility on Real Time Pricing pilot program.

Consultant and witness to several mid-western utilities on the design and approval of a fixed bill product.

Consultant to utility on Real Time Pricing price response project.

Project Manager for Southeastern utility's research into a time of use fuel clause.

Consultant to mid-Atlantic utility on fixed bill in their competitive electricity market.

Consultant to two mid-west utilities on Real Time Pricing.

Consultant to Georgia Power, Duke Power, Gulf Power Company, and Progress Energy on the design, approval, and implementation of fixed bill products.

Consultant to California Energy Commission on the advancement of Real Time Pricing in California.

Consultant to Caribbean utility on pricing products and rate case filing.

1990–April 2001, Manager, Product Design, Georgia Power Company

Responsible for managing the pricing and rates research activities of the Company. Activities included pricing strategy development and future rate planning; rate research, design, and evaluation; the preparation and filing of retail rates with the Georgia Public Service Commission and the forecast of base rate revenues for the corporate budget.

Supported all regulatory proceedings by preparing rate case filings, including rate designs and testimony, training witnesses and briefing counsel for regulatory proceedings. Worked with the Public Service Commission staff and various customer/intervenor groups, providing adequate supporting evidence for obtaining PSC approval and customer acceptance of the proposed tariffs, rules, and regulations.

Developed embedded and marginal cost-of-service by rate or customer group and used these estimates and projections in the profitability assessments needed for innovative pricing strategies, such as demand-side rate options and market-based pricing.

Directed the rate research, design, and evaluation activities of the Company to develop a rate package, which contributed to the Company's marketing, financial, and corporate goals while satisfying the requirements of the Georgia PSC.

Developed innovative rate concepts which support the Company's marketing efforts and contribute to the competitiveness and profitability goals of the Southern Company. Developed long-term competitive pricing strategies and designed rate research programs for potential future rate options for evaluation and implementation. Created innovative pricing methodologies including Real Time Pricing, Multiple Load Management, Multiple Account Management, Interruptible Exchange Service, Flat Bill, and Price Protection Products. Also, directed efforts of "Pricing for the '90s" which will produce the most optimal, efficient pricing methods for Georgia Power Company's needs during the exciting, competitive 2000's.

Managed Real Time Pricing Program. Designed a customer specific profitability model (CPM). Presented over 100 speeches on pricing in state, national, and international forums.

1980–1990, Economic and Costing Analysis Department, Southern Company Services

Progressed through various levels of responsibility. Positions and activities include:

Engineer:

Assisted in the development of Cost-of-Service Studies for rate case filing. Developed jurisdictional and class analysis on individual projects such as PURPA and individual company analysis for internal purpose. Model development such as the Standard Load Flow Model, Georgia Power Cost of Service Model, and CSSM (Cost of Service Simulation Model). Manage the department's Issue File. Training of departmental employees, operating company personnel, and representatives of the Commission.

Senior Engineer:

Coordinator for Rate Case filings. Liaison between operating company and rate department. Internal analysis for operating companies and more development of those responsibilities listed under Engineer. Testified as cost expert in rate cases.

Supervisor:

Provided economic research and cost of service capability to Gulf Power and Mississippi Power Companies to support retail and wholesale rate filings and other regulatory requirements, and to provide management with pertinent information relative to their rate and regulatory affairs. This position was responsible for supervising the planning, development, evaluation, and formulation of effective economic analysis and related studies to present to internal management or to regulatory agencies, and to marketing for development marketing strategies.

Professional Papers:

"Parsing Poles and Towers: Customer Cost Allocations Using the Minimum Distribution System Method," *Public Utilities Fortnightly*, pp. 20-22, January 2016.

"Room for Fixed Billing in the World of Conservation?" *Natural Gas and Electricity*, August 2008.

"Are We On the Yellow Brick Road to the Land of Oz? The Wisdom of Rate Cases Today," EUCI, November 7, 2007.

"An Analysis of the Effects of Renewable Portfolio Standards on Retail Electricity Prices," presented in a webinar on 12/7/07 and EUCI Conference *Rate Case Essentials*, 11/7/07.

"Do You Want to Increase Your Utility's Demand Response and Consider it as a Bigger Player in Resource Planning," Energy Central, August 10 and August 17, 2007.

"Building a Risky Business," *Public Utilities Fortnight*, March 2007.

"The Fixed Bill: Newborn Becomes Toddler!" Energy Central's EnergyPulse.net, January 3 and January 11, 2005, Cybertech, Inc.

"Building a Better Pricing System," *Public Utilities Fortnightly*, May 2004.

"Demand Response: Not Just Rhetoric, It Can Truly Be the Silver Bullet," *The Electricity Journal*, Vol. 16, Issue 10, pp. 48–60, December 2003.

"How to Perform Efficient TOU Design," *Energy Central's EnergyPulse.net*, July 23, 2003, CyberTech, Inc.

"Who's Afraid of the Fixed-Bill?," *Energy Central's EnergyPulse.net*, April 2003, CyberTech, Inc.

"Is Real-Time Pricing a Panacea? If So, Why Isn't It More Widespread?," *The Electricity Journal*, December, 2002.

"Flat Prices for Peak Hedging," *Public Utilities Fortnightly*, November 1, 2002.

"RTP Customer Demand Response – Empirical Evidence on How Much Can You Expect," in *Electricity Pricing in the Transition*, A. Faruqui and K. Eakin, eds., Kluwer Academic Publishers, 2002.

"Flat Bills, Peak Satisfaction," *Energy Customer Management*, January/February, 2002.

"The New Pricing Organization," EPRI International Pricing Conference, co-authored with Robert Camfield, 2000.

"Roll the Dice, Set a Price," *Public Utilities Fortnightly*, May 15, 1999.

"5-cent Sundays....The Future of Electricity Prices?" *Electric Perspectives*, January/February 1999.

"Real-Time Pricing—Supplanted by Price-Risk Derivatives," *Public Utilities Fortnightly*, March 1, 1997.

"Customers Can Buy Low, Sell High," *The Electricity Journal*, February 1998.

"Real-Time Pricing for Purchased Electricity: An Innovative Pricing Option for Electricity as Used by the Pulp and Paper Industry," *TAPPI Journal*, April 1996.

"Reaping the Benefits of RTP: Georgia Power's RTP Evaluation Case Study," Volumes 1 and 2, Electric Power Research Institute (EPRI), December 1995.

Speeches and Presentations:

"Changes to the Regulatory Framework—a Key Enabler," Panel Moderator; Rate Design Workshop Instructor; October 2010, Electricity Pricing Strategies, EUCI.

"Customer Response to Dynamic Pricing: Who Responds and How," webinar, December 2009, EUCI-CAEC.

"Formulary Based Ratemaking for Retail Application," cost of service workshop, October 2008, Electricity—A Rising Cost Industry, EUCI.

"Rate Design Tools, Hedging, and the Proper Price Signal," rate design workshop, February, 2008, Managing Electric Price Volatility, EUCI.

"Will Renewable Portfolio Standards Increase Rates?" December 2007, EUCI webinar.

"Cost of Service—Are We Doing It Right?" "Providing the Customers Ultimate Bill Security—Fixed Bill," rate design workshop, cost-of-service workshop, November 2007, Rate Case Essentials, EUCI.

"Dynamic and Innovative Pricing of Electricity," Electricity Pricing in Continuously Changing Environments, EUCI, February 2007.

"Let's Examine How It's Been Done for one of our Industry's Most Risky Products—Fixed Bill," cost-of-service workshop, October 2006, Rate Case 101—How to Produce a Successful Case, EUCI.

"Why Perform a Cost of Service Study? What Value does it bring to a Rate Case? What are its Limitations?" "How Can you Obtain Regulatory Approval for Innovative and Novel Rate Designs that Possess Little Industry Exposure?" Cost-of-Service Workshop, May 2006, Rate Case 101—How to Produce a Successful Rate Case, EUCI.

"How to Obtain Approval for a Novel, Innovative but Risky Pricing Product like Fixed Bill," Witness Preparation Workshop, November 2005, Utility Rate Case Management, INFOCAST.

"How Can You Obtain Internal and Regulatory Approval for Innovative and Novel Rate Designs that Possess Little Industry Exposure?," Cost-of-Service Workshop, October 2005, "Rate Case 101-How to Produce a Successful Case," EUCI.

"How to Obtain Regulatory Approval for Fixed Bill Type Products," Cost-of-Service Workshop, April 2005, Rate Case 101: How to Produce a Successful Case, EUCI.

"The Fixed Bill: Innovative Energy, Innovative Rate Option," April 2005, Developing New Products and Services for Utilities, EUCI.

"Digging In—Getting a Fixed-Bill Product Approved and Marketed," "Are There Any New Silver Bullets or Have We Used the Last One?," September 2004, Innovative Products and Services for the Energy Industry.

"Analyze This! The Fixed Bill Case," Successful Retail Products from the People Who Made Them, August 2004.

"Real Time Pricing Coupled with Risk Management at Georgia Power Company. It Keeps on Going and Going!" Peak Load Management Alliance, April 2005, PLMA.

"Introducing Fixed Bill," June 2004, UCI National Conference.

"Real-Time Pricing, Do Customers Really Price Respond?" April 2004, E Source 6th Annual Large C&I Summit.

"Fixed Bill," November 2003, E Source Annual Summit.

"A Summary of the Why's and How's of Real-Time Pricing," October 2003, GAO.

"The Fantasmic Fixed Bill," October 2003, EMAC's 2003, Chartwell's 6th International Energy Marketing and Customer Service Conference Expo.

"The Electricity Business Needs A New Sheriff to Keep Law and Order and Maintain Peace; and Here's His Silver Bullet," October 2003, American Bar Association, Section of Environment, Energy, and Resources, 11th Section Fall Meeting.

"The Need for Demand Response and Critical Peak Pricing," September 2003, Gulf Power Company's 3rd Annual Price Responsive Load Management Conference.

"The Fixed Bill: Innovative Energy, Innovative Rate Option," June 2003, EUCI.

"The Flat Bill Phenomenon," May 2003, Edison Electric Institute/American Gas Association Customer Service Conference and Exposition.

"Fixed Bill Product in an Uncertain Market," and Comments on Demand Response Versus Product Pricing of Electricity, May 2003, AESP/EPRI Pricing Conference.

"Financial Folly or Smart Pricing, Fixed-Bill Options for the Energy Business," April 2003, Energy Central Web Cast.

"The Dollars and Sense of Fixed Bills in a Volatile Wholesale Market," April 2003, EUCI, *Connecting Wholesale and Retail Electricity Markets*.

"Flat Billing—Will It Take the Country by Storm?" February 2003, AESP Brown Bag Seminar.

"Selected Demand Response Programs," October 2002, Committee on Regional Electric Power Cooperation, Vancouver, British Columbia.

"Existing Dynamic Pricing Programs: Lessons Learned and Best Practices," August 2002, *Time-Sensitive Pricing for a Competitive Electricity Marketplace*, NYSERDA.

"Amend Response—A Vital Element of Competitive Markets," July 2002, EEI, *Market Design and Transmission Pricing School*.

"Successful Demand Response Products for Competitive Markets: They Really Work!" May 2002, *New Developments in Electric Market Restructuring* Sponsored by U.S. Association of Energy Economics and the International Energy and Environment Program.

"Customer Pricing Research and Its Critical Role in Designing Pricing—Products for a Regulated Utility," April 2002, American Marketing Association.

"The Price Builder's Workshop,"—Instructor, December 2001, EPRI.

"Innovative Pricing and Load Response: A California Energy Commission Proposal for Giving the Customer a Seat at the Table!" September 2001, International Facility Management Association's World Workplace 2001.

"Real-Time Pricing—How it Works, Benefits and Risks," September 2001, The Center for Business Intelligence, *Pricing in Electric Markets*.

"Real-Time Pricing Overview," June 2001, EMF Workshop on Retail Participation in Competitive Power Markets, Stamford University.

"Real-Time Pricing: Offering Incentives, Caps and Collars," March 2001, Infocast, *Retail Pricing for Competitive Power Markets*.

"Retail Pricing For Competitive Markets,"—Instructor, February 2001, Infocast.

"Real-Time Pricing and Resultant Load Management," November 2000, E-Source, *Energy for a New Era*.

"The Fundamentals of Unbundled Pricing,"—Instructor, September 2000, Infocast.

"Retail Pricing for Competitive Power Markets,"—Instructor, September 2000, Infocast/EPRI.

"International Energy Pricing Conference 2000,"—Program Advisor and Speaker, July 2000, EPRI.

"Pricing in Competitive Markets: Will Customers Accept 'Real-Time' Risks?" November 1999, E-Source, *Dynasties, Dinosaurs, and Dynamos: Energy Services in the 21st Century*.

"Cost of Service and Rate Design Workshop," August 1999, Tenaga Nasional Berhad, Kuala Lumpur, Malaysia.

"Retail Pricing: Innovative, Proactive, Value-Based Pricing Strategies for the Competitive Era,"—Instructor, June 1999, Infocast.

"How to Buy Low and Sell High or Why is RTP so Popular?" June 1998, EPRI Fifth Biannual Innovative Pricing Conference.

"Innovative Rate Design," July 1997, *Training Programme for IAS Officers on Public Policy Analysis*, Indian Institute of Management, Ahmedabad, India.

Testimony

Docket No. 2014-246-E before the Public Service Commission of South Carolina on behalf of South Carolina Electric & Gas Company as an expert witness on Costing and Rate Design.

Docket No. 05-UR-107 before the Public Service Commission of Wisconsin on behalf of Wisconsin Electric Power Company as an expert witness on Rate Design.

Docket No. 36989-U before the Georgia Public Service Commission on behalf of Georgia Power Company as their expert witness on Cost of Service.

Docket No. 13-0387 before the Illinois Commerce Commission on behalf of Commonwealth Edison Company as their expert witness on Cost of Service.

Docket No. 130140-EI before the Florida Public Service Commission on behalf of Gulf Power Company as their expert witness on Cost of Service.

Docket No. 130007-EI before the Florida Public Service Commission on behalf of Gulf Power Company as their expert witness on Cost of Service.

Docket No. E-2, Sub 1023 before the North Carolina Utilities Commission on behalf of Progress Energy Carolinas, Inc. as their expert witness on Rate Design.

Docket No. E-7, Sub 1026 before the North Carolina Utilities Commission on behalf of Duke Energy Carolinas, LLC as their expert witness on Rate Design regarding the redesign of commercial and industrial OPT tariffs.

Docket No. E-100, Sub 73 before the North Carolina Utilities Commission on behalf of Duke Energy Carolinas, LLC and Duke Energy Progress, Inc. as their expert witness on Rate Design regarding a Jobs Retention Rider(JRT).

Docket No. 110138–EI before the Florida Public Service Commission on behalf of Gulf Power Company as their expert witness on cost of service.

Base Rate Tariff Filing – October 26, 2011 before The Energy Commission, Bermuda on behalf of Bermuda Electric Light Company Limited, as expert witness on rate design.

Docket No. 25060–U before the Georgia Public Service Commission on behalf of Georgia Power Company as their expert witness on Cost of Service.

Docket No. 31958–U before the Georgia Public Service Commission on behalf of Georgia Power Company as their expert witness on Cost of Service.

Docket No. 010949–EI before the Florida Public Service Commission on behalf of Gulf Power Company as their expert witness on Cost of Service.

Docket No. 881167–EI before the Florida Public Service Commission on behalf of Gulf Power Company as their expert witness on Cost of Service.

Docket No. 4147–U before the Georgia Public Service Commission on behalf of Georgia Power Company as their expert witness on rate design.

Case No. 2006–00045 Commonwealth of Kentucky before the Public Service Commission on behalf of East Kentucky Electric Cooperative as their expert witness on rate design.

Docket No. 050078–EI before the Florida Public Service Commission on behalf of the Commercial Group as their expert witness on cost of service and rate design.

Docket No. 16896–U before the Georgia Public Service Commission on behalf of Georgia Power Company as their expert witness on rate design.

Case No. 2004 Commonwealth of Kentucky before the Public Service Commission on behalf of East Kentucky Electric Cooperative as their expert witness on rate design.

Cause No. PUD 200500151 before the Corporation Commission of the State of Oklahoma on behalf of Oklahoma Gas and Electric as their expert witness on rate design.

Docket No. 4132–U before the Georgia Public Service Commission on behalf of Georgia Power Company as their expert witness on rate design.

Docket No. 4755–U before the Georgia Public Service Commission on behalf of Georgia Power Company as their expert witness on rate design.

Docket No. 11708–U before the Georgia Public Service Commission on behalf of Georgia Power Company as their expert witness on rate design.

Docket No. 13140–U before the Georgia Public Service Commission on behalf of Georgia Power Company as their expert witness on rate design.

Docket No. 16896–U before the Georgia Public Service Commission on behalf of Georgia Power Company as their expert witness on rate design.

FTC-02/09 BL&P–RADJ before the Barbados Fair Trading Commission on behalf of Barbados Light & Power Company as their expert witness on cost of service and rate design.