# $\frac{OPC}{Date 2/11/16} Reporter AT$ File No. EA - 2015 - 0256

## **Michael S. Proctor**

### **Education:**

1965, B.A. in Economics, University of Missouri, Columbia 1967, MA in Economics, University of Missouri, Columbia 1970, PhD in Economics, Texas A&M University

#### Work Experience:

1970 – 1973: Assistant Professor of Economics at Purdue University
1973-1977: Assistant Professor of Economics at University of Missouri, Columbia
1977-2009: Missouri Public Service Commission (Retired August 31, 2009)
2009-Current: Consultant on Issues Related to Electricity Markets and Transmission Expansion

### Areas of Expertise and Experience:

### Economics: University Professor (1970 – 1977)

<u>Micro-economics</u>: Specialized in investment theory for the firm and taught senior and graduate level micro-economics and macro-economics at Purdue and Missouri Universities.

**Optimization**: Taught optimization methods in MBA programs at Purdue and Missouri Universities.

**Econometrics & Statistics**: Taught statistics in undergraduate business courses at Purdue University.

### Regulatory: Manager of Economic Analysis Department (1978-1992)

<u>Class cost of service studies</u>: Classify natural gas and electric utility costs with respect to usage factors that relate to cost causers and beneficiaries, and use of load research data to develop allocation factors corresponding to class usage.

- Managed a department at the Missouri Public Service Commission that was responsible for performing class cost of service studies.
- Advanced moving from the strict cost causation method of peak demand allocations to the beneficiary pays method of capacity utilization and the associated average and peak allocation factor.

FILED February 16, 2016 Data Center Missouri Public Service Commission <u>Rate design</u>: For natural gas and electric utilities, develop various rate structures that collect targeted costs, allocate costs to individual customers within a class and provide customers with price incentives for energy use.

 Advanced the use of billing determinants and class load curves for the purpose of implementing new rate designs, including time-of-use rates.

**<u>Resource Planning</u>**: Review economic analysis of both supply-side and demand-side alternatives to meet utilities resource needs.

 Led the development of the Missouri Commission's first integrated resource planning rule, and application of this rule for the Missouri, Investor-Owned Utilities.

**Load Analysis**: Use of econometric and end-use modeling techniques for both shortterm and long-term forecasts of utility customers demand for energy.

 Developed statistical techniques for analysis of the relationship of demand for electricity to weather, and implemented these methods in rate cases for estimation of weather normalized usage.

### Regulatory: Chief Economist for MoPSC (1992-2009)

#### Analysis of electricity markets:

- Participated in the design of regional markets for the Midwest ISO and Southwest Power Pool.
- Represented the Missouri Commission on various working groups of the Organization of Midwest ISO States, and chaired the working group for the allocation of Financial Transmission Rights.
- Chaired the Cost Allocation Working Group of the Regional State Committee at the Southwest Power Pool.
- Regularly participated in electric rate cases before the Missouri Commission as an expert witness on utility purchases and sales of electricity, as well as in electric merger cases as an expert in evaluating potential increases in market power resulting from a merger.

# **Consultant: Regional Electricity Markets, Transmission Planning and Cost Allocation (1999-Present)**

### Transmission planning and allocation of the costs of transmission upgrades:

 Consult with the Southwest Power Pool's (SPP's) Regional State Committee (RSC) in the economics related to cost allocations for what the SPP calls Integrated Transmission Planning – a process that develops cost-effective transmission upgrades on a forward-looking basis.

#### Transmission planning and benefit metrics related to transmission upgrades:

• Participate in the SPP's Economics Study Group with a focus on the specification of and metrics for benefits from transmission upgrades designed to meet the reliability, public policy and economic needs of the SPP region.

<u>Consulting activities</u>: Several contracts on various issues related to wholesale electricity markets:

- <u>Missouri Public Service Commission</u>: Provided educational information on regional electricity markets.
- <u>Organization of MISO States</u>: Provided technical information on Extended Locational Marginal Pricing.
- Southwest Power Pool Regional State Committee: Provided consulting services primarily related to issues involving the allocation of the cost of transmission upgrades.
- <u>City of Owensville</u>: Provided information on stranded cost related to wholesale electricity contract.
- <u>Sho-Me Power Cooperative</u>: Provided reports and testimony on wholesale rate design Hearings before a military law judge as the case was between Fort Leonard Wood
- <u>Show-Me Concerned Landowner</u>: Provided testimony on Grain Belt's proposed DC line connected to western Kansas wind farms. Case No. EA-2014-0207
- <u>Landowners Alliance of Central Illinois</u>: Provided testimony on Grain Belt's proposed DC line connected to western Kansas wind farms. Docket No. 15-0277
- Missouri Office of Public Counsel: Provided:
  - o Educational materials on Regional Transmission Organizations;
  - Review of Ameren Missouri's filing in Case No. EA-2015-0273;
  - Review and Testimony in Greater Missouri Operations Case No.EA-2015-0256.

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