

Education and Work Experience Background for

Lena M. Mantle, P.E.

Energy Department Manager

Utility Operations Division

I received a Bachelor of Science Degree in Industrial Engineering from the University of Missouri, at Columbia, in May 1983. I joined the Research and Planning Department of the Missouri Public Service Commission in August 1983. I became the Supervisor of the Engineering Analysis Section of the Energy Department in August, 2001. In July 2005, I was named the Manager of the Energy Department. I am a registered Professional Engineer in the State of Missouri.

In my work at the Commission from May 1983 through August 2001 I worked in many areas of electric utility regulation. Initially I worked on electric utility class cost-of-service analysis. As a member of the Research and Planning Department, I participated in the development of a leading edge methodology for weather normalizing hourly class energy for rate design cases. I applied this methodology to weather normalize energy in numerous rate increase cases. I was actively involved in the writing of the Commission's Chapter 22, Electric Resource Planning rules in the early 1990's and have been a part of the review of every electric resource plan submitted or filed.

My responsibilities as the Supervisor of the Engineering Analysis section considerably broadened my work scope. This section of the Commission Staff is responsible for a wide variety of engineering analysis including electric utility fuel and purchased power expense estimation for rate cases, generation plant construction audits, review of territorial agreements, and resolution of customer complaints. As the Manager of the Energy Department I oversee the activities of the Engineering Analysis section, the activities of the electric and natural gas utility tariff filings, the Commission's natural gas safety staff, and the class cost-of-service and rate design for natural gas and electric utilities.

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In my work at the Commission I have participated in the development or revision of the following Commission rules:

4 CSR 240-3.130	Filing Requirements and Schedule of Fees for Applications for Approval of Electric Service Territorial Agreements and Petitions for Designation of Electric Service Areas
4 CSR 240-3.135	Filing Requirements and Schedule of Fees Applicable to Applications for Post-Annexation Assignment of Exclusive Service Territories and Determination of Compensation
4 CSR 240-3.161	Electric Utility Fuel and Purchased Power Cost Recovery Mechanisms Filing and Submission Requirements
4 CSR 240-3.162	Electric Utility Environmental Cost Recovery Mechanisms Filing and Submission Requirements
4 CSR 240-3.190	Reporting Requirements for Electric Utilities and Rural Electric Cooperatives
4 CSR 240-14	Utility Promotional Practices
4 CSR 240-18	Safety Standards
4 CSR 240-20.015	Affiliate Transactions
4 CSR 240-20.090	Electric Utility Fuel and Purchased Power Cost Recovery Mechanisms
4 CSR 240-20.091	Electric Utility Environmental Cost Recovery Mechanisms
4 CSR 240-22	Electric Utility Resource Planning

I have testified before the Commission in the following cases:

<u>CASE NUMBER</u>	<u>TYPE OF FILING</u>	<u>ISSUE</u>
ER-84-105	Direct	Demand-Side Update
ER-85-128, et. al	Direct	Demand-Side Update
EO-90-101	Direct, Rebuttal & Surrebuttal	Weather Normalization of Sales; Normalization of Net System
ER-90-138	Direct	Normalization of Net System

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<u>CASE NUMBER</u>	<u>TYPE OF FILING</u>	<u>ISSUE</u>
EO-90-251	Rebuttal	Promotional Practice Variance
EO-91-74, et. al.	Direct	Weather Normalization of Class Sales; Normalization of Net System
ER-93-37	Direct	Weather Normalization of Class Sales; Normalization of Net System
ER-94-163	Direct	Normalization of Net System
ER-94-174	Direct	Weather Normalization of Class Sales; Normalization of Net System
EO-94-199	Direct	Normalization of Net System
ET-95-209	Rebuttal & Surrebuttal	New Construction Pilot Program
ER-95-279	Direct	Normalization of Net System
ER-97-81	Direct	Weather Normalization of Class Sales; Normalization of Net System; TES Tariff
EO-97-144	Direct	Weather Normalization of Class Sales; Normalization of Net System;
ER-97-394, et. al.	Direct, Rebuttal & Surrebuttal	Weather Normalization of Class Sales; Normalization of Net System; Energy Audit Tariff
EM-97-575	Direct	Normalization of Net System
EM-2000-292	Direct	Normalization of Net System; Load Research;
ER-2001-299	Direct	Weather Normalization of Class Sales; Normalization of Net System;
EM-2000-369	Direct	Load Research
ER-2001-672	Direct & Rebuttal	Weather Normalization of Class Sales; Normalization of Net System;

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<u>CASE NUMBER</u>	<u>TYPE OF FILING</u>	<u>ISSUE</u>
ER-2002-1	Direct & Rebuttal	Weather Normalization of Class Sales; Normalization of Net System;
ER-2002-424	Direct	Derivation of Normal Weather
EF-2003-465	Rebuttal	Resource Planning
ER-2004-0570	Direct	Reliability Indices
ER-2004-0570	Rebuttal & Surrebuttal	Energy Efficiency Programs and Wind Research Program
EO-2005-0263	Spontaneous	DSM Programs and Integrated Resource Planning
EO-2005-0329	Spontaneous	DSM Programs and Integrated Resource Planning
ER-2005-0436	Direct	Resource Planning
ER-2005-0436	Rebuttal	Low-Income Weatherization and Energy Efficiency Programs
ER-2005-0436	Surrebuttal	Low-Income Weatherization and Energy Efficiency Programs; Resource Planning
EA-2006-0309	Rebuttal & Surrebuttal	Resource Planning
EA-2006-0314	Rebuttal	Jurisdictional Allocation Factor
ER-2006-0315	Supplemental Direct	Energy Forecast
ER-2006-0315	Rebuttal	DSM and Low-Income Programs
ER-2007-0002	Direct	DSM Cost Recovery
GR-2007-0003	Direct	DSM Cost Recovery
ER-2007-0004	Direct	Resource Planning
ER-2008-0093	Rebuttal	Fuel Adjustment Clause, Low-Income Program
ER-2008-0318	Surrebuttal	Fuel Adjustment Clause

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Contributed to Staff Direct Testimony Report:

ER-2007-0291 DSM Cost recovery

ER-2008-0093 Fuel Adjustment Clause, Experimental Low-Income Program

ER-2008-0318 Fuel Adjustment Clause