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Issues:	Resource Planning
Witness:	Lena M. Mantle
Sponsoring Party:	MO PSC Staff
Type of Exhibit:	Direct Testimony
Case No.:	ER-2007-0004
Date Testimony Prepared:	January 18, 2007

MISSOURI PUBLIC SERVICE COMMISSION

UTILITY OPERATIONS DIVISION

DIRECT TESTIMONY

OF

LENA M. MANTLE

AQUILA, INC.

d/b/a AQUILA NETWORKS – MPS

AND AQUILA NETWORKS – L&P

CASE NO. ER-2007-0004

Jefferson City, Missouri
January 2007

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the matter of Aquila, Inc. d/b/a Aquila Networks-MPS and Aquila Networks-L&P, for authority to file tariffs increasing electric rates for the service provided to customers in the Aquila Networks-MPS and Aquila Networks-L&P service areas.	))))))	Case No. ER-2007-0004

AFFIDAVIT OF LENA M. MANTLE

STATE OF MISSOURI)
) ss
COUNTY OF COLE)

Lena M. Mantle, of lawful age, on her oath states: that she has participated in the preparation of the following Direct Testimony in question and answer form, consisting of 9 pages of Direct Testimony to be presented in the above case, that the answers in the following Direct Testimony were given by her; that she has knowledge of the matters set forth in such answers; and that such matters are true to the best of her knowledge and belief.

Lena M. Mantle

Subscribed and sworn to before me this 17th day of January, 2007.

NOTARY PUBLIC NOTARY SEAL STATE OF MISSOURI

SUSAN L. SUNDERMEYER
My Commission Expires
September 21, 2010
Callaway County
Commission #06942086

Susan L. Sundermeyer
Notary Public

My commission expires 9-21-10

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CASE NO. ER-2007-0004

Q. Please state your name and business address.

A. My name is Lena M. Mantle and my business address is Missouri Public Service Commission, P. O. Box 360, Jefferson City, Missouri 65102.

Q. What is your present position with the Missouri Public Service Commission (Commission)?

A. I am the Manager of the Energy Department, Utility Operations Division.

Q. What is your educational background and work experience?

A. I received a Bachelor of Science Degree in Industrial Engineering from the University of Missouri, at Columbia, in May 1983. I joined the Commission Staff (Staff) in August 1983. I became the Supervisor of the Engineering 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.

My work here at the Commission has included the review of resource plans of investor owned electric utilities since 1984. I participated in drafting the Commission's Chapter 22, Electric Resource Planning rules and reviewing all filings utilities have made under those rules. The Commission exempted electric utilities from complying with those rules in 1999,

but required them to present updates to their resource plans in meetings with Staff and the Office of Public Counsel every six (6) months. I attended all but one of those meetings. That exemption has ended with the Union Electric Company d/b/a AmerenUE (AmerenUE) filing in December 2005. I am the Staff coordinator for Staff's review of AmerenUE's and Kansas City Power & Light Company's (KCPL) Chapter 22 resource plan filings.

I participated in the development of the Regulatory Plan Stipulation and Agreements for KCPL and The Empire District Electric Company, in Case Nos. EO-2005-0329 and EO-2005-0263, respectively (Regulatory Plans).

Q. Have you previously filed testimony with the Commission?

A. Yes, numerous times. Schedule 1 lists the testimony I have filed with the Commission in prior cases.

EXECUTIVE SUMMARY

Q. Would you please summarize your testimony?

A. My testimony concentrates on two resource planning topics. First, I am recommending that the Commission allow Aquila, Inc. (Aquila) to use a cost recovery methodology to recover current and future demand-side resource analysis and implementation costs. This methodology is the same cost recovery methodology the Commission approved when it approved KCPL's and Empire's Regulatory Plans. I have proposed in my direct testimony filed in AmerenUE's pending electric and gas rate increase cases (Case Nos. ER-2007-0003 and GR-2007-0003) that the Commission allow AmerenUE to use the same methodology.

Secondly, I explain why, from a resource planning perspective, Aquila should be treated as having built five (5) 105 megawatt (MW) combustion turbines (CTs), as Staff proposed in Aquila's last rate case, Case No. ER-2005-0436 (last rate case).

DIRECT TESTIMONY

Q. What methodology are you proposing for recovery of Aquila's demand-side costs?

A. I am proposing that demand-side costs that were incurred in the test year other than the costs of the energy efficiency programs agreed to in Aquila's last rate case, be placed in a regulatory asset account and amortized over a ten-(10) year period.

Further, under this proposal Aquila would be allowed to place its future demand-side costs in the regulatory account where they would be allowed to earn a return not greater than Aquila's Allowable Funds Used During Construction (AFUDC) rate.

Q. What demand-side costs did Aquila's electric operations in Missouri incur during the test year?

A. Based on cost information supplied by Aquila in response to Staff Data Request no. 312, I calculate that $163,875 was spent on demand-side analysis and programs for Aquila's MPS and L&P electric operations during the test year. This amount does not include the expenses on the three (3) energy efficiency programs that Aquila agreed would not place in rates in the Non-unanimous Stipulation and Agreement (Stipulation and Agreement) that the Commission approved in Case No. ER-2005-0436.

Q. How would Aquila recover this amount?

A. I recommend that $16,388 ($163,875 divided by 10 years recovery period) be placed in expenses for this case and $147,487 ($163,875 less $16,388) be placed in the

regulatory account. The remaining $147,487 plus a return not greater than Aquila's AFUDC rate would be amortized over the next nine years.

Q. Will Aquila recover all future costs placed in this regulatory account?

A. Not, necessarily. The amount in the regulatory asset account at the time of the next rate case would be reviewed by the parties in the case for a determination of the prudence of the planning and implementation of the demand-side programs.

Q. Should there be a cap on the amount that Aquila can spend and place in this account?

A. Aquila will be making its first resource plan filing pursuant to Chapter 22 on February 5, 2007. I do not want to restrict the amount of potential demand-side resources in Aquila's preferred resource plan by arbitrarily placing a cap on the account. However, that does not mean that the amount of spending on demand-side resources should be unlimited. The costs recovered through this account should only be for those demand-side programs that are shown to be cost-effective for Aquila through an analysis that treats demand-side and supply-side resources on an equivalent basis. When a more definitive estimate of cost-effective demand-side programs has been determined, parties in future cases may request a specific cap for this account.

Q. What kind of demand-side costs would be placed in this account?

A. Such costs would include the costs of developing, implementing and evaluating customer energy efficiency and demand response programs.

Q. Why are you recommending special treatment for demand-side costs?

A. The Commission's rules in Chapter 22, Electric Utility Resource Planning (resource planning rules), require that Missouri electric utilities consider demand-side

resources on an equivalent basis with supply-side resources. (4 CSR 240-22.010(2)(A)). I am proposing this special treatment for demand-side programs to overcome regulatory barriers to Aquila developing and implementing demand-side resources.

Q. What regulatory barriers are you referring to?

A. When a utility begins planning to meet the increasing loads of its customers, or to replace either generation that is retiring or a purchased power contract that is expiring, the utility can look at ways to increase it resources or ways to encourage its customers to reduce their usage. Missouri electric utilities have, in the past, typically met increasing demands from customers by building more power plants. Power plants are generally referred to as supply-side resources. Another alternative is for the utility to help its customers reduce their usage or demand. This reduction in usage or demand is generally referred to as demand-side resources or demand-side management (DSM).

Utilities in Missouri have been hesitant to offer demand-side programs because they would be offering programs to influence their customers to use less of the product that the utility is in the business of providing. Thus, reduction in usage could reduce profits. In addition to a potential reduction in profits, the costs incurred to implement demand-side programs typically would be treated as an expense on which the utility does not earn a return. A power plant, on the other hand, is a capital asset on which a utility can earn a return.

Q. Does this methodology of recovering demand-side program costs include the recovery of the profits that Aquila would make if its customers did not reduce their demand due to demand-side programs?

A. No, this methodology does not include the recovery of lost revenues. It does however allow Aquila to earn a return on the costs of demand-side resources. As stated

already, typically a utility such as Aquila is only allowed to recover such demand-side program costs; this proposal additionally allows Aquila a return on these costs.

Q. Does Aquila have to decide soon whether to meet increasing customer demand for electricity with some type of resource; either demand-side or supply side?

A. Yes, Aquila is currently in need of additional resources to meet its customer's forecasted needs. The Commission's approval of placing the demand-side costs in a regulatory account would overcome barriers to Aquila's implementation of cost effective demand-side resources.

Q. Can Aquila meet its capacity needs through demand-side resources?

A. While demand-side resources could meet the need, these resources, like supply-side resources, take time to implement. The programs through which demand-side resources are implemented must be screened for cost-effectiveness for Aquila's system and tailored specifically for Aquila's customers. After screening and development, the programs must be implemented. Even after a program is implemented, it takes time to see results.

Q. Has Aquila completed this process?

A. At this time, I can not say that it has. Aquila has hired consultants to screen demand-side resources and submitted resource planning reports to the Staff. However, at this time Staff is unable to state whether or not Aquila has done an adequate job analyzing demand-side resources. Aquila is to file on February 5, 2007, its first resource plan under the Commission's Chapter 22 since 1999. At that time, Staff anticipates that it, and other intervenors in the resource plan case, will have a better understanding of the screening process and how Aquila's demand-side resources fit into its entire resource portfolio.

RESOURCES TO MEET CURRENT NEED

Q. What type of resources did Aquila use to meet its capacity needs in the test year?

A. For the test year of 2005, Aquila used a mix of owned capacity and purchased power agreements.

Q. Does Staff agree with Aquila's mix of owned capacity and purchased power?

A. No. As I stated in my direct testimony in Aquila's last general electric rate increase case, given the information from the resource planning process that was available at the time Aquila made its decision regarding the replacement of power it was obtaining through the Aries capacity contract, Aquila should have built five CTs. In its last case the Staff modeled a site built for six (6) CTs, putting only five (5) CTs on it.

As I stated in my direct testimony in Aquila's last rate case, Staff believes that Aquila should be meeting its needs with its own resources, both demand-side and supply-side. Because Aquila has not implemented demand-side resources sufficient to meet its capacity needs, it is Staff's position Aquila should meet its capacity needs with Aquila-owned supply-side resources, not short-term purchased power agreements. Staff's view that Aquila should own its generation assets is based on the proposition that owned assets will produce the lowest long-term revenue requirement and thus the lowest overall customer rates.

Therefore, to determine fuel and purchased power costs, instead of the short-term purchased power agreements entered into by Aquila, Staff witness David W. Elliott modeled five (5) 105 MW CTs in addition to the power plants that Aquila's owned prior to its decision to enter into a PPA with the Aries plant. The five (5) 105 MW CTs are identical to the CTs Aquila installed at its South Harper site.

Q. Why is Staff proposing five (5) 105 MW CTs?

A. As stated in my testimony in the last rate case, Aquila identified five (5) 105 MW CTs as the least cost way to meet its resource needs at that time. Even so, Aquila chose to build only three (3) 105 MW CTs at its South Harper site and entered into short-term purchased power agreements for its remaining capacity needs. Staff did not include the three (3) 105 MW CTs Aquila actually installed or the South Harper site in Aquila's last rate case since their legality was the subject of one or more pending legal actions. There is still a legal action pending regarding these three CTs and the South Harper site, so they are not included in this case either.

Q. Why is Staff recommending CTs and not a base load plant?

A. As I stated in my direct testimony in the last rate case, I looked at the factors relevant to the decision, as those factors were at the time the decision was made. Therefore, I must go back to the time when Aquila made the recommendation to build five (5) CTS and consider the gas prices and gas price projections that existed at that point in time, not the current time and current gas prices. Given the gas prices in 2003 and the information that Aquila supplied the Staff, the appropriate decision would have been to build five (5) CTs or the equivalent of 525 MW of capacity.

Q. Isn't adding owned generating capacity more expensive than purchasing capacity with purchased power agreements?

A. Not necessarily. In this instance, the purchased power contracts are short term contracts. Over the short term, the costs of these short term contracts are less than the costs of owning generating assets. However, because utility-owned generation depreciates over time—lowering the costs of that generation—over the long term the cost of utility-owned

generation is lower than the cost of a series of short-term purchased power agreements. More information regarding the cost of the five (5) 105 MW CTs, can be found in the direct testimony of Staff witness Charles R. Hyneman.

Q. Does this conclude your direct testimony?

A. Yes, it does.

PREVIOUS TESTIMONY OF
LENA M. MANTLE

CASE NUMBER	TYPE OF FILING	ISSUE
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
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
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

PREVIOUS TESTIMONY OF
LENA M. MANTLE

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;
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	Oral	DSM Programs and Integrated Resource Planning
EO-2005-0329	Oral	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

PREVIOUS TESTIMONY OF
LENA M. MANTLE

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