Exhibit No.*:*	_____
Issue:	Range of benefits for Aquila as a member participant in Midwest ISO
Witness:	Richard Doying
Sponsoring Party:	Midwest Independent Transmission System Operator, Inc.
Case No.:	Case No. EO-2008-0046

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MIDWEST INDEPENDENT TRANSMISSION SYSTEM OPERATOR, INC.

REBUTTAL TESTIMONY

OF

RICHARD DOYING

Carmel, Indiana
November, 2007

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of the Application of Aquila, Inc., d/b/a Aquila Networks – MPS and Aquila Networks – L&P for Authority to Transfer Operational Control of Certain Transmission Assets to the Midwest Independent Transmission System Operator, Inc.	)))))))	Case No. EO-2008-0046

AFFIDAVIT OF RICHARD DOYING

STATE OF INDIANA)
) **ss.**
COUNTY OF HAMILTON)

Richard Doying, being first duly sworn on his oath, states:

1. My name is Richard Doying. I am presently Vice President of Market Operations for Midwest Independent Transmission System Operator, Inc., intervener in the above-referenced matter.

2. Attached hereto and made a part hereof for all purposes is my rebuttal testimony.

3. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded are true and correct to the best of my personal knowledge, information and belief.

Richard Doying

Subscribed and sworn before me this 29th day of November, 2007.

Dorothy M. Shute
Notary Public for Hendricks County, Indiana
My Commission expires: May 8, 2009

DOROTHY M. SHUTE
NOTARY PUBLIC, State of Indiana
My County of Residence: Hendricks
My Commission Expires: May 8, 2009

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Richard Doying. My business address is 701 City Center Drive, Carmel, Indiana, 46032.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am employed by the Midwest Independent Transmission System Operator, Inc. ("Midwest ISO") as the Vice President - Market Operations.

Q. PLEASE BRIEFLY DESCRIBE YOUR EDUCATIONAL BACKGROUND AND BUSINESS EXPERIENCE.

A. I received my Bachelor of Arts in Geography from the University of California, Los Angeles in 1991 and my Master of Arts of Public Affairs in Policy Analysis, Energy and Environmental Policy from the University of Minnesota in 1993. Starting in 1993, I was an Associate with ICF Resources Incorporated, becoming a Senior Associate in 1995. In 1997, I was made the Project Manager for ICF Resources Incorporated. In 1997, I became a manager in the Market Assessment division of PG&E National Energy Group, where I was also made Director of the same division in 1999. In 2001, I was named the Director of the Strategy and New Initiatives division of the PG&E National Energy Group. In December 2003, I became the Director of Market Development and Analysis with the Midwest ISO, and in September 2006, I became the Vice President of Market Operations.

Q. WHAT ARE YOUR JOB RESPONSIBILITIES AT THE MIDWEST ISO?

A. As Vice President of Market Operations, I am responsible for the operations of the Day-Ahead Energy Market, Financial Transmission Rights Market, Real-Time Energy Market Pricing, Tariff and Market Settlements, Customer Management, and Market

Development and Analysis. I also manage the Midwest ISO's stakeholder efforts related to market issues.

Q. HAVE YOU SPONSORED ANY OTHER TESTIMONY BEFORE REGULATORY COMMISSIONS?

A. I have testified before a number of regulatory commissions and state legislative bodies. In addition, I have also submitted written testimony before the Federal Energy Regulatory Commission in Docket No. ER04-691-000 concerning the Midwest ISO's Open Access Transmission and Energy Markets Tariff ("EMT"), which provides for the implementation of the Midwest ISO's Centralized Security Constrained Economic Dispatch supported by Day-Ahead and Real-Time Energy Markets and Congestion Management Provisions based on Locational Marginal Pricing and Financial Transmission Rights within the Midwest ISO Region.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

A. The limited testimony of Aquila witness Mr. Dennis Odell presents a necessary but incomplete picture of the benefits available to Aquila from full participation in the Midwest ISO. The production cost study conducted by CRA International ("Aquila Study") is not designed to and therefore does not take into account the full range of benefits that would be available to Aquila from joining the Midwest ISO. Accordingly, the purpose of my testimony is to provide the Public Service Commission of the State of Missouri ("Commission") a more complete picture and record on all benefits for an entity such as Aquila becoming a transmission-owning member and fully participating in the Midwest ISO. In particular, I will discuss the broader value proposition that comes from full participation in the Midwest ISO. The details of these benefits will be discussed in Part III of this testimony.

Q. DO YOU ADDRESS THE SUBSTANCE OF THE AQUILA STUDY?

A. No. I do not. Witness Johannes Pfeifenberger does so in his testimony.

II. MIDWEST ISO OPERATIONAL BACKGROUND

Q. PLEASE DESCRIBE THE MIDWEST ISO'S OPERATIONAL CHARACTERISTICS.

A. The Midwest ISO's operational area or "footprint" consists of 15 states and the province of Manitoba, Canada. This area covers 920,000 square miles of territory, and 93,600 miles of transmission lines. The Midwest ISO performs its Energy Markets Tariff and related responsibilities over this broad region through control rooms located in Carmel, Indiana, and Saint Paul, Minnesota.

The Federal Energy Regulatory Commission, or "FERC," approved the establishment of the Midwest ISO as an "ISO" – *i.e.*, an Independent System Operator – in 1998 in the mid-western part of the United States. Then in 2001, FERC ruled that our company also met the requirements for being an "RTO" – *i.e.*, a Regional Transmission Organization. Broadly speaking, ISOs and RTOs are independent entities that have functional control over the operation of transmission facilities of multiple transmission owners under a common tariff.

An ISO administers a common tariff that applies to all transmission services provided on the transmission facilities placed under the ISO's control. [FERC developed a template for such a common tariff – called an "Open Access Transmission Tariff," or "OATT."] The common tariff ensures that the same set of rules applies to all transmission customers, and also avoids the "pancaking" of rates that occurs when power goes through transmission facilities governed by multiple tariffs each of which may

impose separate charges and terms of service. Subsequently, to further improve the accessibility and reliability of transmission system operations, FERC also promoted system operation across broad regions by an ISO. Finally, to assure non-discriminatory pricing for transmission services, FERC required ISOs to adopt market-based approaches to congestion management and schedule imbalance services.

Q. HOW DOES THE MIDWEST ISO OPERATE AND UTILIZE THE TRANSMISSION ASSETS ONCE A UTILITY TRANSFERS FUNCTIONAL CONTROL?

A. System operations under the Midwest ISO's Open Access Transmission and Energy Markets Tariff ("Energy Markets Tariff") includes balancing of generation supply to assure demand is satisfied in a dependable and efficient manner and managing transmission congestion that arises due to physical limitations of the transmission system. These services are provided by the Midwest ISO through a coordinated competitive market for electric energy. The Midwest ISO energy market operates by matching offers to sell energy with bids to buy energy through a process that determines market clearing quantities and prices while assuring total demand ("load") is satisfied at the lowest possible cost while honoring the physical limitations of the transmission used to deliver energy from generation to load.

Q. PLEASE BRIEFLY EXPLAIN THE ENERGY MARKETS THAT THE MIDWEST ISO OPERATES.

A. The Midwest ISO's energy markets currently operate over two timeframes. First is a "Day-Ahead" market, through which market participants can pre-schedule the transactions they plan to engage in on the following operating day. Second is a

"Real-Time" market, where market participants can buy or sell energy to meet conditions during the operating day that may differ from those anticipated in the Day-Ahead market.

The Midwest ISO is currently focusing efforts to further reduce supply cost and improve reliability by seeking to consolidate certain functions currently performed by twenty-four (24) separate Balancing Authorities or Control Area Operators. To that end, the Midwest ISO is presently working to implement an Ancillary Services Markets, or "ASM," designed to facilitate the management of Operating Reserves. In addition the Midwest ISO is pursuing: 1) mechanisms to encourage more flexible demand participation, 2) further coordination of transmission planning, and 3) implementation of new mechanisms to assure longer-term adequacy of regional supply resources. These enhancements will provide additional tangible benefits in terms of lower energy cost and improved reliability throughout the Midwest ISO region.

Q. WHAT OTHER FUNCTIONS ARE PERFORMED BY THE MIDWEST ISO UNDER ITS ENERGY MARKETS TARIFF THAT MAY BE IMPORTANT WHEN CONSIDERING BENEFITS OF MIDWEST ISO PARTICIPATION?

A. Another important category of RTO membership benefits is associated with transmission expansion planning. Midwest ISO is the NERC Planning Authority for its member footprint, and performs regional planning in accordance with FERC Planning Principles delineated in Order 890. These planning principles provide mechanisms to ensure that the regional planning process is open, transparent, coordinated, includes both reliability and economic planning considerations, and includes mechanisms for equitable cost sharing of expansion costs. The Midwest ISO regional planning process integrates the local planning processes of its member companies into a coordinated regional transmission plan and identifies additional expansions. The regional plan has as its

objective the provision of an efficient and reliable transmission system that delivers reliable power supply to connected load customers, expands trading opportunities, better integrates the grid, alleviates congestion, provides access to diverse energy resources, and enables state and federal energy policy objectives to be met. Regional plans are produced no less frequently than biennially, and are publicly available on the Midwest ISO web site.

Q. HAVE YOU BEEN ABLE TO QUANTIFY THE BENEFITS OF PARTICIPATION IN THE MIDWEST ISO?

A. Many of the benefits of regionally coordinated transmission system operations and planning are widely recognized within the industry. Also generally recognized is the inherent difficulty in tracking and measuring each of these recognized and accepted benefits. This is due in no small part to the fact that many of the benefits cannot be measured directly given that the benefits are relative to what would have occurred but for the RTO and its operations. There is no means to directly measure what would have occurred if the RTO did not exist. The Midwest ISO has nonetheless undertaken an effort to measure, where possible, and report on these significant RTO benefits. These efforts have recently culminated in a Midwest ISO value proposition report that focuses on the benefits that accrue to the region as a result of the Midwest ISO's operations. The benefits described in that report will be discussed below in Part III of my testimony.

III. MIDWEST ISO VALUE PROPOSITION

Q. WHY IS THE MIDWEST ISO FILING TESTIMONY IN THIS MATTER?

A. My testimony augments and supplements the testimony of Witness Pfeifenberger who is responding directly to the conclusions presented by Aquila about the Aquila Study. As

noted earlier, the type of study performed by CRA for Aquila is a necessary but insufficient analysis of the benefits of RTO participation. Accordingly, I will discuss the broader value proposition that comes from full participation in the Midwest ISO. From the outset, I recognize and submit that many of the benefits I will touch upon are easy to describe but may be difficult to quantify with precision. This cannot and should not, however, be a basis to leave an incomplete record regarding the value and benefits of participation in the Midwest ISO under consideration by the Commission in the course of this important review process.

Q. CAN YOU DESCRIBE THE FULL RANGE OF BENEFITS THAT WOULD BE AVAILABLE TO AQUILA AS A MEMBER OF THE MIDWEST ISO?

A. Aquila would accrue significant direct and indirect benefits from participation as a transmission-owning member of the Midwest ISO – benefits that cannot be fully captured by production cost studies such as the Aquila Study. These benefits can be grouped under the following three general categories: (1) improved reliability; (2) improved efficiency; and (3) improved opportunities for development of generation and transmission infrastructure. I am aware that some of the benefits under the second category are or may be partially addressed by the CRA-Aquila production cost study, but there are others that may not be fully covered that I will touch upon. Due to the complexities inherent with the Aquila Study and the different, broader scope of the Midwest ISO value proposition compilation that I am presenting in my testimony, a direct comparison or analysis to determine overlap cannot and should not be made. Instead, I submit this description in order to provide a full and complete picture of all the relevant benefits of Midwest ISO membership and full participation. I therefore will discuss each of the above general three categories, in turn.

Q. CAN YOU QUANTIFY THE DISCRETE AND DIRECT BENEFITS FOR AQUILA UNDER THESE THREE GENERAL CATEGORIES OF BENEFITS?

A. While the Midwest ISO has not performed any specific studies attempting to quantify the benefits that can be attributed just to Aquila should it join the Midwest ISO, the Midwest ISO has evaluated the numerous benefits that accrue to all members and participants in its markets. These same benefits would accrue to Aquila as a transmission-owning member and full participant in the Midwest ISO. Aquila represents approximately 1.7%[1] of the load and generation within the Midwest ISO footprint. It is reasonable to assume that Aquila would realize benefits in a roughly proportionate share and I therefore utilize that load ratio share to develop the ranges of numbers presented below as an approximation of the magnitude of the potential benefits for Aquila's participation in the Midwest ISO. It should be noted that this estimate is conservative in that the total benefits would increase with the addition of Aquila as a full participating member of the Midwest ISO, thereby increasing the benefits realized by Aquila.

Q. WHAT IMPROVED RELIABILITY BENEFITS WOULD AQUILA RECEIVE FROM JOINING THE MIDWEST ISO?

A. The reliability benefits fall into three categories: (a) improved reliability as compared to stand-alone operations; (b) enhanced seams management; and (c) regulatory compliance. The first category, improved reliability relative to stand-alone operations, has been quantified. Spanning 15 states and the Canadian province of Manitoba, the Midwest ISO leverages its broad regional view to identify potential impacts of transmission or generation issues on the entire Midwest ISO power system as well as on bordering

[1] This amount was calculated using Aquila's projected 2008 peak load of 1,942 MW (as presented in the CRA-Aquila Study) versus the 2008 Midwest ISO forecast peak load of 110,869 MW.

regions. This analysis looks at more than 7,500 "what if" scenarios every five minutes to identify the quickest, most effective way to manage potential issues, while also ensuring the continued operation of the wholesale bulk electric system. A quick response requires accurate information. The Midwest ISO processes system condition information every four seconds, resulting in appropriate signals being sent to generation owners in a timely manner. Using more than 240,000 points of information, the Midwest ISO examines the state of the system every 90 seconds, allowing for greater visibility into system conditions, increased ability to quickly identify the most effective response, and better coordination of needed system maintenance. The reliability benefits resulting from the above were quantified by evaluating the reduced size, duration, cost and probability of transmission outages under regional rather than stand-alone transmission systems operations. Those benefits were estimated to be between $230 and $340 million per year.

Midwest ISO Annual Benefit: Improved Reliability[2]

Market-wide Improved Reliability Benefit	**Aquila Potential**
$230 to $340 million	$4.0 to $5.9 million

Q. WHAT IMPROVED EFFICIENCY BENEFITS WOULD AQUILA REALIZE BY JOINING THE MIDWEST ISO?

A. These benefits can likewise be separated into categories reflecting a more efficient dispatch of energy as compared to stand-alone operations, reduction in the quantity of required contingency reserves and more efficient use of generation to provide operating

[2] Figures reflect annual benefits reflected in 2007 U.S. dollars, including both current and achieved benefits and projected future benefits.

reserves. As noted above, I recognize that there is overlap with the Aquila Study for these particular items, but I present this information as additional points of reference since these benefits would specifically relate to Aquila's full participation in the Midwest ISO. The concept of the benefits of coordinated market operations is simple; the more options available to meet a need, the more competitive the pricing and the more efficient delivery of the final product can become. The Midwest ISO broad regional competitive wholesale market allows the Midwest ISO to match the most cost effective and reliable source of generation with power needs over an extensive area, consequently reducing the amount of generation supply required to serve the region's needs. The annual benefits associated with all three of the categories of efficiency-related benefits identified above have been estimated at between $450 and $600 million for the Midwest ISO region as a whole. The individual components are shown in the table below.

Midwest ISO Annual Benefit: Improved Efficiencies[3]

Market-wide Improved Efficiencies Benefit	Aquila Potential
Dispatch of energy: $200 to $250 million	$3.4 to $4.3 million
Contingency reserves: $135 to $145 million	$2.3 to $2.5 million
Dispatch of reserves: $115 to $205 million	$2.0 to $3.5 million

Q. WHAT IMPROVED LONG-TERM INVESTMENT PLANNING BENEFITS WOULD AQUILA REALIZE BY JOINING THE MIDWEST ISO?

[3] Figures reflect annual benefits reflected in 2007 U.S. dollars, including both current and achieved benefits and projected future benefits.

A. One of the benefits of participation in a large regional system is more efficient use of the existing infrastructure, both generation and transmission. Similar to the savings associated with pooling of contingency reserves, pooling of planning reserves over a larger region reduces the level necessary to assure reliable service in future periods. In the Midwest ISO region, this is estimated to result in annual savings of $135 to $150 million.

Midwest ISO Annual Benefit: Investment[4]

Market-wide Improved Efficiencies Benefit	**Aquila Potential**
Planning reserves: $135 to $150 million	$2.3 to $2.6 million

Q. WHAT IS THE ACCUMULATED TOTAL FROM THE ABOVE GENERAL CATEGORIES OF BENEFITS THAT YOU DESCRIBE?

A. The following shows the summed total of the value benefits described above:

Midwest ISO Annual Benefit by Total Value Benefit[5]

Gross Annual Market-wide Benefit[6]	**Aquila Potential**[7]
$805 to $1,100 million	$13.9 to $18.9 million

[4] Figures reflect annual benefits reflected in 2007 U.S. dollars, including both current and achieved benefits and projected future benefits.

[5] Figures reflect annual benefits reflected in 2007 U.S. dollars, including both current and achieved benefits and projected future benefits.

[6] The Gross Benefits sum to slightly less than the individual components due to rounding and do not reflect the Midwest ISO operational and other cost components, which total approximately $250 million.

[7] The Aquila portion, if netted with its prorated portion of Midwest ISO operational costs (see Footnote 7), would be fixed at approximately $4.3 million less regardless of where in this range it fell.

Q. IN YOUR OPINION, IS THE COMMISSION'S RECORD BASED SOLELY ON THE AQUILA STUDY COMPLETE IF IT DOES NOT INCLUDE ALL OF THESE BENEFITS?

A. No, in my view it is not. I recognize that the study presented by Aquila was not intended to address and quantify each of these benefits, but rather, as Witness Pfeifenberger notes and corrects, it was designed to capture only the production cost savings. My testimony is intended to highlight and raise for consideration the full range of benefits recognized within the industry of full participation in the Midwest ISO beyond the limited items noted in the Aquila Study and discussed by Witnesses Pfeifenberger and Aquila Witness Dennis Odell.

Q. ARE THERE ADDITIONAL QUALITATIVE BENEFITS THAT THE COMMISSION SHOULD ALSO CONSIDER IN ITS ANALYSIS FOR A COMPANY SUCH AS AQUILA JOINING THE MIDWEST ISO?

A. Yes. In addition to the benefits discussed above, there are also a significant number of more difficult to quantify benefits that participants, including Aquila, derive from the existence and operation of the Midwest ISO. Failure to include these benefits in an evaluation will therefore understate the total benefits of participation in the Midwest ISO. For example, price signals that are provided by the Midwest ISO's Day-Ahead and Real-Time Markets provide a level of transparency that simply was not available prior to its inception. This greater level of transparency:

- allows users or participants to efficiently respond to market conditions and adjust consumption levels,
- enables platforms for demand participation in the form of price-responsive demand response programs, and

- supports investment analysis for future generation and transmission infrastructure development.

Another important but more difficult to quantify benefit is associated with coordinated regional transmission planning. In an independent environment, the process of building a new generator or expanding transmission can begin with the confidence that price signals being provided are true indicators of where needs exist. This trust flows through the planning process as an independent organization analyzes proposals and determines if the recommendations are in the best interest of the region. The Midwest ISO's big picture view and knowledge of the region affords the ability to more readily identify the strengths of proposed enhancements to the high voltage transmission system. This view, coupled with the Midwest ISO's independent nature, provides a level of confidence that support for projects is done with an eye toward supporting reliability and a strong market. On the reliability side, the Midwest ISO planning process strives to implement enhancements in a manner that allows energy to flow through the system in an effective, efficient, and reliable manner. On the business side, the planning process supports efforts to access low cost supplies while also reducing congestion on the system, making it easier to transfer energy between the buyer and seller. Since the Midwest ISO began regional planning, nearly $1 billion in improvement projects have been completed. These improvements include more than 460 miles of new transmission lines and upgrading almost 2,400 miles of transmission lines.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, this concludes my testimony.