

Exhibit No.:
Issues: Aquila's Application to
Join Midwest ISO
Witness: Carl A. Monroe
Sponsoring Party: Southwest Power Pool, Inc.
Type of Exhibit: Surrebuttal Testimony
Case No.: EO-2008-0046
Date Testimony Prepared: February 27, 2008

**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI**

**SURREBUTTAL TESTIMONY OF
CARL MONROE
EXECUTIVE VICE PRESIDENT AND
CHIEF OPERATING OFFICER
SOUTHWEST POWER POOL, INC.**

SPP Exhibit No. 9
Case No(s) EO-2008-0046
Date 4-14-08 Rptr KE

**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's for Authority to)
Transfer Operational Control of)
Certain Transmission Assets)
to Join the Midwest Independent)
Transmission System Operator, Inc.)

Case No. EO-2008-0046

AFFIDAVIT OF CARL A. MONROE

State of Arkansas)
) ss
County of Pulaski)

Carl A. Monroe, being first duly sworn on his oath, states:

1. My name is Carl A. Monroe. I am Executive Vice President and Chief Operating Officer of Southwest Power Pool, Inc. My address is 415 North McKinley, Suite 140, Plaza West Building, Little Rock, AR 72205-3020.
2. I participated in the preparation of the following Surrebuttal Testimony in question and answer form, consisting of 22 pages of Surrebuttal Testimony to be presented in the above case, that the answers in the following Surrebuttal Testimony were given by me; that I have knowledge of the matters set forth in such answers; and that such matters are true to the best of my knowledge and belief.



Carl A. Monroe

Subscribed and sworn before me this 26th day of February, 2008.




Notary Public

My commission expires: 12-31-2013

1 **Q. Please state your name, position and business address.**

2 **A.**My name is Carl A. Monroe. I am Executive Vice President and Chief Operating
3 Officer, Southwest Power Pool, Inc. My address is 415 North McKinley, Suite 140, Plaza West
4 Building, Little Rock, Arkansas 72205-3020.

5 **Q. What are your duties and responsibilities in your current position?**

6 **A.**As Executive Vice President and Chief Operating Officer, I have direct responsibilities
7 for the Regional Transmission Operator (RTO) Operations, Information Technology, and Market
8 Design and Analysis as well as provide strategic direction to the rest of the SPP organization. I
9 am also the SPP Staff Secretary to the Markets and Operations Policy Committee ("MOPC"), the
10 Committee that reviews many of the plans and policies related to information technology,
11 transmission planning, markets and operations before they are proposed to the Board of
12 Directors. In addition, I serve on the ISO/RTO Council Markets Committee.

13 **Q. Please describe your educational and professional background.**

14 **A.**I hold a Bachelor of Science degree in Electrical Engineering from Auburn University
15 with some post graduate work in Power System Engineering. I am a Professional Engineer
16 registered in the state of Missouri. I am a member of the Institute of Electrical and Electronic
17 Engineers and have 32 years of experience in power system operations and computer
18 applications. I recently completed Harvard Business School's Advanced Management Program.
19 Before joining SPP I was employed with Entergy Corporation and Union Electric ("Ameren") in
20 various management, engineering and operations positions.

21 **Q. Have you previously sponsored testimony before the Missouri Public Service**
22 **Commission or any other regulatory agency?**

1 **A.** I have not previously sponsored testimony before the Missouri Public Service
2 Commission. I have sponsored testimony at the Public Utility Commission of Texas, the Public
3 Service Commission of Arkansas, and the Federal Energy Regulatory Commission.

4 **Q.** **What is the purpose of your testimony?**

5 **A.** The purpose of my testimony is to respond to various parties' judgments and opinions
6 regarding SPP, its current operations, and its market development plans. More specifically, I
7 will respond to Richard Doying's value propositions of the Midwest ISO as they pertained to
8 Aquila. I will begin my testimony by describing the value that SPP has already provided to
9 Aquila and the additional value SPP can bring to Aquila in the future by remaining a Member of
10 SPP. I will respond to the various parties' claims regarding the status and projections of SPP's
11 market development. I will respond to these claims in a general manner by giving a brief status
12 of SPP's market and its market initiatives.

13 **Q.** **Please give a brief history of SPP and its relationship to Aquila.**

14 **A.** SPP came into existence in 1941 when 11 companies joined together to serve
15 critical national defense needs during World War II. When the war ended in 1945, SPP's
16 Executive Committee retained the organization to further the benefits of coordinated operation of
17 their electric systems. Aquila's predecessors Missouri Public Service Company and St Joseph
18 Light and Power joined SPP in 1951 and 1958, respectively. As a result of the Northeast power
19 interruption in late 1965, a number of reliability councils were organized, and in 1968 SPP
20 joined with 12 other reliability councils to form the North American Power Systems
21 Interconnection Committee, now known as the North American Electric Reliability Corporation
22 ("NERC"), in order to coordinate planning and operations of the continental transmission system
23 for reliable delivery of electricity. SPP incorporated as a not-for-profit corporation in 1994. In

1 1997, SPP began providing reliability coordination oversight for all its Members. Since 1998,
2 SPP has administered open-access transmission services across the SPP region under the terms
3 of an open-access transmission tariff, which was filed with and approved by the Federal Energy
4 Regulatory Commission ("FERC"). The transmission facilities used to provide service under the
5 SPP tariff are comprised of the transmission facilities owned by a number of its public and non-
6 public utility Members currently committed to the SPP tariff, including Aquila.

7 SPP, with Entergy Corporation, filed its second application with the FERC on October
8 13, 2000, seeking formal recognition as a Regional Transmission Organization (RTO) as set
9 forth in FERC Order 2000.¹ In a series of orders, from March 28, 2001 through July 12, 2001,
10 FERC concluded that SPP was not sufficient in scope and configuration to warrant the formal
11 recognition.² FERC directed that SPP work with other parties in the Southeast and the Midwest
12 to propose an RTO with a broader scope and configuration. SPP entered into discussions in July,
13 2001 with the Midwest ISO to determine if there was the possibility of a merger between the two
14 entities that would be acceptable to all parties.

15 On August 20, 2001, as Mr. Odell describes in his Direct Testimony (p. 3), Aquila filed
16 its application with FERC to transfer functional control of its transmission facilities to the
17 Midwest ISO. On March 4, 2002, SPP and the Midwest ISO entered into a Purchase and
18 Assumption Agreement ("Merger Agreement") whereby the Midwest ISO would purchase all of
19 the assets and assume all of the obligations of SPP. That agreement was filed with the FERC on
20 March 29, 2002 ("Merger Application Filing"). On May 31, 2002, the FERC conditionally

¹ See *Regional Transmission Organizations Order No. 2000*, III FERC Stats & Regs., Regs. Preambles ¶ 31,089 (1999), order on reh'g, *Order No. 2000-A*, III FERC Stats. & Regs., Regs. Preambles ¶ 31,092 (2000). In Order No. 2000, FERC strongly encouraged all public utilities that own, operate or control interstate transmission facilities to participate in a Regional Transmission Organization.

² See Docket No. RT01-34-000. *Southwest Power Pool, Inc., et al.*, 94 FERC ¶ 61,359 (2001) and *Southwest Power Pool, Inc., et al.*, 96 FERC ¶ 61,062 (2001).

1 accepted the Merger Agreement and directed further compliance filings, including a single
2 consolidated tariff between the Midwest ISO and SPP.³ On November 1, 2002, the Midwest ISO
3 filed a single, consolidated Resulting Company Tariff. Then on December 19, 2002, the FERC
4 conditionally accepted the tariff and set certain rates for settlement judge procedures.⁴ However,
5 on March 20, 2003, the Midwest ISO notified the FERC that the Boards of Directors of both the
6 Midwest ISO and SPP had voted to terminate the combination of the two entities. On April 4,
7 2003, the Midwest ISO filed a Motion to withdraw the proposed tariff amendments.

8 Then on October 15, 2003, in a third attempt to become a FERC recognized RTO, SPP
9 submitted an application pursuant to Section 205 of the Federal Power Act ("FPA"), 16 U.S.C. §
10 8244, and Section 35.34 of the FERC's regulations, seeking to establish that SPP fulfilled the
11 requirements of a Regional Transmission Organization. In orders issued in October 2004,⁵
12 FERC granted SPP RTO status subject to the fulfillment of certain limited requirements. During
13 this entire time, Aquila has remained an SPP Member.

14 Finally, on November 29, 2006, SPP's Members requested that it seek authority from
15 NERC and FERC to act as a Regional Entity authorized under the Federal Power Act of 2005.
16 On April 19, 2007, SPP received FERC's authorization as a Regional Entity.⁶ As a Regional
17 Entity, SPP, through an independent arm of its organization, has the authority to monitor
18 compliance and develop enforceable reliability standards for the region.

19 Aquila initially maintained its own Open Access Transmission Tariff (OATT) to provide
20 open access transmission service as required pursuant to Order No. 888. However, in order to

³ *Midwest Independent System Operator, Inc.*, 99 FERC ¶ 61,250 (2002).

⁴ *Midwest Independent System Operator, Inc.*, 101 FERC ¶ 61,319 (2002)

⁵ *Southwest Power Pool, Inc.*, 109 FERC ¶ 61,009 (2004) and *Southwest Power Pool, Inc.*, 109 FERC ¶ 61,008 (2004).

⁶ *North American Electric Reliability Corporation*, 119 FERC ¶ 61,060 (2007).

1 participate in the benefits of the SPP regional OATT, Aquila requested that SPP file an
2 application with FERC to include its transmission facilities under SPP's OATT. SPP filed that
3 application on June 7, 2005. Since that time SPP has provided transmission service to a number
4 of customers that rely on the transmission facilities of Aquila, including Kansas City Power and
5 Light Company and Empire District Electric Company.

6 As an SPP Member, Aquila has fulfilled all its obligations under the SPP Membership
7 Agreement as well as participated in all the organizational activities and functions of SPP.
8 Aquila has representatives on organizational groups of SPP, including the Market and Operations
9 Policy Committee, the Market Working Group, the Transmission Working Group, and others.
10 As a representative on the Market Working Group, Aquila provides guidance to SPP and its
11 Members on the existing EIS Market as well as future market development. As a representative
12 on the Transmission Working Group, Aquila provides guidance on studying the reliability of the
13 transmission system, on transmission expansion that is necessary to provide reliable delivery of
14 electricity and on economic efficiency. Aquila avails itself of all the services that SPP provides
15 except participation in the SPP EIS Market and reliability functions provided by the Midwest
16 ISO pursuant to an agreement of those two parties.

17 **Q. What is SPP's Mission?**

18 **A.** The SPP Board has adopted the following as the SPP Mission Statement: "Helping our
19 Members work together to keep the lights on – today and in the future." SPP Members expect
20 SPP to be Member driven ("Helping our Members"), collaborative ("work together"), reliability
21 focused ("to keep the lights on"), and forward looking ("today and in the future"). SPP's value
22 proposition follows these themes and illustrates the way SPP differentiates itself from other
23 transmission providers:

1 1. Relationship Based – SPP’s success is built on the relationships that its Members have
2 with each other and with the SPP staff. These relationships are in many cases, as with Aquila,
3 longstanding.

4 2. Member Driven – SPP benefits from its Members’ participation in the SPP
5 organizational groups and the decision making process. The Members are the only voting
6 representatives in most SPP organizational groups. In most of the SPP Board of Director’s
7 Committees the Members have a majority. In the Market and Operations Policy Committee of
8 the SPP Board of Directors, the Members are the only voting representatives. The only
9 exception to the above is the Oversight Committee of the SPP Board of Directors, which has
10 responsibility for SPP’s compliance with SPP governing documents, and thus it is completely
11 staffed by independent directors to avoid conflicts of interest. The Member Committee of the
12 SPP Board of Directors debates and votes on all issues presented at the SPP Board of Director’s
13 meetings. All SPP organizational meetings are open, including the SPP Board of Director’s
14 meetings, except in very limited circumstance when the Board of Directors is involved with
15 personnel or legal issues. The Board of Directors traditionally invites the members of the
16 Member Committee to participate in the closed sessions.

17 3. Independence Through Diversity – SPP derives its independence from the diverse set
18 of Members in SPP. SPP has a wide range of Members that participate in the SPP organizational
19 groups as shown below. SPP’s open meetings policy allows any interested stakeholder to observe
20 and participate in the discussions, thus increasing diversity. This diverse set of opinions provides
21 independence from the influence of any one group of Members.

22 4. Evolutionary vs. Revolutionary – SPP’s success is built upon over 40 years of being a
23 regional reliability council and now being an RTO. Over time, members have been able to

1 assess the cost and benefits that SPP provides and drive the functions and the development of
2 SPP to areas where the benefits exceed the costs.

3 5. Reliability and Economics Inseparable -- SPP is dedicated to the reliable delivery of
4 electricity to customers. Each decision of SPP for any change in reliability standards or
5 expansion has an inherent cost and each economic decision may have reliability implications.
6 Both cost and reliability must be considered in those decisions. Through participation in SPP,
7 the members can debate the reliability of the transmission system and the efficiency of the
8 delivery method in one organization. SPP expends a significant effort in addressing reliability
9 and economics in its annual SPP Transmission Expansion Plan ("STEP"), market design,
10 training, and any other functions of SPP.

11 **Q. Please provide a brief description of the SPP Transmission System and how**
12 **Aquila's transmission facilities are integrated into the SPP Transmission System.**

13 **A.** SPP has 50 Members serving more than four million customers in all or parts of eight
14 southwestern states in the Eastern Interconnection. This membership is comprised of investor-
15 owned utilities, municipal systems, independent transmission companies, generation and
16 transmission cooperatives, state authorities, federal power market agency (through contract),
17 wholesale generators, and power marketers.

18 SPP provides independent reliability coordination and tariff administration, pursuant to a
19 FERC-approved OATT, across its service area of over 33,000 miles of transmission lines owned
20 by its Members with a gross plant investment approaching \$4 billion. These 33,000 miles of
21 transmission lines are operated at 500, 345, 230, 161, 138, 115, and 69 (not set forth separately)
22 kilovolts, as follows:

23 500 kV 104 miles

1	345 kV	4,879 miles
2	230 kV	2,703 miles
3	161 kV	3,872 miles
4	138 kV	8,286 miles
5	115 kV	6,255 miles

6 SPP also provides the contract services of reliability coordination, tariff administration
7 and weekly procurement process oversight to Entergy Corporation and tariff administration to
8 Louisville Gas & Electric.

9 Since the 1950's SPP has assisted Aquila as a Member in integrating their transmission
10 facilities with the rest of the SPP transmission facilities for the system benefits (i.e. for Aquila
11 and the rest of SPP Members) of reliability and efficiency. As Staff witness Proctor has
12 observed (p. 29 of his Rebuttal Testimony), Aquila's transmission system is highly
13 interconnected with the Members of SPP. The following is a list of the interconnection points
14 between SPP and Aquila:

SPP / Aquila Interconnections

Bus Name (Aquila)	Bus Name (SPP)	Voltage	Summer Rating	Winter Rating	
Peculiar (Grand Oak)	Stilwell	345	717	717	
St Joe	Hawthorn	345	1138	1138	
St Joe	Iatan	345	956	956	
Sibley	Hawthorn	345	721	956	1
Nashua	Nashua	161	335	335	
Archie	Stilwell	161	224	224	
Archie	Montrose	161	224	224	
Martin City	Southtown	161	335	449	
Martin City	Martin City	161	335	335	
Roanridge	Barry	161	335	418	
Roanridge	Tiffany	161	335	335	
Roanridge	Nashua	161	335	418	
Duncan Road	Duncan Road	161	83	83	
Liberty South	Birmingham	161	212	212	
Liberty South	Liberty South	161	66	66	
Liberty	Glenare	69	66	66	
Lexington	Mayview Tap	69	107	107	
13&40	Mayview Tap	69	107	107	
Iatan	Iatan	161	605	605	
Alabama	Nashua	161	153	153	2
Sibley	Eckles	161	276	332	
Stranger	Stranger	345/161	400	400	

Q. In what ways has SPP already provided Aquila benefits in the planning and operations of its transmission system?

A. Aquila already receives the benefits of a member of a FERC approved RTO from its participation as a Member of SPP. SPP provides 1) increased reliability, 2) improved efficiency and 3) improved opportunities for development of generation and transmission infrastructure.

Q. How has SPP already provided Aquila reliability benefits?

A. SPP already provides Aquila the following reliability benefits compared to a stand alone transmission provider both during the operating (current time till a month ahead) and planning (months to years in the future) horizons: 1) improved reliability coordination, 2) enhanced seams management, and 3) regulatory compliance.

SPP reliability coordination efforts encompass all of SPP, including Aquila, as well as neighboring transmission systems, providing a "wide area" view of the state of the integrated

1 transmission systems as well as performing the same “what if” scenarios as any reliability
2 coordinator and RTO. SPP coordinates maintenance on transmission and generation facilities
3 with its Members and with neighboring entities. SPP provides increased reliability by
4 coordinating blackstart plans between the transmission owners in SPP, providing emergency
5 operations training as required by the NERC standards, providing state-of-art blackstart training
6 using a training simulator for more realistic training, providing compliance management
7 assistance, and conducting joint operating studies.

8 In the planning horizon, SPP coordinates and facilitates joint planning studies both for the
9 region as well as for local issues, identifies any concerns with future transmission system
10 operations, develops transmission expansion options or other means to mitigate concerns,
11 optimizes expansion plans across multiple transmission owners, coordinates and facilitates joint
12 planning for expansion with neighboring transmission systems, and supports the transmission
13 owners before their regulatory bodies in their efforts to gain approval for needed transmission
14 expansion.

15 SPP has enhanced seams management through its own operations as well as with seams
16 agreements with its neighbors. SPP has seams agreements with the Midwest ISO, AECI,
17 Entergy, TVA, and ERCOT. SPP also provides the reliability coordination for the Entergy
18 transmission system, which allows even better seams management.

19 SPP provides enhanced regulatory oversight through its Regional State Committee
20 (RSC). The RSC was formed in April of 2004 to provide guidance and proposals to SPP in
21 certain stated areas. As stated in SPP’s Bylaws:

22 **7.2 Regional State Committee⁷**

⁷ Filed to comply with order of the Federal Energy Regulatory Commission, Docket Nos. RT04-1-002 and ER04-48-002, issued July 2, 2004, 108 FERC ¶ 61,003.

1
2 An RSC, to be comprised of one designated commissioner from each state
3 regulatory commission having jurisdiction over an SPP Member, shall be established to
4 provide both direction and input on all matters pertinent to the participation of the
5 Members in SPP. This direction and input shall be provided within the context of SPP's
6 organizational group meetings as well as Board of Directors meetings. The SPP Staff will
7 assist the RSC in its collective responsibilities and requests by providing information and
8 analysis. SPP will fund the costs of the RSC pursuant to an annual budget developed by
9 the RSC and submitted to SPP as part of its budgeting process, which budget must
10 ultimately be approved by the Board of Directors.
11

12 The RSC has primary responsibility for determining regional proposals and the
13 transition process in the following areas:

- 14 (a) whether and to what extent participant funding will be used for transmission
15 enhancements;
16 (b) whether license plate or postage stamp rates will be used for the regional
17 access charge;
18 (c) FTR allocation, where a locational price methodology is used; and
19 (d) the transition mechanism to be used to assure that existing firm customers
20 receive FTRs equivalent to the customers' existing firm rights.
21

22 The RSC will also determine the approach for resource adequacy across the entire
23 region. In addition, with respect to transmission planning, the RSC will determine
24 whether transmission upgrades for remote resources will be included in the regional
25 transmission planning process and the role of transmission owners in proposing
26 transmission upgrades in the regional planning process.
27

28 The RSC has been very effective in developing innovative proposals and guidance to
29 both enhance the services that SPP provides and increase the efficiency of the operation and
30 planning of the transmission system. As one example, the RSC developed a proposal to share
31 some of the costs of transmission expansion necessary to maintain reliable delivery of electricity.
32 This proposal was filed with FERC and accepted to be included in the OATT. That proposal is
33 now embodied as Attachment J of SPP's OATT. Aquila will benefit from the increased
34 reliability as well as the cost sharing available as a result of this change in the OATT.

1 **Q. In light of these reliability benefits already provided to Aquila by SPP, what is your**
2 **conclusion regarding the benefits Mr. Doying describes on page 9 of his Rebuttal**
3 **Testimony?**

4 A. SPP today provides Aquila all the reliability benefits he enumerated and the added ones
5 that I described above.

6 **Q. How has SPP already provided Aquila improved efficiency?**

7 A. Aquila, from 1991, has enjoyed the benefits of reduced operating reserve requirements by
8 participating as a full Member in the SPP Operating Reserve Group. Also, because Aquila's
9 transmission system is highly integrated with the other SPP Members, Aquila's capacity margin
10 (also known as "planning reserve") is lower because they benefit from the ability to meet their
11 requirements by relying on the transmission system and capacity margin of others in SPP.

12 Aquila has also benefited from participation in the SPP OATT with their transmission
13 system. Aquila shares in the revenue that SPP collects from transmission customers that use the
14 transmission system of SPP. For 2007, Aquila received \$5.4 million in revenue from the use of
15 their facilities. In addition, Aquila, as a transmission customer, has purchased the use of the SPP
16 transmission facilities to deliver energy to its load for one charge across the entire SPP system.

17 **Q. In what ways would Aquila's continued participation in SPP provide Aquila**
18 **additional efficiency benefits?**

19 A. As a continuing Member, Aquila could gain additional benefits from participation in the
20 SPP EIS Market. The other utilities in Missouri, including Kansas City Power and Light, Board
21 of Public Utility, Kansas City, and Empire District Electric Company, have already gained this
22 benefit in efficiency. Since Aquila is highly interconnected with these utilities, they would also
23 benefit from Aquila's participation in the EIS Market.

1 As a Member of SPP, Aquila has been involved in determining the future direction of
2 SPP and the additional benefits that SPP can provide. First, the balancing authorities of SPP,
3 including Aquila, are working to write procedures and agreements that would consolidate the
4 operation of the balancing authority function, thereby reducing costs of personnel, training, and
5 compliance and reducing the amount of regulation capacity needed to meet the NERC standards.
6 SPP's balancing authorities estimate a benefit of between \$4 and \$19 million annually through
7 this consolidation with an up front expenditure of less than \$2 million necessary to implement
8 this change. There would be an estimated \$1 million annual operating cost for the provision of
9 these services. Should the balancing authorities and SPP agree to consolidate the balancing
10 authority function, it is estimated that the actual consolidation would take 11 months.

11 Second, Aquila is involved in shaping the future Ancillary Service and Day Ahead
12 Energy and Capacity Markets. This will be described in more detail below.

13 Third, Aquila would also benefit from reduced costs by SPP performing the reliability
14 services that Aquila now purchases from the Midwest ISO. SPP's administration fee is currently
15 only \$0.19/Mwh of load for all SPP's RTO services, including EIS Market participation, which
16 Aquila already pays for membership in SPP.

17 **Q. How has SPP already provided Aquila improved long-term investment planning**
18 **benefits?**

19 **A. SPP provides to its Transmission Customers an Aggregate Transmission Study Process**
20 described in Attachment Z of its OATT. This aggregate study process allows for a number of
21 customers to share the costs of upgrades that would be required for new transmission service.
22 This process allows for more effective solutions to constraints and more equitable allocation of
23 costs of transmission upgrades. This is a unique and innovative process that only SPP provides.

1 Aquila has requested transmission service from SPP and has used the aggregate study process to
2 determine what is required to provide that transmission service. Even if the transmission
3 customer bears an up front cost for transmission upgrades to provide the transmission service,
4 the SPP OATT provides for revenue credits to that customer if other customers use the
5 transmission upgrades.

6 **Q. In what ways would Aquila's continued participation in SPP provide additional**
7 **long-term investment planning benefits?**

8 **A.** Aquila will benefit by sharing the costs of reliability projects. Currently within the
9 STEP, Aquila's need for reliability transmission expansion includes \$38 million of transmission
10 upgrades. These upgrades are eligible for Base Plan Funding (BPF) as described in Attachment J
11 of SPP's OATT. BPF is the cost allocation for reliability transmission expansions developed by
12 the RSC and approved by FERC. BPF allocates 33% of the costs of these upgrades across the
13 SPP region as a postage stamp rate and allocates 67% of those costs to zones in SPP that benefit
14 from the upgrade. In addition, BPF can also include the cost of new facilities to deliver power
15 from new designated resources to load. Aquila should also benefit from this aspect of
16 Attachment J.

17 The RSC, in January 2008, unanimously approved a concept whitepaper that proposes a
18 sharing of the cost of a balanced portfolio of high voltage "economic projects" across SPP if the
19 costs are exceeded by benefits in each of the areas of SPP. These "economic projects" are
20 projects that would provide lower cost energy and capacity alternatives within the SPP region,
21 including Aquila. There is already one project, identified in the STEP which has been estimated
22 to provide benefits in the Aquila area. SPP projects that the project provides more benefits than
23 costs and would certainly be eligible for consideration in the balanced economic portfolio.

1 Because Aquila has commitments for resources that are shared with other SPP Members,
2 participation in SPP will provide for "one-stop" shopping to determine the transmission needs
3 for those resources. Aquila would also benefit by this "one-stop" shopping for any future
4 commitments with other SPP Members.

5 SPP's Members are working through their Committee structure to develop a more
6 responsive method to address a concern that is of national significance, the queue for generator
7 interconnections. The Members of SPP have formed a Generation Queue Improvements Task
8 Force to improve the process used by SPP.

9 **Q. Has SPP quantified all the benefits that Aquila has or would continue to derive from**
10 **its continued participation in SPP?**

11 **A.** The RSC, in 2005, did a cost/benefit analysis of its Members' continued participation in
12 SPP and of their participation in the EIS Market. This analysis quantified a limited set of
13 benefits that included regional reliability, regional tariff administration and transmission service
14 revenues, and participation in the EIS Market. SPP is committed to analyzing the costs and
15 benefits of any future market steps, as it did with the EIS Market, to ensure that each step is the
16 "right thing" to do.

17 However, SPP has been reluctant to make an assessment of "all the benefits" provided by
18 SPP because the quantification techniques for some of the benefits are not straight forward and
19 can be subjective based on the assumptions in those techniques and on the accuracy of the tools
20 and models used. One such example is the "reliability benefit" resulting from evaluating the
21 reduced size, duration, cost and probability of transmission outages, also known as "loss of
22 load." Such events are often circumstance specific and rare. Therefore, it is difficult to identify
23 the specific, quantifiable improvement that the RTO provided from which to quantify the benefit

1 although it is quite apparent that a benefit does exist. Based on the small cost of participation in
2 SPP and each Member's knowledge of their benefits, SPP Members continue to entrust SPP with
3 providing additional services.

4 **Q. What is the status of SPP's market development?**

5 **A.** As part of the 2006 SPP Strategic Plan, the SPP Members directed SPP to explore future
6 market steps that would provide added benefits. SPP Members worked in 2007 to provide a high
7 level design of future market possibilities.

8 SPP issued an RFP for a Cost/Benefit Analysis on future market steps that would include
9 Ancillary Service Markets, Day Ahead Markets, and scenarios to evaluate changes in
10 transmission rights. SPP Members and representatives of the RSC have formed a Cost/Benefit
11 Task Force. The Task Force is in the process of reviewing responses to that RFP and will be
12 recommending a vendor within the next few weeks. The schedule for completion of the Study
13 would allow the Members and the SPP Board of Directors to make decisions in the fall of 2008
14 on what route to follow. The SPP Market Working Group is already working on the details that
15 would describe how these markets would work and what changes to SPP's OATT and business
16 practices would be required. The SPP Members' commitment to this process has indicated a real
17 desire to capture any potential benefits as quickly as possible.

18 **Q. Does the city of Independence witness Volpe accurately describe the current**
19 **SPP EIS Market on pages 6-7 and page 9 of his Rebuttal Testimony?**

20 **A.** No. Contrary to Mr. Volpe's description, SPP's current EIS Market is more than
21 just a market for the provision of imbalance energy. For the first year of operation, even though
22 the market is voluntary, the market participants have made 70-80% of their resources available
23 for EIS dispatch. The centrally administered EIS Market can substitute lower cost energy for the

1 market participants' resources to meet their loads, not just the imbalance between their schedule
2 and actual production. Market Participants hedge against congestion costs by scheduling on their
3 previously obtained transmission rights. The pricing in this EIS Market is locational marginal
4 pricing ("LMP") and provides economic resolution of congestion. NERC Transmission Loading
5 Relief procedures ("TLRs") are used to notify external parties of the need to resolve congestion
6 even if the EIS Market can resolve all the congestion. The SPP EIS Market has demonstrated
7 that an LMP market more effectively utilizes the transmission system, as the CRA study
8 submitted by Aquila in this case points out.

9 **Q. Does the city of Independence witness Volpe accurately describe SPP's**
10 **market development status on page 8 of his Rebuttal Testimony?**

11 **A.** No, SPP has a high level design for future market steps. This has been used to
12 budget the future market steps as well as issue the RFP for the cost/benefit analysis mentioned
13 above. The analysis will help SPP determine the best direction for SPP and its Members.

14 **Q. What is SPP's proposed timeline for implementation of the additional markets in**
15 **the event the Cost Benefit Study shows a benefit from the development of such additional**
16 **markets?**

17 **A.** SPP is already working on defining the future markets in greater detail. Therefore, the
18 timeframe for implementation should be minimized. The Market Working Group is projecting
19 that it would take about thirty-six (36) months to implement both Ancillary Services and Day-
20 Ahead Markets. This means that SPP could implement these future markets between the end of
21 2010 and 2012.

22 **Q. Mr. Volpe claims at page 10 of his Rebuttal Testimony that "[t]he RTO**
23 **administrative costs associated with developing and operating an energy market are largely**

1 fixed costs” and that [t]herefore, given that recovery of the fixed costs are to be spread over
2 a smaller denominator in SPP compared to a larger denominator in the Midwest ISO, it
3 would be logical to conclude that the share of administrative costs associated with Aquila’s
4 participation in SPP to be higher due to the fact that there are significantly less billing
5 determinants or load to spread these fixed costs over.” Do you agree?

6 A. No, both from my experience and the experience of SPP.

7 There are a number of factors that influence the cost of these types of efforts. First, the
8 major contributor is the required functionality. As I have already discussed, SPP is taking an
9 incremental approach to its market development, determining whether each step will be cost
10 beneficial for its Members. Consistent with this philosophy, the RFP has described a study of
11 incremental improvement in the market. It identifies the following four cases:

12 **Change Case I – Day-Ahead Market with Unit Commitment**
13 **Addition Only**
14

15 This study must assess adding only a multi-settlement energy market without an ancillary
16 services market to the base case. It would have the DAM and unit commitment aspects,
17 as well as the real-time EIS market. The study should be assessed over a five-year period
18 beginning in 2009.
19

20 **Change Case II – Day-Ahead Market with Unit Commitment and**
21 **Co-optimized Ancillary Service Market (All Inclusive)**
22

23 This study must include all enhancements as described in this document. The All
24 Inclusive Study should be assessed over a five-year period beginning in 2011. The study
25 should include an analysis of the following sensitivities:
26

- 27 • Addition of Transmission Rights (FTRs) similar to those found in other markets.
- 28 • Addition of Transmission Service Rights Option (TSRO) described in this
- 29 document.
- 30

31 The Incremental Implementation Study should be assessed over an eight-year period
32 beginning 2009 with a:
33

- 34 • Day-Ahead market with unit commitment followed by an Ancillary Services
- 35 market implemented in 2011.

- Ancillary Services market followed by a Day-Ahead market with unit commitment implemented in 2011.

Change Case III – Ancillary Services Market Addition Only

This study must assess adding only an Ancillary Services market to the base case. This would not require the multi-settlement aspects of the Energy or Ancillary Services markets described above. To the extent real-time co-optimization can be utilized, that should be considered; however, the Ancillary Services would be cleared in a day-ahead time frame for the next day. The study should be assessed over a five-year period beginning in 2009.

Change Case IV – Simplified Day-Ahead Market with Unit Commitment

This study will assess a more simplified approach to a Day-Ahead (DA) market with limited additional participation features and very close in structure to the current realtime EIS market. It would still maintain the centralized unit commitment aspects described for the more robust DAM, but would not allow virtual bids and offers, dispatchable schedules, or up-to-congestion schedules. The intent is to bring buyers and sellers together in the Day-Ahead through the bids and offers to the extent possible, but not necessarily having the same level of price certainty, since scheduled amounts could be curtailed from Day-Ahead levels. The study should be assessed over a five-year period beginning in 2009.

The simple DAM approach will require transmission service reservations and require evaluation of AFC, including internal non-firm transactions. Scheduled amounts would continue to provide both the energy cost hedge and the congestion hedge, and any curtailment would affect both components. This approach also allows non-firm reservations, assuming they remain in place, to be a congestion hedge. Simultaneous feasibility would be assessed, including non-firm schedules and curtailments performed on a priority basis, as occurs today. Schedules, firm or non-firm, may be curtailed from DA levels in order to achieve real-time feasibility, even if feasible in the day-ahead clearing process. The resulting deviation in schedule between Day-Ahead and real-time would expose the source and sink to real-time LIPs for the deviation. For this design, AFC would still be required to be assessed on all reservation requests, even for transactions wholly within the market footprint.

Second, SPP Members work diligently with SPP staff. This will allow it to ensure that the requested functionality can be provided at low cost, even exploring alternatives that provide the majority of the functionality at a much lower cost. This “Member driven” design ensures logical and effective decisions for successful and cost effective markets. Third, this project is

1 not being driven by a schedule that would require extensive one-time costs. Fourth, SPP
2 Members will bear the costs of their portion of the implementation. This will ensure a rational,
3 studied approach to the costs for each system modification. Fifth, SPP has benefited from the
4 preceding development of new functionality by other RTOs. This will allow SPP to select from
5 those pieces of earlier applications that fit SPP's specific needs, thus allowing SPP to reduce
6 expenses and reduce time in "working through the bugs" of any new development. Lastly, there
7 are a number of costs that are directly related to the scale of the functionality. These include
8 hardware needed to perform the function, software license and maintenance fees, personnel
9 needed to perform the function, size and number of facilities, and size of support staff. SPP's
10 efforts will enable it to minimize these costs.

11 As shown by the current cost of participation in SPP, SPP has been successful in
12 providing the benefits that our Members desire at a much reduced administration fee. In
13 addition, SPP is using revenue from the administrative fee to repay the debt on the initial
14 implementation costs of the functions that SPP has implemented and not just to pay financing
15 charges.

16 SPP's budget presented in October 2007 estimates the capital costs of the currently
17 conceived Ancillary Services Market at \$10 million through 2011 and the capital costs of the
18 consolidation of the balancing authorities at \$2 million. These estimates include changes to the
19 real-time market resulting from an Ancillary Services Market. Ongoing costs will be estimated
20 as part of the current Cost Benefit Study. The estimated impact of the capital costs on the
21 administrative fee is approximately 1 cent.

Costs for the Day Ahead Market have not yet been estimated. However, the Cost Benefit Study will provide cost estimates for the Day Ahead Market and will refine the cost estimates of the Ancillary Services Market.

Q. Do you have any comments regarding Mr. Pfeifenberger's Rebuttal and Supplemental Rebuttal Testimony?

A. Yes, I have a general observation regarding his conclusions pertaining to the unit commitment of the Dogwood (Aries) generation plant in the CRA study. At page 9 of his Rebuttal Testimony he concludes that, "In the 'Aquila Stand Alone' and 'Aquila in Midwest ISO' cases, the Aries plant is committed and dispatched (mostly only at minimum load) routinely even when the price for power is less than the cost of operating the Aries plant. As such, the mode results are unrealistic." In my experience, and based on the system capability between Aquila and the Midwest ISO presented by Staff witness Proctor, there is a reasonable explanation for the unit dispatch difference. In my experience, a plant that exhibits these characteristics is usually driven by the need for generation capacity to meet the demands of a constrained area. This outcome would be expected due to the limited tie capacity between Aquila and the Midwest ISO market, but not with the extensive interconnections between Aquila and SPP. Based on these observations, I recommend the Commission not dismiss the production cost savings shown in the CRA study for the SPP Case.

Q. Please respond to Mr. Pfeifenberger's conclusions on pages 13 and 14 of his Supplemental Rebuttal Testimony.

A. I believe that Mr. Pfeifenberger's conclusions are an optimistic best case scenario for the Midwest ISO. However, based on the CRA study and my stated observations regarding Mr.

1 Pfeifenberger's testimony, I believe there are still significant production cost advantages for
2 Aquila to remain a Member of SPP.

3 In addition, most of the benefits of Midwest ISO membership Mr. Doying quantifies in
4 his Rebuttal Testimony are already being provided to Aquila by SPP. Thus, such benefits are
5 certainly overstated in the case of Aquila. As a result, I believe that there is little additional
6 benefit from Aquila joining the Midwest ISO.

7 **Q. Do you have any concerns regarding Aquila's joining the Midwest ISO?**

8 **A.** Yes, I do. I have concerns with the limited system capability between Aquila and the
9 Midwest ISO identified by Staff witness Proctor at pages 29 through 32 of his Rebuttal
10 Testimony. As I have already mentioned, I believe this is a likely reason for the CRA study
11 showing a significant production cost savings for Aquila in the SPP Case. Such limited transfer
12 capability could also implicate efficiency issues as Aquila participates in the Midwest ISO
13 market. In the event that the Commission grants Aquila permission to transfer functional control
14 of its transmission facilities to the Midwest ISO, SPP will work with the parties to achieve this
15 transition. However, this effort will require additional processes to guard market efficiency and
16 provide equitable treatment for SPP Members and Aquila.

17 Also, it will be imperative that there be a seams agreement in place between AECI and
18 the Midwest ISO as Staff witness Proctor points out. The seams agreement between the Midwest
19 ISO and AECI should require joint transmission expansion between the parties in order to relieve
20 some of those efficiency limitations and should describe how the costs of that transmission
21 expansion will be shared.

22 **Q. Does this conclude your testimony?**

23 **A.** Yes, it does.