

ORIGINAL



BEFORE THE ARIZONA CORPORATION COMMISSION

- 2 COMMISSIONERS
- 3 KRISTIN K. MAYES
- 4 GARY PIERCE
- 5 PAUL NEWMAN
- 6 SANDRA D. KENNEDY
- 7 BOB STUMP

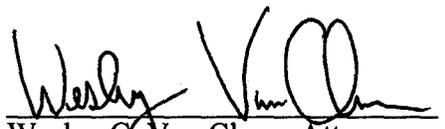
8 IN THE MATTER OF THE APPLICATION OF  
 9 SULPHUR SPRINGS VALLEY ELECTRIC  
 10 COOPERATIVE, INC. FOR A HEARING TO  
 11 DETERMINE THE FAIR VALUE OF ITS  
 12 PROPERTY FOR RATEMAKING PURPOSES,  
 13 TO FIX A JUST AND REASONABLE  
 14 RETURN THEREON, TO APPROVE RATES  
 15 DESIGNED TO DEVELOP SUCH RETURN  
 16 AND FOR RELATED APPROVALS.

DOCKET NO. E-01575A-08-0328  
  
**STAFF'S NOTICE OF FILING  
 DIRECT TESTIMONY**

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Staff of the Arizona Corporation Commission ("Staff") hereby files the Direct Testimony of Staff Witnesses Jerry E. Mendl (Public Version) in the above-referenced matter. A confidential version of Jerry E. Mendl's Direct Testimony has also been provided under seal to the Commissioners, their Assistants, the assigned Administrative Law Judge, and the parties that have signed the Protective Agreement in this case.

RESPECTFULLY SUBMITTED this 9<sup>th</sup> day of February, 2009.

  
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**REDACTED**

**DIRECT**

**TESTIMONY**

**OF**

**JERRY E. MENDEL**

**DOCKET NO. E-01575A-08-0328**

**IN THE MATTER OF THE APPLICATION OF  
SULPHUR SPRINGS VALLEY ELECTRIC  
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DETERMINE THE FAIR VALUE OF ITS  
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TO FIX A JUST AND REASONABLE RETURN  
THEREON, TO APPROVE RATES DESIGNED  
TO DEVELOP SUCH RETURN AND FOR  
RELATED APPROVALS.**

**FEBRUARY 9, 2009**

**BEFORE THE ARIZONA CORPORATION COMMISSION**

KRISTIN K. MAYES  
Chairman  
GARY PIERCE  
Commissioner  
PAUL NEWMAN  
Commissioner  
SANDRA D. KENNEDY  
Commissioner  
BOB STUMP  
Commissioner

IN THE MATTER OF THE APPLICATION OF )  
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THEREON, TO APPROVE RATES DESIGNED )  
TO DEVELOP SUCH RETURN AND FOR )  
RELATED APPROVALS. )

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DOCKET NO. E-01575A-08-0328

REDACTED

DIRECT

TESTIMONY

OF

JERRY E. MENDEL

ON BEHALF OF

UTILITIES DIVISION

ARIZONA CORPORATION COMMISSION

FEBRUARY 9, 2009

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**EXECUTIVE SUMMARY  
SULPHUR SPRINGS VALLEY  
ELECTRIC COOPERATIVE, INC.  
DOCKET NO. E-01575A-08-0328**

The Arizona Corporation Commission (“ACC”) secured the services of MSB Energy Associates, Inc. (“MSB”), to evaluate Sulphur Springs Valley Electric Cooperative, Inc. (“SSVEC”) power purchases made since January 1, 2008. The purpose of the review is:

- To evaluate SSVEC’s procurement process for power purchases from the spot market and suppliers other than the partial requirements service from Arizona Electric Power Cooperative (“AEPSCO”).
- To identify deficiencies in SSVEC’s power procurement process and make recommendations for improvements.
- To determine whether the costs incurred for purchase power since January 1, 2008 are indicative of SSVEC’s future purchase power.

In conducting its analysis, MSB analyzed institutional factors (the existence of organizational structure and procurement procedures), execution (of the procurement procedures), prices (paid relative to market), and alternatives (that SSVEC might use to reduce costs).

**Conclusions:**

MSB concluded that the prices SSVEC paid in 2008 are not likely to be representative of purchase power prices it will incur in 2009 and beyond. MSB also concluded that the negotiated prices SSVEC paid for power from third party suppliers were significantly higher than those paid under the AEPSCO contract or the spot market. MSB would expect future prices for third party power to be relatively lower compared to market prices. This is because MSB would expect that revised procedures and organization, which were in transition in 2008 as a result of conversion from full to partial requirements service, would result in improved performance.

**Institutional Factors:**

Are SSVEC’s organization structure and power procurement procedures appropriate? No.

I recommend that the Commission direct SSVEC to:

- a. Define and document the responsibilities and limits of authority to make decisions about power supplies and purchases;
- b. Establish and document a clearly enforceable set of checks and balances on the authority of personnel involved in power supply planning and power procurement;
- c. Develop written procedures for power supply planning and power procurement and formally approve them;
- d. Formalize and document the communication of power supply planning and procurement strategies and procedures to the responsible personnel;
- e. Develop, document and implement a power procurement monitoring mechanism; and
- f. Develop and implement a mechanism to review and update power procurement procedures.

**Execution:**

Did SSVEC appropriately follow its power procurement procedures? No, because SSVEC has not adopted written formal power procurement procedures, I could not make the determination that SSVEC appropriately followed its procedures. SSVEC also has not developed mechanisms to monitor its performance and adjust its procedures as warranted.

I recommend that the Commission require SSVEC to:

- a. Develop and formally adopt written power procurement policies/procedures;
- b. Develop a mechanism to monitor changing market conditions and make deviations from the adopted policies/procedures when appropriate (temporary changes in conditions/circumstances); and
- c. Develop a mechanism to update the written policies/procedures when permanent changes in conditions/circumstances warrant.

Prices:

Were SSVEC's power purchases made at prices favorable compared to regional market prices? No. On average, SSVEC's purchases from third party suppliers were substantially more expensive than the spot market, as measured by WAPA balancing power transactions. Ninety percent of the WAPA balancing transactions occurred at prices less than the negotiated prices that SSVEC paid for third party purchases. Both third party and average balancing power transactions were at prices substantially above AEPCO full or partial requirements service supplies in the January 1-October 31 2008 time period.

I recommend that the Commission:

- a. Find that the third party power supplies secured by SSVEC, in lieu of remaining a full service customer of AEPCO, were at substantially higher prices than power supplies from AEPCO.
- b. In an effort to reduce the relative cost of third party power supplies, direct SSVEC to formalize and upgrade its power planning process to ensure it appropriately considers the full spectrum of resources available to it.
- c. In an effort to reduce the relative cost of third party power supplies, direct SSVEC to formalize and upgrade its power procurement process to ensure it identifies and appropriately implements available resources and holds SSVEC accountable (e.g., timing of purchases and RFPs, optimize purchases and sales).
- d. Direct SSVEC to verify and document that WAPA balancing transactions are conducted at market prices and that they are done in a manner consistent with SSVEC's interests.

Alternative approaches:

Are there alternative approaches that would be more appropriate to ensure that SSVEC's purchased power costs are prudent and reasonable? Yes.

I recommend that SSVEC:

- a. Upgrade and document its power planning and procurement processes as indicated in other parts of my testimony.
- b. Assess electricity market conditions and adapt power procurement procedures and alternatives to changes in markets. If the electricity market is not sufficiently vibrant and liquid, the market will not be a reliable source of inexpensive power and will provide little opportunity to improve upon the AEPCO full requirements service.

- c. Continue to evaluate physical hedges to market prices, including long term purchased power options, long term joint generation ownership options, and also the development of a local peaking generation facility.
- d. Evaluate demand response programs and energy efficiency programs to reduce market exposure.
- e. Evaluate financial hedges and laddered purchasing strategies to reduce market price volatility.
- f. Evaluate returning to full requirements service if SSVEC cannot demonstrate an actual benefit from utilizing electricity markets to supplement partial requirements services from AEPCO.

1    **INTRODUCTION**

2    **Q.    Please state your name and business address.**

3    A.    My name is Jerry E. Mendl. I am the President of MSB Energy Associates, Inc. ("MSB").  
4        My business address is MSB Energy Associates, Inc., 1800 Parmenter Street, Suite 204,  
5        Middleton, Wisconsin 53562.

6  
7    **Q    Does Exhibit JEM-1 summarize your qualifications?**

8    A.    Yes.

9  
10   **Q    What is the purpose of your testimony?**

11   A.    I am appearing on behalf of the Staff of the Arizona Corporation Commission - Utilities  
12        Division to address the prudence of Sulphur Springs Valley Electric Cooperative, Inc.'s  
13        ("SSVEC " or "the Cooperative") electric power procurement practices since January 1,  
14        2008, the date that SSVEC converted from full requirements to partial requirements  
15        service from Arizona Electric Power Cooperative, Inc. ("AEPCO"). Since SSVEC ended  
16        its full requirements contract for power supplies from AEPCO on December 31, 2007, its  
17        2008 electric power purchases under the partial requirements contract with AEPCO and  
18        from other electric power suppliers represent a known change from the test year.

19  
20   **Q.    How did you conduct your analysis?**

21   A.    I assessed the reasonableness of SSVEC's electric power purchases in 2008 and  
22        considered the extent to which the 2008 experience could be indicative of SSVEC's  
23        electric power purchases in the future. My analysis is intended to address four major  
24        elements:

25        I.     Are SSVEC's organization and power procurement procedures appropriate?

26        II.    Did SSVEC appropriately follow its power procurement procedures?

1           III.    Were SSVEC's power purchases made at prices favorable compared to regional  
2                    market prices?

3           IV.    Are there alternative approaches that would be more appropriate to ensure that  
4                    SSVEC's purchased power costs are prudent and reasonable?

5  
6   **Q.    What are your principal findings?**

7    A.    In my review of SSVEC's electric power procurement practices, I concluded:

- 8           1.    That purchased power prices SSVEC incurred in January 1 – October 31 2008 are  
9                    not likely to be representative of purchase power prices in 2009 and beyond.
- 10          2.    That SSVEC's organizational structure and power planning and procurement  
11                    procedures should be upgraded and documented.
- 12          3.    That SSVEC should develop mechanisms to assess its power procurement  
13                    performance and to make improvements to its organizational structure and power  
14                    procurement procedures when warranted.
- 15          4.    SSVEC's negotiated third party power supply prices were significantly higher than  
16                    spot market prices and the AEPCO full or partial requirements service.
- 17          5.    SSVEC should assess other approaches to assure reasonable purchase power costs,  
18                    including physical hedges, financial hedges, demand response and energy  
19                    efficiency programs.

20

21   **INSTITUTIONAL FACTORS**

22   **Are SSVEC's organization and power procurement procedures appropriate?**

23   **Q.    What elements should the Commission consider in determining whether SSVEC is**  
24           **appropriately organized to plan for and procure its power supplies?**

25    A.    An appropriate structure should clearly define who has the authority to make decisions  
26            about power supplies and purchases. These decisions should include integrated resource

1 planning decisions to determine whether SSVEC should build or purchase power plants,  
2 initiate demand response programs, initiate energy efficiency programs, purchase power  
3 from designated power plants, purchase power from the regional spot market, or some  
4 combination of these resource options. These decisions will also encompass the volumes  
5 of each resource to be acquired, based on need, cost, reliability and risk factors. My  
6 analysis emphasizes the power purchase component, but considers the other resource  
7 options only to the extent of putting the power purchases in context of the resource options  
8 available to SSVEC.

9  
10 An appropriate structure will also clearly indicate the limits on that authority. It may be  
11 appropriate for low cost, low volume, low risk resource acquisitions to be addressed at  
12 lower levels in the organization, with increasingly higher levels of approval required as  
13 the decisions increase in terms of potential impacts.

14  
15 An appropriate structure will also provide checks and balances to ensure that no single  
16 individual has excessive authority and to ensure that potential abuses would be discovered  
17 on a timely basis.

18  
19 **Q. What elements should the Commission consider in determining whether SSVEC has**  
20 **appropriately implemented power procurement procedures?**

21 **A.** Appropriate implementation of power procurement starts with a well-defined statement of  
22 objectives.

23  
24 To achieve these objectives, the Cooperative should develop written and documented  
25 formal power procurement procedures. Ideally, top-level management should adopt these  
26 written formal procedures to ensure that the procurement procedures are given high

1 priority by those who are responsible for implementing them. As a minimum, the  
2 procedures, even if not formally adopted by top-management, should be written to provide  
3 guidance to and a benchmark for, measuring the performance of those responsible for  
4 procuring power.

5  
6 Appropriate implementation of power procurement also requires that the power  
7 procurement procedures are communicated to those employees responsible for  
8 implementing them. To ensure that all relevant employees are aware of the power  
9 procurement procedures, the Cooperative should establish training programs, internal  
10 communications, job performance criteria and job performance evaluations.

11  
12 A method to systematically evaluate progress and results is a key element of an  
13 appropriately implemented power procurement procedure. This mechanism should  
14 monitor the results of the chosen power procurement approach and compare them to the  
15 results had other approaches been used. This mechanism should identify opportunities for  
16 improvement and stimulate the Cooperative to be open to changing procedures to improve  
17 power procurement performance.

18  
19 Finally, the power procurement procedure should include a mechanism to update the  
20 procedure to incorporate improvements and mitigate deficiencies identified in the  
21 monitoring phase. This feedback loop is an important feature of an appropriately  
22 implemented power procurement procedure. The updating phase creates the expectation  
23 that the Cooperative will change its power procurement procedures when conditions  
24 warrant (as identified in the monitoring phase).

25

1 **Organizational Structure**

2 **Q. Did you request information from SSVEC to enable you to evaluate its organization**  
3 **relative to power procurement and purchase power procurement process?**

4 A. Yes. I developed a substantial set of data requests addressing these topics and received  
5 responses from SSVEC.

6

7 **Q. In your opinion, are SSVEC's existing organizational structure and power**  
8 **procurement procedures adequate and appropriate?**

9 A. No. In converting from a full requirements contract with AEPCO to a partial requirements  
10 service, SSVEC substantially increased its responsibility for ensuring reliable and  
11 economic service to its customers. Under the full requirements contract, AEPCO planned  
12 for and supplied all of the energy and capacity SSVEC needed. SSVEC's responsibility  
13 related to power procurement under the full requirements contract, was to provide AEPCO  
14 with its load forecast. AEPCO was responsible for the rest. Please refer to SSVEC's  
15 response to JM 14.10, which is attached as Exhibit JEM-2, page 1.

16

17 Under the partial requirements service contract, AEPCO is responsible for supplying the  
18 amounts of capacity and energy specified in the contract at the specified prices. AEPCO  
19 is but one of SSVEC's sources of electric power, although it currently still supplies most  
20 of SSVEC's power. SSVEC is now responsible for ensuring that it has adequate power  
21 supplies, from reliable sources at reasonable prices. This includes substantial new  
22 responsibilities for conducting the planning for power supplies, including power  
23 purchases, for identifying and evaluating power supply alternatives, for selecting their  
24 preferred power supplies, including power purchases, and for implementing their  
25 decisions. Please refer to SSVEC's responses to JM 14.11 and JM14.12, which are  
26 attached as Exhibit JEM-2, pages 2 and 3.

1           In the responses to my data requests, it does not appear that SSVEC has changed any of its  
2           organizational structure or power procurement processes to reflect the new and greater  
3           responsibility it now has for ensuring reliable and economic power supplies for its  
4           customers.

5  
6           **Q.    Please provide more detail regarding SSVEC's organizational structure.**

7           A.    In response to data request JM 14.29, which is attached as Exhibit JEM-3, SSVEC  
8           indicated that it made no changes to its organizational structure as a result of the change  
9           from full to partial requirements services from AEPCO. SSVEC indicated that the new  
10          responsibilities were incorporated into the existing positions, as well as contract services  
11          with WAPA for scheduling, and with GDS for power supply advice. Given the  
12          significance and the complexity of the new responsibilities that SSVEC acquired when it  
13          ceased being a full requirements customer of AEPCO as of December 31, 2007, I am  
14          concerned that SSVEC has not effectuated the necessary institutional changes to ensure  
15          sound power supply planning and purchase power procurement.

16  
17          In essence, it appears that SSVEC has delegated responsibility to WAPA and GDS that it  
18          had formerly delegated to AEPCO. Simply delegating the responsibility for planning and  
19          procurement to another entity does not ensure that the results will be improved. In fact,  
20          there is a distinct possibility that the results will be worse, especially in the short term,  
21          given that new working relationships and procedures will need to be developed  
22          commensurate with the new entities and responsibilities involved.

1 **Q. Has SSVEC clearly defined who has the authority to make decisions about power**  
2 **supplies and purchases?**

3 A. SSVEC has generally identified the responsible parties/positions in response to JM 14.22,  
4 which is attached as pages 1 and 2 of Exhibit JEM-3. It appears that WAPA and  
5 SSVEC's consultant, GDS, develop information regarding the type and quantities of  
6 power supply products to procure. The CFO and CEO share some responsibilities in a  
7 manner not clearly defined in SSVEC's response to JM 14.22. For example, according to  
8 paragraph a), the CFO makes the final decision regarding the type and quantities of power  
9 supply products. However, that answer also indicates that the CEO is consulted in  
10 advance of all purchase decisions, making it unclear whether the CFO or CEO has  
11 ultimate authority. The authority issue is further clouded by paragraph e), which states  
12 that the CEO approves all major purchases. It is not clear exactly which decisions are  
13 made by the CFO and which are made by the CEO.

14  
15 **Q. Has SSVEC clearly defined the extent of authority of each decision-maker regarding**  
16 **purchased power and the limits on that authority?**

17 A. No. Based on Exhibit JEM-3 and interviews, it appears that SSVEC has not defined  
18 explicit limits of authority regarding the approvals of power purchases. In many utilities,  
19 "major purchases" as referenced in paragraph e would be defined in terms of cost or  
20 volume of power purchased, with the CEO approval being required explicitly only for  
21 purchases above some specified threshold. In addition, there may be other thresholds of  
22 significance in the purchase hierarchy. The smallest purchases may only need approval of  
23 the traders, intermediate sized purchases may require additional approvals by mid-level  
24 management, larger purchases by the CFO, and the largest purchases by the CEO. This  
25 type of explicit structure, which in my experience is usually associated with formal written  
26 procurement policies, does not appear to exist at SSVEC.

1 Another example alluded to in Exhibit JEM-3, paragraph (a) is that GDS and WAPA in  
2 some capacity advise the CFO, who has final responsibility. However, the limits of their  
3 authority are not clear given that "collectively the group decides." It is also not clear  
4 whether or how much information must be formally and reproducibly prepared and  
5 provided to the CFO. In other words, it is unclear how much and what information the  
6 CFO actually has when making a decision, and whether it is documented or simply  
7 verbally discussed.

8  
9 Also, the CFO's authority and responsibility to provide information to the CEO and the  
10 Board of Directors is vague. It appears that most of the information is shared after the  
11 purchase has been made, and thus it is not clear how the CEO or Board of Directors would  
12 influence a decision before it is actually made.

13  
14 **Q. Does SSVEC's organization contain appropriate checks and balances?**

15 **A.** Yes, to a degree in that power purchases for SSVEC involve a number of distinct entities  
16 that can prevent and identify errors and abuses. These include WAPA, GDS, the CFO, the  
17 CEO, and in a more limited fashion, the Board of Directors.

18  
19 Unfortunately, while the organizational structure contains the opportunities for checks and  
20 balances, the potential effectiveness of these checks and balances is reduced due to the  
21 lack of formal written procedures and explicitly defined responsibilities and authorities.  
22 Developing and approving formal written procurement policies and procedures would  
23 force SSVEC to think through potential errors and abuses associated with securing power  
24 supplies and how to prevent them. Formal written policies and procedures would both  
25 guide the conduct of the decision makers and also provide a benchmark against which to  
26 measure the performance of the decision makers.

1 **Power Procurement Procedures**

2 **Q. Please explain in more detail your earlier statement that SSVEC's purchase power**  
3 **procurement practices were not adequate and appropriate.**

4 A. I assessed each of the five elements that the Commission should consider regarding  
5 SSVEC's purchase power procurement practices. To recap, these five were a clear  
6 statement of objectives, written procedures, communicating those procedures to  
7 responsible employees, monitoring results, and updating the procedures.

8  
9 SSVEC's power purchase objectives appear to me to be reliable service at reasonable cost.  
10 I have not requested nor received a written statement of specific objectives, but have  
11 concluded that these are SSVEC's objectives based on conversations with SSVEC and an  
12 observation that these objectives are implicit in the SSVEC's responses to data requests.  
13 These are reasonable and appropriate objectives.

14  
15 **Q. Does SSVEC have formal written procedures pertaining to power purchases?**

16 A. No. SSVEC does not have written power procurement procedures, much less formal  
17 approval by top-level management of such written procedures. SSVEC relies heavily on  
18 WAPA for power procurement, and thus indirectly on WAPA's procedures. It is not clear  
19 to what extent WAPA's procedures are customized to meet SSVEC's objectives or best  
20 suit SSVEC's customers' interests.

21  
22 The response to JM 14.18 indicates that SSVEC has no formal power procurement plan or  
23 purchase power strategy in place. The response to JM 14.19 indicates that WAPA bases  
24 purchase decisions on a number of factors, but SSVEC did not provide (nor even confirm  
25 the existence of) a manual, guideline, policy or any other written document to guide

1 electric power procurement personnel. Please refer to Exhibit JEM-4, pages 1 and 2 for  
2 copies of SSVEC's responses to JM 14.18 and JM 14.19, respectively.

3  
4 Even if WAPA has written procedures, SSVEC should also have written procedures that  
5 adopt or customize the WAPA procedures. SSVEC's best interests may not always be  
6 served by what is in WAPA's best interests. With WAPA acting as the agent for SSVEC,  
7 it is important that SSVEC assess whether and how WAPA's interests align with  
8 SSVEC's. It is also important that SSVEC unambiguously communicate its interests to  
9 WAPA, and that the Cooperative monitor WAPA's performance to ensure that its interests  
10 are being protected.

11  
12 **Q. Does SSVEC have any informal or unwritten guidelines or strategies for purchasing**  
13 **electricity?**

14 A. No. When asked this question in JM 14.20, SSVEC's response was to refer to the  
15 response to JM14.19. Apparently, SSVEC's unwritten guidelines or strategies are to rely  
16 on WAPA. Please refer to Exhibit JEM-4, page 3 for a copy of SSVEC's response to  
17 JM 14.20.

18  
19 **Q. Has SSVEC implemented an appropriate mechanism to communicate its power**  
20 **procurement procedures to the responsible personnel?**

21 A. No, with regard to formal written power procurement procedures, they do not exist.

22  
23 With regard to informal procurement strategies, SSVEC indicated that it communicates  
24 with WAPA "regularly via phone, e-mail, and meetings to develop, monitor, and modify  
25 procurement strategies," and that the results of those discussions are communicated to the  
26 trading staff. The communication itself is appropriate, but I am concerned that it is too

1 informal and *ad hoc* in nature. As such, it is difficult to ensure that the message has been  
2 conveyed as intended to the responsible personnel. It is also virtually impossible to hold  
3 anyone accountable when the guidelines/instructions are communicated so informally.  
4 Please refer to Exhibit JEM-5 for a copy of SSVEC's response to JM 14.21.

5  
6 **Q. Has SSVEC implemented an appropriate mechanism to monitor the results of power  
7 procurement activities?**

8 A. No. SSVEC makes vague references to monitoring power procurement strategies in its  
9 response to data requests, e.g., see Exhibit JEM-5. However, making reference to  
10 monitoring is not the same as specifying how, when, how often, and by whom monitoring  
11 should be done – all of which would be specified in an appropriate power procurement  
12 procedure.

13  
14 **Q. Even though SSVEC did not specify a monitoring mechanism, is SSVEC collecting,  
15 compiling and analyzing the appropriate data needed to monitor the results of its  
16 power procurement activities?**

17 A. No. Ultimately, monitoring the results of its power procurement procedures entails  
18 comparing the power purchases (cost, reliability, other indicators) as made under  
19 SSVEC's power procurement procedures to other power supply resources and approaches.  
20 SSVEC has not compiled even the most basic information necessary to make such a  
21 comparison.

22  
23 In response to data request JM 14.54, SSVEC indicated that it "does not maintain a  
24 database of the cost and amount of on-peak and off-peak power available from providers  
25 in the region and does not otherwise have this data available to it."

1 In response to data request JM 14.55, SSVEC indicated that it “does not maintain energy  
2 and pricing information for the wesTTrans market.”

3  
4 In data request JM 14.57, SSVEC was asked whether the regional electric market provided  
5 electricity supplies that were less expensive than would have been available under the  
6 AEPCO full requirements contract. This is one of the fundamental questions – is the  
7 partial requirements service from AEPCO to which SSVEC just converted less expensive  
8 than retaining full requirements service would have been? SSVEC’s response is that it  
9 “does not have the AEPCO information available to answer this question.”

10  
11 In summary, SSVEC does not have the information available to assess whether its  
12 procurement strategy is yielding higher or lower costs than would be available from other  
13 suppliers or from a continuation of its full requirements service beyond January 1, 2008.  
14 This information is essential to any real monitoring of its power procurement methods.  
15 SSVEC should develop a monitoring mechanism to collect, compile and evaluate this  
16 comparative power cost data.

17  
18 Copies of SSVEC’s responses to JM 14.54, JM 14.55 and JM 14.57 are contained in  
19 Exhibit JEM-6.

20  
21 **Q. Has SSVEC implemented an appropriate mechanism to update its power  
22 procurement procedures?**

23 **A.** No. SSVEC makes vague references to modifying power procurement strategies in its  
24 response to data requests, e.g., see Exhibit JEM-5. However, making reference to  
25 modifying is not the same as specifying how, when, how often, and by whom updating

1           should be done – all of which would be specified in an appropriate power procurement  
2           procedure.

3  
4       **Q.    Please summarize your concerns about SSVEC's organization and power**  
5       **procurement procedures.**

6       A.    My concern is that the planning and purchase power procurement processes are not  
7       written down or formally approved. In essence, the entire planning and purchase power  
8       procurement process resides in the minds of a few existing staff, especially the CFO. That  
9       is not to say that the current process is necessarily producing bad results or that there is  
10      evidence of material error or abuse. Rather the current process fails to provide  
11      benchmarks against which to measure performance or real time checks and balances to  
12      prevent abuse.

13  
14      **Q.    What are your recommendations?**

15      A.    I recommend that the Commission direct SSVEC to:  
16           a.    Develop written procedures for power supply planning and power procurement and  
17               formally approve them, also submitting the written procedures for Staff review and  
18               Commission approval;  
19           b.    Define and document the responsibilities and limits of authority to make decisions  
20               about power supplies and purchases;  
21           c.    Establish and document a clearly enforceable set of checks and balances on the  
22               authority of personnel involved in power supply planning and power procurement;  
23           d.    Formalize and document the communication of power supply planning and  
24               procurement strategies and procedures to the responsible personnel;  
25           e.    Develop, document and implement a power procurement monitoring mechanism; and

1 f. Develop and implement a mechanism to review and update power procurement  
2 procedures. (When permanent changes in conditions/circumstances warrant).  
3

4 **EXECUTION OF POWER PROCUREMENT PROCEDURES**

5 **Did SSVEC appropriately follow its power procurement procedures?**

6 **Q. What should the Commission consider in assessing whether SSVEC appropriately**  
7 **followed its power procurement procedures?**

8 **A.** In general, the Commission should consider three fundamental elements of SSVEC's  
9 power procurement procedures to determine whether it was appropriately followed.

10

11 First is whether the responsible personnel knew about and followed the power  
12 procurement procedures. Factors contributing to this determination could include  
13 evidence of employee awareness of procedures/policies, employee actions consistent with  
14 those procedures/policies, proper sign-offs by accountable personnel, and internal reviews  
15 of the power procurement process.

16

17 Second is whether deviations from the power procurement procedures occurred and  
18 whether those deviations were appropriate. Factors contributing to this determination  
19 could include the existence of a deviation, evidence of a mechanism to monitor changing  
20 conditions and circumstances and the ability of existing procedures to cope with them, and  
21 evidence that the deviation was justified by the changed circumstances.

22

23 Third is whether the power procurement procedures were followed despite changing  
24 circumstances and conditions that would have warranted a deviation from power  
25 procurement procedures. Factors contributing to this determination could include  
26 evidence of a mechanism to monitor changing conditions and circumstances and the

1 ability of existing procedures to cope with them, and evidence that a deviation would have  
2 been justified by the changed circumstances.

3  
4 In summary, the Commission should assess whether SSVEC followed its own procedures.  
5 If not, the Commission should assess whether those deviations were appropriate to the  
6 changed circumstances. If SSVEC followed its procedures, the Commission should verify  
7 that deviations were not appropriate (i.e., that conditions had not changed to warrant a  
8 deviation in the procurement procedures).

9  
10 **Q. Did your evaluation conclude that SSVEC appropriately followed its power  
11 procurement procedures?**

12 **A.** No. Because SSVEC did not develop written power procurement policies/procedures to  
13 secure power under the new partial requirements service contract, I could not make a  
14 determination that SSVEC appropriately followed its power procurement procedures. At  
15 this time, SSVEC appears to have unwritten *ad hoc* power procurement procedures which  
16 fail to provide a benchmark against which to assess whether SSVEC procured power  
17 appropriately.

18  
19 **Q. What do you recommend?**

20 **A.** I recommend that the Commission require SSVEC to:  
21 a. Develop and formally adopt written power procurement policies/procedures;  
22 b. Develop a mechanism to monitor changing market conditions and make deviations  
23 from the adopted policies/procedures when appropriate (temporary changes in  
24 conditions/circumstances), also documenting the reasons for those deviations; and  
25 c. Develop a mechanism to update the written policies/procedures when permanent  
26 changes in conditions/circumstances warrant.

1 **PURCHASE POWER PRICES RELATIVE TO MARKET**

2 **Were SSVEC's power purchases made at prices favorable compared to regional market**  
3 **prices?**

4 **Q. Did you determine that SSVEC made power purchases at unreasonable costs?**

5 A. No. As discussed below, SSVEC did not provide the data required to determine whether  
6 or not it made power purchases at a reasonable cost.

7

8 **Q. What should the commission consider in determining whether SSVEC made power**  
9 **purchases at reasonable cost?**

10 A. Typically, in a competitive market, comparing prices paid to market prices is a way to  
11 measure whether the prices paid (and cost) were reasonable. The most appropriate way to  
12 compare SSVEC's purchases to market prices is on a marginal basis. That is, at any given  
13 time, I would analyze how SSVEC's marginal cost of supply compared to the market price  
14 at that time.

15

16 **Q. Were you able to do the marginal cost analysis?**

17 A. No. SSVEC did not possess or have access to the data needed for that analysis. Please  
18 refer to Exhibit JEM-6.

19

20 **Overview of 2008 Power Purchases**

21 **Q. Please provide an overview of SSVEC's power purchases.**

22 A. For this purpose, I have categorized SSVEC power purchases as AEPCO partial  
23 requirements service, incremental power requirements, and balancing power requirements.

24

25 The vast majority of SSVEC's power purchases, by energy purchased and by cost, is  
26 under the partial services contract with AEPCO. Under the contract, SSVEC is allocated a

1           31.8 percent share of AEPCO capacity and associated energy. That is adequate to meet all  
2           of SSVEC's loads except for the summer months of May through September. This power  
3           is purchased from AEPCO at regulated Schedule A rates, and as such are average rates  
4           designed to recover AEPCO costs. Because they are average rates, one might expect the  
5           price to be below market prices when the market demand is high and above market prices  
6           when market demand is low.

7  
8           SSVEC expects to purchase a relatively small amount of incremental power during the  
9           months of May through September from third party suppliers. This power is purchased at  
10          negotiated prices, which should reflect market prices. WAPA and GDS (SSVEC's  
11          consultant) identify third party purchase opportunities and make purchase  
12          recommendations to SSVEC's CFO.

13  
14          The third category of purchases is power purchased and sold to balance SSVEC's power  
15          supplies and loads. WAPA administers the balancing power service for SSVEC.  
16          Assuming that WAPA is monitoring the regional markets appropriately, power bought or  
17          sold by WAPA on behalf of SSVEC should by definition be at the market price at the time  
18          of the purchase or sale.

19  
20          There is a potential for some redundancy between AEPCO and WAPA regarding  
21          balancing power. The AEPCO partial service contract also provides for power under  
22          Schedule B, which is to supply power above the allocated capacity of Schedule A.  
23          AEPCO prices Schedule B power, if taken, at its cost of supply. If AEPCO purchases  
24          power to meet Schedule B requirements, it should be priced at market prices (which in  
25          theory should be the same prices WAPA would purchase balancing power).

1 **Q. Has SSVEC purchased Schedule B power from AEPCO?**

2 A. No. SSVEC did not purchase Schedule B power from AEPCO in the months of January  
3 through November 2008. SSVEC indicates that Schedule B prices are above market  
4 prices that are available to it through WAPA balancing services, and thus are never  
5 selected.

6  
7 Based on AEPCO's assertion that Schedule B pricing is only to make AEPCO whole for  
8 its incremental costs, Schedule B pricing should be at market prices if AEPCO purchases  
9 power to supply Schedule B demands. If AEPCO supplies Schedule B power first from  
10 any available capacity not already allocated elsewhere, it is possible that Schedule B  
11 power could be above the market price because the cost of AEPCO's marginal capacity  
12 was out of the money. If that is how AEPCO actually supplies Schedule B power,  
13 AEPCO would not be providing the least-cost power under Schedule B.

14

15 **Purchased Power Cost**

16 **Q. Please describe your analysis of SSVEC's purchase power costs for 2008.**

17 A. I analyzed SSVEC's fuel adjustor reports for the months of January through October  
18 2008. First, I examined the major cost components driving the monthly fuel adjustor,  
19 which were AEPCO (Schedule A) purchases, WAPA balancing purchases and services,  
20 third party power purchases, and Southwest Transmission Cooperative transmission  
21 services. In order to determine how each component varied month-to-month and to  
22 identify which one(s) were responsible for significant cost increases that occurred in June-  
23 August of 2008, I first looked at the total cost per month. Total cost per month shows the  
24 combined effects of changes in volumes purchased and changes in purchase prices.

1 **Q. What did this analysis of the January through October 2008 period show?**

2 A. Exhibit JEM-7 Page 1 shows the total monthly costs expended on purchased power  
3 (energy and demand), transmission services, dispatch, reactive power, etc. – all of the  
4 elements contained in the fuel and purchase power costs adjustor. Several things should  
5 be noted from Exhibit JEM-7 Page 1:

6 a. The total cost is strongly peaked in June-August, with June costs being roughly double  
7 the February costs.

8 b. The AEPCO costs are essentially constant, showing little month-to-month variation.  
9 The largest AEPCO monthly cost occurred in October.

10 c. The Southwest Transmission Cooperative costs are essentially constant, showing little  
11 month-to-month variation.

12 d. The WAPA<sup>1</sup> costs show significant variation, and contributing significantly to the  
13 peak costs in the June-August time period.

14 e. The third party purchases, from Public Service of New Mexico (“PNM”) in May and  
15 Arizona Public Service (“APS”) in June-August, contribute significantly to the peak  
16 cost period.<sup>2</sup>

17

18 **Q. Is it surprising that the total cost is strongly peaked in June-August?**

19 A. No. Obviously, we would anticipate that SSVEC would spend more money during the  
20 summer peak period, since it must purchase more power then to supply the higher summer  
21 demands.

22

---

<sup>1</sup> Kirby Chapman of SSVEC indicated that the WAPA power purchases are day ahead and same day purchases used to balance load. WAPA handles the dispatch for SSVEC, and secures additional power or sells excess depending on changing daily conditions.

<sup>2</sup> Kirby Chapman indicated that the block purchases made by SSVEC will sometimes appear as part of the WAPA bill and other times separately, depending how they were paid for. It would appear that those purchases separately identified in the adjustor report are purchases that can be attributed to the change to partial requirements service.

1 **Purchased Power Amounts**

2 **Q. Have you analyzed how the amount of power SSVEC purchased varied by month in**  
3 **2008?**

4 **A. Yes.** Exhibit JEM-7 Page 2 shows the KWh purchased for each month of 2008 by  
5 source. The Commission should note several things from Exhibit JEM-7 Page 2:

- 6 a. The monthly quantity of energy purchased is highest in June, with July and August at  
7 similar levels.
- 8 b. The purchases from AEPCO are essentially constant, and all under Schedule A,  
9 showing little month-to-month variation.
- 10 c. Purchases from WAPA were highest in the June through September period, and varied  
11 noticeably from month-to-month.
- 12 d. Identifiable third party purchases were made only in May through August, to  
13 contribute the supplies needed to meet the summer peak.

14  
15 **Average Purchase Price Analysis**

16 **Q. How did the average price of power SSVEC purchased from each source compare?**

17 **A.** Exhibit JEM-7 page 3 shows the average cost of power SSVEC purchased from AEPCO,  
18 WAPA and third party suppliers. I considered only the energy and demand component  
19 (no ancillary services) for each source and divided by the number of kWh obtained from  
20 that source to get the average cost of power. The noteworthy observations from Exhibit  
21 JEM-7 page 3 include:

- 22 a. AEPCO average costs per kWh are nearly constant from January through September  
23 2008. A substantial price increase occurred in October as AEPCO's fuel and purchase  
24 power cost adjustor increased from \$0.01305 to \$0.02551 per kWh. The member  
25 energy rate and demand charges were unchanged.

- 1           b. It does not appear that AEPCO prices are responsible for the increase in SSVEC's  
2           rates over the summer. AEPCO supplied essentially constant amounts of energy at  
3           essentially constant prices through September.
- 4           c. The WAPA power supplies are more expensive than those of AEPCO for the months  
5           of January-August. This is to be expected, since WAPA is buying and selling day  
6           ahead or same day power at real time market prices. I would anticipate that the market  
7           prices, especially during times of regional summer peak, would be set by gas fired  
8           combustion turbines (and some combined cycle gas plants). Purchases from AEPCO  
9           are under rate Schedule A and include much energy from coal plants, the operating  
10          cost of which is less costly than that of gas plants.
- 11          d. WAPA power supplies are indicative of the real time market prices – if SSVEC simply  
12          bought from the real time market instead of securing longer-term supplies (which it  
13          currently does through AEPCO and third party suppliers). Market prices were high  
14          though July, and dropped off since August (probably coinciding with the decline in  
15          natural gas prices).
- 16          e. SSVEC's block purchases from PNM and APS are at much higher average costs per  
17          kWh than either the average WAPA balancing purchases or the AEPCO purchases.
- 18          f. Over the months of June-August, when SSVEC's customers began to express concerns  
19          over large bill increases, SSVEC received significant quantities of power from WAPA,  
20          at an average cost per kWh about 50% higher than from AEPCO.
- 21          g. Over the months of June-August, SSVEC received significant quantities of power  
22          from Third Party Suppliers, at an average cost per kWh more than twice that from  
23          AEPCO.

1 **Q. Can you conclude from your analysis that SSVEC purchased power from third party**  
2 **suppliers at unreasonable or imprudent prices?**

3 A. No, but I also cannot rule it out based on my analysis of average costs. Since the third  
4 party purchases are for incremental power needs over the summer months above the  
5 supplies available under the AEPCO partial requirements service, it would be more  
6 appropriate to analyze and compare the costs of alternative sources of incremental supply.  
7 In other words, if the third party suppliers that SSVEC selected were the least cost of any  
8 potential suppliers of the incremental power need, then they may have well been prudent  
9 even if they are much more expensive than the average cost of AEPCO Schedule A  
10 power. In the same way, it is possible that the third party suppliers were less expensive, or  
11 more reliably available, than the spot market would have been for the same amount of  
12 power.

13  
14 **Spot Market Price Analysis**

15 **Q. Have you conducted further analysis?**

16 A. Yes. In response to data request JM 14.56, SSVEC provided WAPA purchases and sales  
17 made to balance SSVEC's supplies to its loads. SSVEC provided the cost and volume of  
18 each balancing purchase and sale by WAPA for each day for the months of January  
19 through October 2008. I calculated the average price of power for each transaction in  
20 May through August, which are the months during which SSVEC entered into third party  
21 purchase contracts. Assuming that WAPA buys and sells balancing power at market  
22 prices, the WAPA balancing transaction prices represent a daily picture of the spot market  
23 prices against which the third party prices can be compared.

24  
25 The WAPA balancing transaction prices are a reasonable, though incomplete indication of  
26 the spot market prices. The WAPA data do not reflect the spot market at times that

1 WAPA was not engaged in balancing transactions on behalf of SSVEC. The WAPA  
2 balancing transaction data are not broken out hourly, only by on-peak and off-peak. Thus  
3 using the WAPA balancing transaction price data does not permit the evaluation of  
4 instantaneous spot prices, but does permit assessment of on- and off-peak period market  
5 prices.

6  
7 **Q. What did you do with the WAPA balancing transactions data?**

8 A. I developed scatter plots of the on-peak and off-peak price by day for each month. There  
9 were multiple transactions per day at different prices, perhaps reflecting price differences  
10 in the time of day of the transaction or with whom the transaction was conducted.

11  
12 I then determined the price of the third party purchases, which were [REDACTED]  
13 [REDACTED] during the months of May through August. As such, these  
14 purchases [REDACTED] could be  
15 compared to the on-peak and off-peak prices of WAPA balancing transactions.

16  
17 **Q. What did your analysis show?**

18 A. My analysis shows that the price of electricity under SSVEC's third party contracts was at  
19 the high end of the range of spot market prices (as estimated by WAPA balancing  
20 transaction prices). Exhibit JEM-8 shows the prices of WAPA on- and off-peak purchase  
21 transactions (scatter plot) in comparison to the third party contract price for the months of  
22 May through August (pages 1 through 4, respectively).

23  
24 Of the [REDACTED] WAPA balancing transactions in May 2008, only [REDACTED] were at prices greater than  
25 the price SSVEC paid under its third party power contract with Public Service of New  
26 Mexico. See Exhibit JEM-8, page 1.

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Of the [REDACTED] WAPA balancing transactions in June 2008, only [REDACTED] were at prices greater than the price SSVEC paid under its third party power contract with Arizona Public Service Company. See Exhibit JEM-8, page 2.

Of the [REDACTED] WAPA balancing transactions in July 2008, only [REDACTED] were at prices greater than the price SSVEC paid under its third party power contract with Arizona Public Service Company. See Exhibit JEM-8, page 3.

Of the [REDACTED] WAPA balancing transactions in August 2008, [REDACTED] at a price greater than the price SSVEC paid under its third party power contract with Arizona Public Service Company. See Exhibit JEM-8, page 4.

In summary from May through August 2008, the spot market was less costly than SSVEC's negotiated third party contract on 90% of the occasions that WAPA initiated a balancing purchase on SSVEC's behalf.

**Q. Earlier in your testimony you indicated that you would expect the average prices to be above the off-peak prices but below the on-peak market prices. Is that what you found regarding the third party contracts?**

**A. No.** [REDACTED]  
The third party contracts were generally above on-peak market prices (as estimated from WAPA balancing purchases and sales) as shown in Exhibit JEM-9. It is interesting to note that there were [REDACTED] occasions in the on-peak period during which WAPA sales occurred at a price greater than the price SSVEC paid to third parties for the power. In other words, in most cases in which SSVEC had excess power for sale on peak, it was sold

1 at prices below those SSVEC was paying simultaneously to buy the power from third  
2 party suppliers.

3  
4 As expected, the third party contracts were generally above off-peak market prices (as  
5 estimated from WAPA balancing purchases and sales) as shown in Exhibit JEM-10. It is  
6 interesting to note that there were a few occasions that the off-peak market prices were  
7 above the third party contract price. There were no instances in which the off-peak  
8 WAPA balancing sales were at prices equal to or greater than the price SSVEC paid to  
9 third parties for the power. In other words, to the extent that SSVEC had excess power for  
10 sale off peak when it was simultaneously buying power from third party suppliers, it was  
11 sold at prices below those SSVEC was paying to the third party suppliers.

12  
13 **Q. Is this an expected result?**

14 **A.** No. I would expect the contract prices to be closer to the spot market prices when there is  
15 adequate generating capacity and the spot market is capable of providing reliable power  
16 supplies. In 2008, it is my understanding that the regional market was not facing capacity  
17 constraints and was considered both liquid and adequate.

18  
19 SSVEC indicated that the third party suppliers were selected in response to a solicitation  
20 made to potential suppliers. See response to data request JM 14.43 on page 1 of Exhibit  
21 JEM-11. SSVEC further indicated that it had always selected the lowest cost resource.  
22 See response to data request JM 14.36 on page 2 of Exhibit JEM-11.

1 **Reasonableness of Third Party Purchase Power Costs**

2 **Q. Does this mean that SSVEC's third party power costs in 2008 were indicative of**  
3 **future costs SSVEC will incur to serve load?**

4 A. No. I believe that SSVEC will in the future be able to reduce its prices for third party  
5 power to relatively lower levels than were negotiated by SSVEC for 2008. This is mainly  
6 due to the fact that 2008 was a transition period for SSVEC, moving from full  
7 requirements to partial requirements service. I would expect that as SSVEC gains more  
8 experience, and suppliers in the regions have more experience with SSVEC in its new role  
9 of planning for and procuring power supplies, it will improve upon its 2008 performance.

10  
11 **Q. Please explain.**

12 A. In my opinion, SSVEC has not fully stepped up to the challenges of its new planning and  
13 procurement responsibilities in making its 2008 purchase decisions.

- 14 • SSVEC considered only short-term resources, including the reliance on the spot  
15 market and short-term purchases. SSVEC had not considered long-term resources,  
16 including ownership of generation and multi-year purchase power agreements.  
17 SSVEC intends to consider these options in the future according to its response to data  
18 request JM 14.46 (See Exhibit JEM-12). Presumably, SSVEC would pursue those  
19 resource options if they reduce cost compared to short term purchases, and thus will  
20 put a relative downward pressure on future costs (assuming these resources are  
21 reasonably evaluated and implemented). Implementation of an integrated resource  
22 planning process, now lacking, would be a major step toward SSVEC developing a  
23 comprehensive spectrum of resource options.
- 24 • Negotiated third party supply prices were above spot market prices. This is due in part  
25 to the timing of the third party contracts which were negotiated at a time of high  
26 natural gas prices, in effect locking in higher gas prices when the electric spot market

1 was dropping in response to dropping gas prices. SSVEC issued a request for  
2 indicative prices to potential suppliers on April 22 for purchases to begin in May.  
3 There are options available to SSVEC regarding when and for what products RFPs are  
4 issued. Implementation of a formal written procurement procedure would be a major  
5 step toward SSVEC securing the appropriate product at the appropriate price.

- 6 • SSVEC has limited experience in regard to power procurement choices and processes.  
7 As previously indicated, SSVEC had limited experience in 2008 with its new roles and  
8 responsibilities. I would expect that as SSVEC gains experience, its procedures and  
9 strategies would evolve leading to lower costs. Perhaps as importantly, as potential  
10 suppliers gain experience with SSVEC, they may be more willing to offer power  
11 supplies with terms better suited to SSVEC's needs.

12  
13 **Q. Are the purchased power costs SSVEC incurred in summer of 2008 indicative of the**  
14 **future purchased power costs?**

15 **A.** No. The AEPCO costs, WAPA balancing costs and third party power costs incurred by  
16 SSVEC in 2008 are not likely to be indicative of future power costs.

17  
18 AEPCO costs are determined by Commission regulated rates, which have increased  
19 beginning in October 2008. Thus the January through September 2008 AEPCO costs will  
20 not be representative of, and will be less than, future costs. Since the Commission sets  
21 AEPCO's rates, the Commission is well aware of the amount and timing of increases  
22 likely and can take that into account when setting SSVEC's base rates.

23  
24 WAPA balancing power costs are determined by electric market prices. Electric market  
25 prices are dependent on natural gas prices, which were abnormally high and very volatile  
26 in the April through July 2008 period, but which have significantly decreased since that

1 period. As a consequence, WAPA balancing power costs in 2008 will not be  
2 representative of, and are likely to be more than, future costs. Even if SSVEC changed to  
3 a source of balancing services other than WAPA, that source would still buy and sell  
4 power at the market price and I would not expect that to vary much between alternative  
5 suppliers of balancing services.

6  
7 Third party power purchase costs are the result of negotiated prices influenced by  
8 SSVEC's planning and procurement processes. As previously discussed, SSVEC's power  
9 planning and procurement processes are in transition and are not currently formalized or  
10 well-documented. As experience is gained and SSVEC implements and improves  
11 processes, it is likely that relative costs will decrease. For these reasons, the 2008 third  
12 party prices are not representative of, and are likely to be higher than, future third party  
13 contracts.

14  
15 **Q. What are your recommendations to the Commission?**

16 **A.** I recommend that the Commission:

- 17 a. Find that the third party power supplies secured by SSVEC in lieu of remaining a full  
18 service customer of AEPCO were at substantially higher prices than power supplies  
19 from AEPCO.
- 20 b. In an effort to reduce the relative cost of third party power supplies, direct SSVEC to  
21 formalize and upgrade its power planning process to ensure it appropriately considers  
22 the full spectrum of resources available to it.
- 23 c. In an effort to reduce the relative cost of third party power supplies, direct SSVEC to  
24 formalize and upgrade its power procurement process to ensure it identifies and  
25 appropriately implements available resources and holds SSVEC accountable (e.g.,  
26 timing of purchases and RFPs, optimize purchases and sales).

1 d. Direct SSVEC to verify and document that WAPA balancing transactions are  
2 conducted at market prices and that they are done in a manner consistent with  
3 SSVEC's interests.  
4

5 **ALTERNATIVE APPROACHES**

6 **Are there alternative approaches that would be more appropriate to ensure that SSVEC's**  
7 **purchased power costs are prudent and reasonable?**

8 **Q. What factors should the Commission consider in assessing whether alternate**  
9 **procurement approaches exist that are better able to ensure that SSVEC's purchase**  
10 **power costs are prudent and reasonable?**

11 **A.** The ultimate question is what procurement process would most benefit SSVEC's  
12 customers. Although there is insufficient data at this time to establish whether the move  
13 to partial requirements will have a positive impact on purchase power costs on a long-term  
14 basis, it is clear that enhanced and formalized procurement procedures would improve  
15 SSVEC's chances of obtaining power at a prudent and reasonable cost.  
16

17 The Commission should consider two elements in assessing the ultimate question. First,  
18 did SSVEC's customers benefit from the conversion from full requirements in 2008, the  
19 period for which we now have actual data? Second, what else might SSVEC do to  
20 improve, or achieve, benefit from the move from full requirements service?  
21

22 **Benefits of Move to Partial Requirements Service**

23 **Q. Did SSVEC demonstrate a benefit in 2008 from its move to partial requirements**  
24 **service?**

25 **A.** No. While the move would in theory provide the opportunity to utilize markets to  
26 improve upon the full requirements service offering by AEPCO, it appears that SSVEC

1 was not able to secure power at low enough prices to benefit its customers in 2008. In  
2 fact, my estimate is that the move to partial requirements service actually increased costs  
3 for SSVEC's ratepayers.

4

5 **Q. Please describe your analysis.**

6 A. My analysis focuses on the power SSVEC secured from third party suppliers and from  
7 AEPCO (under the partial requirements service agreement) in January through October  
8 2008. I assumed that the WAPA balancing transactions and balancing power costs would  
9 have remained the same even if SSVEC had purchased the rest of its power under a full  
10 requirements service agreement with AEPCO. I compared the actual partial requirements  
11 and third party power costs to an estimate of the cost of an equivalent amount of power  
12 under a full requirements service agreement with AEPCO.

13

14 The pricing of power under a full requirements service agreement with AEPCO is  
15 different from the pricing of power under a partial service requirements agreement. To  
16 estimate the cost of supplying all the energy under a full requirements contract with  
17 AEPCO, I applied AEPCO's full service tariffs to the energy SSVEC purchased from  
18 third party suppliers and AEPCO partial requirements service. Since AEPCO's rates are  
19 regulated, the energy and demand charges and the adjustors are known. Scenario 1 in my  
20 analysis assumed that AEPCO could supply the incremental power (that SSVEC  
21 purchased from third party suppliers) in January through October 2008 at the same  
22 average cost embedded in AEPCO's existing rates for full requirements service.

23

24 It is unlikely that AEPCO could supply the incremental power at the average cost, with the  
25 result that over time AEPCO's rates would be adjusted to cover the cost of securing  
26 additional capacity and energy. To estimate this effect, I analyzed Scenario 2, which

1           made the assumption that AEPCO would secure the incremental power at the spot market  
2           prices. The spot market prices in May through August 2008 (when incremental power is a  
3           factor) were higher than AEPCO's prices; I assumed that AEPCO would ultimately  
4           recover these higher costs for the incremental power from SSVEC.

5  
6           **Q. What are the results of your analysis?**

7           A. I found that Scenario 1, full requirements from AEPCO at AEPCO's existing rates, would  
8           have been nearly \$3 million cheaper over the January through October 2008 period than  
9           the costs SSVEC actually incurred. However, this probably overstates the potential  
10          savings in that AEPCO's rates would probably have to increase over time as the cost of  
11          serving more incremental load under higher fuel costs phased in.

12  
13          Scenario 2, full requirements from AEPCO with AEPCO charging for incremental power  
14          procured from the spot market at market rates, reflects a savings potential that may be  
15          more sustainable over time. I found that Scenario 2 would have been nearly \$0.5 million  
16          cheaper over the January through October 2008 period than the costs SSVEC actually  
17          incurred. Scenario 2 may overstate the cost of power to SSVEC in that the incremental  
18          power costs under full requirements service probably would be shared by all AEPCO  
19          customers rather than to be allocated solely to SSVEC.

20  
21          Nonetheless, Scenarios 1 and 2 represent a reasonable range of costs to SSVEC for power  
22          under a full requirements contract. For January through October 2008, SSVEC's  
23          procurement of power from third parties resulted in higher costs for SSVEC customers  
24          than either Scenario 1 or Scenario 2 full requirements service from AEPCO.

25

1 **Alternatives to Improve Benefits**

2 **Q. Regarding the second question, what else might SSVEC do to improve, or achieve,**  
3 **benefit from the move from full requirements service?**

4 **A.** The Commission should consider several elements in response.

- 5 • **Procedures:** As indicated previously in my testimony, SSVEC has the opportunity to  
6 improve on its 2008 performance by upgrading and documenting its power planning  
7 and procurement processes. This would enable SSVEC to efficiently take advantage  
8 of market opportunities.
- 9 • **Market assessment:** The electricity market needs to be vibrant and liquid to provide  
10 SSVEC with the opportunity to improve upon the AEPCO full requirements service.  
11 If it is not, the market will not be a reliable source of inexpensive power. During  
12 periods of ample or excess capacity, market prices may be quite low, but as the  
13 capacity is more fully utilized, prices can become volatile and high. The most  
14 effective alternatives available to SSVEC are likely to change as markets tighten.

15  
16 **Q. Based on its market assessment, will SSVEC be able to continue its reliance on the**  
17 **spot market as it did for much of 2008?**

18 **A.** No. In response to data request JM 14.46 (See Exhibit JEM-12), SSVEC indicates that  
19 while the markets are liquid for the next few years, on the longer term it has concerns as  
20 reserve margins decline. As a result, "SSVEC is studying long term purchased power  
21 options, long term joint generation ownership options, and also the development of a local  
22 peaking generation facility."  
23

1 **Q. Are these appropriate options for SSVEC to study?**

2 A. Yes, these are appropriate physical hedges to market prices which would be normally  
3 considered as part of the integrated resource planning process. However, SSVEC should  
4 also remain open to other options, including:

- 5 • Demand response programs and energy efficiency programs to reduce market  
6 exposure.
- 7 • Financial hedges and laddered purchasing strategies to reduce market price volatility.
- 8 • Return to full requirements service if SSVEC cannot demonstrate an actual benefit  
9 from utilizing electricity markets to supplement partial requirements services from  
10 AEPCO.

11

12 **Q. Has SSVEC utilized financial hedges?**

13 A. No, it has not. In response to data request JM 14.24, SSVEC indicated that it has not used  
14 financial instruments in the purchase of power supplies. It appears that SSVEC is open to  
15 considering financial hedges under the appropriate conditions, but that such conditions  
16 have not occurred to date. See Exhibit JEM-13.

17

18 **Q. Does this conclude your direct testimony?**

19 A. Yes it does.

**JERRY E. MENDL**

President  
MSB Energy Associates

**AREAS OF EXPERTISE**

- + Analysis of energy resource adequacy, cost and availability
- + Evaluation of alternative energy resource options
- + Analysis of electric utility bulk power supplies
- + Analysis of electric utility projected merger savings and implications on system operations and costs
- + Transmission system analysis
- + Service delivery and markets in a restructured electric utility industry

**EDUCATION**

1973 B.S. Degree in Nuclear Engineering, With Very High Honors, from the University of Wisconsin, Madison, Wisconsin

1974 M.S. Degree in Nuclear Engineering from the University of Wisconsin, Madison, Wisconsin.

**EXPERIENCE**

1987-Present  
President  
MSB Energy Associates, Inc.  
Middleton, Wisconsin

Since co-founding MSB Energy Associates in 1988, Mendl has served public-sector clients in Arizona, Kentucky, California, Utah, Nevada, Washington, Texas, Alaska, Iowa, Illinois, South Carolina, Connecticut, Massachusetts, Vermont, Maryland, Michigan, Missouri, Minnesota, Louisiana, Wisconsin, Pennsylvania, Georgia, Hawaii, Ohio, New Jersey, the District of Columbia and Ontario. Much of his recent work has involved electric utility restructuring, low-income consumer energy affordability and service issues, prudence of gas and electric utility planning and purchase practices, and analyzing need for transmission lines. He assesses "green pricing" tariffs for renewable electric resources and fuel/purchase power costs for electric and natural gas utility rate cases and renewable energy alternatives for utility construction cases. He evaluates electric utility restructuring alternatives and prepares restructuring policy recommendations and supporting technical information. He analyzes long-range plans and planning methods used by gas and electric utilities. He prepares and presents reports, recommendations and testimony.

He conducted engineering, environmental, economic and life-cycle cost analyses of alternate energy resource options, including improved end-use energy efficiency and renewable resources. Mendl developed state regulatory commission codes for implementing integrated resource planning and evaluated the adequacy of existing and proposed codes. Mendl was both organizer and presenter for a series of five least-cost planning workshops across the U.S. sponsored by the National Association of Regulatory Utility Commissioners (NARUC). He also participated in five Conservation Law Foundation collaborative projects in the northeastern states.

1974-1988

Administrator, Division of Systems Planning, Environmental Review and Consumer Analysis (1979-1988)

Director, Bureau of Environmental and Energy Systems (1976-1979)

Public Service Engineer (1974-1976)

State of Wisconsin, Public Service Commission

Madison, Wisconsin

Mendl was employed by the Wisconsin Public Service Commission for 14 years (1974-1988), and was responsible for the development and evolution of Wisconsin's long-range planning process for electric utilities. He had overall responsibility for directing the Commission's activities concerning utility long-range plans. In addition, Mendl had overall responsibility for and directed the preparation of environmental impact statements and environmental assessments, identifying expected impacts as well as evaluating alternatives, for five large power plants, numerous transmission lines, a major natural gas pipeline, and many policy issues including Electric Space Heat, Electric Utility Tariffs, Electric Sales Promotion, Small- Power Production and Cogeneration, and Extension of Service. Mendl was also responsible for directing the preparation of major studies, including *The Alternative Electric Power Supply Study*, *Alternative Electric Power Supply - Update*, and *Utility SO<sub>2</sub> Cleanup - Cost and Capability*. (The *Alternative Electric Power Supply Study* and *Update* identified renewable energy, load management and energy efficiency resources that would economically meet Wisconsin's long term electricity needs.) Mendl testified before the Wisconsin Commission in rate cases, planning cases, construction certificate cases and policy cases. He also appeared before other state Commissions and the Federal Energy Regulatory Commission.

#### OTHER DISTINCTIONS

Mendl staffed the NARUC Subcommittee on Energy Conservation for two and one-half years, and was closely involved with the preparation of the *Least-Cost Planning Handbook for Public Utility Commissioners*.

Mendl also was appointed to serve a four-year term on the Research Advisory Committee of the National Regulatory Research Institute (NRRI). One of seven regulatory staff selected nationally, Mendl helped NRRI to shape its research agenda to be more useful and responsive to the regulatory community.

Mendl is a Registered Professional Engineer in the State of Wisconsin.

#### TESTIMONY

Mendl, since co-founding MSB Energy Associates in 1988, has testified in the following proceedings:

Submitted To:	Subject	Docket No.	Date
Nevada Public Utilities Commission	Nevada Power Energy Supply Plan Update	08-08030	2008
Nevada Public Utilities Commission	Sierra Power Energy Supply Plan Update	08-08031	2008
Nevada Public Utilities Commission	Sierra Power gas and electric fuel and power cost recovery practices (DEAA)	08-02043 & 08-02044	2008
Nevada Public Utilities Commission	Nevada Power fuel gas and power cost recovery practices (DEAA)	08-02042	2008

Nevada Public Utilities Commission	Westpac Utilities fuel purchase practices and costs (including merging of utility LPG and natural gas rates)	07-05019 & 07-05020	2007
Nevada Public Utilities Commission	Nevada Power Amendment to 2006 IRP and Energy Supply Plan update forward sales proposal	07-07013	2007
Nevada Public Utilities Commission	Sierra Pacific Power approval of 2007 IRP forward sales proposal	07-06049	2007
Nevada Public Utilities Commission	Southwest Gas fuel procurement practices and setting DEAA rate	07-05015	2007
Georgia Public Service Commission	Georgia Power IRP 2007 demand side management plan, energy efficiency and cost tests	24505-U	2007
Nevada Public Utilities Commission	Nevada Power fuel gas and power purchase practices (BTER & DEAA)	07-01022	2007
Nevada Public Utilities Commission	Sierra Pacific Power fuel gas and power purchase practices (BTER & DEAA)	06-12001	2007
Arizona Corporation Commission	UNS Gas prudence of gas procurement practices	G-04204A-05-0831	2007
Nevada Public Utilities Commission	Westpac Utilities fuel purchase practices and costs (BTER & DEAA)	06-05016 & 06-05017	2006
Nevada Public Utilities Commission	Nevada Power Integrated Resource Plan - gas purchase strategies	06-06051	2006
Nevada Public Utilities Commission	Sierra Pacific Power Energy Supply Plan - gas purchase strategies	06-07010	2006
Wisconsin Public Service Commission	Strategic Energy Assessment - electrical adequacy through 2012	5-ES-103	2006
Nevada Public Utilities Commission	Nevada Power fuel gas and power purchase practices (DEAA)	06-01016	2006
Nevada Public Utilities Commission	Sierra Pacific Power fuel gas and power purchase practices (DEAA)	05-12001	2006
Michigan Public Service Commission	MichCon gas cost recovery factor, contingent factor, and purchase acquisition strategy	U-14717	2006
Michigan Public Service Commission	Consumers gas cost recovery factor, contingent factor, and purchase acquisition strategy	U-14716	2006
Nevada Public Utilities Commission	Nevada Power fuel gas and power purchase practices (BTER)	06-01016	2006
Nevada Public Utilities Commission	Sierra Pacific Power fuel gas and power purchase practices (BTER)	05-12001	2006
Nevada Public Utilities Commission	Nevada Power gas purchase practices – Energy Supply Plan	05-9017	2005

Nevada Public Utilities Commission	Sierra Pacific Power gas purchase practices – Energy Supply Plan	05-9016	2005
Michigan Public Service Commission	Consumers gas cost recovery factor, contingent factor, and purchase acquisition strategy	U-14403	2005
Michigan Public Service Commission	MichCon gas cost recovery factor, contingent factor, and purchase acquisition strategy	U-14401	2005
Kentucky Public Service Commission	Analysis of need for and electrical alternatives to EKPC Cranston-Rowan County transmission line	2005-00089	2005
Nevada Public Utilities Commission	Nevada Power gas purchase practices	04-9004	2004
Nevada Public Utilities Commission	Sierra Pacific Power gas purchase practices	04-7004	2004
Nevada Public Utilities Commission	Prudence of Southwest Gas PGA costs, purchase practices	03-12012	2004
Michigan Public Service Commission	MichCon gas cost recovery factor, contingent factor, and purchase acquisition strategy	U-13902	2004
Wisconsin Public Service Commission	WPS rate case, low income programs, Weston 4 pre-certification expenses and capital	6690-UR-115	2003
Wisconsin Public Service Commission	Alliant rate case, RiverSide purchase power cost and incentive, Columbia maintenance and outages	6680-UR-113	2003
Wisconsin Public Service Commission	Alliant rate case, RockGen purchase power savings bonus, coal procurement	6680-UR-112	2002
Wisconsin Public Service Commission	Assess fuel and purchase power issues in WPS rate case	6690-UR-114	2002
Wisconsin Public Service Commission	Assess fuel and purchase power issues in MG&E rate case	3270-UR-111	2002
Wisconsin Public Service Commission	Assess renewable energy and other alternative resources in WE Power the Future –Port Washington case	05-CE-117	2002
Wisconsin Public Service Commission	Assess costs related to formation and operation of American Transmission Company	05-EI-129	2002
Wisconsin Public Service Commission	Filed comments in investigation of purchase power incentive mechanisms	05-EI-131	2002
Wisconsin Public Service Commission	Alliant rate case, adequacy of planning, purchase power contracts, coal contracts	6680-UR-111	2002

Michigan Public Service Commission	Analyze proposed gas cost recovery factor and plan, and gas procurement practices.	UR-13060	2002
Wisconsin Public Service Commission	WPS rate case, fuel costs, adequacy of planning, purchase power	6690-UR-113	2002
Wisconsin Public Service Commission	Alliant fuel cost rate case, adequacy of planning, purchase power contracts	6680-UR-110	2001
Wisconsin Public Service Commission	Wisconsin Electric fuel rate case, fuel costs, adequacy of planning, purchase power contracts	6630-UR-111	2001
Wisconsin Public Service Commission	Rulemaking regarding electric utility fuel and purchased power cost recovery	1-AC-197	2001
Wisconsin Public Service Commission	Nuclear spent fuel dry cask storage expansion at Point Beach	6630-CE-275	2000
Wisconsin Public Service Commission	WPS rate case, fuel costs, adequacy of planning, purchase power	6690-UR-112	2000
Wisconsin Public Service Commission	Alliant fuel cost rate case, adequacy of planning, prudence of plant maintenance practices, purchase power	6680-UR-110	2000
Wisconsin Public Service Commission	Rulemaking regarding environmental impact analysis and public input process	1-AC-185	1999
Michigan Public Service Commission	Over-recovery of revenues due to declining coal costs	U-11560	1999
Michigan Public Service Commission	Reasonableness of proposed settlement regarding recovery of nuclear plant replacement power costs through power cost recovery factor, suspension of factor	U-11181-R	1999
Michigan Public Service Commission	Fuel and purchase power surcharge, coal costs	U-11180-R	1998
Vermont Public Service Board	Prudence of Green Mountain Power purchase and management of Hydro-Quebec power	5983	1997
Michigan Public Service Commission	Analysis of coal costs, purchase practices, spot market	U-10971-R	1997
Michigan Public Service Commission	Suspension of the fuel and purchase power factor and planning in the transition to restructured utilities	U-11453	1997
Wisconsin Public Service Commission	IEC merger (of WPL/IES/IPC), need and environmental issues regarding proposed Mississippi River transmission crossings	6680-UM-100	1997
Pennsylvania Public Utility Commission	Restructuring, stranded cost, and securitization -- economic and	R-00973877	1997

	environmental issues		
Michigan Public Service Commission	Fuel and purchase power surcharge, impact of sales promotion	U-11181	1997
Wisconsin Public Service Commission	Primergy merger (of WEPCO/NSP), impact on state regulatory authority	6630-UM-100/4220-UM-101	1996
Michigan Public Service Commission	Gas cost recovery adjustments	U-10640-R	1996
Pennsylvania Public Utility Commission	Electric discounted rates, gas/electric competition	R-943280C0001	1996
Michigan Public Service Commission	Fuel and purchase power surcharge, impact of WEPCO/NSP merger	U-10966	1996
Michigan Public Service Commission	Fuel and purchase power surcharge, impact of energy efficiency	U-10971	1996
Minnesota House Committee on Taxes	Impact of cogeneration project on NSP ratepayers	HF637	1996
Minnesota Senate Committee on Jobs, Energy and Community Development	Impact of cogeneration project on NSP ratepayers	SF1147	1996
Wisconsin Public Service Commission	Role of DSM in Advance Plan-7 in light of potential restructuring	05-EP-7	1995
City Public Service Board of San Antonio	Integrated resource planning process (1992 EAct hearings)	NA	1994
Maryland Public Service Commission	1992 EAct rules	8630	1994
Georgia Public Service Commission	Commercial and Industrial DSM programs for Savannah Electric	4135-U	1993
Public Utilities Commission of Ohio	Analysis of forecasts and long range plans for Ohio Power and Columbus Southern (case settled)	90-659-EL-FOR and 90-660-EL-FOR	1990
Georgia Public Service Commission	Integrated resource plan analyses for Georgia Power and Savannah Electric	4131-U and 4134-U	1992
New Orleans City Council	Least-cost planning rules	14629 MCS	1991
District of Columbia Public Service Commission	Potomac Electric least-cost plan analysis	834 Phase II	1990
Massachusetts Department of Public Utilities	Boston Gas plan integrated resource plans	90-55	1990
Massachusetts Department of Public Utilities	Boston Gas commercial and industrial DSM, cost recovery	90-320	1991
Hawaii Public Service Commission	Least-cost resource planning	6617	1991

Georgia Public Service Commission	Least-cost planning and facility certification rules	4047-U	1991
New Jersey Board of Public Utilities Commissioners	Transmission line certificate (case settled)	NA	1990
South Carolina Public Service Commission	Transmission line certificate	88-519-E	1988
Vermont Public Service Board	Least-cost planning	5270	1988
D.C. Public Service Commission	Least-cost planning	834	1987

Mendl also assisted in preparing testimony and testified in numerous cases as a senior staff witness at the Wisconsin Public Service Commission. Dates are approximate.

- Advance Plans 1 through 4 (Dockets 05-EP-1 through 05-EP-4 -- on various occasions between 1977 and 1988) before the Wisconsin Public Service Commission  
A wide variety of planning issues including forecasts, nuclear vs coal power, alternative energy, renewable energy, load management, transmission planning, demand-side management resources, principles and methods of integrated resource planning
- Rate Cases (various occasions between 1976 and 1988) including landmark time-of-use rate case (6630-ER-2) for Wisconsin Electric Power  
Environmental and consumer impacts of rate levels and alternative rate designs before the Wisconsin Public Service Commission
- Construction Cases before the Wisconsin Public Service Commission  
Pleasant Prairie Power Plant (1976-1978)  
Germantown Combustion Turbines (1976-1977)  
Weston 3 (1979)  
Edgewater 5 (1980)  
Apple River -- Crystal Cave Transmission Line (1980)  
Prairie Island -- Eau Claire Transmission Line (1981-1982)  
North Madison -- Huiskamp -- Sycamore Transmission Line (1982)  
Point Beach Nuclear Plant Steam Generator Replacement (1982)  
Wisconsin Natural Gas Pipeline (1986)  
Need for power, appropriateness of the utility proposals, and the comparative economics of alternatives, environmental impacts
- Other Appearances while employed at the Wisconsin Public Service Commission  
Planning investigation before the Connecticut Department of Public Utilities Control Authority (1975); uranium availability and resource alternatives  
Rulemaking proceedings before Wisconsin Legislative Committees (1975-1982);  
planning, siting, and environmental impact analysis rules  
Tyrone Nuclear Project Termination cost recovery hearing before the Federal Energy Regulatory Commission (1980)  
Acid Rain legislation before Wisconsin Legislative Committees (1984-1985)

**SELECTED CLIENTS**

Mendl has served the following public sector clients since 1988.

Client	Nature of Service
Alaska Housing Finance Corporation	Analysis of applicability of EPAct standards to Alaska resource selection process.
American Public Power Association	Prepared whitepaper on distributed resources, "Distributed Resources: Options for Public Power" and presented it to APPA National Meeting and distributed resources workshops.
Arizona Corporation Commission	Analyze UNS Gas fuel procurement practices, provide testimony regarding prudence, and develop auditor training manual. Analyzed Sempra request to be allowed to compete for selected retail loads. Analyzed Sulphur Springs Valley Electric Coop purchase power practices.
California Low Income Governing Board	Analysis of options to deliver energy efficiency and assistance programs to low-income households in a restructured utility environment. Assist Board to develop low-income programs and policies under interim utility administration.
City of Chicago	Evaluate municipalization, especially regarding power availability and cost, transmission constraints, cogeneration potential.
Citizen's Utility Board of Wisconsin	Evaluate energy efficiency and load management programs in light of possible industry restructuring. Evaluate fuel rate cases and recommend revenue reductions in testimony for Alliant, Wisconsin Electric, Madison Gas & Electric and Wisconsin Public Service. Assess ATC formation and operation costs. Comment on and develop fuel rules, purchase power incentives. MISO collaborative
Center for Neighborhood Technologies	Analysis of value of avoiding generation, transmission and distribution through energy efficiency, load management and distributed generation.
Clean Wisconsin	Review Strategic Energy Assessments, provide comments to Wisconsin PSC
Conservation Law Foundation of New England	Collaboratives with Boston Edison, United Illuminating, Eastern Utilities Association, and Nantucket Electric regarding system planning approaches, avoided costs, resource screening. Collaborative with Green Mountain Power regarding Vermont Yankee end-of-life planning.
Dane County Energy Collaborative	Technical contractor to collaborative analyzing 345 kV transmission proposal and alternatives to meet Dane County energy needs.
District of Columbia Energy Office	Analysis of DC Natural Gas' and PEPCo's integrated resource planning.
District of Columbia Public Service Commission	Testimony regarding least cost planning principles and rules.
Environmental Law and Policy Center	Analyzed potential impacts of proposed merger of Wisconsin Electric Power Company and Northern States Power Company on state regulatory authority in Wisconsin and Minnesota. Analyzed

	environmental impacts related to proposed merger of WPL and two Iowa utilities (IES and IPC), including the proposed transmission line crossings of Mississippi River and changes in air pollutant emissions. Analyzed electric and gas energy efficiency plans in Iowa and Illinois
Environmentalists/Penn. Energy Project	Analyzed PECO application to securitize stranded costs, especially on economic and environmental impacts that could result from authorizing overestimated stranded costs. Analyzed utility retail access pilot programs. Analyzed restructuring plans for PECO and PP&L.
Germantown Settlement, Philadelphia	Advise regarding business structure and market to aggregate load and/or provide energy efficiency and energy assistance services to low-income households.
Georgia Public Service Commission	Developed integrated resource planning and facility certification rules. Developed integrated resource plans and reviewed utility filings. Monitored utility DSM programs. Evaluated GP demand side plan for 2007 IRP. Analyzed DSM selection process in DSM Working Group setting on behalf of Commission Staff.
Hawaii Division of Consumer Advocacy	Developed integrated resource planning rules.
Illinois Citizens Utility Board	Analyzed Illinois electric supply auction, suggested modifications to better incorporate energy efficiency and demand response resources.
Iowa Department of Natural Resources	Developed and implemented workshops to train building operators and architects in energy efficiency and renewable energy resource opportunities.
Kentucky Public Service Commission	Analyzed need and alternatives for an EKPC transmission line and a prepared report. Presented testimony defending and explaining report. Analyzed need and alternatives for an AEP transmission line and a prepared report.
Lake Michigan Coalition	Analyzed nuclear spent fuel dry cask storage expansion proposal
Maryland Public Service Commission	Reviewed two utility long-range plans and suggested improvements.
Massachusetts Division of Energy Resources	Analysis of Boston Gas Co. integrated resource plans and residential energy efficiency programs. Analysis of Boston Gas's commercial and industrial energy efficiency programs.
Michigan Community Action Agency Association	Analysis of Michigan electric utility restructuring proposals and impacts on retail prices. Analysis of MichCon gas cost recovery case and factor. Analyses of Indiana-Michigan, Consumers Energy, Wisconsin Electric and Northern States Power-Wisconsin power supply cost recovery cases and factors, including analysis of coal and power purchase practices, demand-side management, and nuclear plant outage costs. Analysis of Northern States Power/Wisconsin Electric Power Co. proposed merger.
Missouri Public Service Commission	Developed rules for electric resource planning and gas resource planning. Evaluated three electric utility plans filed pursuant to rules.

National Association of Regulatory Utility Commissioners	Organized, prepared and presented at five workshops throughout the U.S. sponsored by NARUC/DOE.
Natural Resources Defense Council, Mid-Atlantic Energy Project Collaborative	Evaluated resource planning and selection processes used by PSE&G to prepare plan filings.
New Jersey Department of the Public Advocate	Analyzed a transmission line application.
City of New Orleans	Developed least cost planning rules, guided a public working group to develop demand-side programs.
Nevada Office of Attorney General, Bureau of Consumer Protection	Sierra Pacific Power and Nevada Power Energy Supply Plans, Base Tariff Energy Rates and Deferred Energy Adjustment Accounts - gas purchase practices and prudence; Southwest Gas and Westpac PGA prudence analysis, gas purchase practices
Nevada Public Utilities Commission, Regulatory Operations Staff	Southwest Gas PGA prudence analysis, gas purchase practices
Northeast States for Coordinated Air Use Management	Electric vehicle analysis.
Ohio Office of Consumer Council	Analyzed two utilities' long-range plans and energy efficiency resource options.
Ontario Energy Board	Evaluated need for natural gas integrated resource planning rules.
The Opportunity Council	Evaluated gas DSM programs to be considered by Cascade Natural Gas in Washington.
Pennsylvania Office of Consumer Advocate	Evaluated demand-side management programs for several electric utilities. Investigated causes of Winter Emergency of 1994. Analyzed electric "flexible rates" and gas/electric competition issues. Analyzed electric reliability concerns in a restructured and competitive market.
RENEW Wisconsin	Analyzed MG&E's green pricing tariff, compared costs of conventional resources to green resources to determine whether a green premium tariff was appropriate
Responsible Use of Rural and Agricultural Land (RURAL)	Evaluated air and licensing issues related to a proposed power plant. Evaluated Public Service Commission proposed environmental and siting rule changes. Analyzed rules governing environmental review and public comment process and provided testimony before PSCW.
South Carolina Office of Consumer Advocate	Analyzed a transmission line application.

Southeast Wisconsin Energy Initiative	Technical contractor to collaborative analyzing 345 kV transmission proposal and alternatives to meet energy needs in southeastern Wisconsin.
Texas ROSE	Developed electric planning rules. Analyzed city of San Antonio resource plan.
U.S. Environmental Protection Agency	Developed handbook, "Energy Efficiency and Renewable Energy: Opportunities from Title IV of the Clean Air Act", which focuses on how energy efficiency and renewables relate to acid rain compliance strategies.
U.S. Environmental Protection Agency and U.S. Department of Energy	Analyzed and compared utility supply- and demand-side resource selection for Clean Air Act compliance on the Pennsylvania-New Jersey-Maryland (PJM) interconnection.
Utah Committee on Consumer Services	Analyzed DSM cost recovery mechanism, avoided cost methods, cost effectiveness tests, assisted in settlement discussions and would have prepared testimony if issues not settled.
Vermont Natural Resources Council and Vermont Public Interest Research Group	Testimony regarding least cost planning principles and rules.
Vermont Public Service Board	Testimony regarding the prudence of Green Mountain Power's planning and management of the Hydro-Quebec power purchase.
Wisconsin Department of Administration	Analysis of new home characteristics built in northeastern Wisconsin, permit data, survey development and report
Wisconsin's Environmental Decade	Review of Draft Environmental Impact Statement of major 345 kV transmission line in northwestern Wisconsin, develop comments.

**RESPONSE OF SSVEC  
TO ARIZONA CORPORATION COMMISSION  
STAFF'S FOURTEENTH SET OF DATA REQUESTS  
DOCKET NO. E-01575A-08-0328**

**December 15, 2008**

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**JM 14.10** Please describe SSVEC's purchase power planning and procurement responsibilities under its former full requirements contract with AEPSCO.

**Response:** SSVEC had no wholesale power procurement responsibilities under its former full requirements contract with AEPSCO. AEPSCO provided all of SSVEC's power needs. SSVEC's planning responsibilities were generally limited to preparing an annual load forecast and providing the results to AEPSCO.

**Prepared by:** David M. Brian, P.E.  
GDS Associates, Inc.  
1850 Parkway Place, Suite 800  
Marietta, Georgia 30067

**RESPONSE OF SSVEC  
TO ARIZONA CORPORATION COMMISSION  
STAFF'S FOURTEENTH SET OF DATA REQUESTS  
DOCKET NO. E-01575A-08-0328**

**December 15, 2008**

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**JM 14.11** Please describe SSVEC's purchase power planning and procurement responsibilities under its current partial requirements contract with AEPCO.

**Response:** Under the contract, SSVEC has responsibility for purchasing from AEPCO electric energy and capacity (at rates set forth in Exhibit A-1 to Rate Schedule A) scheduled by SSVEC or its scheduling agent, up to its Allocated Capacity ("AC"). SSVEC has to take and pay, or pay for such electric energy and capacity under the terms and conditions set forth in the agreement at rates and charges established in the agreement and Rate Schedule A.

The entitlements to power and energy under the agreement do not fully supply SSVEC's load during peak periods, and thus SSVEC is responsible for planning for and procuring wholesale power needs above that provided by AEPCO in order to meet peak loads.

**Prepared by:** David M. Brian, P.E.  
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Marietta, Georgia 30067

**RESPONSE OF SSVEC  
TO ARIZONA CORPORATION COMMISSION  
STAFF'S FOURTEENTH SET OF DATA REQUESTS  
DOCKET NO. E-01575A-08-0328**

December 15, 2008

**JM 14.12** Please explain in detail how SSVEC's purchase power planning and procurement responsibilities changed when its status changed from the full requirements contract with AEPSCO to a partial requirements contract.

Response: The partial requirements contract defines the quantities that SSVEC is entitled to purchase from AEPSCO. The contract contains detailed exhibits that specify the amounts of power and energy available to SSVEC and that AEPSCO is obligated to supply. These amounts are defined on a monthly basis through 2020, and there are provisions that define hourly availability as well. Prior to obtaining partial requirements status, SSVEC engaged WAPA to act as its scheduling agent when partial requirements status was achieved. WAPA provides scheduling and energy management services under contract. WAPA schedules the power and energy available under the AEPSCO contract, makes day-to-day real time marketing decisions such as whether to purchase power from the wholesale market rather than purchase it from AEPSCO, whether to buy power on the market to supplement the AEPSCO supply, or whether to make third party wholesale sales sourced by the AEPSCO supply.

Commensurate with converting to a partial requirements member, SSVEC also changed its balancing area authority. SSVEC's loads were previously contained within the AEPSCO/SWTC pseudo balancing area within the WAPA balancing authority. SSVEC, AEPSCO, SWTC, and WAPA agreed to electronically remove the SSVEC load from the AEPSCO/SWTC balancing area and instead locate it within the host WAPA balancing authority. SSVEC now settles loads and resources under the terms of the WAPA Open Access Transmission Tariff. Regulation and imbalance services are provided by the WAPA balancing authority.

Power supply planning is now independently undertaken by SSVEC. SSVEC projects its future power supply needs and compares that to the entitlement it has to purchase power from AEPSCO. Future capacity and energy deficits based on this comparison fall to SSVEC to plan for and meet.

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**JM 14.29 Please explain in detail whether and how SSVEC's organizational structure related to purchase power acquisition changed given the changed responsibilities in going from the full requirements contract with AEPCO to a partial requirements contract.**

**Response: SSVEC has not made changes to its organizational structure as a result of the conversion to partial requirements service. Some additional responsibilities are carried by existing positions however. The CEO retains overall management and decision-making authority for power supply decisions. The Chief Financial and Administrative Officer oversees the day-to-day power procurement, scheduling, and sales activities. SSVEC manages the remaining workload through contract services with WAPA as its scheduling and GDS Associates, Inc. as its power supply consultant.**

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**Planned Power Procurement Approach and Organization**

**JM 14.18** Does Sulphur Springs Valley Electric Cooperative, Inc. (SSVEC) have a formal electric purchase power procurement strategy or purchase power supply plan? If yes, please provide a copy.

**Response:** SSVEC does not have a formal power procurement plan in place. WAPA offers marketing advice with regards to wholesale transactions to SSVEC. WAPA is continually monitoring the power forwards market looking for opportunities to hedge SSVEC's power needs.

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**JM 14.19** Does SSVEC have a manual, guideline, policy, risk-management policy, or any other written documents to guide its electric purchase power procurement personnel in their day-to-day purchase decisions? If so, please provide a copy of all such documents.

Response: WAPA's Energy Management and Marketing Office's ("EMMO") purchase decisions are based on a number of different factors. Some of these factors are: Price or time targets guidelines provided to by SSVEC, Load and Resource Analysis data, Current and Historical Price data, Risk strategies developed with the customer, and application of commonly accepted economic principles. WAPA's EMMO staff has been delegated authority by WAPA's Regional Manager to enter into and administer certain types of power purchase and sales agreements. Specific trading limits and controls have been defined and are monitored.

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**JM 14.20** Does SSVEC have any informal or unwritten guidelines or strategies for purchasing electricity? If so, please describe them.

**Response:** Please see response to JM 14.19

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**JM 14.21    How are SSVEC's written and/or informal procurement strategies communicated to the procurement personnel responsible for day-to-day purchase decisions?**

**Response:**    WAPA's EMMO staff and SSVEC communicate regularly via phone, email, and meetings to develop, monitor, and modify procurement strategies. The results of these meetings are communicated to the trading staff through formal/informal training, emails, meetings, and guidelines.

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**JM 14.54** What was the cost and amount available of on-peak and off-peak power during the January through October 2008 timeframe from other providers in the region?

Response: SSVEC does not maintain a database of the cost and amount of on-peak and off-peak power available from providers in the region and does not otherwise have this data available to it.

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**JM 14.55** Please provide energy and power pricing information for energy supplies available through the wesTTrans market from January through October 2008.

**Response:** SSVEC does not maintain energy and pricing information for the wesTTrans market.

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**JM 14.57** Has the regional electric market provided electricity supplies that were less expensive than supplies that would have been available under the AEPCO full requirements contract? Please explain and document your answer.

Response: SSVEC does not have the AEPCO information available to answer this question.

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**JM 14.49** Please provide the on-peak and off-peak spot market prices for purchase power since January 1, 2005, for the regional market accessible to SSVEC. Please provide the market prices and the estimated transmission service prices separately and combined for a total delivered market price. Please provide this information on a daily basis, or in as much detail as is available to SSVEC.

Response: SSVEC does not maintain a database of on-peak and off-peak spot market prices and does not have this data available to it at the present time.

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**JM 14.50** Please provide the on-peak and off-peak power prices for purchase power under the AEPCO full requirements contract for the period January 1, 2005, through December 31, 2007. Please provide the power and the transmission service prices separately and combined for a total delivered market price.

Response: SSVEC does not have the on-peak and off-peak pricing for purchase power under the AEPCO full requirements contract.

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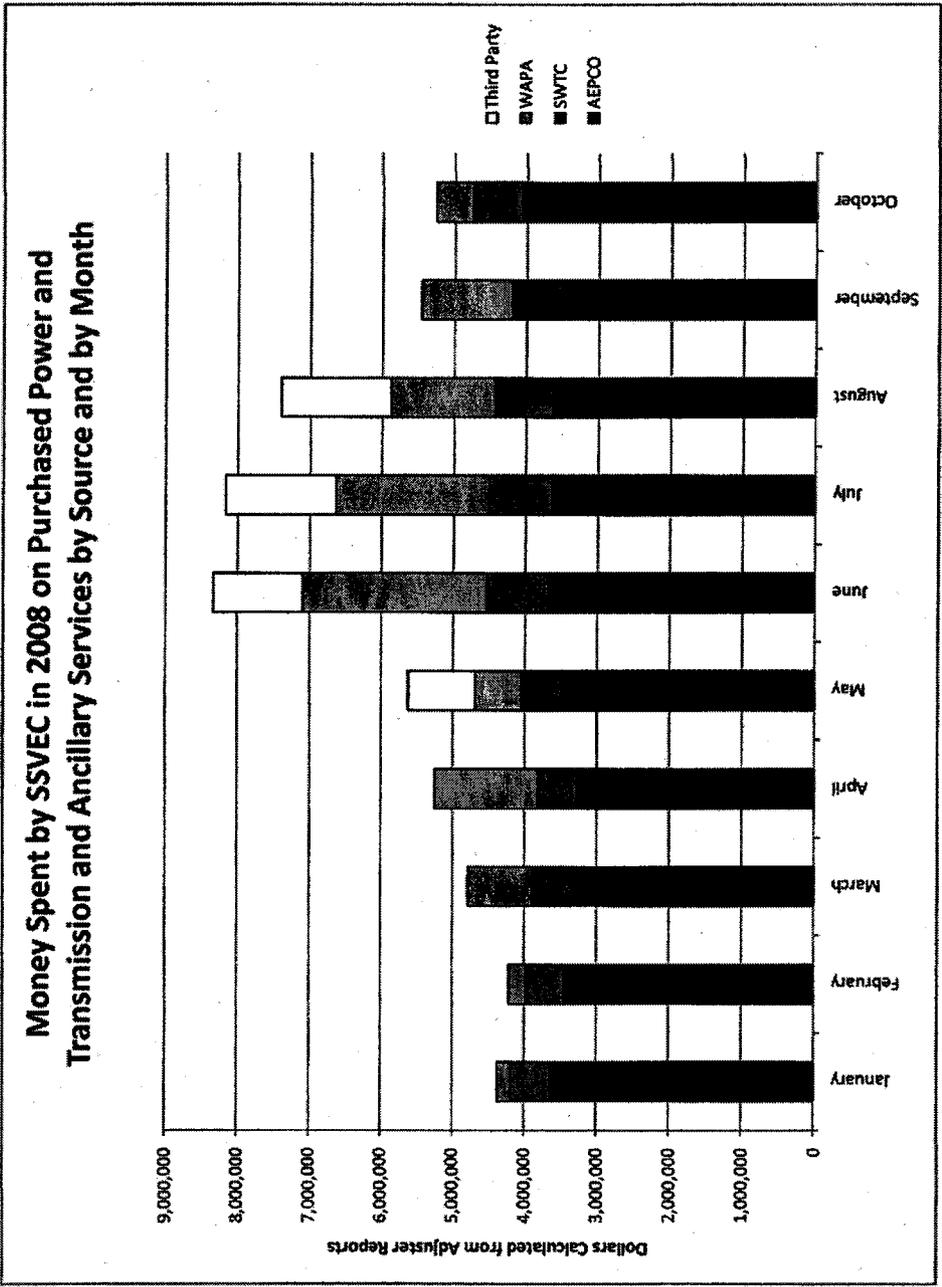
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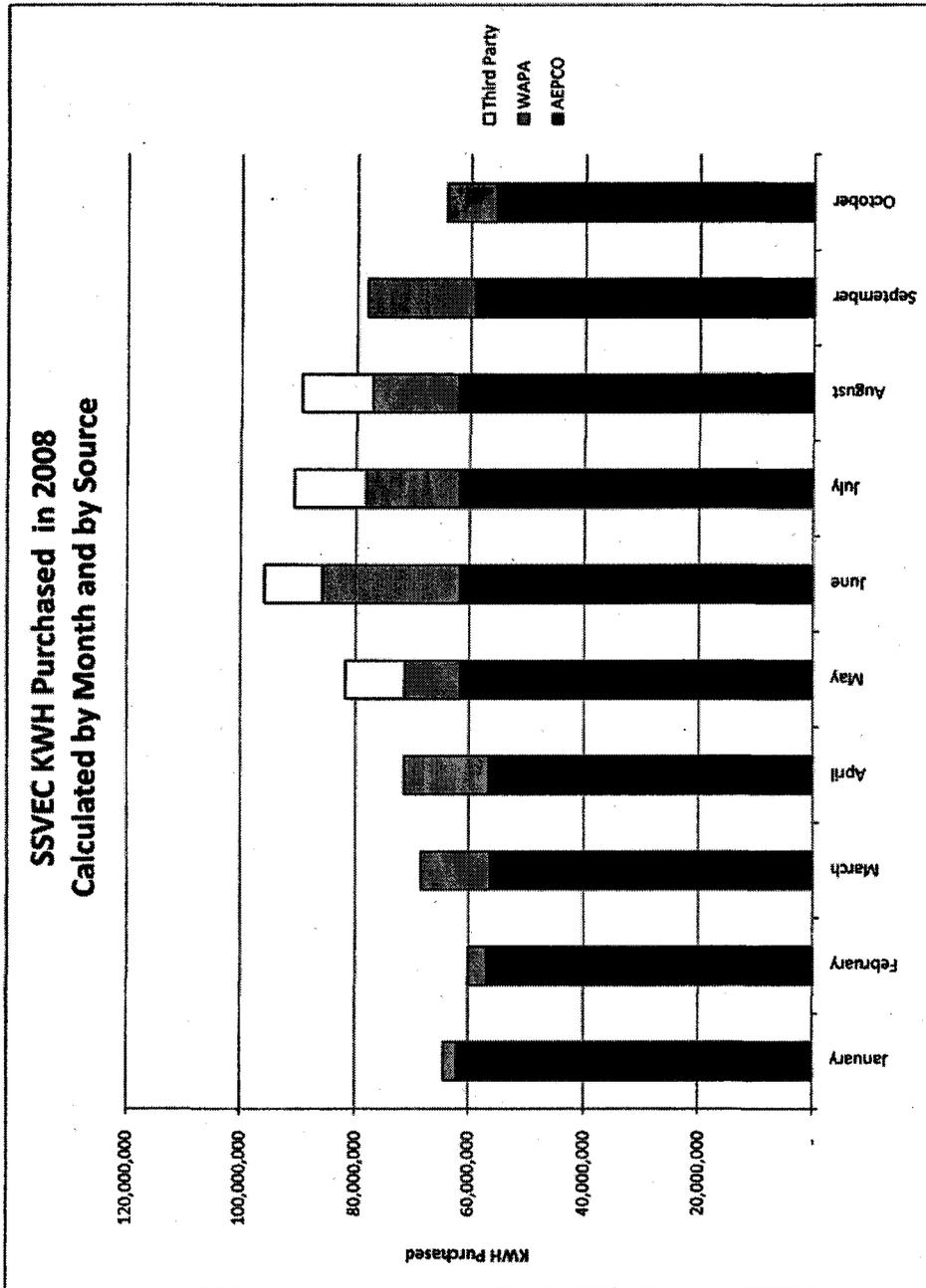
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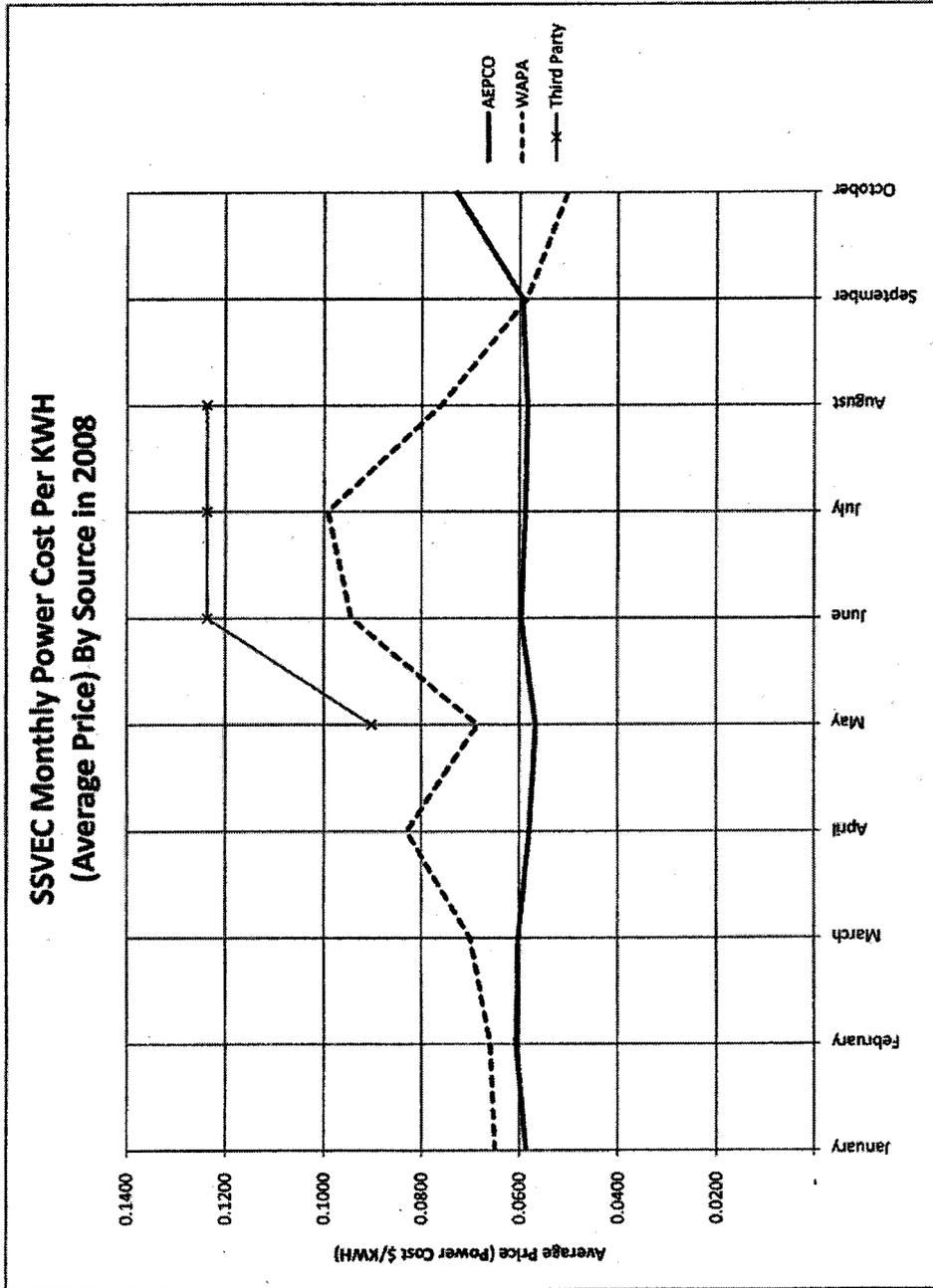
**JM 14.51** Please provide the on-peak and off-peak power prices for purchase power under the AEPSCO partial requirements contract since January 1, 2008. Please provide the power and the transmission service prices separately and combined for a total delivered market price.

Response: See Response to JM 14.50.

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**JM 14.43      What potential suppliers of purchase power has SSVEC identified? How did SSVEC determine who was a potential supplier?**

**Response:**      SSVEC is open to trading with all suppliers that will offer power at the Four Corners, Westwing, & Greenlee. The supplier pool changes by season because of the amount of generation or positions each supplier has at each hub. Typically an e-mail is sent requesting indicative pricing. Those suppliers that reply are the suppliers an RFP is sent to. Examples of potential suppliers that have been identified include APS, Constellation, Powerex, PNM, TEP, Shell, Morgan Standley, and Cargill.

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- JM 14.36** Did SSVEC select a higher price bid, on the basis of criteria other than cost, during the January 2008 through present period?
- a) For each bid from a purchase power supplier for electricity delivered in the January 2008 through present time frame, what were the reasons for the bid either being accepted or rejected?
  - b) Please explain each situation in which a higher price bid was selected over a lower price bid.

Response: No

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**JM 14.46** In SSVEC's opinion, is the regional wholesale electricity spot market vibrant and liquid enough to acquire all of its power purchases (above that supplied by AEPSCO under the partial requirements contract) from the spot market? Please explain and document.

Response: Thus far and for the next few years, yes. In SSVEC's view there is sufficient competition in the regional wholesale electricity spot market. SSVEC has been able to select from a number of competitive alternatives at some of the region's trading hubs such as Four Corners, Palo Verde, and Westwing. Longer term SSVEC has concerns. WECC reserve margins have been projected to decline, and the effects of new generation development activities are uncertain. And to the extent that there have been challenges in procuring wholesale power, it has been on the transmission side. There is limited available transmission service in southern Arizona during peak periods, and transmission availability has dictated where and from whom SSVEC has purchased power. For these reasons, SSVEC does not anticipate being able to rely heavily on the regional spot markets during peak periods in the future, and instead expects to secure needs for peak periods on a forward basis well ahead of the peak periods where the needs exist. Along these lines, SSVEC is studying long term purchased power options, long term joint generation ownership options, and also the development of a local peaking generation facility.

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- JM 14.24** Regarding the use of financial instruments (including puts and calls, futures, etc.) in the acquisition of purchase power supplies:
- a) Did SSVEC use financial instruments in the acquisition of its purchase power supplies for the January 2008 through present period?
  - b) Has SSVEC ever used financial instruments in the acquisition of its purchase power supplies?
  - c) Please explain the types of financial instruments, if any, used by SSVEC for the January 2008 through present sales period.
  - d) If SSVEC previously used financial instruments but did not use them for supplies since January 2008, please explain why.
  - e) Please explain when SSVEC considers financial instruments appropriate to use and when they are not appropriate to use.

- Response:
- a. No.
  - b. No.
  - c. There were none.
  - d. Not applicable.
  - e. Financial instruments are appropriate to use when price risk cannot be effectively and economically managed through the use of physical price hedging. An example would be where a customer is forced to take spot price risk and has no other way than financial instruments to hedge that risk. Thus far SSVEC has not experienced a need to utilize financial hedges to manage risk, as suppliers have provided pricing options that limit SSVEC's exposure to price risk.

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