

Exhibit No. __ TC (DEK-1TC)
Dockets UE-072300/
UG-072301/UG-080064
Witness: Douglas E. Kilpatrick
REDACTED VERSION

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION,

Complainant,

v.

PUGET SOUND ENERGY, INC.,

Respondent.

DOCKET UE-072300
DOCKET UG-072301
(Consolidated)

DOCKET UG-080064

TESTIMONY OF

DOUGLAS E. KILPATRICK

ON BEHALF OF THE STAFF OF
WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION

*Prudence of Resource Acquisitions
Outcomes from the Hanukkah Eve Storm of 2006*

May 30, 2008

CONFIDENTIAL PER PROTECTIVE ORDER

REDACTED VERSION

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Exhibit No. __ (DEK-2), Open Meeting Memorandum dated October 25, 2007

Exhibit No. __ (DEK-3), Memorandum dated January 30, 2008 Re: Staff Summary of PSE's Response to KEMA's December 2006 Windstorm Report

1 I. INTRODUCTION

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

4 A. My name is Douglas Kilpatrick, P.E. My business address is the General
5 Administration Building, Room 206, PO Box 41012, Olympia, Washington 98504-
6 1012.
7

8 Q. By whom are you employed and in what capacity?

9 A. I am employed by the Department of General Administration ("GA") as an Energy
10 Engineer 3. My employment with GA began on April 16, 2008. Prior to that date, I
11 was employed by the Washington Utilities and Transportation Commission ("UTC")
12 as a Senior Regulatory Engineering Specialist. My duties at the UTC involved
13 analysis of a variety of energy regulatory issues. These included integrated resource
14 planning, requests for proposals, power supply acquisition and emergency
15 management planning.
16

17 Q. Please describe your education and relevant employment experience in the
18 energy industry and utility regulation.

19 A. I hold a BS degree in Environmental Resources Engineering from Humboldt State
20 University in California. I am licensed as a professional engineer in the field of
21 mechanical engineering in the State of Washington. I worked for Pacific Gas and
22 Electric Company in Eureka, California from 1980 to 1987. There, I worked on
23 energy conservation program delivery to commercial and industrial customers and

1 was assigned as the division coordinator for interconnection of qualifying facility
2 energy projects under PURPA. Following my move to Washington State in 1987, I
3 was employed by the Washington State Energy Office where I held positions in the
4 engineering group, including manager. I was next employed in 1996 by the UTC
5 where I held positions as Electric Industry Coordinator, Director of Pipeline Safety,
6 Emergency Management Planning Coordinator, and Senior Regulatory Engineering
7 Specialist. I presented testimony in formal proceedings and made Staff
8 recommendations at many open meetings. In all, I have approximately 19 years of
9 experience in the energy utility industry.

11 II. SCOPE OF TESTIMONY

13 **Q. On whose behalf are you testifying in this proceeding?**

14 A. I am testifying on behalf of UTC Staff. Before I left the UTC, I was a member of the
15 Staff team investigating the filing of Puget Sound Energy, Inc. ("PSE" or "the
16 Company") in these dockets.

18 **Q. Please outline the scope of your testimony.**

19 A. My testimony covers two topics. First, I discuss the acquisition of several electric
20 generating resources and power purchase agreements made by PSE for which rate
21 recovery is sought. Second, I discuss the Hanukkah Eve Storm of 2006 ("the
22 Storm") and PSE's reaction to the recommendations of KEMA, an outside consultant
23 that evaluated PSE's response and restoration efforts following the Storm.

1

2 **Q. Do you sponsor any exhibits in this proceeding?**

3 A. Yes, I sponsor the following exhibits:

4 Exhibit No. __ (DEK-2), Open Meeting Memorandum dated October 25, 2007

5 Exhibit No. __ (DEK-3), Memorandum dated January 30, 2008 Re: Staff Summary
6 of PSE's Response to KEMA's December 2006 Windstorm Report
7

8 **Q. Please outline the first issue related to electric resource acquisitions.**

9 A. PSE seeks a prudence determination and inclusion in rates of the following power

10 purchase agreements ("PPA") and generation resources:

- 11 • Whitehorn Units 2 and 3, a pair of simple cycle combustion turbines with a total
12 capacity of 150 MW.
- 13 • Sumas natural gas fired combined cycle combustion turbine and an interest in the
14 natural gas pipeline that serves the facility. This unit has a total capacity of
15 approximately 125 MW.
- 16 • Addition of 7.2 MW of wind capacity at the PSE-owned Hopkins Ridge Wind
17 Facility ("the Hopkins Ridge Infill").
- 18 • A two-year extension to the full requirements PPA with Powerex to PSE's Point
19 Roberts load.
- 20 • A 20-year power purchase with PPM Energy for 50 MW of the 221-MW
21 Klondike III wind project.
- 22 • An approximate four-year PPA with Lehman Commodity Services Group for 50
23 MW of replacement energy due to the Sumas PPA default.

- 1 • An approximate four-year PPA with Sempra Energy Trading Company for the
- 2 balance of the energy replacement necessitated by the Sumas PPA default.
- 3 • A four-year winter on-peak power purchase with [REDACTED] for 150 MW.

4

5 I discuss my conclusions regarding the prudence and cost of these acquisitions, and

6 my evaluation of the processes used by PSE to analyze and investigate them. I will

7 also describe the information and documents that I reviewed in my evaluation.

8

9 **Q. Please summarize your conclusion regarding PSE's acquisition of these**

10 **generation resources and PPAs.**

11 A. I conclude that the acquisition of these generating resources and PPAs were prudent

12 and reasonably priced, according to the standards applied by the UTC in prior cases.

13

14 **Q. Please outline the second issue related to PSE's response to the KEMA report.**

15 A. PSE's witness, Mr. Greg Zeller, explains that PSE hired KEMA, an energy

16 consulting firm, to provide an independent, third-party review of PSE's response to

17 the December 13-15, 2006 storm event dubbed "The Hanukkah Eve Storm." Mr.

18 Zeller suggests generally (Exhibit No. __ (GJZ-1T) at 19:3-7) that PSE has

19 undertaken the actions recommended by KEMA in a report dated July 2, 2007 ("the

20 KEMA Report") that he includes in Exhibit No. __ (GJZ-8). I examine his assertion

21 in light of PSE's actual response to the KEMA Report. That response was filed with

22 the UTC in Docket UE-071898 on November 30, 2007 and is included in Exhibit

23 No. __ (GJZ-9) ("PSE's After Action Report").

1 I also provide recommendations on how the Company should implement
2 some of the KEMA Report recommendations. These are important details lacking in
3 PSE's After Action Report.
4

5 **Q. Please summarize your conclusion regarding PSE's response to the KEMA**
6 **Report.**

7 A. PSE's After Action Report contradicts Mr. Zeller's general assertion that PSE has
8 undertaken the actions recommended by KEMA. In Exhibit No. __ (DEK-3) I
9 explain that several of the KEMA Report recommendations were either not accepted
10 or were being studied further. For the recommendations where PSE said it would
11 conduct further study, it only offered broad timelines for completion of this work and
12 it made no offer to inform the UTC of the Company's analysis methods or
13 conclusions.
14

15 **III. PRUDENCE OF THE GENERATING RESOURCE ACQUISITIONS**

16

17 **Q. In regard to PSE's acquisition of the generating resources and PPAs described**
18 **in this case, were the decision-making tools, methods and actions used by the**
19 **Company to evaluate the purchase of these resources prudent?**

20 A. In my opinion, yes.
21

1 **Q. What materials did you review to come to this conclusion?**

2 A. I reviewed the testimony and exhibits of Company witnesses Ms. Harris, Mr. Garratt
3 and Mr. Elsea, as well as Company responses to data requests. I worked with
4 Mr. Elsea to examine the Company's portfolio model, power cost modeling using
5 AURORA, and various supporting spreadsheets. I also made personal visits to the
6 Whitehorn and Sumas generating resources in March 2008, touring these facilities
7 with PSE's thermal asset manager, Mr. Charles Morton.

8

9 **Q. How do you define the term "prudent" for purposes of your analysis?**

10 A. "Prudent" means that the decisions to acquire these generating resources and PPAs
11 were based upon appropriate, rational and reasoned quantitative and qualitative
12 analyses; relied upon appropriate data; and satisfied the general "reasonableness"
13 standard the UTC has applied to assess the prudence of power supply acquisitions in
14 rate proceedings:

15 The Commission has consistently applied a reasonableness standard when
16 reviewing the prudence of decisions relating to power costs, including those
17 arising from power generation asset acquisitions. The test the Commission
18 applies to measure prudence is what would a reasonable board of directors
19 and company management have decided given what they knew or reasonably
20 should have known to be true at the time they made a decision. This test
21 applies both to the question of need and the appropriateness of the
22 expenditures. The company must establish that it adequately studied the
23 question of whether to purchase these resources and made a reasonable
24 decision, using the data and methods that a reasonable management would
25 have used at the time the decisions were made. (Citations omitted.)

26

27 *WUTC v. Puget Sound Energy, Inc.* Order No. 12 at ¶ 19, Docket 031725 (April 7,

28 2004). This general standard reiterates policies the UTC adopted years ago in a

29 general rate case involving the Company's predecessor. *WUTC v. Puget Sound*

1 *Power & Light Co.*, 19th Supplemental Order, Docket UE-921262, *et al.*,
2 (September 27, 1994).

3
4 **Q. What other specific factors has the UTC considered in evaluating the prudence**
5 **of power supply acquisitions?**

6 A. The UTC has emphasized the following four areas of review, analysis,
7 communications, and record keeping:

- 8 • The utility must first determine whether new resources are necessary. Once a
9 need has been identified, the utility must determine how to fill that need in a
10 cost-effective manner. When a utility is considering the purchase of a resource, it
11 must evaluate that resource against the standards of what other purchases are
12 available, and against the standard of what it would cost to build the resource
13 itself.
14
15 • The utility must analyze the resource alternatives using current information that
16 adjusts for such factors as end effects, capital costs, dispatchability, transmission
17 costs, and whatever other factors need specific analysis at the time of a purchase
18 decision.
19
20 • The utility should inform its board of directors about the purchase decision and
21 its costs. The utility should also involve the board in the decision process.
22
23 • The utility must keep adequate contemporaneous records that will allow the
24 Commission to evaluate its actions with respect to the decision process. The
25 Commission should be able to follow the utility's decision process; understand
26 the elements that the utility used; and determine the manner in which the utility
27 valued these elements.

28
29 *WUTC v. Puget Sound Energy, Inc.* Order No. 12 at ¶ 20, Docket 031725 (April 7, 2004).
30

31 **Q. Did PSE conduct analyses consistent with these factors for the acquisitions**
32 **under review in this case?**

1 A. Yes. First, consistent with the UTC's rule on Integrated Resource Planning (WAC
2 480-100-238), PSE filed a Least Cost Plan ("LCP") in Docket UE-050664 on April
3 29, 2005. In that LCP, the Company forecast a moderate near-term need for new
4 electric supply resources and, by 2015, a need to secure approximately 1,500 average
5 MWs of new supply to meet growing customer demand.

6 Second, PSE issued an all source request for proposals ("RFP") in 2005
7 seeking input from owners and developers of power projects.

8 Third, PSE evaluated the proposals received using a series of both
9 quantitative and qualitative screens to arrive at a short list of potential projects and/or
10 contract offers.

11 Fourth, PSE made presentations to its board of directors and other officers
12 summarizing these analyses and the status of the various offers.

13 Finally, PSE maintained and provided substantial records of the analytic and
14 negotiations work done to finalize these purchases.

15
16 **Q. Was this the first time that PSE determined through integrated resource
17 planning that it needed to acquire additional electric supply resources?**

18 A. No. In its 2003 LCP, PSE also concluded that due to customer load growth and other
19 factors it would need to acquire new electric supplies in the future. Following
20 issuance of its 2003 LCP, PSE issued an RFP for resources and conducted
21 quantitative and qualitative review of the proposals received out of that solicitation.
22 The 2005 LCP was consistent with the analysis done previously.

1 Q. Were all of these generating resources and PPAs within the offers received in
2 the 2005 RFP solicitation?

3 A. No. Only the Klondike III Wind PPA and the 150 MW [REDACTED] winter on-peak PPA
4 were specifically part of the 2005 RFP evaluation process.
5

6 Q. What about the other acquisitions for which PSE seeks rate recovery?

7 A. I will describe each PPA or generating resource separately:

8 • The Sumas combustion turbine purchase was somewhat opportunistic. PSE had
9 an existing PPA with Sumas Cogeneration Company, LP (“SCCLP”) that was not
10 due to expire until April 2013. Under the PPA, SCCLP provided PSE the entire
11 electrical output of the facility, up to a maximum of 135 MW. PSE did not look
12 at the replacement of this contract as part of its 2005 RFP analyses, but rather
13 was required to consider options due to SCCLP’s default of the long-term PPA in
14 2007.

15 • The Sempra and Lehman PPAs were the result of a targeted solicitation
16 necessitated by the contract issue with SCCLP. PSE was required to consider
17 replacement supplies for the SCCLP contract after it received notice in May 2007
18 that the independent power producer would no longer make deliveries of energy
19 to PSE under the PPA after June 30, 2007. In response to SCCLP’s notice, PSE
20 sought replacement power through the targeted solicitation sent out to four
21 counterparties.

22 • PSE had an existing lease for Whitehorn Units 2 and 3 through February 2009.
23 The Company received two different offers from the plant owners, in 2003 and

1 2006, to cancel the existing lease and purchase the two units prior to the lease
2 ending. PSE's analysis showed that compared to other capacity resource
3 proposals offered through the 2005 RFP, purchase at the end of the lease was the
4 lowest cost capacity option.

- 5 • The Hopkins Ridge Infill of four additional wind turbines on the existing project
6 site was evaluated following passage of Initiative 937 (RCW 19.285).
- 7 • The Powerex PPA to serve the Point Roberts load was an extension of the
8 existing PPA to serve this portion of PSE's service area.

9
10 **Q. What methods were most important in PSE's decision-making to acquire these**
11 **generating resources and PPAs?**

12 A. The most important tools used in evaluating potential resource alternatives were the
13 quantitative AURORA and the Portfolio Screening Models, the RFP process itself,
14 the use of fuel cost scenarios, and the analysis of key qualitative assessments. The
15 quantitative models allowed hourly dispatch simulation of each resource and contract
16 alternative. The use of scenarios of fuel costs allowed for an analysis of price level
17 and volatility and, therefore, of fuel risk on the portfolio.

18
19 **Q. Please elaborate on PSE's quantitative methodology for evaluating project**
20 **offers?**

21 A. With respect to the Klondike III Wind PPA and the 150 MW [REDACTED] winter on-peak
22 PPA, the Company considered bids in response to the 2005 RFP solicitation, which
23 resulted in a total of 48 different offers from 38 project owners/developers. PSE

1 organized the offers into a spreadsheet of key information including delivery date,
2 capacity and energy offered, contract or equity status, developed or to be
3 constructed, as well as fuel and transmission arrangements. Some screening for
4 reasonableness was performed at this level. The remaining short list of projects was
5 then modeled in "Phase I" of the assessment.

6 Phase I evaluation was conducted with the use of the Portfolio Screening
7 Model (PSM), a Microsoft Excel-based simulation model that calculates the
8 incremental portfolio costs of resources required to serve load. Phase I weighed
9 compatibility with PSE resource needs, resource costs, risk management, public
10 benefits, and strategic and financial considerations.

11 Phase II assessment was applied to 16 projects chosen from the candidates
12 evaluated in Phase I. In Phase II, PSE again modeled the projects using the PSM.
13 However, instead of using a single set of natural gas and power price assumptions,
14 PSE evaluated the list of projects using four sets of pricing scenarios to simulate a
15 range of possible futures. PSE also used the PSM to run a set of Monte Carlo
16 simulations to check cost variability and risk. Finally, the Company looked at
17 combinations of projects from the short list to evaluate the portfolio interaction of
18 resources.

19 With respect to the projects other than the Klondike III Wind PPA and the
20 150 MW [REDACTED] winter on-peak PPA, the Company used AURORA and PSM
21 modeling techniques in a similar fashion to the Phase II assessment.
22

1 **Q. What important qualitative assessments did PSE make in the screening and**
2 **acquisition process?**

3 A. The prominent qualitative checks for the projects evaluated in the 2005 RFP were
4 availability of transmission capacity to deliver project output, technical evaluation of
5 the primary generation technology, potential problems related to fuel supply and
6 transmission, environmental issues associated with either the technology or the
7 location of a particular project, legal risk associated with the counterparties,
8 community relations issues, and plant operations considerations. For the other
9 generating resources and PPAs, the qualitative factors considered were legal and
10 financial risk.

11
12 **Q. Did PSE make any substantive changes to the quantitative and qualitative**
13 **analyses of the 2005 RFP submittals compared to the approach used to evaluate**
14 **the earlier RFP submittals?**

15 A. Yes. Specifically, PSE used a more thorough evaluation tool to assess projects in the
16 2005 RFP. The Portfolio Screening Model was an improvement to the Acquisition
17 Screening Model it had formerly used in Phase I evaluations of previous
18 solicitations.

19 In the 2005 RFP, PSE also used a single set of criteria for project evaluations during
20 its Phase I and Phase II screening to streamline the process and provide a more
21 holistic look at proposals. In addition, PSE made updates to the qualitative criteria it
22 used to evaluate the projects. For example, accounting considerations were added as
23 a qualitative criterion in the 2005 RFP.

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Q. Where there other analytical changes to the way PSE evaluated the benefits of these resources subsequent to the 2005 RFP, Phase II analysis?

A. Yes, in August 2006, PSE acquired updated gas price inputs for the AURORA model from Global Insight. In addition, the Company received the new release of AURORAxmp v8.2 from the software developer, EPIS.

Q. Were the project acquisition costs for these generation resources and PPA's reasonable?

A. Yes. PSE compared each of these generating resources and PPA's to recent market purchases and asset acquisitions. In each case the new acquisitions provided positive portfolio benefits compared to the generic resources included in the modeling runs made as part of the 2005 IRP development and they compared favorably with these other purchases.

Q. Was risk appropriately considered for each resource modeled?

A. Yes. As noted above, during the investigation of all resources, PSE evaluated a series of cost and risk scenarios in its analyses. The Company evaluated the levelized price of natural gas and its impacts on power prices considering market trends and natural gas-fired electric generation development. It also considered the potential for regulatory changes related to the production of greenhouse gas emissions by power plants and the risk of future carbon taxes being imposed. Finally, PSE's modeling runs were used to evaluate the effects of varying

1 hydrological conditions and dispatchability on power production costs, the cost of
2 capital and end effects.

3
4 **Q. Did the Company keep its Board of Directors informed about the process and**
5 **decision to acquire these resources?**

6 A. Yes. PSE's Energy Resources Group made several presentations to the Board of
7 Directors and the Company's Energy Management Committee on the status of
8 resource evaluations and the Company's intention to acquire the generating resources
9 and PPAs.

10
11 **Q. Please summarize the basis for your conclusion that the acquisition of the**
12 **generating resources and PPAs were prudent decisions.**

13 A. The Company had a clear, documented need for power as detailed in both the 2003
14 and 2005 LCPs. For offers received that were part of the 2005 RFP, PSE also had a
15 methodical, organized process for soliciting and evaluating bids. The Company
16 examined self-build options, and it evaluated power purchase contracts and
17 ownership of new resources. For offers received that were not part of the 2005 RFP,
18 the Company compared each to its other options, including market purchases and
19 other recent acquisitions. PSE kept detailed and contemporaneous records of the
20 evaluation methods used, including data acquisition and modeling results using
21 simulation software that can be replicated. Finally, PSE's Board of Directors was
22 informed and involved in the decision-making process to acquire all of these
23 resources and PPAs.

1
2 **IV. THE KEMA REPORT AND THE COMPANY'S RESPONSE**
3

4 **Q. Please describe the genesis of the KEMA Report?**

5 A. Following the Storm in December 2006, a workshop was launched under Docket
6 UE-070067 that invited electric and telecommunications companies to make
7 presentations on the impacts to their systems and their response to those impacts.
8 Representatives from PSE, Avista Utilities and PacifiCorp made presentations at a
9 recessed open meeting on February 8, 2007. Company witness Ms. Sue McLain
10 presented for PSE and concluded her remarks with an indication that under "Next
11 Steps" the Company would conduct an evaluation of its Storm restoration and
12 customer communications efforts. PSE employed KEMA to conduct and document
13 that evaluation in the KEMA Report, which PSE filed in Docket UE-071898 on
14 September 20, 2007. (Exhibit No. __ (GJZ-8).)
15

16 **Q. What was the UTC response to the filing of the KEMA Report?**

17 A. The UTC directed the energy staff to review the KEMA Report and arrange for a
18 presentation by the Company at an open meeting. Staff prepared an open meeting
19 memorandum (Exhibit No. __ (DEK-2)) that summarized the KEMA Report and the
20 Company made a general PowerPoint presentation on October 25, 2007. However,
21 PSE offered no response to the specific recommendations contained in the KEMA
22 Report. The Company committed to develop such a response and file it with the

1 UTC. On November 30, 2007, the PSE filed its After Action Report. (Exhibit No.
2 __ (GJZ-9).)

3
4 **Q. What direction did the UTC provide to Staff regarding PSE's After Action**
5 **Report?**

6 A. Staff was directed to evaluate the After Action Report and provide a summary and
7 recommendation. In response to this directive I drafted the January 30, 2008
8 memorandum provided as Exhibit No. __ (DEK-3).

9
10 **Q. Does your analysis of the After Action Report support Mr. Zeller's testimony**
11 **that the Company has undertaken the actions recommended in the KEMA**
12 **Report?**

13 A. No. My January 30, 2008 memo explains that PSE did not adopt all of the KEMA
14 recommendations. Several KEMA recommendations were adopted, but others were
15 only adopted partially or were rejected, and a few were set aside for further study.

16
17 **Q. Do you believe that PSE should adopt all of KEMA's recommendations?**

18 A. No. For example, PSE's After Action Report states that the Company partially
19 accepted KEMA recommendation 14.4.1 to enhance its transmission system
20 vegetation management program. PSE agreed with KEMA that it should focus on
21 maintaining access to the transmission system in the event the Company needs to
22 make repairs. However, PSE did not agree with KEMA that it should develop a
23 formal plan to broaden transmission rights-of-way width. PSE stated that it intends

1 to work with stakeholders and legislators to attempt to introduce vegetation
2 management policy solutions, including creating healthier vegetation buffer zones
3 between utility infrastructure and new land developments. (Exhibit No. __ (GJZ-9)
4 at 20). I agree that PSE should use its own judgment to decide how it will interact
5 with local and state entities to develop solutions to the problems associated with
6 vegetation and rights-of-way width for its facilities.
7

8 **Q. Do you believe that PSE is doing all it can to implement the remaining KEMA**
9 **Report recommendations?**

10 A. That's difficult to tell. As mentioned in Exhibit No. __ (DEK-3), PSE indicated that
11 it was studying a number of the recommendations, but it provided few specifics. For
12 example, regarding KEMA's Recommendation 10.4.1 relating to the creation of an
13 outage management system ("OMS"), PSE stated that it had hired KEMA to further
14 define what a new, enterprise-level architecture for integrating technology and data
15 for outage management might require and cost. The Company indicated that it
16 would make its decision in this area based on cost, benefits and value-added
17 functionality in emergency response and restoration.
18

19 **Q. Has the Company provided any further information about this cost/benefit**
20 **analysis for the outage management system?**

21 A. Yes, in response to Public Counsel Data Request No. 131, PSE provided a copy of a
22 cost/benefit analysis completed by KEMA for an OMS based on and compatible with
23 a geographic information system ("GIS").

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Q. What conclusions did KEMA reach in this cost/benefit analysis?

A. KEMA concluded that “implementation of a commercial OMS will meet PSE's outage management requirements, that a commercial GIS is needed to support the OMS, and that a phased implementation and deployment of OMS and GIS will provide the needed benefits and operational efficiency for outage management and service restoration.”

Q. Do you agree that KEMA’s conclusion is reasonable?

A. Yes. KEMA conducted its analysis based on its prior evaluation of PSE’s restoration processes following the Storm. Using this understanding of PSE’s current processes and systems, KEMA then evaluated the expected benefits of developing an OMS based on systems similar to those currently in use by other utilities and currently offered by commercial vendors for utility applications. The analysis brought together the discounted net present value of the costs and benefits of the proposed system over a 15-year time horizon, inclusive of a 3-year implementation path. KEMA concluded that PSE would realize a net reduction in its System Average Interruption Duration Index (“SAIDI”) in addition to gaining operational efficiencies associated with emergency restoration and routine operations and maintenance of its distribution system.

1 Q. Please explain why an OMS would result in a reduction of PSE's SAIDI metric?

2 A A conclusion that SAIDI will go down is based on the assumption that an OMS
3 would allow for more efficient identification of outage scope and thus faster dispatch
4 of repair crews and equipment. This will reduce average outage durations, as
5 compared to PSE's current system where outage information is collected and
6 summarized through a process that relies on paper reports and telephonic conference
7 calls.

8
9 Q. If that is the case, does Staff recommend that the UTC order PSE to develop an
10 OMS along with the supporting GIS?

11 A. Not at this time. The Company's response to Staff Data Request No. 176 explains
12 that PSE has engaged a consultant to evaluate what kinds of systems and processes
13 other than OMS will benefit from development of an enterprise-wide GIS. Such
14 other systems or departments include but are not limited to: maps and records, power
15 production, transmission and distribution design, system planning, contract
16 management, and real estate services.

17 This evaluation is a logical next step to determine the overall cost
18 effectiveness and benefits of moving to a GIS. Consequently, I recommend that PSE
19 be required to report back to the UTC on the work done in house or by its consultant
20 to evaluate the benefits of implementing an OMS with the associated enterprise-wide
21 GIS. This reporting must include a detailed description of the cost/benefit analyses it
22 is doing or is having done, what quantitative and/or qualitative results would
23 convince the Company to move forward with the OMS/GIS, and what timeline it

1 proposes for implementation assuming the internal hurdle is met. It is important that
2 implementation of the OMS not be unduly delayed by PSE's enterprise-wide
3 evaluation of GIS. The reporting I recommend will allow the UTC to monitor that
4 issue.

5
6 **Q. Please summarize your other recommendations in this proceeding that you**
7 **made in the January 30, 2008 Staff memo in Exhibit No. __ (DEK-3).**

8 A. The justifications for my recommendations related to the KEMA Report are detailed
9 in that exhibit. In summary, I recommend the following:

- 10 • PSE must ensure that its prime contractor, Potelco, assigns an appropriate
11 number of its staff to the emergency response job of damage assessor and also
12 requires these individuals to attend training and use PSE-developed forms.
- 13 • PSE must formalize the leadership expectation and storm role clarifications with
14 Potelco and develop service provider performance metrics that support these
15 concepts. PSE must report its service provider effectiveness to the UTC using
16 these metrics, following future storm events.
- 17 • PSE must provide initial restoration information to its customers no later than 72
18 hours after the beginning of a storm event where electric infrastructure is
19 damaged and customers are without power. This information must be specific
20 enough that customers can decide what actions to take to mitigate their own
21 situation.

- 1 • PSE must provide outage and restoration reports to the UTC within 24 hours of
2 initial storm impact and follow up with daily status reports thereafter until all
3 storm-related outages are resolved.
- 4 • PSE must formalize and coordinate its local area coordination planning with the
5 associated jurisdictions and inform the UTC when this is complete.
- 6 • PSE must provide the UTC with more and detailed information about how the
7 Bothell Emergency Center fits into PSE's overall storm response process.
-
- 8 • PSE must document the actions it is engaged in to implement the master list of
9 recommendations that came from the Company's 2006 internal storm debriefs.
10 The information must be specific enough so that the UTC can determine what
11 those actions are, when the actions are being started, and when they are planned
12 to be completed.
- 13 • PSE must provide more detail to the UTC on its proposed legislative and
14 regulatory solutions to vegetation management and infrastructure rights-of-way
15 so the UTC can evaluate the propriety of these actions.

16

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

18 **A. Yes.**