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090079-EI

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Subject: Docket No. 0909079-EI
Attachments: FIPUG Notice of Late-Filed Exhibits Nos. 1 and 2 to J. Pollock Deposition 09.14.09.pdf

In accordance with the electronic filing procedures of the Florida Public Service Commission, the following filing is made:

- a. The name, address, telephone number and email for the person responsible for the filing is:

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- b. This filing is made in Docket No. 090079-EI, In re: Petition for increase in rates by Progress Energy Florida, Inc.
- c. The document is filed on behalf of Florida Industrial Power Users Group.
- d. The total pages in the document are 63 pages.
- e. The attached document is FIPUG's Notice of Late-Filed Exhibits Nos. 1 and 2 to J. Pollock Deposition.

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DOCUMENT NUMBER-DATE

09477 SEP 14 8

9/14/2009

FPSC - COMMISSION CLERK

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition for increase in rates by Progress
Energy Florida, Inc.

DOCKET NO. 090079-EI

FILED: SEPTEMBER 14, 2009

LATE-FILED EXHIBITS TO DEPOSITION OF JEFFRY POLLOCK

The Florida Industrial Power Users Group hereby files late-filed exhibits 1 and 2 to the deposition of Jeffrey Pollock taken on September 11, 2009.

s/ Vicki Gordon Kaufman

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09477 SEP 14 8

FPSC-COMMISSION CLERK

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing late-filed exhibits 1 and 2 to the deposition of Jeffrey Pollock were furnished by electronic and U.S. Mail on this 14th day of September, 2009.

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LATE-FILED EXHIBIT NUMBER 1

TO DEPOSITION OF JEFFRY POLLOCK

Held September 11, 2009

Submitted September 14, 2009

By The Florida Industrial Power Users Group

PUC DOCKET NO. 37364

PUBLIC UTILITY COMMISSION OF TEXAS

APPLICATION OF
SOUTHWESTERN ELECTRIC POWER COMPANY
FOR AUTHORITY TO CHANGE RATES

DIRECT TESTIMONY OF

PAUL W. FRANKLIN

FOR

SOUTHWESTERN ELECTRIC POWER COMPANY

AUGUST 28, 2009

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EXHIBITS

- | | |
|---------------|---|
| EXHIBIT PWF-1 | Navigant data - coal-fired units |
| EXHIBIT PWF-2 | Navigant data - gas-fired units |
| EXHIBIT PWF-3 | EAF, CF, and FOR for the Dolet Hills Plant as
reported to NERC for the years 2006, 2007,
and 2008 |
| EXHIBIT PWF-4 | AEP utilities organization |
| EXHIBIT PWF-5 | AEPSC Generation organization |

1 I. INTRODUCTION AND QUALIFICATIONS

2 Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

3 A. My name is Paul W. Franklin. My business address is 2400 FM 3251, Hallsville,
4 Texas.

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

6 A. I am Vice President - Generating Assets for Southwestern Electric Power Company
7 (SWEPCO or Company). SWEPCO is a subsidiary of American Electric Power
8 Company, Inc. (AEP). I am responsible for the safe, reliable, efficient and
9 environmentally-compliant performance of SWEPCO's generating assets. More
10 specifically, I oversee and direct the operations and maintenance (O&M) and capital
11 budget expenditures with responsibility for allocation of budget resources to ensure
12 the financial optimization of those generating assets. I work with SWEPCO
13 executive leadership, AEP's Fossil & Hydro Generation group, AEP's Commercial
14 Operations group, and the American Electric Power Service Corporation (AEPSC)
15 organization to optimize the effectiveness of SWEPCO's generation assets.

16 Q. PLEASE DESCRIBE YOUR EDUCATIONAL AND PROFESSIONAL
17 BACKGROUND.

18 A. I received a bachelor's degree in electrical engineering technology from Louisiana
19 Tech University and a master's degree in business administration from Centenary
20 College. I have also completed the Executive Development Program at Louisiana
21 State University.

1 I joined SWEPCO in 1975 working as an engineer in the Production Office. I
2 worked in various roles of increasing responsibility in engineering and management,
3 serving as the plant manager of the Welsh Plant from 1993 through 1994, the
4 Manager for Plant Support for SWEPCO from 1994 through 1999, and the Director
5 for Generation for Region 5 from 1999 to 2008. I was promoted to Vice President -
6 Generating Assets for SWEPCO in 2008.

7 Q. HAVE YOU PREVIOUSLY SUBMITTED TESTIMONY BEFORE A
8 REGULATORY AGENCY?

9 A. Yes. I submitted testimony on behalf of SWEPCO in Public Utility Commission of
10 Texas fuel reconciliation Docket No. 8900, Petition of General Counsel for a Fuel
11 Reconciliation for SWEPCO, in 1989.

12
13 II. PURPOSE OF TESTIMONY

14 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

15 A. The purpose of my testimony is to describe SWEPCO's fleet of power plants, and
16 describe the O&M practices that SWEPCO employs to prudently manage that fleet. I
17 will provide testimony to support the reasonableness of SWEPCO's non-fuel
18 generation O&M, certain capital costs, expected useful plant lives, and the
19 generation-related billings to SWEPCO from its affiliate, AEPSC.

20 I also testify regarding certain generating plants that SWEPCO has completed
21 since its last rate case, as well as plants the Company is building to serve its
22 customers. The Pirkey, Dolet Hills and Harry D. Mattison (Mattison) Plants have

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III. SWEPCO'S GENERATION FLEET

Q. PLEASE DESCRIBE SWEPCO'S GENERATION STRATEGY.

A. SWEPCO owns a diverse generating fleet that is effectively used to meet its customers' demand. With a variety of units, from large baseload coal and lignite units to smaller natural gas-fired boilers and combustion turbines (CT) that can be used to meet intermediate and peak demand, SWEPCO is able to cost-effectively generate electricity for its customers.

A. SWEPCO'S Existing Generation Fleet

Q. PLEASE DESCRIBE SWEPCO'S EXISTING GENERATION FLEET.

A. SWEPCO's existing generation fleet includes coal, lignite, and natural gas-fired power plants, each of which is briefly described below.

Coal-Fired Power Plants

- The Welsh Power Plant is located near Cason, Texas in Titus County and consists of three units, each with net capacity of 528 MW. These units all burn Powder River Basin (PRB) coal that is transported to the plant by rail. Welsh is the largest plant on SWEPCO's system and has a total net capability of 1584 MW. The first unit at Welsh was placed into commercial operation in 1977 and was the Company's first coal-fired unit. The other two units were placed in service in 1980 and 1982. All three of the generating units located at Welsh use diesel fuel for ignition and flame stabilization. All three of these units operate as base loaded units, and also provide load following support.
- The Flint Creek Power Plant is a jointly-owned plant located in Benton County, Arkansas, near the town of Gentry. Flint Creek is a single-unit plant with a net capacity of 528 MW and was placed in service in 1978. The unit is fueled with PRB coal from the same mines that supply fuel to the Welsh Power Plant. Diesel fuel is used for ignition and flame stabilization on this base loaded unit. Arkansas Electric Cooperative Corporation (AECC) is the co-owner on a 50/50 basis. SWEPCO's ownership portion of this unit is 264 MW net and it is responsible for the operation and maintenance of the plant.

Lignite-Fired Power Plants

- The Dolet Hills Power Plant is located near Mansfield, Louisiana, in DeSoto Parish and is a single-unit lignite-fired plant with a net capacity of 650 MW.

1 fuel oil at reduced capabilities. Fuel oil is used for standby and emergency
2 service. The two smaller units (Nos. 1 and 2) are only capable of burning
3 natural gas. All Lieberman units operate as peaking capacity.

4 • The Lone Star Power Plant is located adjacent to the Lone Star Steel mill near
5 the town of Lone Star, Texas, in Morris County, and is relatively close to the
6 Wilkes Power Plant. It was placed in service in 1954. This facility contains
7 one gas-fired unit with a net capacity of 50 MW and is operated as a peaking
8 unit. When not running, the Lone Star Power Plant is unmanned. When it is
9 operating, it is staffed by personnel from Wilkes Power Plant, thereby
10 avoiding the expense of staffing two plants.

11 • The Wilkes Power Plant is located in Marion County, Texas, between
12 Jefferson and Avinger. The three units at this plant have a combined net
13 capacity of 894 MW. The units were placed in service in 1964, 1970 and
14 1971, respectively. Unit 1 is used for peaking service and has the capacity to
15 burn a gas/fuel oil combination at reduced capabilities. The two newest units
16 are fueled by natural gas only, and can be used either for load following or
17 peaking services, depending on the generation demand during different times
18 of year.

19 • The Mattison Power Plant is located in Washington County, Arkansas, near
20 the town of Tontitown, and consists of four simple-cycle combustion turbines
21 (CTs) with a nominal net capacity of approximately 77 MW each for a total of
22 308 MW, based on historical data. The plant is used for peaking service and
23 is fueled by natural gas. All four units were placed into commercial operation
24 in 2007.

25 All of SWEPCO's existing generating plants are summarized in the following
26 table.

1

Table 2: SWEPCO's Existing Generating Assets

Plant	Unit	Output	In-Service Year	Primary Fuel	City	County/Parish	State
		Net MW Capability					
Flint Creek	1	528*	1978	Coal	Gentry	Benton	AR
Welsh	1	528	1977	Coal	Pittsburg	Titus	TX
Welsh	2	528	1980	Coal	Pittsburg	Titus	TX
Welsh	3	528	1982	Coal	Pittsburg	Titus	TX
Dolet Hills	1	650*	1986	Lignite	Mansfield	DeSoto	LA
Pirkey	1	675**	1985	Lignite	Hallsville	Harrison	TX
Arsenal Hill	5	110	1960	Natural Gas	Shreveport	Caddo	LA
Knox Lee	2	30	1950	Natural Gas	Longview	Gregg	TX
Knox Lee	3	31	1952	Natural Gas	Longview	Gregg	TX
Knox Lee	4	79	1956	Natural Gas	Longview	Gregg	TX
Knox Lee	5	348	1974	Natural Gas	Longview	Gregg	TX
Lieberman	1	25	1947	Natural Gas	Mooringsport	Caddo	LA
Lieberman	2	26	1949	Natural Gas	Mooringsport	Caddo	LA
Lieberman	3	109	109	Natural Gas	Mooringsport	Caddo	LA
Lieberman	4	108	108	Natural Gas	Mooringsport	Caddo	LA
Lone Star	1	50	1954	Natural Gas	Lone Star	Morris	TX
Wilkes	1	177	1964	Natural Gas	Avinger	Marion	TX
Wilkes	2	362	1970	Natural Gas	Avinger	Marion	TX
Wilkes	3	362	1971	Natural Gas	Avinger	Marion	TX
Mattison	1	77	2007	Natural Gas (Combustion Turbine)	Tontitown	Washington	AR
Mattison	2	77	2007	Natural Gas (Combustion Turbine)	Tontitown	Washington	AR
Mattison	3	77	2007	Natural Gas (Combustion Turbine)	Tontitown	Washington	AR
Mattison	4	77	2007	Natural Gas (Combustion Turbine)	Tontitown	Washington	AR
* SWEPCO's Share is 264 MW							
** SWEPCO's share is 262 MW							
*** SWEPCO's share is 580 MW							

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B. Future Additions to the SWEPCO Generation Fleet

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Q. PLEASE DESCRIBE THE GENERATING UNITS THAT SWEPCO HAS UNDER CONSTRUCTION.

5

6

A. SWEPCO is currently in the process of constructing two power plants.

- 1 1. The Pirkey Plant has been consistently providing low-cost generation to
2 SWEPCO customers since 1985 when the unit became commercially
3 available.
- 4 2. The Dolet Hills Plant began operation in 1986, and has also been consistently
5 providing low-cost electricity to SWEPCO customers.
- 6 3. The Mattison Plant has been providing peaking service to SWEPCO
7 customers since all four units came on-line in 2007.

8 The Pirkey and Dolet Hills plants are low-cost, baseload units. Both units are
9 equipped with FGD systems to minimize emissions of SO₂ from the plants and
10 burners that reduce the formation of NOx emissions, referred to as low-NOx burners
11 (LNBs).

12 Both Pirkey and Dolet Hills provide benefit to customers by taking advantage
13 of locally mined, low-cost lignite fuel. In 2005 and 2006, there were transportation
14 problems with PRB fuel delivery due to problems with the rail infrastructure.

15 The Mattison Plant is the newest addition to the SWEPCO generation fleet
16 that has yet to be added to the base rates of SWEPCO customers, and has benefited
17 SWEPCO customers since its initial commercial operation. The Mattison Plant
18 serves a very different operational purpose from the base loaded Pirkey and Dolet
19 Hills plants. The four CT units at the Mattison Plant were built in order to place low
20 capital cost generation in the SWEPCO area for peaking support when additional
21 power generation is needed to support system reliability. This allows SWEPCO to
22 respond to system reliability support needs quickly (within 30-60 minutes).

23 Q. WHAT WAS THE COST OF THE PIRKEY PLANT?

1 A. The Pirkey Plant was placed in service in 1985 at a cost of \$426,132,284, or
2 approximately \$735/kW (SWEPCO's ownership share). The net book value at the
3 end of the test year was \$ 151,056,799, or \$260/kW.

4 Q. PLEASE DISCUSS THE BENEFITS SWEPCO CUSTOMERS HAVE RECEIVED
5 AND CONTINUE TO RECEIVE FROM THE PIRKEY PLANT.

6 A. The Pirkey Plant has provided low-cost electricity to SWEPCO customers for over
7 23 years, using a local lignite fuel obtained near the plant. The plant operates in an
8 environmentally responsible manner, utilizing LNBs, over-fire air (OFA) and an FGD
9 system. The Pirkey Plant is an integral component of SWEPCO's generating fleet,
10 and is needed to meet SWEPCO's energy supply obligations. The low-cost power
11 that is produced at the Pirkey Plant is one of the key factors in SWEPCO's ability to
12 produce some of the lowest-cost power in the state of Texas.

13 I will discuss the performance of the Pirkey Plant versus comparable power
14 plants later in my testimony.

15 Q. WHAT WAS THE COST OF THE DOLET HILLS PLANT?

16 A. The Dolet Hills Plant was placed into service in 1986, at a cost of \$222,293,028, or
17 approximately \$848/kW (SWEPCO's ownership share). The net book value of
18 SWEPCO's ownership interest in Dolet Hills at the end of the test year was
19 \$71,325,2189, or \$272/kW.

20 Q. PLEASE DISCUSS THE BENEFITS SWEPCO CUSTOMERS HAVE RECEIVED
21 AND CONTINUE TO RECEIVE FROM DOLET HILLS.

1 A. The Dolet Hills Plant has provided low-cost electricity to SWEPCO customers for
2 over 22 years, using a local fuel obtained near the plant. Like Pirkey, the plant is
3 equipped with an FGD system that removes SO₂ from the flue gas stream. The Dolet
4 Hills Plant is also an important contributor to SWEPCO's ability to provide low-cost
5 generation to its customers.

6 Q. WHAT WAS THE COST OF THE MATTISON PLANT?

7 A. All four CTs at the Mattison Plant entered commercial operation in 2007, with a book
8 value on December 31, 2007, of \$119.4 million, or \$388/kW. Company witness
9 William M. Jasper also discusses the net book value of the Mattison Plant as of June
10 30, 2009, which was \$129.2 million, or \$419/kW. These \$/kW costs are based on the
11 average annual rating of 77 MW per CT, or 308 MW for the plant as a whole.

12 Q. WILL A WITNESS OTHER THAN YOU DISCUSS THE REASONABLENESS
13 AND PRUDENCE OF THIS COST?

14 A. Yes. Mr. Jasper will discuss the prudence of the cost of the Mattison Plant.

15 Q. IS THE GENERATING CAPACITY OF THE MATTISON PLANT CONSISTENT
16 THROUGHOUT THE YEAR?

17 A. The nameplate capacity of the Mattison Plant is 85 MW per CT. However, each CT
18 is not capable of producing 85 MW of electrical output throughout the entire year due
19 to varying ambient conditions. This is typical of all CT installations, and the rating at
20 any given point in a year is referred to as the seasonal capacity. Mattison is also
21 equipped with fogging equipment, which can be used to increase the electrical output

1 slightly by cooling the air being fed to the CT. Mr. Jasper describes the operation of
2 the fogging system, and limitations associated with that system.

3 Q. PLEASE DISCUSS THE NEED FOR AND THE BENEFITS CUSTOMERS
4 RECEIVE FROM THE MATTISON PLANT.

5 A. Like the Pirkey and Dolet Hills plants, the Mattison Plant is an integral component of
6 SWEPCO's generation fleet and is needed for the Company to meet its obligations.

7 Customers benefit from the quick start-up time of the Mattison Plant, and the
8 low installation cost of the plant. Since the Mattison CT's were brought into
9 commercial operation, they have been called upon to start 273 times. Each of those
10 times represented an occurrence when SWEPCO's customers received a system
11 reliability benefit to starting the Mattison Plant. On each of those occasions, Mattison
12 was able to respond quickly, fulfilling its purpose as a peaking plant.

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14 V. PERFORMANCE OF THE SWEPCO GENERATION FLEET

15 Q. DOES SWEPCO PERFORM ANY BENCHMARKING STUDIES OR
16 COMPARISONS OF ITS POWER PLANTS TO OTHERS IN THE INDUSTRY?

17 A. Yes. SWEPCO does perform benchmarking comparisons of its power plants'
18 performance factors to those of other plants in the industry.

19 Q. WHERE DOES SWEPCO OBTAIN DATA TO COMPARE ITS GENERATION
20 PERFORMANCE TO OTHER, SIMILAR POWER PLANTS?

21 A. AEP and SWEPCO use a service provided by Navigant Consulting, Inc. (Navigant) to
22 perform benchmarking studies to compare SWEPCO's generation performance to

1 other similar power plants. Navigant, a global consulting firm, collects data from
2 power generators, and then provides that data to the member groups so each company
3 is able to see how its power plants compare to similar units of other companies that
4 participate in the data submission process. Currently, Navigant has 29 generating
5 companies as subscribers, representing over 3,200 generating units and 400 gigawatts
6 of capacity. EXHIBITs PWF-1 and PWF-2 show all of the Navigant data that will be
7 used to compare SWEPCO units to other units in the same peer groups.

8 Q. WHY IS IT IMPORTANT TO GROUP VARIOUS UNITS INTO PEER GROUPS
9 TO PERFORM COMPARISONS?

10 A. It is important to group units into peer groups based on unit size and fuel type to
11 ensure that the comparison results in an "apples to apples" comparison. Navigant
12 uses both fuel type and unit size to distinguish different groups of units. In this
13 manner, coal units are considered against other coal units, and units of similar size are
14 grouped together. This provides the most reasonable comparison, since comparing
15 units of dissimilar size or fuel type would not be expected to lead to meaningful
16 results.

17 Q. WHAT DATA IS USED BY NAVIGANT TO COMPARE THE PERFORMANCE
18 OF POWER PLANTS AGAINST ONE ANOTHER?

19 A. Navigant uses various parameters to compare the performance of power plants. The
20 measures of power plant performance that I will discuss are Equivalent Availability
21 Factor (EAF), Equivalent Forced Outage Rate (EFOR), Capacity Factor (CF), and
22 cost data either in \$/kW or \$/MWh produced and averaged over a given amount of

1 time. EAF, EFOR and CF are metrics defined by the North American Electric
2 Reliability Council (NERC) and are industry standards for measures of performance.

3 Q. PLEASE GIVE A BRIEF DESCRIPTION OF EACH OF THOSE FACTORS
4 LISTED ABOVE.

5 A. EAF is the percentage of time that a unit is capable of providing service, whether or
6 not it is actually operating. Planned and unplanned outages as well as deratings
7 reduce a unit's EAF. For example, a unit that was available to run 100 percent of a
8 time period but was derated to half load would have an EAF of 50 percent.

9 EFOR is calculated by dividing the hours of time that a unit is not available
10 for service due to an unplanned failure or condition that causes the unit to be removed
11 from service or become unavailable (forced outage hours) by the sum of (a) the hours
12 that the unit was electrically connected to the transmission system and (b) the forced
13 outage hours.

14 CF is the ratio of a unit's net generation to the net generation the unit would
15 have produced had it been operated at its full load rating for the entire period. The
16 capacity factor is obtained by dividing the actual net kWh generated in the operating
17 period by the product of the net capability of the unit and the hours in the operating
18 period.

19 The cost data that is used to compare the SWEPCO plants to others compares
20 the cost based on either the size of the installed plant (\$/kW) or the amount of
21 electricity produced (\$/MWh) by the plant over a given time period. All Navigant

1 data discussed in my testimony can be found in graphic form in EXHIBIT PWF-1 for
2 coal-fired units and EXHIBIT PWF-2 for gas-fired units.

3 Q. WHAT CONCLUSIONS CAN BE DRAWN FROM THE NAVIGANT DATA
4 WITH RESPECT TO THE PERFORMANCE OF THE SWEPCO FLEET OF
5 LARGE COAL-FIRED POWER PLANTS OVER THE PAST FIVE YEARS?

6 A. The Pirkey Plant is the only SWEPCO-operated plant that falls into the Navigant
7 category of large coal-fired power plants, or those plants greater than 550 MW.
8 Navigant data shows that the Pirkey Plant operated with an EAF above average for its
9 class for three out of five years from 2003 through 2008, as can be seen in EXHIBIT
10 PWF-1, Figure 1. Navigant data also shows that Pirkey performed better than the
11 peer group average for EFOR for three out of the past five years, indicating that as a
12 whole the plant has been available more than the average plant in the peer group to
13 produce electricity. This is shown in EXHIBIT PWF-1, Figure 2.

14 This performance is made more impressive when one considers that the Pirkey
15 Plant is fitted with an FGD system, which adds a level of complexity to a plant. With
16 added complexity comes an increased cost of maintenance and greater opportunity for
17 outages from equipment failure. Not all of the units in the peer group are retrofitted
18 with FGD systems, so for Pirkey to perform well in this group it needs to overcome
19 the additional operational issues associated with its additional FGD equipment.

20 Q. HOW IS THE PERFORMANCE OF THE DOLET HILLS PLANT DETERMINED?

21 A. CLECO, which is responsible for the operation and maintenance of the Plant, is not a
22 member of Navigant, and therefore SWEPCO cannot make the same comparisons

1 with the Dolet Hills Plant compared to peer units as are available for the other
2 SWEPCO units. However, it is possible to compare the performance of Dolet Hills to
3 the performance of the Pirkey Plant by reviewing public data submitted to the NERC.

4 EXHIBIT PWF-3 shows the EAF, CF, and FOR for the Dolet Hills Plant as
5 reported to NERC for the years 2006, 2007, and 2008, as well as the data for January
6 through March 2009. This data shows that the Dolet Hills Plant exhibits an EAF, a
7 CF, and an FOR comparable to the Pirkey Plant, indicating that it too is being
8 operated reliably by CLECO, with input from SWEPCO that I will discuss later in my
9 testimony, and providing benefits to the customers of SWEPCO.

10 Q. WHAT CONCLUSION CAN BE DRAWN FROM THE NAVIGANT DATA WITH
11 RESPECT TO THE PERFORMANCE OF THE SWEPCO FLEET OF MEDIUM
12 SIZED COAL-FIRED POWER PLANTS OVER THE PAST FIVE YEARS?

13 A. The units included in the Navigant medium coal unit category are Welsh Units 1
14 through 3 and Flint Creek Unit 1.

15 In EXHIBIT PWF-1, Figure 5 shows a graph of the EAF for the three units at
16 the Welsh Plant over the past five years. As this graph shows, each of the units at
17 Welsh was operating with an EAF near the peer group average.

18 The Welsh and Flint Creek units were among the first units in the country
19 designed for PRB fuel. A common design for these units at the time included a hot
20 side electrostatic precipitator (ESP) for removal of fly ash in the flue gas stream. Hot
21 side ESPs suffer from a phenomenon called sodium depletion. This requires the ESPs
22 to be cleaned on a six-month basis, which results in the units taking an additional

1 outage per year for cleaning. This additional cleaning outage has a negative impact
2 on EAF that must be taken into consideration when benchmarking the units against
3 other units that may not have hot side ESPs.

4 Each of the units at the Welsh Plant shows an increased EAF in one year,
5 which follows a longer than normal planned outage where the superheater and
6 reheater sections of the steam generator were replaced (2005 for Unit 2, 2006 for
7 Unit 3, and 2007 for Unit 1). With the exception of Unit 1, it is easy to see the
8 improved EAF after the outage. This shows that replacing these boiler sections
9 resulted in an increased reliability of the units. The only reason that this same
10 response was not seen with Welsh Unit 1 is because the unit suffered an extended
11 forced outage in 2008 due to a generator ground.

12 EXHIBIT PWF-1, Figure 6 shows the EAF for the Flint Creek Plant over the
13 past five years. From this figure, it can be seen that the Flint Creek Plant has been
14 operating with an EAF either slightly above or slightly below the peer group average
15 for each of the past five years. This is expected to improve with the replacement of
16 the same superheater and reheater sections that were replaced at the Welsh units,
17 which is currently scheduled for 2009 at the Flint Creek Plant. This equipment
18 replacement should cause a positive change in the EAF at the Flint Creek Plant, just
19 as was seen on the Welsh units.

20 The EFOR exhibited by the Flint Creek Plant can be seen in EXHIBIT
21 PWF-1, Figure 7. As Figure 7 shows, for each of the past five years, the EFOR at the

1 Flint Creek Plant has been below the peer group average, indicating very reliable
2 operation of the plant.

3 The EFOR for the three units at the Welsh Plant can be seen in EXHIBIT
4 PWF-1, Figure 8. As this graph shows, the Welsh units are typically operated at an
5 EFOR below the peer average. This demonstrates the Welsh units are well-operated,
6 and are rarely forced out of operation. This makes them very reliable units for
7 generating electricity.

8 Q. PLEASE DISCUSS THE PERFORMANCE OF SWEPCO'S NATURAL GAS-
9 FIRED POWER PLANTS VERSUS OTHER COMPARABLE UNITS.

10 A. Navigant data showing the performance of SWEPCO's natural gas-fired units versus
11 the performance of their peers is shown in EXHIBIT PWF-2. Rather than go through
12 all 28 figures in detail, I will discuss general performance trends for all of the natural
13 gas-fired plants.

14 The large (greater than 200 MW) sub-critical gas-fired group of units in
15 SWEPCO's fleet is comprised of Knox Lee Unit 5, and Wilkes Units 2 and 3. The
16 EAF, EFOR, CF, and \$/kW total spend for these units are included in Figures 1
17 through 8 of EXHIBIT PWF-2. In general, these units all exhibit relatively high
18 EAFs and low EFORs when compared to their peers, with low \$/kW costs. Another
19 point of note is the high CF with respect to the peer units in this Navigant peer group.
20 The SWEPCO large gas units run more often than do the other units in their peer
21 group, which is reflective of both the low cost to run these units, as well as the fact
22 that natural gas is more competitive in the geographic area where SWEPCO operates.

1 SWEPCO's small gas-fired power plant population is comprised of Arsenal
2 Hill Unit 5, Knox Lee Units 2 through 4, Lieberman Units 1 through 4, Lone Star
3 Unit 1, and Wilkes Unit 1. The EAF, EFOR, CF, and \$/kW total spend for these units
4 are included in EXHIBIT PWF-2, Figures 9 through 28. Much like the larger gas-
5 fired power plants, these units compare favorably to the units in their respective peer
6 group, with high EAFs. However, this group of power plants exhibits very low CF's,
7 which is indicative of the peaking generation that these plants provide. I will discuss
8 the \$/kW expenditures for these plants later in my testimony.

9 Data is not included for the Mattison Plant, since those units do not have
10 enough run-time to determine a meaningful historical trend. However, available
11 NERC data for the Mattison units is included in EXHIBIT PWF-3.

12 Q. WHAT CONCLUSIONS DO YOU DRAW ABOUT THE EFFICIENT
13 MANAGEMENT OF SWEPCO'S EXISTING GENERATING FLEET?

14 A. As a whole, SWEPCO's generating fleet is very well managed as demonstrated by the
15 Navigant data that compares SWEPCO's generating units to peer groups of units.
16 SWEPCO is able to utilize its different units in order to best provide low-cost
17 electricity to SWEPCO's customers. The fact that SWEPCO performs well in all
18 categories shows that the generation fleet is well and prudently managed.

19 Q. PLEASE DISCUSS BENEFITS THAT CUSTOMERS WILL REALIZE FROM
20 SWEPCO'S NEW GENERATING PLANTS AND HOW THEY FIT INTO
21 SWEPCO'S STRATEGY REGARDING GENERATION.

1 A. As previously discussed, the Mattison Plant provides SWEPCO with low capital cost
2 peaking facilities to help meet the electric needs of customers during peak demand
3 times. The CT's can be started quickly when needed, providing reliability benefits to
4 SWEPCO customers.

5 The Stall Plant, which is currently under construction and expected to be in
6 service in 2010, will be a natural gas-fired combined-cycle (NGCC) power plant.
7 While a CT plant such as Mattison has the ability to start up quickly, an NGCC
8 plant's main advantage is that it operates very efficiently. The design heat rate of the
9 Stall Plant will position it as the most efficient of the SWEPCO gas fleet. An NGCC
10 plant uses CTs to generate electricity, as well as a Heat Recovery Steam Generator
11 (HRSG) to use the exhaust heat from the CTs to create steam that serves to power a
12 steam turbine generator. The Stall Plant will be capable of producing 500 MW, and is
13 expected to operate as an intermediate-loaded plant, depending on the energy
14 requirements of SWEPCO's customers at any time throughout the year.

15 The Turk Plant, which is currently under construction, will be a 600 MW coal-
16 fired power plant utilizing PRB fuel. The Turk Plant will use ultra-supercritical
17 technology allowing it to operate more efficiently than most coal-fired power plants,
18 and it will also be fitted with state-of-the-art technology to minimize the emissions of
19 SO₂, NO_x, and Hg. The Turk Plant, much like SWEPCO's existing solid fuel-fired
20 power plants, will be a baseloaded plant that is capable of providing low-cost
21 generation with a very high availability.

1 By adding the Mattison, Stall, and Turk plants, SWEPCO is carefully
2 managing its choices for future power generation by using different technologies and
3 fuel to meet the needs of its customers. Among other things, the low capital cost of
4 the Mattison Plant, the efficiency of the Stall Plant, and the size of the Turk Plant will
5 help to minimize the risk of future cost increases to SWEPCO customers as well as
6 help to maintain the current portfolio of fuels that has benefited SWEPCO and its
7 customers in the past.

8 Q. WHAT CHALLENGES DOES SWEPCO FACE IN THE NEAR FUTURE WITH
9 RESPECT TO THE PERFORMANCE OF ITS GENERATION FLEET?

10 A. First and foremost, as shown in Table 1, SWEPCO is operating a fleet of aging power
11 plants. With the exception of Mattison, Stall, and Turk, the youngest
12 SWEPCO-operated plants are Pirkey and Dolet Hills, at 23 and 22 years of age,
13 respectively.

14 This is not to say that the SWEPCO plants are too old to be run reliably. In
15 fact, these plants still have a long life of reliable power production ahead of them.
16 However, just as with any aging equipment, the majority of SWEPCO plants
17 (especially its coal-fired power plants) are nearing an age where larger capital
18 investments need to be made to maintain the reliability that SWEPCO's customers
19 have benefited from over the past decades.

20 Over the past few years SWEPCO has made these types of investments, such
21 as with the superheater and reheater section replacements at the Welsh Plant (and
22 Flint Creek in 2009), as well as new process controls at the Welsh Plant (and planned

1 at Flint Creek in 2009), the relining of the absorber tower at the Pirkey Plant, and the
2 ESP upgrades at the Welsh and Flint Creek Plants. This type of capital investment is
3 absolutely warranted on SWEPCO's larger units, and is prudent to maintain these
4 large and low-cost units in good running condition.

5 With respect to SWEPCO's older operating units, particularly older and
6 smaller natural gas-fired units, consideration must be given to the design and role of
7 the unit. Although these units do not operate as much as the lower cost baseload
8 units, they must be maintained in a manner such that they will be viable and available
9 when needed. Capital and O&M expenditures on these units are on a much lower
10 scale than on the larger baseload units. Given the need to keep these units viable into
11 the future, it will be necessary to spend more on them in the future as well.

12
13 VI. SWEPCO'S GENERATION SAFETY PERFORMANCE

14 Q. EXPLAIN THE IMPORTANCE OF SAFETY TO SWEPCO'S CORPORATE
15 CULTURE.

16 A. The power generation business is an inherently dangerous business due to the type
17 and size of equipment that is used in generating electricity. It is the responsibility of
18 every employee, from the President to the equipment operator, to do everything
19 possible to make working at SWEPCO safe for all employees.

20 Q. ARE THERE SPECIFIC PROCEDURES THAT SWEPCO EMPLOYEES FOLLOW
21 TO MAINTAIN A SAFE WORKPLACE?

1 A. Yes. There are many safety rules and procedures that employees must follow to
2 maintain a safe workplace, as well as broader safety initiatives that are meant to raise
3 awareness of safety, and minimize accident and injury, through careful planning and
4 giving special consideration to the topic of safety.

5 SWEPCO generation uses numerous procedures to make the work
6 environment as safe as possible. The Clearance Permit Procedure is a system that has
7 been developed to remove equipment from service to avoid accidents while that
8 equipment is being serviced. Whether it is a small pump or a large furnace, this
9 procedure is meant to prevent injuries to those employees that are responsible for
10 servicing electrical and mechanical equipment in generation facilities.

11 Job Safety Assessments (JSAs) are another way that work is done safely. A
12 JSA is a tool that is utilized prior to work beginning on a job. A JSA requires an
13 employee or a group of employees to consider potential dangers of a job prior to
14 commencement, to consider the environmental impacts of the job, to visit the job site,
15 and to return the site to acceptable condition after work is completed. The JSA
16 procedure is meant to get employees thinking about the job before they start, which
17 prevents injuries that arise due to unknown conditions either entailed in the work or
18 located at the site of the work.

19 SWEPCO has implemented a Human Performance Improvement (HPI)
20 program to further improve the safety performance of the organization. The HPI
21 program includes items like peer checking and coaching, having a questioning
22 attitude, using the 2-minute rule, stopping the job when uncertain, 3-way

1 communication, and using the phonetic alphabet. Use of these tools helps to improve
2 overall communication and planning, resulting in improved safety and reduced
3 accidents.

4 Q. WHAT PARAMETERS ARE USED TO MEASURE SWEPCO'S SAFETY
5 PERFORMANCE?

6 A. The parameters that I will use to describe SWEPCO's safety performance over the
7 last three years are the Accident and Illness Rate, and the Severity Rate.

8 The Accident and Illness Rate is defined as the number of job-related accident
9 and illness cases per 100 full-time employees.

10 The Severity Rate is defined as the number of days that an employee is absent
11 from work or placed on restricted duty due to workplace injury or illness per 100 full-
12 time employees per year. This gives an indication of how serious each injury or
13 illness is, on average.

14 The Severity Rate and Accident and Illness Rate can then be compared to
15 benchmarking data provided by the Edison Electric Institute (EEI), which is the
16 association of United States-based shareholder-owned utilities. It should be noted
17 that EEI does not count restricted activity days in their severity rates, so the EEI rates
18 are adjusted in Table 3 to correctly compare to the safety performance data for
19 SWEPCO.

20 Q. PLEASE DESCRIBE THE SAFETY PERFORMANCE OF SWEPCO OVER THE
21 PAST THREE YEARS.

1 A. The following table shows SWEPCO's safety performance over the last three years
2 compared to average values for Group 5 (Fossil Fuel Power Generation) from EEI.
3 The average EEI values are from annual reports for 2006, 2007, and 2008.

4 Table 3: SWEPCO's Safety Performance Over the Past Three Years

	SWEPCO Accident & Illness Rate	EEI Average Accident & Illness Rate	SWEPCO Severity Rate	EEI Average Severity Rate
2006	3.1	3.07	10.72	60.49
2007	5.09	4.03	15.5	75.55
2008	2.54	3.27	0	61.89

5 From Table 3, it can be seen that in 2006 and 2007 SWEPCO operated very
6 close to the EEI average with respect to the Accident and Illness Rate, and was under
7 the average Accident and Illness Rate in 2008. When the severity rates are compared
8 to the EEI average data for fossil fuel power generation, it can be seen that SWEPCO
9 exhibited a much lower severity rate than the average EEI performance, indicating
10 that those injuries that did occur were much less serious than the industry average.

11 One point that should certainly be noted is the value of zero for SWEPCO's
12 severity rate in 2008. For the 2008 calendar year there were no lost time injuries.
13 This is an impressive accomplishment for any company, and it is an indication of the
14 importance that is placed on the topic of safety within SWEPCO.

15

16 VII. EXPECTED USEFUL LIVES OF SWEPCO'S GENERATING UNITS

17 Q. WHAT ARE THE EXPECTED USEFUL LIVES OF THE POWER PLANTS IN
18 THE SWEPCO GENERATION FLEET?

1 A. The expected life of a power plant depends on many factors, including the original
2 design and the potential cost in the future to replace the generation with another
3 source. It is assumed that at the end of the useful life of the unit, it will be
4 economically beneficial to replace the unit with new generation rather than to
5 continue to overhaul the existing unit.

6 SWEPCO's coal and lignite-fired power plants have an expected useful life of
7 60 years. This expected service life is based on the expected life of major equipment,
8 such as the steam generator, and also based on AEP's historical operating experience
9 with similar plants.

10 The gas boiler units, which is a group that is made up of all SWEPCO's gas-
11 fired units other than the Mattison and Stall Plants, have an expected life of
12 approximately 65 years. This estimate is based on SWEPCO's operating history with
13 this type of unit.

14 CTs, such as those at the Mattison Plant, are expected to have a useful
15 operating life of 45 years. This assumption is based on a recommended major turbine
16 overhaul every 2,400 factored starts for the Siemens turbines. Based on an estimated
17 100 factored starts per year, this means that the turbines would be able to operate for
18 approximately 24 years prior to the first major repair cycle. After this first major
19 overhaul cycle, it is expected that the turbines could operate for another major
20 overhaul cycle before reaching the end of their useful lives. It is assumed that
21 extending the life of the turbine beyond the second major repair cycle will be cost
22 prohibitive, resulting in an expected useful life of 45 years.

1 The Stall Plant that is under construction in Louisiana has an expected life of
2 35 years. This expectation, rather than being based on the expected life of the CTs, is
3 based on the expected repair cycle of the HRSG. The expectation is that the HRSG,
4 which is used to create steam, will require major work approximately every 18 to 20
5 years, and that at the second repair cycle in 35-40 years it will be more economical to
6 replace the generation rather than to retube the HRSG at the Stall Plant. This leads to
7 an expected useful life of 35 years for the Stall Plant.

8 Q. DO EXPECTED UNIT LIVES REPRESENT A FIRM COMMITMENT AS TO A
9 DATE AT WHICH A UNIT WILL BE RETIRED?

10 A. No. Expected unit lives are based on the estimated number of starts per year, industry
11 maintenance practices, and assumptions about the cost of replacing generation in
12 future years. An expected unit life does not represent a firm retirement date, but
13 instead represents a best estimate of the approximate expected life over which
14 customers will receive a benefit from that plant.

15
16 VIII. SWEPCO AND AEPSC GENERATION ORGANIZATIONS

17 Q. PLEASE DESCRIBE THE ROLE OF SWEPCO WITH RESPECT TO
18 MANAGEMENT OF THE GENERATION FLEET.

19 A. SWEPCO management is responsible for the day-to-day operation and maintenance
20 of SWEPCO's fleet of power plants, with the exception of the Dolet Hills Plant that
21 CLECO operates, and also for serving as the interface between SWEPCO's plants and
22 AEPSC.

1 Q. PLEASE DESCRIBE THE STRUCTURE AND ORGANIZATION OF THE
2 SWEPCO AND AEPSC GENERATION GROUPS.

3 A. EXHIBITs PWF-4 and PWF-5 show the organizational structure of the AEP Utility
4 Organization and the Fossil & Hydro Organization, which show the relationship
5 between AEPSC and SWEPCO generation organizations.

6 EXHIBIT PWF-4 shows the structure of all AEP utilities with respect to the
7 corporate parent company. Paul Chodak, the President of SWEPCO, reports through
8 Venita McCellon-Allen, the Executive Vice-President of AEP Utilities West.
9 Working for Mr. Chodak are those employees that solely serve as support for
10 SWEPCO in its operating area.

11 EXHIBIT PWF-5 shows the AEPSC Generation organization, in which I
12 report to Mark McCullough, who heads the Fossil & Hydro Organization. I report
13 directly to Mr. McCullough, with the plant managers in SWEPCO reporting to me. It
14 is in this manner that I serve as the interface between the SWEPCO generation fleet
15 and the AEPSC Generation organization.

16 Although I report directly to Mr. McCullough, I also have a responsibility to
17 report to Mr. Chodak. It is through this reporting to Mr. Chodak that I also make sure
18 not only that AEPSC is aware of any generation-related issues in SWEPCO, but that
19 SWEPCO's own management is aware of those same issues. In this manner we are
20 able to quickly share needed information through any part of the organization, be it
21 through executive leadership or through groups of technical experts within the
22 AEPSC Generation organization.

1 Q. WHAT IS THE RELATIONSHIP BETWEEN THE SWEPCO GENERATION
2 FLEET AND THE AEPSC GENERATION ORGANIZATION?

3 A. AEPSC provides SWEPCO generation with executive leadership, management
4 direction, and staff support, with both SWEPCO and AEPSC focused on the safe,
5 reliable, and low-cost operation of SWEPCO's generation fleet for the benefit of its
6 customers.

7 Q. ARE ALL GENERATION-RELATED ACTIVITIES MANAGED THROUGH
8 AEPSC?

9 A. No. While AEPSC provides planning, engineering and management support services,
10 the day-to-day operations of the SWEPCO fleet are managed by SWEPCO
11 employees.

12 Q. PLEASE DESCRIBE IN MORE DETAIL THE ROLE OF SWEPCO WITH
13 RESPECT TO MANAGEMENT OF ITS GENERATION FLEET.

14 A. SWEPCO management is responsible for directing SWEPCO generation employees
15 in the day-to-day operation and maintenance of SWEPCO's fleet of power plants, and
16 also for serving as the interface between SWEPCO's plants and AEPSC.

17 SWEPCO employees at the plant level perform routine maintenance on
18 SWEPCO's power plants. This maintenance may include predictive, preventive, and
19 corrective maintenance. This maintenance may be the result of routine inspection,
20 analysis of operation of a piece of equipment, or through the detection of failure of a
21 piece of equipment at a plant.

1 Furthermore, SWEPCO also has a local engineering group that reports through
2 the Plant Engineering & Environmental Performance group. This group is managed
3 by Tommy Slater, who testifies on SWEPCO's behalf in its current fuel reconciliation
4 case. The group provides local engineering and support to SWEPCO's plants.

5 Q. PLEASE DESCRIBE THE GENERATION-RELATED SERVICES PROVIDED TO
6 SWEPCO BY AEPSC.

7 A. AEPSC provides expertise on the operation and maintenance of SWEPCO's fleet of
8 power plants, as well as outage planning, unit dispatch management, and engineering
9 and environmental support. AEPSC is responsible for providing these services for
10 power plants across an 11-state area, and this vast knowledge of generation operation
11 and maintenance is shared with SWEPCO to help minimize the overall cost of
12 generation and optimize plant reliability.

13 Because AEPSC provides support to a large number of power plants, it is
14 possible for SWEPCO to have access to generation-related information and
15 knowledge that is not readily available within the SWEPCO organization. This
16 synergy not only helps SWEPCO operationally, but because the AEPSC charges are
17 spread over a number of operating companies, it is not necessary for SWEPCO to
18 support its own organization, which decreases the overall cost to SWEPCO customers
19 while maximizing the benefit of the knowledge gained at power plants across the
20 country.

1 Q. WHAT ARE THE SPECIFIC AEPSC GROUPS THAT PROVIDE GENERATION-
2 RELATED SERVICES TO SWEPCO, AND WHAT ARE THE SERVICES THEY
3 PROVIDE?

4 A. Generation-Fossil & Hydro is the organization within AEPSC that is involved directly
5 in the operation and maintenance of the power plants in each of the operating
6 companies owned by AEP. This group is comprised of the operating company vice
7 presidents, Plant Engineering and Environmental Performance, Technical Skills and
8 Process Optimization, Asset & Outage Planning, and the Gas Turbines, Wind, & Joint
9 Venture Generation group. As discussed previously, the operating company vice
10 presidents operate as an interface between the operating company and the Generation
11 Fossil & Hydro organization.

12 The Plant Engineering and Environmental Performance group assists with
13 project engineering and design at the plant level. This group provides technical
14 assistance to the power plants in order to maximize reliability and minimize
15 environmental impact with respect to existing plant equipment and capital projects
16 costing less than \$750,000, and also can serve as local support for larger capital
17 projects.

18 The Technical Skills and Process Optimization group is responsible for
19 administering training to SWEPCO employees by coordinating and presenting
20 courses in the areas of safety, technical, and business training.

21 The Asset & Outage Planning Group is responsible for developing and
22 maintaining long-term planning for the entire generation fleet, as well as the efficient

1 planning of plant outages to minimize impacts to the customer and the Company as a
2 whole.

3 The Gas Turbines, Wind, and Joint Venture Generation group is responsible
4 for developing new business ventures in gas-fired and wind generation projects.

5 Engineering, Projects & Field Services is the organization that is responsible
6 for the engineering, planning, and execution of larger capital projects at the power
7 plants, and is comprised of the following groups: Engineering Services; Projects;
8 Field Services; and Outage & Project Controls.

9 The Engineering Services organization is tasked with the responsibility for
10 new unit design criteria and the design and engineering of proposed changes to
11 existing power plant equipment and systems. This group also maintains design basis
12 information for the plants, and establishes and communicates technical
13 recommendations and requirements to all of the plants across the system. The
14 Engineering Services organization is typically responsible for projects costing more
15 than \$750,000, but less than \$5,000,000.

16 The Projects organization provides project management and execution
17 services for large capital projects - those projects greater than \$5,000,000 in total cost.
18 The Projects organization manages these projects by tracking costs, procurement, and
19 construction activities to ensure successful execution of large capital additions.

20 The Field Services group provides labor and support for major plant projects,
21 including outages. This group supports major outage planning and execution, as well
22 as boiler and turbine repairs and upgrades.

1 The Outage & Project Controls group is responsible for planning and
2 estimating, as well as controlling and tracking costs for large outages and projects.

3 Generation Business Services is tasked with providing financial analyses,
4 budget and business planning, and contract administration at the corporate level. This
5 group also contains United Sciences Testing, Incorporated (USTI), which is an
6 emissions testing company that was purchased by AEP in 2002. The USTI
7 organization provides testing services for plant exhaust stacks across the AEP power
8 generation fleet.

9 Q. IS THERE ANY OVERLAP OF FUNCTIONS OR DUPLICATION OF EFFORTS
10 BY THE AEPSC GENERATION ORGANIZATION AND SWEPCO?

11 A. No. The division of responsibility I have described above prevents any overlap or
12 duplication of services between SWEPCO and AEPSC generation employees.

13
14 IX. SWEPCO'S NON-FUEL PRODUCTION O&M EXPENSES

15 Q. WHAT IS THE TEST YEAR LEVEL OF GENERATION NON-FUEL O&M
16 EXPENSE?

17 A. SWEPCO's test year level of production non-fuel O&M, as shown in Schedule H-1,
18 is \$129 million, of which only 7.0% is AEPSC affiliate charges to SWEPCO.

19 Q. WHAT NON-AFFILIATE EXPENSES ARE INCURRED IN THE OPERATION OF
20 SWEPCO'S GENERATION SYSTEM?

1 A. SWEPCO incurs its own payroll and associated charges for the day-to-day operation
2 and maintenance of its generation fleet, as well as charges from third parties
3 providing maintenance, labor, and field support.

4 Q. WHAT TESTS HAVE YOU APPLIED TO DETERMINE THE
5 REASONABLENESS AND NECESSITY OF SWEPCO'S TOTAL GENERATION
6 O&M EXPENSES IN THE TEST YEAR?

7 A. SWEPCO uses multiple methods to ensure that its non-fuel generation O&M costs
8 are reasonable, including budget controls and cost trends, review of benchmarking
9 studies, and careful tracking of staffing levels at its power plants.

10 Budgets are scrutinized on an annual basis to ensure that they are reasonable
11 and prioritized appropriately. Budgets are then reviewed by both SWEPCO and
12 AEPSC Generation management for final approval. Expenditures throughout the year
13 are tracked and projected on a monthly basis.

14 Another measure of reasonableness for SWEPCO's test year generation non-
15 fuel O&M expenses is to compare those costs to past years, in order to ensure that
16 SWEPCO is not setting its costs at unreasonably high, or low, levels. By ensuring
17 that any large changes in SWEPCO's non-fuel O&M costs are necessary, it is possible
18 for SWEPCO to be sure that costs are not unnecessarily tracking up or down over
19 time without due cause. This same approach can be used to determine that staffing
20 levels at SWEPCO's generating plants are reasonable. By comparing past and present
21 years, SWEPCO can look at its performance and determine if staffing levels need to
22 be adjusted. As with budgets, some changes may be warranted. For example the

1 addition of a large piece of capital equipment may require additional operators, which
2 can cause an increase in staffing levels. Any changes in approved staffing levels must
3 be approved by AEPSC generation management with sufficient justification provided.

4 As discussed below, SWEPCO also uses benchmarking studies to compare its
5 operating costs to other utilities. This data, like the performance data that I previously
6 discussed, is provided by Navigant.

7 Budget Controls and Cost Trends

8 Q. PLEASE DESCRIBE ANY PROCESSES, SUCH AS BUDGETING, PLANNING,
9 AND COST REVIEW THAT ARE USED TO CONTROL BOTH AFFILIATE AND
10 NON-AFFILIATE GENERATION O&M COSTS.

11 A. Each plant in the SWEPCO system has a long-range plan that describes the general
12 condition of the plant, and is used to build the long-range budget for the plant.
13 Generally, for earlier years the budget is much more precise than for later years. The
14 budgets are created at the plant level and then are reviewed with me. After approval,
15 the plant budgets are rolled into SWEPCO's and AEPSC's budgets. At each level,
16 the individual budgets are reviewed, as well as the overall picture of the generation
17 fleet budget.

18 Actual costs are then reviewed on a monthly basis via monthly expense and
19 variance reports, which are reviewed at the plant, SWEPCO, and AEPSC levels to
20 ensure that actual costs are in line with the planning process, and that any necessary
21 changes can be made to compensate for unforeseen spending requirements.

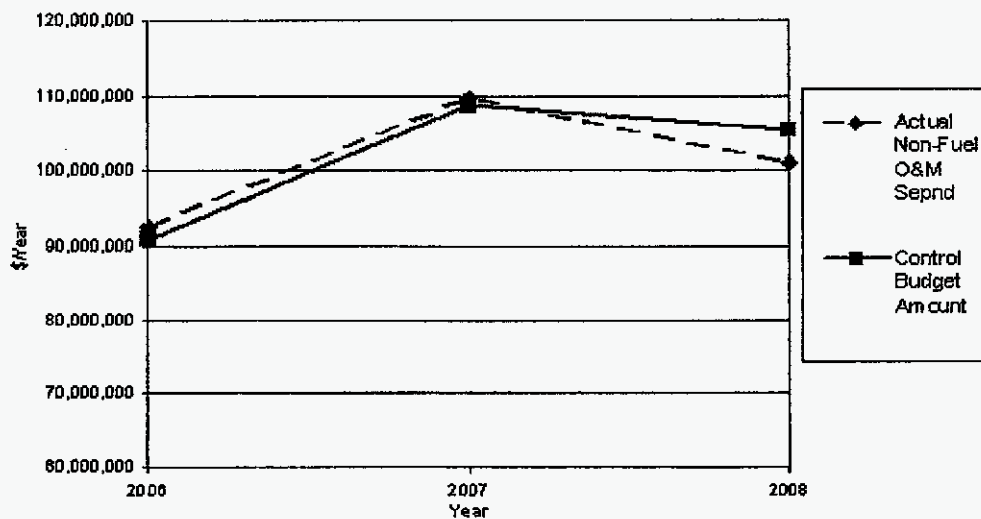
1 Q. HOW HAS SWEPCO PERFORMED COMPARED TO ITS DIRECT
2 GENERATION O&M BUDGETS IN THE PAST THREE YEARS?

3 A. SWEPCO has maintained tight control over its budget over the past three years, and
4 has maintained a deviation from control budget to actual expenditures of less than
5 4.2% in each of the past three years, with an average deviation from the control
6 budget of -0.47%. This not only shows the dedication by SWEPCO's management to
7 effective planning, but also the efforts of staff at each SWEPCO plant to help the
8 SWEPCO generation fleet as a whole when any one plant may be dealing with
9 unforeseen operational issues.

10 Q. PLEASE DESCRIBE THE TOTAL GENERATION O&M COST TRENDS FOR
11 SWEPCO SINCE 2004.

12 A. The total Generation O&M costs and budget amounts are included in the following
13 graph.

14 Figure 1: SWEPCO's Direct Generation O&M
15 Actual Expenditures Versus Control Budget



16

1 This graph shows that SWEPCO's generation O&M costs have been
2 increasing over the past years, with the exception of 2008, during which time
3 generation O&M costs decreased slightly. The increase from 2006 to 2007 is
4 attributable to several issues. Major turbine / generator overhauls were conducted at
5 Welsh, Dolet Hills, Wilkes and Lieberman plants in 2007. These overhauls typically
6 represent a significant investment in O&M. In addition, when a plant is down for a
7 turbine / generator overhaul, the planned outage is considerably longer than a normal
8 outage and provides the opportunity to make other repairs that cannot normally be
9 done in a shorter outage. Examples of these activities would be major boiler
10 maintenance, boiler chemical cleaning, corrosion fatigue inspections / repairs, and air
11 heater repairs. SWEPCO also added about 49 people to its plant staffing complement
12 in 2008. The general increase in O&M costs over the past few years can also be seen
13 in the Navigant peer group data, indicating that these increases have been occurring
14 across the industry as a whole, and not only in SWEPCO.

15 Q. HOW DOES SWEPCO MANAGE O&M COSTS FOR THE DOLET HILLS
16 PLANT SINCE IT IS OPERATED BY ANOTHER COMPANY?

17 A. Although the Dolet Hills Plant is operated by CLECO, SWEPCO is still involved in
18 the decision-making process at Dolet Hills through that plant's operating committee,
19 in which SWEPCO participates. Through the operating committee SWEPCO is able
20 to review operational issues, as well as planning and budgeting documents. Since
21 Dolet Hills is of a similar design to the Pirkey Plant, many of the projects and work
22 requirements are the same, resulting in synergies in managing and overseeing the

1 plant. In this manner, SWEPCO is able to bring the same level of detail to the
2 planning process that is utilized at all of the plants in the fleet that SWEPCO operates,
3 ensuring reasonable operating costs.

4 Benchmarking Studies

5 Q. ARE THERE ANY BENCHMARKING STUDIES COMPARING SWEPCO'S
6 GENERATION NON-FUEL O&M AND CAPITAL EXPENDITURES TO THOSE
7 OF OTHERS IN THE INDUSTRY?

8 A. Yes. Navigant, which is the source of the performance comparison data, also
9 provides cost benchmarking studies for power generation plants.

10 Q. WHAT COSTS ARE INCLUDED IN COMPARISONS PERFORMED BY
11 NAVIGANT, AND HOW ARE THEY PRESENTED?

12 A. Navigant cost data includes non-fuel O&M spending as well as running capital, which
13 is capital that is not associated with large new construction projects (such as the
14 addition of an FGD unit). These costs also include benefits and fringe charges on
15 internal labor, as well as the allocated generation portion of the affiliate charges to the
16 operating companies. The costs are then reviewed in two different ways: The first
17 method of comparison is to look at the expenditures as a function of installed kW
18 capacity of the plant, or \$/kW. The other way to compare costs among plants is to
19 look at the total cost in relation to the MWh of electricity produced by the plant over
20 that period of time, or \$/MWh. As with the plant performance data I discussed earlier
21 in my testimony, Navigant compares units of similar size and fuel type to create
22 meaningful comparisons.

1 Q. PLEASE DISCUSS THE BENCHMARKING STUDY RESULTS WITH RESPECT
2 TO NON-FUEL GENERATION COSTS FOR SWEPCO'S LIGNITE AND COAL-
3 FIRED POWER PLANTS.

4 A. The total expenditures for the Pirkey Plant captured by Navigant are shown in
5 EXHIBIT PWF-1, Figures 3 and 4. As these graphs show, Pirkey was slightly above
6 the peer group average for total expenditures in terms of \$/kW in only one out of the
7 past five years, and for all five years Pirkey was below the peer group average for
8 spending in terms of \$/MWh. This indicates that Pirkey ranks favorably in
9 comparison to other units in its ability to consistently provide low-cost electricity, and
10 demonstrates that the plant is beneficial to SWEPCO's customers. The performance
11 at Pirkey is impressive not only due to the fact that Pirkey has the added complexity
12 associated with a FGD system, but also that the Pirkey Plant is a single-unit plant.
13 This means that the Pirkey Plant must maintain systems (such as coal handling)
14 without being able to share those costs over multiple units, as many plants within the
15 peer group can.

16 EXHIBIT PWF-1, Figures 9 and 10, show the total expenditures for the Flint
17 Creek Plant in \$/MWh and \$/kW, respectively. Looking at the total expenditures
18 over the past five years, the Flint Creek Plant was below the peer group average for all
19 five of the years. Figure 10 shows a very similar trend for the Flint Creek total
20 expenditures in \$/kW. This cost data, coupled with the EAF and EFOR data for Flint
21 Creek discussed previously, shows that not only is this plant a good performer, but it

1 is able to perform well for SWEPCO customers while incurring low costs for that
2 operation.

3 Figures 11 and 12 in EXHIBIT PWF-1 show the total expenditures for the
4 three units at the Welsh Plant in terms of \$/MWh and \$/kW, respectively. These two
5 figures show that all three units at the Welsh Plant are consistently below the peer
6 group average expenditures per MWh, with only one exception in the past five years.
7 The units also show a similar performance in cost per installed kW of capacity. This
8 indicates that the Welsh units are providing reliable baseload power at a reasonable
9 cost to SWEPCO's customers.

10 Q. DO YOU USE THE SAME DATA TO ANALYZE THE COST COMPARISONS
11 FOR SWEPCO'S GAS-FIRED POWER PLANTS THAT YOU USE FOR THE
12 LIGNITE AND COAL-FIRED UNITS?

13 A. No. While the cost data is comparable and useful when considered on a \$/kW
14 installed capacity basis, creating cost-based comparisons for natural gas-fired power
15 plants on a \$/MWh basis *does not always yield meaningful results because many of*
16 *the non-fuel O&M costs are fixed, and must be incurred regardless of the amount of*
17 *power produced at a smaller peaking plant. This can then lead to a large disparity in*
18 *\$/MWh, based on the disparity in actual generation from similar plants.*

19 Q. PLEASE EXPLAIN THE COST PERFORMANCE OF SWEPCO'S GAS-FIRED
20 POWER PLANTS OVER THE PAST FIVE YEARS.

21 A. The Navigant \$/kW cost data for SWEPCO's large natural gas-fired units, comprised
22 of Knox Lee Unit 5 and Wilkes Units 2 and 3, is included in EXHIBIT PWF-2,

1 Figures 2 and 6, respectively. As Figure 2 shows, Knox Lee Unit 5 showed below
2 average total expenditures for four out of the last five years, while maintaining an
3 above average capacity factor and below average forced outage rate. Wilkes Units 2
4 and 3 exhibited total costs well below their peer group average, while performing very
5 well.

6 The total non-fuel expenditures tracked by Navigant for SWEPCO's smaller
7 gas-fired power plants, Arsenal Hill 5, Knox Lee Units 2 through 4, Lieberman 1
8 through 4, Lone Star, and Wilkes Unit 1, are shown in EXHIBIT PWF-2, Figures 10,
9 14, 18, 22, and 26, respectively. These figures show that every unit in every year was
10 below the peer group average in total expenditures, with the exception of two years
11 for Arsenal Hill Unit 5. This is a clear demonstration of SWEPCO's ability to control
12 costs and maintain its plants in good condition.

13 Q. IS THE BENCHMARKING YOU DESCRIBE CONCERNING THE OVERALL
14 GENERATION COSTS RELEVANT TO THE REASONABLENESS OF
15 AFFILIATE GENERATION CHARGES?

16 A. Yes. The benchmarking studies I discussed previously comparing SWEPCO's overall
17 production costs to those of other electric utilities also support the reasonableness of
18 SWEPCO's affiliate production costs. Navigant's data does not separately identify
19 affiliate charges. Accordingly, it is not possible to directly benchmark affiliated
20 production costs using Navigant data. However, affiliate charges are included in the
21 cost data and represent a portion of the overall production costs as analyzed by
22 Navigant. Moreover, the production services I have described are provided to the

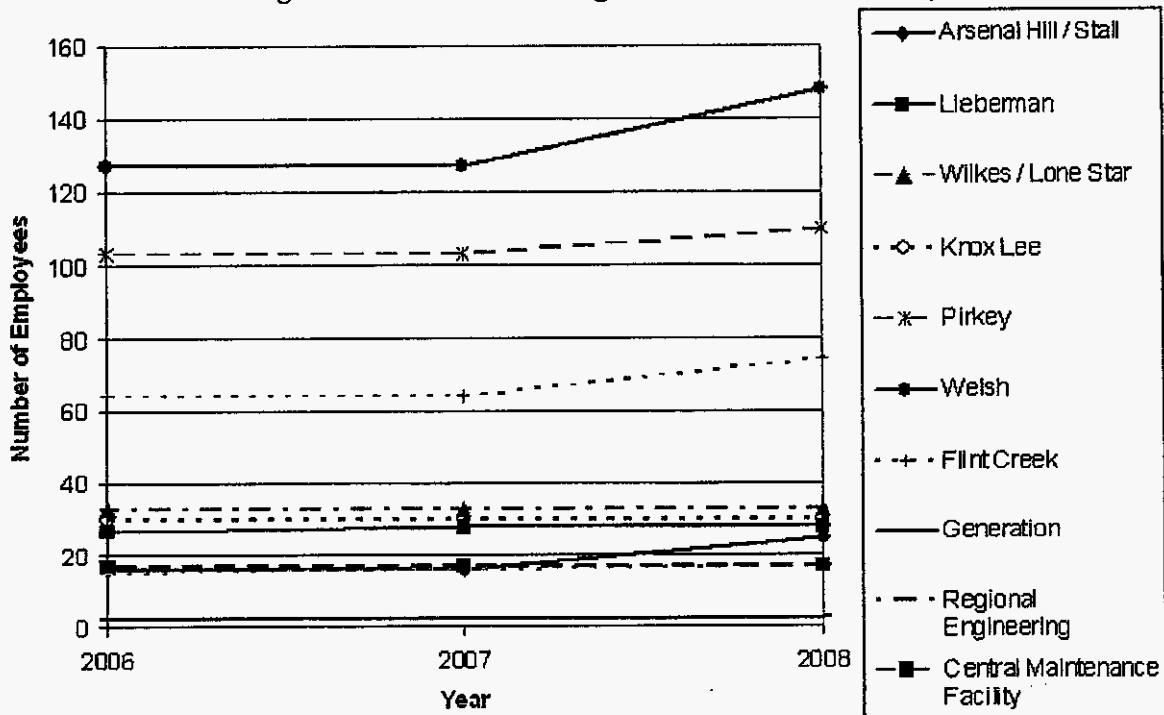
1 generation organization using a combination of service company employees,
 2 SWEPCO employees and contractors. Consequently, benchmarking at the overall
 3 cost level is consistent with the manner in which the services are provided and
 4 managed, and supports the conclusion that the affiliate portion of those costs are also
 5 the product of effective management and contribute to an overall reasonable level of
 6 costs.

7 SWEPCO Staff Level Trends

8 Q. PLEASE DISCUSS THE TRENDS IN THE TOTAL NUMBER OF SWEPCO
 9 GENERATION EMPLOYEES SINCE 2003.

10 A. AEPSC staffing trends are discussed later in my testimony. The general trend for
 11 SWEPCO staffing can be seen in the following figure.

12 Figure 2: SWEPCO Staffing Levels From 2006 Through 2008



13

1 As Figure 4 shows, there has been an increase in the total number of
2 SWEPCO generation employees from 2006 through 2008.

3 In 2007, a staffing report for AEP's Western Region was performed,
4 indicating the need to hire more generation employees. This report is included as
5 Attachment 1 to Schedule H-7.1 in this filing. As can be seen in this report,
6 numerous new programs had come about since the last staffing report in 2004. These
7 new programs required that more resources be available for Continuous Emission
8 Monitors (CEMs) due to increased upkeep, and the addition of mercury CEM
9 systems. It is also described in this staffing report that an increased level of water
10 chemistry instrumentation over the past years and an increase in the number of water
11 chemistry-related activities justified an increase in the number of employees. This
12 report also showed the need for SWEPCO to hire two more safety coordinators and
13 two more employees to serve administrative roles at Lieberman and Arsenal Hill.

14 In addition to the new generation staffing study, an overtime study at the
15 Welsh Plant showed the need to add staff there. This report clearly showed that the
16 staff at the Welsh Plant worked a disproportionate amount of overtime versus other
17 plants in the SWEPCO and AEP systems, and that the overtime was not due to a high
18 forced outage rate, a high sick time rate, or any other problem that could be solved
19 without adding more employees. The final recommendation of this report was to add
20 nine employees to the staff at the Welsh Plant. The Welsh overtime study is included
21 as Attachment 2 to Schedule 7.2 in this filing.

1 Q. DOES SWEPCO MAKE USE OF CONTRACTOR SERVICES OR
2 OUTSOURCING IN CONNECTION WITH THE OPERATION AND
3 MAINTENANCE OF THE SWEPCO GENERATION SYSTEM?

4 A. Yes. While SWEPCO plants are staffed to provide support during routine operation
5 and maintenance, there are conditions which require more personnel to complete
6 needed work, such as a large planned or forced outages. During these occurrences,
7 SWEPCO will augment its own staff by using contractors to perform work. In this
8 manner, SWEPCO is able to perform large projects, without having the need to
9 employ more people than are necessary for normal operation of its power plants.

10 In particular, SWEPCO outsources work during major boiler outages, as well
11 as outages for the turbine and generator. SWEPCO regularly hires outside companies
12 to perform work such as: boiler chemical cleaning, precipitator cleaning, non-
13 destructive testing of boiler tubes, and maintenance of coal pulverizers. SWEPCO
14 also contracts with other companies to perform general housekeeping labor and
15 janitorial services throughout the year.

16 The total number of employee contractors employed by SWEPCO by year is
17 included in Schedule H-7.3, and by month for the test year in Schedule H-7.4. In
18 these schedules, the number of contractors is shown as the equivalent in full-time
19 employees.

20 Q. WHAT DO YOU CONCLUDE ABOUT THE REASONABLENESS AND
21 NECESSITY OF SWEPCO'S OVERALL GENERATION O&M EXPENSES?

1 A. SWEPCO's generation O&M expenses are lower overall than others in the industry,
 2 as demonstrated by the Navigant cost benchmarking data. Projects and costs are
 3 scrutinized at multiple levels of management to ensure they are prudent and
 4 reasonable before approval. Ongoing expenditures are tracked and projected on a
 5 monthly basis and budgets have been historically well managed. Overall, SWEPCO's
 6 generation O&M expenses are well-managed, prudent, and reasonable.

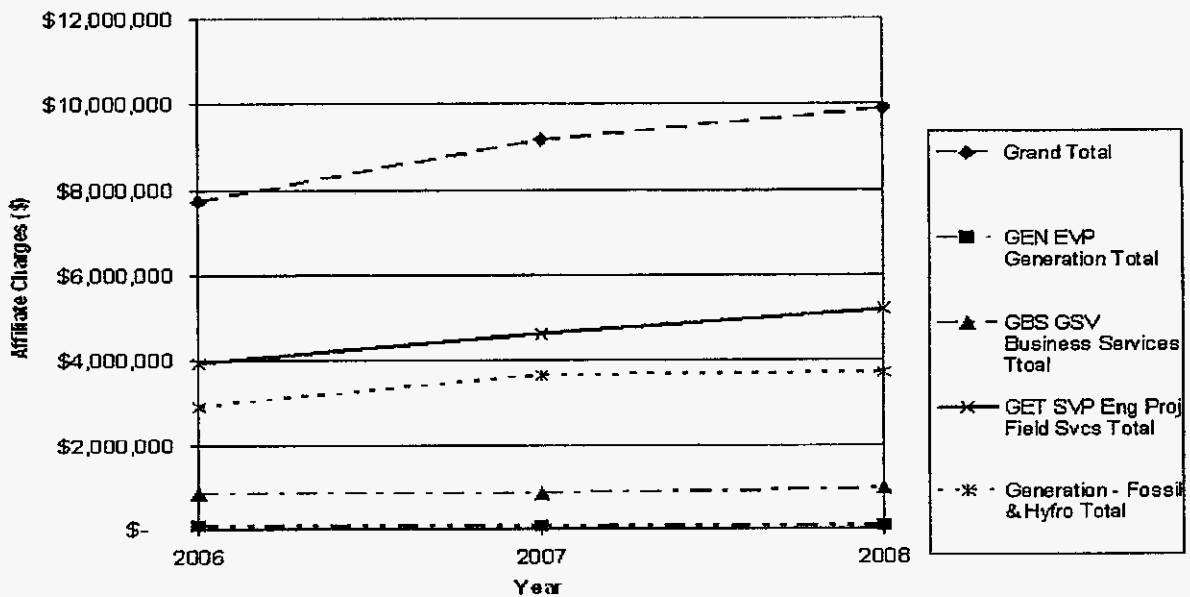
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8 X. AFFILIATE CHARGES FROM AEPSC GENERATION

9 Q. WHAT HAVE BEEN THE TRENDS IN AEPSC BILLINGS TO SWEPCO FOR
 10 GENERATION SERVICES OVER THE PAST THREE YEARS?

11 A. The following trend shows the charges to SWEPCO from AEPSC, by department, for
 12 the past three years.

13 Figure 3: AEPSC Generation O&M Affiliate Charges to SWEPCO



14

1 The above figure shows that affiliate charges from the Generation
2 organization have increased over the past three years. The actual generation-related
3 affiliate charges to SWEPCO for the test year period total \$9.27 million, compared to
4 the \$9.9 million shown above for the 2008 calendar year.

5 Q. PLEASE IDENTIFY THE MAJOR COST DRIVERS THAT HAVE IMPACTED
6 THESE AFFILIATE CHARGES TO SWEPCO.

7 A. The increases in AEPSC generation charges to SWEPCO over the past three years
8 have been driven by increases in charges from the Generation Fossil & Hydro
9 organization from 2006 to 2007, and increases in charges from the Engineering
10 Projects & Field Services organization from 2006 to 2007 and also from 2007 to
11 2008. The increases in AEPSC generation charges to SWEPCO over the past few
12 years were primarily driven by SWEPCO requesting and receiving increased services
13 from AEPSC. Some of these increased services are associated with staffing increases
14 I will discuss later in my testimony.

15 Major drivers for increases in charges to SWEPCO from the Fossil & Hydro
16 organization from 2006 to 2007 were increases in labor charges for the Pirkey Plant,
17 the Welsh Plant, and for general labor for the SWEPCO region (work that directly
18 benefited SWEPCO). This increase was driven by the addition of industrial hygiene
19 technicians and a plant environmental coordinator. While these employees are
20 technically employed by the Fossil & Hydro organization, their time is fully dedicated
21 to SWEPCO plants.

1 The Engineering Projects & Field Services increase from 2006 to 2007 was
2 due in large part to increased labor charges associated with outage services provided
3 for the Welsh, major General Boiler Inspection & Repair (GBIR) outage support for
4 Flint Creek including boiler chemical cleaning, and engineering support for a major
5 turbine overhaul at the Wilkes Plants.

6 From 2007 to 2008 Engineering Projects & Field Services increased charges
7 to SWEPCO again were driven by increases in labor charges. These charges were
8 related to providing outage support for a turbine overhaul at Knox Lee Unit 5, turbine
9 support at the Flint Creek Plant, repairs associated with a generator ground at the
10 Welsh Plant, and other outage work at the Welsh Plant.

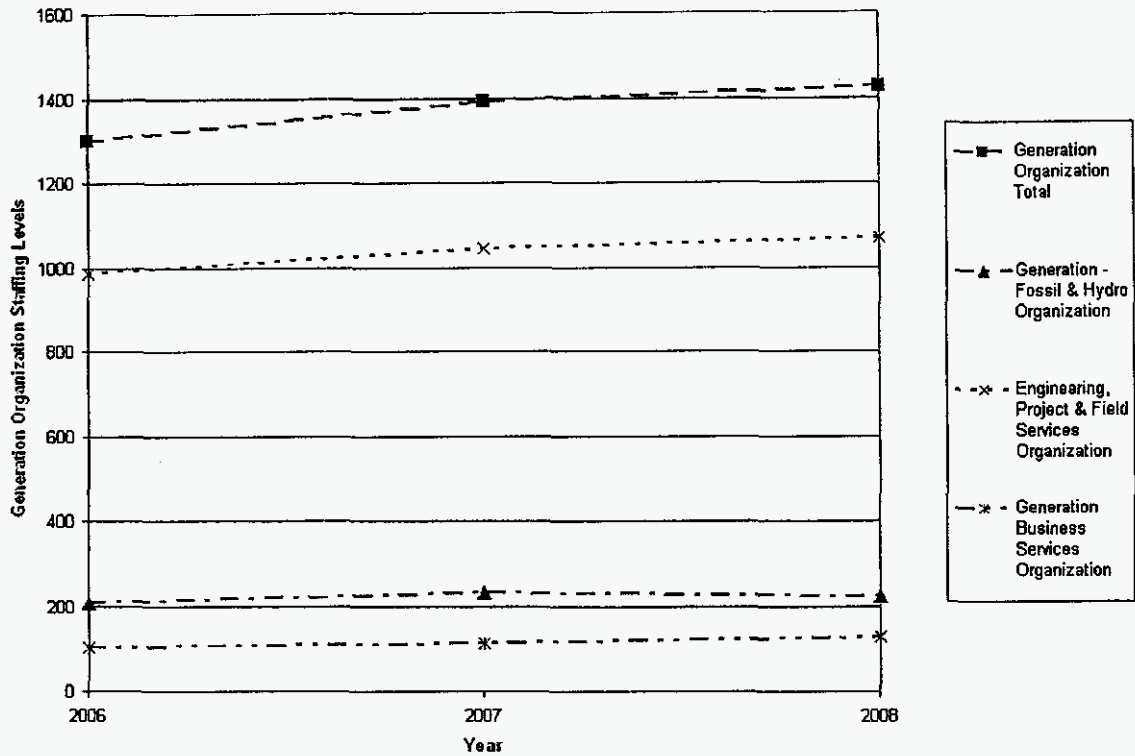
11 *It should also be noted that during these years the Western Regional Services*
12 *Organization (RSO), a group that reports with Engineering Projects & Field Services,*
13 *added approximately 12 employees that directly support both outage-related activities*
14 *and typical O&M projects at the plants. These additions are at the supervisor level,*
15 *helping to coordinate work between the plants to which they are assigned and the*
16 *local labor market that is used to supplement the plant's work force as necessary.*
17 *These employees add more continuity to this type of project for the plant, and ensure*
18 *that smaller projects are managed as effectively as possible.*

19 Q. HOW HAS THE STAFFING OF AEPSC GENERATION DIVISION EMPLOYEES
20 CHANGED OVER TIME SINCE 2003?

21 A. The following figure shows the staffing trends in the AEPSC Generation organization
22 and the groups of which the AEPSC Generation organization is comprised. The only

1 organization in AEPSC Generation not represented here is the Fuel, Emissions &
2 Logistics group, which is described in the direct testimony of Company witness
3 Charles West.

4 Figure 4: AEPSC Generation Organization Staffing



5
6 As the previous chart shows, AEPSC Generation staffing had some minor
7 increases over the past two years. In 2007, the Fossil & Hydro organization, the
8 Engineering Projects & Field Services organization, and the Generation Business
9 Services organization all added staff, for a total increase in the Generation
10 organization of 92 employees. It is important to note, however, that increased staffing
11 at the AEPSC level does not necessarily mean that charges to SWEPCO will increase.

1 Charges to SWEPCO only increase if those new additions are working on projects
2 that benefit SWEPCO.

3 Staffing increases in the Engineering, Projects & Field Services groups were
4 necessary to provide increased outage services to SWEPCO, and also to work on the
5 new generation projects that SWEPCO is currently undertaking. It should also be
6 noted that work performed by AEPSC on capital projects is charged to those specific
7 capital projects and not to SWEPCO O&M.

8 Q. HOW DOES AEPSC MONITOR AND CONTROL ITS BUDGET WITH REGARD
9 TO CHARGES TO SWEPCO?

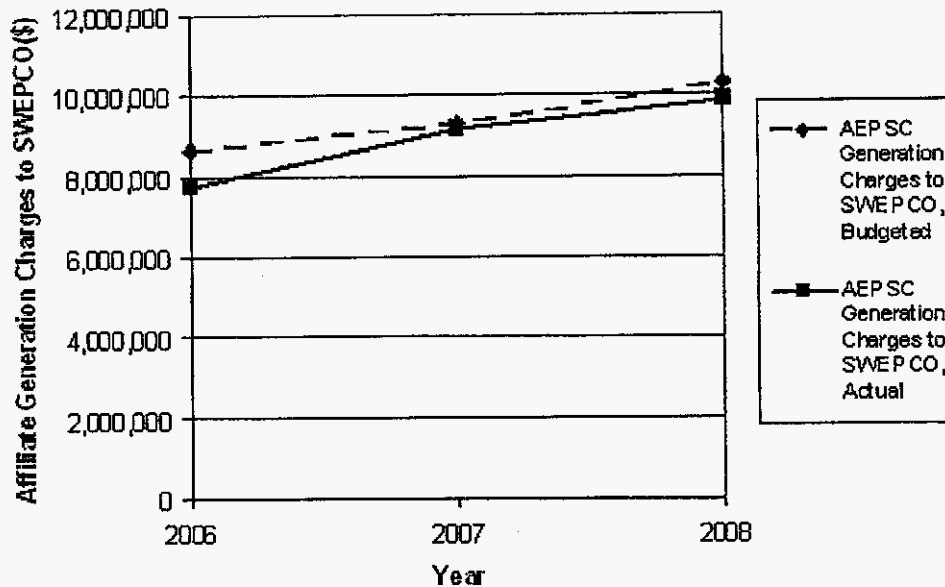
10 A. AEPSC has a similar process for budgeting that SWEPCO follows where projects are
11 assessed and prioritized, then budgets are created based on available funds and
12 projected needs of the operating company. Those budgets are reviewed at multiple
13 levels of the organization to ensure that money is being spent where it needs to be,
14 and to ensure that the budgets are reasonable.

15 Q. DESCRIBE THE PERFORMANCE OF ACTUAL VERSUS BUDGET
16 GENERATION AFFILIATE CHARGES TO SWEPCO FROM AEPSC OVER THE
17 PAST THREE YEARS.

18 A. Figure 5 shows the AEPSC budgeted and actual generation charges to SWEPCO for
19 the past three years. In 2006, the generation charges to SWEPCO were 11.7% below
20 budget. In 2007 and 2008, the budgets were extremely close to actuals, with a
21 maximum deviation from the budget in 2008 of -4.1%. This data shows that the

1 generation charges from AEPSC are well-planned and closely monitored and
2 controlled.

3 Figure 5: AEPSC Actual and Budgeted Charges to SWEPCO



4
5 Q. PLEASE SUMMARIZE THE EVIDENCE YOU HAVE PRESENTED THAT
6 DEMONSTRATES THE NECESSITY AND REASONABLENESS OF THE
7 AEPSC GENERATION DIVISION CHARGES TO SWEPCO.

8 A. I support a total of \$9.27 million of affiliate costs for the test year ending March 31,
9 2009. This is a reasonable amount for the services provided to SWEPCO by AEPSC.
10 The AEPSC organization adds value to SWEPCO by providing technical, operational,
11 and maintenance expertise to SWEPCO's fleet of power plants. This is support that
12 SWEPCO would not have access to without the corporate structure that exists today.

13 Q. ARE THE INCREASED CHARGES TO SWEPCO FROM THE AEPSC
14 GENERATION ORGANIZATION REASONABLE?

1 A. Yes. My testimony shows not only that AEPSC controls costs effectively, but that the
2 increased services received from AEPSC warrant the increased charges from the
3 AEPSC Generation organization.

4

5

XI. CAPITAL ADDITIONS

6 Q. PLEASE DESCRIBE THE PROCESS THAT AEPSC AND SWEPCO
7 UNDERTAKE TO DETERMINE WHETHER OR NOT TO MAKE A CAPITAL
8 ADDITION TO A PLANT.

9 A. Both AEPSC and SWEPCO are continuously reviewing projects that could provide
10 economic, environmental, reliability, or safety-related benefit for SWEPCO's
11 generating fleet. The first step in any capital addition evaluation is to research
12 alternatives and perform cost-benefit analyses to prove a project's value to the plant in
13 question.

14 Once a capital project is undertaken, the most efficient way to manage the
15 project is determined. This can mean that a project is expedited, or sole-sourced if
16 there is a lack of competition for a given piece of equipment or service. However,
17 almost all capital projects are competitively bid so as to ensure that a fair market price
18 is paid for the good or service. After a competitive bid is accepted, contracts are
19 finalized and the project is begun.

20 Once work on a large capital project begins, SWEPCO benefits from the
21 Projects & Field Services organization within AEPSC because this group has vast
22 experience in the execution and management of large projects, which can help to

1 contain and control costs as they are incurred by the project. If the project is smaller
2 it may be managed by either the engineering services organization within AEPSC or
3 by SWEPCO's regional engineering group, depending on the total overall cost and
4 scope of the project. As a project is being executed, this structure maximizes
5 efficiency while minimizing cost to the greatest extent possible. A small project that
6 may be effectively managed by one person at the regional level will be performed as
7 such. However, for those large capital projects that require oversight and control
8 from various groups and disciplines, the Projects & Field Services and Engineering
9 Services organizations can control cost and schedule when it is not practical for
10 SWEPCO to do so directly.

11 Q. PLEASE DESCRIBE SOME OF THE MAJOR CAPITAL ADDITIONS TO
12 SWEPCO'S EXISTING GENERATING UNITS DURING THE LAST TEN
13 YEARS.

14 A. During the last ten years, there have been numerous capital additions to SWEPCO's
15 generating fleet to increase availability, efficiency, and to minimize environmental
16 impacts. While a more comprehensive listing of these projects is shown in Schedule
17 H-5.2b in this filing, a few of the major projects are described below:

- 18 • In 2005, 2006, and 2007, the reheaters and superheaters at Welsh units 2, 3,
19 and 1, respectively, were replaced. The cost for the Unit 1, 2, and 3 additions
20 was \$12.0 million, \$9.2 million, and \$10.3 million, respectively. The
21 reheaters and superheaters were deemed to be approaching the end of life, and
22 continued operation of those pieces of equipment would have led to an
23 increase in the number of outages from tube leaks in those areas. It was
24 decided to replace the reheaters and superheaters with stainless steel, which
25 has a natural ability to shed ash and slag. This new material stays cleaner,
26 which not only allows for better heat transfer from the flue gas to the steam in
27 the tubes, but also requires less cleaning over the life of the equipment.

1 Because extended sootblower usage can lead to increased wear and tear on
2 reheaters and superheaters, this new equipment is also expected to have an
3 increased life span in the unit because it will not need to be cleaned as often.

- 4 • SWEPCO has begun an upgrade program to improve the performance of the
5 hot side precipitators at the Welsh and Flint Creek plants. The ESP is the
6 piece of equipment that is responsible for capturing fly ash, which is solid
7 particles left over after coal is combusted. The upgrade retrofits the
8 precipitators with wide plates and rigid discharge electrodes. This will
9 improve performance by eliminating electrode breakage and grounds and
10 would provide optimum clearance spacing between the plates. This spacing is
11 critical to the operation of the precipitators. The aim of this project is to
12 eventually replace the internals of the precipitators, but to break the
13 installation up over time to reduce the immediate investment. As can be seen
14 in Schedule 5.3b, \$3.1 million has been spent to date to upgrade the ESP at
15 Welsh Unit 1, and \$6.3 million has been spent on the upgrade to the Unit 3
16 ESP.
- 17 • The Pirkey Plant has begun a program to replace and improve the FGD
18 absorber tower lining. The old flake glass lining would be replaced with a
19 stainless steel liner that would be more durable than the original liner. The
20 cost to replace one of the four absorber liners, as shown in Schedule 5.3b, was
21 \$1.8 million.
- 22 • In 2007 and 2008, the turbine controls on all three Welsh units were replaced.
23 The controls were based on old technology that was obsolete, and it was
24 becoming more and more difficult to find replacement parts. The total cost to
25 replace the controls was \$1.8 million for Units 1 and 3, and \$1.7 million for
26 Unit 2, as shown in Schedule 5.3b.
- 27 • OFA and LNBs were installed on all three Welsh units in order to minimize
28 emissions of NOx resulting from the combustion of coal. These installations
29 occurred between 2002 and 2006. Schedule 5.3b shows the cost for the LNB
30 replacement on Welsh Unit 2 was \$5.4 million.
- 31 • SWEPCO also installed retractable boiler platforms on all three units at the
32 Welsh Plant. Installation of this equipment makes boiler entry during annual
33 major outages much faster and less expensive by avoiding the need to erect
34 scaffolding for the entire interior height of the boiler. As shown on Schedule
35 5.3b, the cost to add these retractable platforms on all three Welsh units
36 totaled \$6.7 million.

37 As I mentioned, the projects above are examples of capital projects that were
38 performed to reduce operating costs or improve the performance and reliability of

1 SWEPCO's generating fleet. Schedule H-5.2b contains a more comprehensive list of
2 additions that SWEPCO has made to its plants, including the total project cost and the
3 date of completion for the project.

4 Q. DO THE CAPITAL ADDITIONS INCLUDE ANY AFFILIATE CHARGES?

5 A. Yes. See Exhibit JWH-5 to the testimony of Company witness Jeffrey Hoersdig for
6 additional information on the affiliate component of generation-related capital
7 additions. In general, these charges reflect the cost of AEPSC support for SWEPCO
8 generation capital projects, including *planning, engineering, design* and construction
9 management services.

10 Q. IS THE AFFILIATE COMPONENT OF SWEPCO'S CAPITAL ADDITIONS
11 REASONABLE AND NECESSARY?

12 A. Yes, it is. Generation capital costs are budgeted and reviewed using the same
13 cohesive planning and cost tracking processes that I explained earlier in my testimony
14 with regard to O&M. In addition, the explanation of the AEPSC services I provided
15 above, as it applies to the management and support of SWEPCO capital projects,
16 further supports the reasonableness and necessity of these AEPSC support services.
17 In addition, the benchmarking results I discussed earlier, which include ongoing
18 capital addition costs in comparing the cost effectiveness of SWEPCO's various
19 power plants, support the reasonableness of the affiliate costs included in the
20 benchmarking and the effectiveness of the AEPSC support for the power plants'
21 ongoing capital improvements.

1 Q. HAVE ANY MAJOR CAPITAL INVESTMENTS NECESSARY TO COMPLY
2 WITH ENVIRONMENTAL REGULATIONS BEEN MADE BY SWEPCO?

3 A. Yes. SWEPCO has made, and is making, large investments to comply with
4 environmental regulations. Some of these projects are discussed in the following list:

5 • In 2006, upgrades to the FGD at the Pirkey Plant were performed to
6 increase the percentage of flue gas that is scrubbed for SO₂. In its original
7 design, the Pirkey Plant scrubbed 75% of the flue gas for SO₂, while the
8 remaining 25% of the flue gas bypassed the FGD. During this outage,
9 Pirkey's scrubbing capacity was improved so that 100% of the flue gas
10 generated can be scrubbed for SO₂. This capital upgrade allows the unit to
11 continue to operate while emitting less SO₂.

12 • Investments were made at the Welsh and Pirkey plants to install systems to
13 reduce NOx emissions resulting from the combustion of coal. These
14 systems use advanced burners and strategically-placed air injection to
15 reduce NOx and allow the unit to meet state emission requirements at a
16 low capital cost compared to other NOx reduction technologies.

17

18 XII. CONCLUSION

19 Q. PLEASE PROVIDE A SUMMARY OF YOUR TESTIMONY.

20 A. Throughout my testimony I have described SWEPCO's generation organization, and
21 the critical supporting role provided by the AEPSC organization. The AEPSC
22 generation organization adds value to the corporate structure by providing SWEPCO
23 with a vast amount of knowledge and experience with respect to generation, the
24 breadth of which may not be available to SWEPCO absent a corporate structure
25 providing centralized services like those provided by AEPSC.

1 The SWEPCO generation organization prudently manages a fleet of power
2 plants with a diverse fuel mix, which allows SWEPCO to meet its customers' demand
3 for reliable and reasonably priced electricity.

4 Q. DOES THAT CONCLUDE YOUR DIRECT TESTIMONY?

5 A. Yes, it does.

LATE-FILED EXHIBIT NUMBER 2

TO DEPOSITION OF JEFFRY POLLOCK

Held September 11, 2009

Exhibit 2: The electronic workpapers to JP-12 show a calculation of the remaining life depreciation rates based on Mr. Pollock's recommended life spans. However, that calculation does not reflect the \$100 million per year credit to depreciation expense that Mr. Pollock also recommends.

Submitted September 14, 2009

By The Florida Industrial Power Users Group

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