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#### SOAH DOCKET NO. 473-17-3539 PUC DOCKET NO. 46936

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BEFORE THE STATE OFFICE

**ADMINISTRATIVE HEARINGS** 

OF

Direct Testimony and Exhibits

of

**JEFFRY POLLOCK** 

On Behalf of

**Texas Industrial Energy Consumers** 

October 2, 2017



#### SOAH DOCKET NO. 473-17-3539 PUC DOCKET NO. 46936

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APPLICATION OF SOUTHWESTERN PUBLIC SERVICE COMPANY FOR APPROVAL OF TRANSACTIONS WITH ESI ENERGY, LLC AND INVENERGY WIND DEVELOPMENT NORTH AMERICA, LLC, TO AMEND A CERTIFICATE OF CONVENIENCE AND NECESSITY FOR WIND GENERATION PROJECTS AND ASSOCIATED FACILITIES IN HALE COUNTY, TEXAS AND ROOSEVELT COUNTY, NEW MEXICO, AND FOR RELATED APPROVALS

**BEFORE THE STATE OFFICE** 

OF

**ADMINISTRATIVE HEARINGS** 

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### **LIST OF EXHIBITS**

Exhibit	Description
JP-1	Installed Cost of Wind Projects Placed in Commercial Operation in 2015- 2016
JP-2	Net Capacity Factor of Wind Projects Within 100 Miles of Either the Hale or the Sagamore Plant Sites Placed in Commercial Operation in 2015
JP-3	Regulatory Lag Illustration

### **GLOSSARY OF ACRONYMS**

Term	Definition
AEP	American Electric Power
AFUDC	Allowance for Funds Used During Construction
AWS	AWS Truepower, LLC
CCN	Certificate of Convenience and Necessity
CWIP	Construction Work in Progress
EPE	El Paso Electric Company
ETI	Entergy Texas, Inc.
kWh	Kilowatt Hour
LMP	Locational Marginal Price
MW	Megawatt
NPV	Net Present Value
PPA	Purchased Power Agreement
PTC	Production Tax Credit
RFP	Request for Proposal
SPP	Southwest Power Pool
SPS	Southwestern Public Service Company
SWEPCO	Southwestern Electric Power Company
TIEC	Texas Industrial Energy Consumers
Wind Plants	Hale and Sagamore

#### SOAH DOCKET NO. 473-17-3539 PUC DOCKET NO. 46936

APPLICATION OF SOUTHWESTERN § PUBLIC SERVICE COMPANY FOR APPROVAL OF TRANSACTIONS WITH **ESI ENERGY, LLC AND INVENERGY** BEFORE THE STATE OFFICE WIND DEVELOPMENT NORTH AMERICA, LLC, TO AMEND A CERTIFICATE OF CONVENIENCE OF AND NECESSITY FOR WIND **GENERATION PROJECTS AND** ASSOCIATED FACILITIES IN HALE ADMINISTRATIVE HEARINGS **COUNTY, TEXAS AND ROOSEVELT** COUNTY, NEW MEXICO, AND FOR **RELATED APPROVALS** 

#### AFFIDAVIT OF JEFFRY POLLOCK

State of Missouri	)	SS	
County of St. Louis	)	00	

Jeffry Pollock, being first duly sworn, on his oath states:

- 1. My name is Jeffry Pollock. I am President of J. Pollock, Incorporated, 12647 Olive Blvd., Suite 585, St. Louis, Missouri 63141. We have been retained by Texas Industrial Energy Consumers to testify in this proceeding on its behalf;
- 2. Attached hereto and made a part hereof for all purposes is my Direct Testimony, Exhibits and Appendices A and B, which have been prepared in written form for introduction into evidence in SOAH Docket No. 473-17-3539 and Public Utility Commission of Texas Docket No. 46936; and,

3. I hereby swear and affirm that my answers contained in the testimony are true and correct.

Jeffry Pollock

Subscribed and sworn to before me this  $2^{nO}$  day of October, 2017

Carrie Flick, Notary Public

Commission #: /38860/-

My Commission expires on  $\frac{b-\partial -17}{}$ .

CARRIE E. FLICK
Notary Public - Notary Soal
State of Missouri
Commissioned for St. Louis County
My Commission Expires: October 22, 2017
Commission Number: 13886015

# Direct Testimony of Jeffry Pollock 1. INTRODUCTION, QUALIFICATIONS AND SUMMARY

1	Q	PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.
2	Α	Jeffry Pollock; 12647 Olive Blvd., Suite 585, St. Louis, MO 63141.
3	Q	WHAT IS YOUR OCCUPATION AND BY WHOM ARE YOU EMPLOYED?
4	Α	l am an energy advisor and President of J. Pollock, Incorporated.
5	Q	PLEASE STATE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.
6	Α	I have a Bachelor of Science Degree in Electrical Engineering and a Master's Degree
7		in Business Administration from Washington University. Since graduation in 1975, I
8		have been engaged in a variety of consulting assignments, including energy
9		procurement and regulatory matters in both the United States and several Canadian
10		provinces. My qualifications are documented in Appendix A. A partial list of my
11		appearances is provided in <b>Appendix B</b> to this testimony.
12	Q	ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS PROCEEDING?
13	Α	I am testifying on behalf of Texas Industrial Energy Consumers (TIEC). TIEC
14		members are customers of Southwestern Public Service Company (SPS) and they
15		purchase substantial amounts of electricity.
16	Q	WHAT ISSUES ARE YOU ADDRESSING IN YOUR DIRECT TESTIMONY?
17	Α	I will provide an overview and risk assessment of the proposed Hale and Sagamore
18		Wind Plants. In addition, I will identify measures that can be used to mitigate the risks
19		associated with the Wind Plants on SPS's Texas retail customers. Finally, I address



1		whether the Commission should pre-approve the Bonita Purchased Power Agreement
2		(PPA) and SPS's concerns about regulatory lag.
3	Q	ARE YOU SPONSORING ANY EXHIBITS TO YOUR DIRECT TESTIMONY?
4	Α	Yes. I am sponsoring Exhibits JP-1 through JP-3. These exhibits were prepared
5		under my supervision and direction.
6	Q	ARE YOU ADDRESSING ALL OF THE ISSUES IDENTIFIED BY THE COMMISSION
7		IN THIS PROCEEDING?
8	Α	No. However, the fact that I am not addressing every issue should not be interpreted
9		as an endorsement of SPS's proposals in this proceeding.
10	<u>Sum</u>	mary
11	Q	PLEASE SUMMARIZE YOUR FINDINGS.
12	Α	My findings on SPS's CCN Application can be summarized as follows:
13 14 15 16 17		<ul> <li>The only certainties are that the proposed Wind Plants would increase Texas base revenue requirements (by about \$116.6 million, excluding production tax credits (PTCs), in the year 2021) and increase the earnings to SPS shareholders over the lives of the facilities (by approximately \$495 million on the total rate base investment).</li> </ul>
18 19 20 21 22		<ul> <li>Much less certain are the projected ratepayer benefits of the Wind Plants, which will ultimately depend on the actual construction costs, future natural gas prices, the net energy produced (i.e., capacity factor) by the plants, future market prices, and whether all of the planned turbines would be eligible to receive PTCs.</li> </ul>
23 24 25 26 27 28 29		<ul> <li>Hale and Sagamore would be the first wind plants built by SPS. SPS's projected construction costs of \$1,634 per kW are low relative to the installed costs of other wind plants commissioned in 2015 and 2016. Further, a wind project in lowa equipped with the same turbines as Hale and Sagamore and scheduled to begin commercial operation in the 2018-2019 time frame was recently certified at a \$1,792 per kW installed cost, which is nearly 10% higher than SPS's projected cost. If SPS's actual installed cost is 10% higher, this factor alone would</li> </ul>



1 reduce the projected net present value (NPV) savings by \$158 million 2 (total company). 3 SPS has projected \$1.96 billion NPV of fuel savings associated with 4 the Wind Plants. These savings are predicated on a \$4.40 per MMBtu 5 levelized cost of natural gas and market prices based on an unchanging 6 resource mix. This is in contrast to only \$3.50 per MMBtu under SPS's 7 low gas price scenario. Changing this one variable reduces the 8 projected fuel savings by \$402 million NPV (total Company). 9 Further, if the penetration of renewable resources increases as the 10 Southwest Power Pool (SPP) anticipates, the resource mix would change, and this change would suppress the market prices used by 11 12 SPS to determine the fuel savings from the Wind Plants. Even if the 13 Wind Plants were to achieve the high capacity factors that SPS 14 projects, the actual fuel savings could be greatly reduced as a result of 15 having more renewable resources in the SPP. 16 SPS is claiming that the Wind Plants will operate at average annual 17 capacity factors of 53.7% (Hale) and 53.8% (Sagamore). No other wind 18 plants have achieved sustained operating net capacity factors of this 19 magnitude. Moreover, these projections assume zero environmental 20 curtailment risk and ignore how currently operating wind plants have 21 underperformed. If the Wind Plants were to operate at 44% average 22 annual capacity factor, the calculated fuel savings would be about \$356 23 million NPV (total company) below SPS's projections. 24 Eligibility for PTCs is essential to provide ratepayer savings. Absent 25 the PTCs, the Hale and Sagamore plants would not be economical. It 26 is critical that both projects must be eligible for PTCs and that all PTCs 27 must flow through to ratepayers. 28 Absent ratepayer protections, the CCN would not be in the public 29 interest because the risk that the promised savings may not be realized 30 would be borne solely by the ratepayers. A more balanced and 31 reasonable risk apportionment would (1) impose a cap of \$1,634 per 32 kW on the construction costs stated; (2) establish a performance 33 standard (based on SPS's projected annual net capacity factors) for the 34 proposed Wind Plants; and (3) hold customers harmless from the risk 35 that the Wind Plants fail to fully qualify for the PTCs, and require that 36 all PTCs be flowed-through to Texas retail customers.

CCN applications of other integrated electric utilities in Texas.

Construction cost caps have been approved by the Commission in

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1 Even if all three of the above ratepayer protections are implemented, 2 SPS's customers would still be at risk if the Wind Plants do not produce 3 the expected fuel savings due to low market prices. The proposed Bonita PPA raises several concerns, including whether 4 5 an escalating price per kWh that is not tied to any market or commodity 6 index would remain economical over its 30-year term in light of the 7 continued technological advances that have and continue to lower the 8 cost of wind generation. Further, the price is not renegotiable even if 9 the corporate income tax rate is reduced. 10 The Commission is not required to pre-approve a PPA, and it typically 11 has not done so. 12 SPS has not demonstrated that its proposed Cost Reconciliation 13 Mechanism and rate-basing of PTCs are needed to address regulatory 14 lag. Such special regulatory treatments are premature and beyond the 15 scope of a CCN proceeding. Further, no other Texas utility has received special ratemaking treatment in any recent CCN proceeding 16 to address the regulatory lag associated with placing a new power plant 17 18 into commercial operation. The regulatory treatment of the proposed 19 Wind Plants is more appropriately addressed in a future general rate 20 21 SPS overstates the impact of regulatory lag. First, there are several 22 options available for mitigating any purported regulatory lag, including 23 (1) seeking CWIP in rate base, (2) obtaining interim rates, or (3) making 24 a post-test year adjustment. Second, rather than being harmful, 25 regulatory lag often benefits a utility. This is because a utility can fully 26 recover and earn a full return (and more) on its investment in new 27 generation capacity.

### 2. OVERVIEW OF THE PROPOSED WIND PLANTS

•	Q	FOR WHAT FACILITIES IS SPS SEEKING A CERTIFICATE OF CONVENIENCE
2		AND NECESSITY IN THIS PROCEEDING?
3	Α	SPS is seeking a Certificate of Convenience and Necessity (CCN) to build two wind
4		generation facilities:
5 6		<ul> <li>A 478 megawatt (MW) wind generating plant and associated facilities located in Hale County, Texas (Hale); and</li> </ul>
7 8		<ul> <li>A 522 MW wind generating plant and associated facilities in Roosevelt County, New Mexico (Sagamore).<sup>1</sup></li> </ul>
9		SPS anticipates placing the Hale and Sagamore plants (collectively the Wind Plants)
10		in service in June 2019 (Hale) and May 2020 (Sagamore). <sup>2</sup> The estimated cost to
11		construct the Wind Plants is \$1.634 billion, which translates into an average installed
12		cost of \$1,634 per kilowatt (kW).3 This includes the estimated investment in the power
13		producing facilities, the cost of transmission interconnections, \$20 million in
14		contingencies, and \$55 million of allowance for funds used during construction
15		(AFUDC). <sup>4</sup>
16	Q	WAS SPS'S DECISION TO DEVELOP THE WIND PLANTS THE RESULT OF A
17		COMPETITIVE PROCUREMENT PROCESS?
18	Α	No. SPS did not conduct a request for proposals (RFP) or other similar competitive
19		process. Accordingly, it is not possible to compare SPS's cost of building the Wind



<sup>&</sup>lt;sup>1</sup> Application at 3.

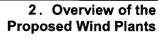
<sup>&</sup>lt;sup>2</sup> Direct Testimony of Riley Hill at 43.

<sup>&</sup>lt;sup>3</sup> Application at 7-8.

<sup>&</sup>lt;sup>4</sup> Direct Testimony of Mary P. Schell at 10.

1		Plants with the full range of options that a RFP might have yielded, including a PPA of
2		similar magnitude.
3	Q	ARE YOU AWARE OF ANY OTHER UTILITY THAT IS CONDUCTING AN RFP AS
4		A PREREQUISITE TO ADDING SIGNIFICANT WIND GENERATION?
5	Α	Yes. Recently, PacifiCorp announced that it is seeking proposals to build new wind
6		projects by 2020 as part of the company's broader wind and transmission expansion
7		plan, and it issued a RFP on September 27. The PacifiCorp RFP was reported in SNL.
8		Specifically:
9 10 11 12 13 14		The request for proposal, or RFP, issued Sept. 27 is seeking cost-competitive bids for up to 1,270 MW of wind energy interconnecting with or delivering to PacifiCorp's Wyoming system and any additional wind energy located outside of Wyoming that will reduce system costs and provide net benefits for customers. The exact capacity of the new resources will depend upon response from the market, PacifiCorp said.
15		SNL reported that the Oregon and Utah commissions had approved the RFP and that
16		PacifiCorp expected to complete the projects by 2020 to allow customers to realize
17		the full benefit of federal production tax credits and provide a net savings over the life
18		of the projects. <sup>5</sup>
19	Q	WHAT ARE THE PROJECTED BENEFITS TO SPS AND ITS SHAREHOLDERS
20		FROM THE PROPOSED WIND PROJECTS?
21	Α	These facilities would be included in SPS's rate base and SPS would earn a return on
22		the invested capital. The Wind Plants would generate in excess of \$500 million of total
23		additional return on equity to SPS shareholders.

<sup>&</sup>lt;sup>5</sup> S&P Global Market Intelligence, Article: *PacifiCorp seeks bids for up to 1,720 MW of new wind*, by Kelly Andrejasich (September 28, 2017).





#### 1 Q HOW HAS SPS CHARACTERIZED THE ECONOMICS OF THE WIND PLANTS?

In its testimony, SPS asserts that the Wind Plants will provide \$2.8 billion in savings for ratepayers over the next 30 years,<sup>6</sup> and it characterizes the projects as "an exciting opportunity to reduce costs for our customers and produce numerous other economic benefits in the region..." SPS presentations produced in discovery in this case reflect a similar level of optimism. For example, a February 2017 presentation summarizes the Wind Plants opportunity as follows:

No Regrets: Saves Customers Money Under Any Reasonable Scenario<sup>8</sup>

# Q PLEASE SUMMARIZE SPS'S CALCULATIONS OF THE POTENTIAL BENEFIT TO RATEPAYERS FROM THE WIND PLANTS.

The projected benefits associated with the Wind Plants are approximately \$1,024 million on a NPV basis company-wide. The breakdown of the \$1,024 million company-wide NPV savings is provided in Table 1.

Table Updated Projected Costs and Total Com (\$ Millio	Benefits of Wi pany	nd Plants*
Description	Net Present Value	Nominal
Revenue Requirement Excl. PTC	\$2,142.9	\$4,627.7
PTC	(\$1,203.6)	(\$1,923.3)
Fuel Savings	(\$1,963.1)	(\$5,044.4)
Net Savings	\$1,023.8	\$2,339.9

<sup>&</sup>lt;sup>6</sup> Direct Testimony of David T. Hudson at 4.

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<sup>&</sup>lt;sup>7</sup> Id. at 10.

<sup>&</sup>lt;sup>8</sup> SPS Supplemental Response to TIEC 3-2, Exhibit SPS-TIEC 3-2(SUPP1) at 24 of 58.

1 The corresponding Texas retail costs and benefits are shown in Table 2.

Table 2
Updated Projected Costs and Benefits of Wind Plants\*
Texas Retail
(\$ Millions)

	Net Present	
Description	Value	Nominal
Revenue Requirement Excl. PTC	\$1,239.2	\$2,676.0
PTC	(\$696.0)	(\$1,112.1)
Fuel Savings	(\$1,135.2)	(\$2,917.0)
Net Savings	\$592.0	\$1,353.1

2 As the tables demonstrate, the net savings are critically dependent on several key assumptions. The key assumptions include:

- An installed cost not exceeding \$1.634 billion;
- Eligibility to receive 100% of the PTCs over the first ten operating years;
   and
  - Fuel savings based on the amount and value of the energy that the proposed Wind Plants would displace.

### 9 Q DO TABLES 1 AND 2 ACCURATELY QUANTIFY THE RATEPAYER BENEFITS

#### FROM THE PROPOSED WIND PLANTS?

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11 A No. SPS quantified the benefits from the Wind Plants based on an assumption that
12 100% of all margins from off-system sales are refunded to customers. Currently, SPS
13 is allowed to retain 10% or approximately \$53 million (NPV) of off-system sales
14 margins.<sup>9</sup> By assuming 100% of these margins benefit customers, SPS is overstating

<sup>&</sup>lt;sup>9</sup> P.U.C. SUBST. R. 25.236(a)(9). The justifications for allowing a utility to keep 10% of off-system sales margins from plants in rate base no longer apply given the advent of the SPP Integrated Market. Reconsideration of that practice, however, is outside the proper scope of this CCN proceeding.

1		the customer benefits and understating the shareholder's benefits from the proposed
2		Wind Plants.
3	Q	ARE BENEFITS THAT SPS'S SHAREHOLDERS WOULD DERIVE FROM THE
4		WIND PLANTS AS UNCERTAIN AS THE RATEPAYER BENEFITS?
5	Α	No. While the projected net savings for ratepayers are highly dependent upon
6		numerous assumptions, there is little doubt about three aspects of the proposal.
7		<ul> <li>Absent any PTCs, the Wind Plants would not be economical;</li> </ul>
8 9 10		<ul> <li>Including the Wind Plants in rate base would increase annual Texas base revenue requirements by about \$116.6 million in the year 2021 excluding PTCs, and varying amounts thereafter;<sup>10</sup> and</li> </ul>
11 12 13 14		<ul> <li>SPS shareholders would earn approximately \$495 million of incremental income (on its total invested capital in the Wind Plants) over the life of the facilities plus 10% of any incremental off-system sales margins.</li> </ul>
15	Q	WHY DO YOU CHARACTERIZE THE RATEPAYER BENEFITS AS UNCERTAIN?
16	Α	The estimated ratepayer benefits are highly sensitive to the assumptions employed.
17		For example, the benefits quantified in Tables 1 and 2 above assume a levelized
18		natural gas price of \$4.40 per MMBtu. <sup>11</sup> SPS has also conducted what it characterizes
19		as a low-gas scenario with a projected levelized price of \$3.50 per MMBtu. Changing
20		this one variable reduces the NPV of the projected fuel savings by \$402 million and
21		\$232 million on a total company and Texas retail basis, respectively. At lower gas
22		prices and/or lower capacity factors, the projected ratepayer benefits would decline
23		further or even disappear altogether.



<sup>&</sup>lt;sup>10</sup> Direct Testimony of Evan D. Evans, Attachment EDE-2, WPK – 2021 Wind Projects Impact.

<sup>&</sup>lt;sup>11</sup> SPS Supplemental Response to TIEC 1-6, Exhibit SPS-TIEC Exhibit 1-6.2 (SUPP1), JSA-2-U.

1	Q	ARE THERE OTHER VARIABLES THAT COULD AFFECT THE ECONOMICS OF
2		THESE PLANTS?
3	Α	Yes. Construction cost changes, operation and maintenance expense changes, the
4		availability of PTCs, and SPS's AFUDC rate are among the other variables that could
5		affect SPS's estimate or the cost savings.
6	Q	DO YOU HAVE ANY OTHER CONCERNS ABOUT SPS'S QUANTIFICATION OF
7		THE BENEFITS OF THE PROPOSED WIND PLANTS?
8	Α	Yes. The projected benefits were based on a comparison of SPS's system costs with
9		(i.e., the change case) and without (i.e., the base case) the proposed Wind Plants.
10		However, SPS has not demonstrated that either case is optimal; that is, whether it
11		would result in the lowest overall costs. For example, an optimized resource plan
12		without the proposed Wind Projects might have included additional renewable or other
13		resources installed in future years as may be required by system needs. The
14		assumption that the base case without the Wind Plants would be devoid of any
15		additional renewable energy resources raises a concern that the benefits associated

with the proposed Wind Plants may be overstated.

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### 3. RISK ASSESSMENT

1	Q	DO THE PROPOSED WIND PLANTS POSE ANY RISKS FOR SPS'S TEXAS
2		RETAIL CUSTOMERS?
3	Α	Yes. The proposed Wind Plants are very capital intensive. Whether Texas retail
4		customers realize any benefits from the Wind Plants will ultimately depend on the cost
5		of the plants, how well the plants perform, the value of the energy that the Wind Plants
6		will displace, and whether the plants are fully eligible for the PTCs. Texas retail
7		customers would be exposed to the following risks:
8 9 10 11		<ul> <li>Construction Costs: Hale and Sagamore are SPS's first self-build wind plants. The projected construction costs are low relative to other recently completed wind plants. Further, SPS is not proposing to cap the installed costs.</li> </ul>
12 13 14 15 16 17 18		<ul> <li>Performance: The projected fuel savings are based on an assumption that the Wind Plants will operate at capacity factors that no other wind plants have thus far achieved on a sustained basis. Further, the projected fuel savings reflect optimistic assumptions about the value of displaced energy. Despite these optimistic projections and the fact that fuel savings are also critical to creating ratepayer benefits, SPS is not proposing any performance standards, such as a minimum annual net capacity factor.</li> </ul>
20 21		<ul> <li>PTCs: Absent qualifying for PTCs, the costs of the Wind Plants would far exceed the potential benefits.</li> </ul>
22	Cons	truction Cost Risk
23	Q	IS THERE ANY UNCERTAINTY SURROUNDING THE PROJECTED
24		CONSTRUCTION COST OF THE PROPOSED WIND PLANTS?
25	Α	Yes. Hale and Sagamore would be the first wind plants built by SPS. All of SPS's
26		other wind resources have been acquired through various PPAs. Despite its lack of
27		experience, SPS's expected construction cost is low compared with other wind farms
28		recently placed in service. This is demonstrated in Exhibit JP-1.

1		As can be seen in Exhibit JP-1, the installed costs of these other wind farms
2		have ranged from \$1,447 per kW to \$1,953 per kW. The projected installed cost of
3		the Hale and Sagamore plants is \$1,634 per kW. Relative to Hale and Sagamore, the
4		variance in the installed costs ranges from -13% to +16%. In addition, none of the
5		listed wind farms are equipped with the more advanced and more expensive Vestas
6		V110 and V116-2MW turbines that are proposed for the Hale and Sagamore plants.
7		The higher cost of these turbines is due to the fact that the supporting structures are
8		taller and the blades are much longer than the wind farms that were recently placed in
9		service. Because the wind farms listed in Exhibit JP-1 were installed in 2015 and
0		2016, the installed costs also do not reflect inflation through 2020.
1	Q	IS THERE ANY EVIDENCE THAT USE OF THE MORE ADVANCED VESTAS WIND
12		TURBINES WOULD AFFECT THE INSTALLED COSTS?
13	Α	Yes. MidAmerican Energy Company is also using the Vestas V110-2MW turbines in
14		wind farms that it is currently building, which will be placed in operation in the 2018-
15		2019 timeframe. Last year, the Iowa Utilities Board certified these projects at an
6		installed cost of \$1,792 per kW. <sup>12</sup> This is about 10% higher than SPS's estimated
17		construction cost.
8	Q	IF THE HALE AND SAGAMORE PLANTS WERE TO COST 10% MORE TO
9		CONSTRUCT THAN SPS IS PROPOSING, HOW WOULD THIS AFFECT THE
20		PROJECTED BENEFITS?
21	Α	If SPS were to experience a 10% construction cost overrun, it would reduce the

<sup>&</sup>lt;sup>12</sup> In Re MidAmerican Energy Company, Docket No. RPU-2016-0001, Order Approving Settlement with Reporting Requirements (Aug. 26, 2016). See also Revised Stipulation and Agreement at 2 (Aug. 22, 2016).

1 projected net benefits of the Wind Plants by \$158 million (NPV) on a total company 2 basis.13 3 Q HAS SPS INDICATED THAT THERE COULD BE AN INCREASE IN THE 4 PROJECTED CONSTRUCTION COSTS? 5 Α Yes. SPS has indicated that the wind turbines would need to be reconfigured, which 6 will add costs. SPS was not able to quantify those costs at this time.<sup>14</sup> 7 Q WHAT DO YOU CONCLUDE? 8 Α Considering the cost of wind farms recently placed in service, including the proposed 9 MidAmerican Energy Company wind farms (which use the same advanced 10 technology), coupled with the fact that this is SPS's first self-build wind project, I 11 conclude that there is a reasonable possibility that SPS could incur higher construction 12 costs than it is currently estimating. Higher construction costs would reduce the 13 projected net benefits of the Wind Plants. In conjunction with other factors discussed 14 below, the benefits could be eliminated altogether. 15 **Performance** 16 O WHAT FACTORS DEFINE THE PERFORMANCE OF THE PROPOSED WIND

The performance of the Wind Plants can be evaluated using two metrics. The first

metric is operational; that is, how much energy is actually produced. As discussed

**PLANTS?** 

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<sup>13 \$158</sup> million is the difference between the projected NPV savings of \$720 million at the projected installed cost (Exhibit JSA-3-U, as provided in SPS's Response to TIEC 1-6.2 SUPP1) and \$562 million (provided during the September 27, 2017 Technical Conference) assuming a 10% increase in construction costs. Both amounts were calculated under SPS's low-gas price scenario.

<sup>&</sup>lt;sup>14</sup> Technical Conference, September 27, 2017.

1		below, energy production is typically measured by the capacity factor. The second
2		metric is economic; that is, what is the value of the resources that would be displaced
3		by the Wind Plants. With the proposed Wind Plants in full operation, SPS would not
4		have to generate as much energy from its thermal generation (both coal and gas)
5		resources, and it can avoid purchasing energy from the market. Thus, the Wind Plants
6		would displace the energy generated from SPS-owned thermal resources as well as
7		market purchases.
8	Q	WHAT ASSUMPTIONS IS SPS MAKING ABOUT THE AMOUNT OF ENERGY
9		THAT WOULD BE PRODUCED FROM THE WIND PLANTS?
10	Α	SPS is claiming that the Wind Plants will operate at average annual capacity factors
11		of 53.7% (Hale) and 53.8% (Sagamore). <sup>15</sup>
12	Q	WHAT DO YOU MEAN BY CAPACITY FACTOR?
13	Α	Capacity factor is a measure of the amount of energy generated from a generating
14		resource. It is derived by dividing the annual net generation by the product of the
15		nameplate capacity and the number of hours in the measurement period (i.e., 8,760
16		hours in a typical year).
17	Q	HOW DID SPS DETERMINE THE CAPACITY FACTORS OF THE PROPOSED
18		WIND PLANTS?
19	Α	SPS retained AWS Truepower, LLC (AWS) to conduct an analysis of the projected

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output of the two wind plants. That analysis concluded that there is a 99% confidence

that the annual capacity factor of the Hale and Sagamore plants would exceed 44.5%

<sup>&</sup>lt;sup>15</sup> SPS Supplemental Response to TIEC 1-6 at 9.

- and 42.5%, respectively. Note that these levels are approximately 20% below those used in SPS's analysis of the economics of those plants.
- 3 Q DO YOU HAVE ANY CONCERNS ABOUT THE AWS ANALYSIS?
- Yes. AWS assigned zero risk to certain potential scenarios. For example, AWS only assigns a risk for environmental curtailments if the utility requests that it do so, and SPS made no such request. Accordingly, AWS assumed that there was a 100% probability that there would never be an environmental curtailment over the 25 year life of the facility. AWS did not explain how it could be 100% certain that no such curtailment could ever happen.
- 10 Q WHAT IS AWS'S HISTORY OF PROJECTING PERFORMANCE FROM WIND
- 11 **PLANTS?**
- Based on a 2012 Backcast Study, AWS observed that other wind plants for which it had previously calculated production estimates had underperformed by 3.6% on average. It follows that some wind plants have experienced more than a 3.6% underperformance.
- 16 Q WHY IS CAPACITY FACTOR A POTENTIAL RISK?
- A 54% annual capacity factor is high relative to wind farms located within 100 miles of either the Hale or the Sagamore sites. **Exhibit JP-2** lists the capacity factors achieved in 2016 for wind farms that are within 100 miles of either the Hale or Sagamore wind

<sup>&</sup>lt;sup>16</sup> SPS Supplemental Response to TIEC 1-6, Exhibit SPS-TIEC 1-6.1 (SUPP1) at 6; Direct Testimony of David P. Deluca, Attachment DPD-1 at 39.

<sup>&</sup>lt;sup>17</sup> Direct Testimony of David P. Deluca, Attachment DPD-1 at 44; Technical Conference, September 27, 2017.

<sup>&</sup>lt;sup>18</sup> SPS Response to AXM 7-13, Exhibit SPS-AXM 7-13.1 at 2.

i		plants. Each of these wind farms were placed in service in 2015 and were in full
2		operation during 2016. As can be seen, these nearby wind farms have achieved
3		capacity factors ranging from 36.5% to 52.1%, with an average 44% capacity factor.
4		Thus, none of the nearby wind farms have achieved the higher 54% annual capacity
5		factors that SPS is projecting for the Hale and Sagamore plants.
6	Q	SHOULD THE HALE AND SAGAMORE PLANTS ACHIEVE HIGHER ANNUAL
7		CAPACITY FACTORS THAN SOME OTHER WIND FARMS?
8	Α	Yes. As previously stated, the Hale and Sagamore plants will be equipped with more
9		advanced Vestas V110 and V116 turbines than the wind farms listed in <b>Exhibit JP-2</b> .
10		Accordingly, one would expect that the proposed Wind Plants will achieve higher
11		capacity factors than the nearby wind farms based on the use of more advanced
12		technology.
13	Q	WHAT WOULD BE THE RESULT IF THE WIND PLANTS DO NOT ACHIEVE THE
14		EXPECTED CAPACITY FACTOR?
15	Α	If the Wind Plants were to achieve only a 44% average annual capacity factor, the
16		calculated fuel savings would be about \$356 million NPV (total company) below SPS's
17		projections. As discussed below, the expected fuel savings are directly related to the
18		projected market prices (which are also highly uncertain).
19	Q	WOULD ACHIEVING THE 54% PROJECTED AVERAGE ANNUAL CAPACITY
20		FACTOR GUARANTEE THAT RATEPAYERS WILL RECEIVE ANY FUEL
21		SAVINGS BENEFITS FROM THE WIND PLANTS?
22	Α	No. The capacity factors of the proposed Wind Plants are only one variable. Another
23		major variable is the value of the displaced energy that would have otherwise been

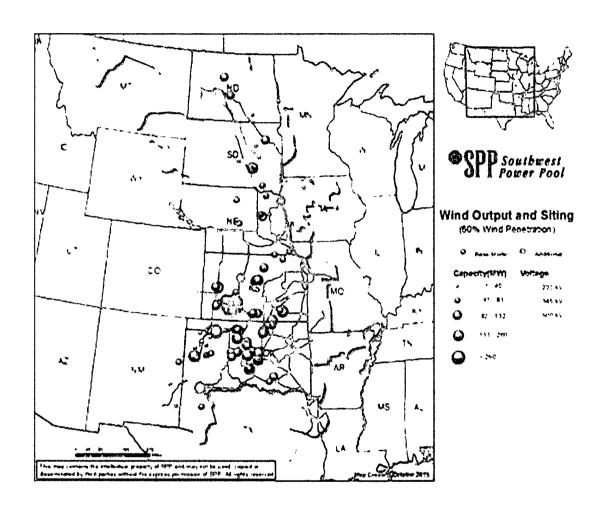
1		generated or purchased by SPS. The displaced energy value is a function of the then-
2		prevailing locational marginal prices (LMPs). Thus, even if the Wind Plants were to
3		operate at a 54% average annual capacity factor, it would not necessarily achieve the
4		projected fuel savings.
5	Q	HOW DID SPS QUANTIFY THE DISPLACED ENERGY VALUE OF THE WIND
6		PLANTS?
7	Α	SPS used the Strategist production cost simulation model to quantify the production
8		costs on the SPS system. Specifically, SPS ran two Strategist cost simulations: with
9		and without the proposed Wind Plants. The production cost differential between these
10		two simulations determined the value of displaced energy. SPS also used PROMOD
11		to provide a check on the Strategist model results.
12	Q	WHY WOULD SPS USE PROMOD TO CHECK THE STRATEGIST MODEL
. —		
13		RESULTS?
	A	RESULTS?  Strategist is not a regional production cost simulation model. Specifically, Strategist
13	Α	
13 14	Α	Strategist is not a regional production cost simulation model. Specifically, Strategist
13 14 15	Α	Strategist is not a regional production cost simulation model. Specifically, Strategist models the dynamic interactions that occur within the SPS system. However,
13 14 15 16	Α	Strategist is not a regional production cost simulation model. Specifically, Strategist models the dynamic interactions that occur within the SPS system. However, Strategist models SPP as a discrete capacity resource having specific hourly costs,
13 14 15 16 17	Α	Strategist is not a regional production cost simulation model. Specifically, Strategist models the dynamic interactions that occur within the SPS system. However, Strategist models SPP as a discrete capacity resource having specific hourly costs, which are derived externally. Thus, Strategist cannot model, for example, changes in
13 14 15 16 17 18	Α	Strategist is not a regional production cost simulation model. Specifically, Strategist models the dynamic interactions that occur within the SPS system. However, Strategist models SPP as a discrete capacity resource having specific hourly costs, which are derived externally. Thus, Strategist cannot model, for example, changes in transmission topography, which affect power flows throughout the broader SPP
13 14 15 16 17 18	Α	Strategist is not a regional production cost simulation model. Specifically, Strategist models the dynamic interactions that occur within the SPS system. However, Strategist models SPP as a discrete capacity resource having specific hourly costs, which are derived externally. Thus, Strategist cannot model, for example, changes in transmission topography, which affect power flows throughout the broader SPP region, and it cannot model resource additions and retirements beyond the SPS
13 14 15 16 17 18 19	A	Strategist is not a regional production cost simulation model. Specifically, Strategist models the dynamic interactions that occur within the SPS system. However, Strategist models SPP as a discrete capacity resource having specific hourly costs, which are derived externally. Thus, Strategist cannot model, for example, changes in transmission topography, which affect power flows throughout the broader SPP region, and it cannot model resource additions and retirements beyond the SPS system that could impact LMPs on the SPS system.

1	u	DOES 5PS'S USE OF PROMOD COMPENSATE FOR THE LIMITATIONS OF THE
2		STRATEGIST MODEL?
3	Α	No, not necessarily. As previously stated, PROMOD is capable of simulating the
4		generation and bulk power transmission system for the entire SPP region, as well as
5		neighboring regions. However, the PROMOD models used by SPS were only capable
6		of simulating only two years, 2020 and 2025, of the 25-year lives of the proposed Wind
7		Plants. This required SPS to interpolate the PROMOD-derived 2020 and 2025 LMPs
8		to estimate the 2021-2024 LMPs and then extrapolate the 2025 PROMOD-derived
9		LMPS to estimate the 2026-2045 market prices.
10	Q	DO THE STRATEGIST AND PROMOD MODEL RUNS PROVIDE A DEFINITIVE
11		DETERMINATION OF THE DISPLACED ENERGY VALUE?
12	Α	No. Strategist and PROMOD are modeling tools designed to estimate the value of
13		energy that would be displaced by the proposed Wind Plants. Further, because the
14		regional production cost simulations derived from PROMOD were for only two discrete
15		years, even if the results are consistent with Strategist, two data points is not sufficient
16		to validate the projected market prices over a 25-year period.
17	Q	ARE THERE ANY PARTICULAR CIRCUMSTANCES THAT COULD HAVE AN
18		ESPECIALLY SIGNIFICANT IMPACT ON THE VALUE OF DISPLACED ENERGY?
19	Α	Yes. The SPP region is experiencing ever-increasing amounts of renewable
20		resources. Currently, SPP's generation queue includes over 50,000 MW of additional
21		renewable energy (wind and solar) resources with commercial operating dates in 2017
22		and beyond. This includes the recently announced American Electric Power (AEP)
23		Wind Catcher project, which would add 2,000 MW of wind generation in western

1		Oklahoma. <sup>19</sup>
2	Q	IS IT REASONABLE TO EXPECT THAT ALL 50,000 MW OF RENEWABLE
3		ENERGY RESOURCES CURRENTLY IN SPP'S GENERATION QUEUE WILL
4		ULTIMATELY BE DEVELOPED?
5	Α	No. However, if only 10% of these resources are placed in service, in addition to the
6		pending AEP Wind Catcher and SPS Wind Plants, it would increase the amount of
7		renewable energy resources in SPP by about 7,700 MW. This represents a nearly
8		50% increase in the amount of renewable energy resources in the SPP.
9	Q	WHERE ARE MOST OF THE WIND RESOURCES BEING LOCATED IN SPP?
3	•	WHERE ARE MOOT OF THE WIND REGOONGED BEING EGGATED IN OFF
10	Α	The current and projected wind resources are shown on the map below.

<sup>&</sup>lt;sup>19</sup> Application of Southwestern Electric Power Company for Certificate of Convenience and Necessity Authorization and Related Relief for the Wind Catcher Energy Connection Project, Docket No. 47461, Petition at 3 (Jul. 31, 2017).

# **60% Wind Penetration Map**



Source: SPP

- 1 Q HOW WOULD A LARGE CONCENTRATION OF WIND RESOURCES IN THIS
- 2 PART OF SPP AFFECT REGIONAL MARKET PRICES?
- 3 A The expected high penetration (60% according to SPP) of wind resources would put
- 4 significant downward pressure on market prices. This is because, in the SPP

Integrated Market, generation is dispatched in merit order from low to high cost based on the price offer curves submitted by competing generators. The price offered by the generator that meets the system need sets the market clearing price or LMP.

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In general, the price offers reflect a generator's marginal costs. Wind generators typically bid negative prices because the PTCs reflect their marginal cost. However, even without the PTC, wind generators could bid a zero price because there are no fuel and other variable costs associated with a wind plant. As more wind energy is offered into the market (at a zero or negative price), it will displace other (primarily non-renewable) resources that have higher marginal operating costs, thereby suppressing the LMP. All other things equal, lower LMPs would reduce the value of energy displaced by the proposed wind projects

# Q PLEASE SUMMARIZE YOUR CONCERNS REGARDING THE PERFORMANCE OF THE PROPOSED WIND PLANTS.

SPS's projections of the costs and benefits of the proposed Wind Plants are optimistic. The projected construction costs are low relative to the actual costs of wind plants placed in service in 2015-2016, while the projected average annual capacity factors are high relative to those that have been achieved by wind resources placed in service in 2015.

However, even if the annual capacity factors are as SPS projects, everincreasing amounts of wind development in the SPP could depress market prices. This would, in turn, reduce the value of energy that would be displaced by the proposed Wind Plants and lower the projected fuel savings. Thus, even if SPS's optimistic capacity factor projections are realized, they may not be sufficient to generate the fuel savings necessary to offset the very high installed cost of the proposed Wind Plants.

#### 3 Production Tax Credits

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#### Q WHAT ARE THE PRODUCTION TAX CREDITS?

The PTCs are credits that eligible generators receive for every kWh that they generate. The projected PTCs are shown in Table 3 below. As the table demonstrates, qualifying wind generators will receive a tax credit ranging from 2.48¢ to over 3¢ per kWh generated in the years 2019-2029. Each eligible generator receives PTCs for the first 10 years of operation. Thus, the PTCs shown in Table 3 are representative of the tax credits that SPS may receive if the Hale and Sagamore plants are placed in service.

Table 3
Production Tax Credits
(¢ per kWh)

Year	Amount
2019	2.48
2020	2.53
2021	2.58
2022	2.63
2023	2.69
2024	2.74
2025	2.80
2026	2.86
2027	2.91
2028	2.97
2029	3.03

Source: Attachment APF-4.1.

#### 11 Q IS SPS ELIGIBLE TO RECEIVE THE PTCS FOR THE PROPOSED WIND PLANTS?

12 A Yes. SPS is currently eligible to receive the PTCs shown in Table 3 above. However,
13 SPS will not receive the PTCs for any turbines that are not placed in commercial

1		operation prior to January 1, 2021. As previously stated, SPS's continued eligibility to
2		receive the projected PTCs is key to the economics of the proposed Wind Plants.
3	Q	IS THERE ANY RISK THAT SOME OF THE PROPOSED WIND TURBINES WOULD
4		NOT QUALIFY FOR THE PTCS?
5	Α	Yes. SPS anticipates that the Sagamore plant would be placed in commercial
6		operation in May 2020. This is only seven months prior to the qualification deadline.
7		Any significant slippage in the construction schedule could jeopardize SPS's eligibility
8		to receive PTCs. With utilities around the country vying to install substantial amounts
9		of wind capacity to qualify for PTCs, it will put stress on both wind turbine
10		manufacturers and the demand for the necessary labor and equipment required to
11		commission a large wind farm. Hence, there is some risk that SPS will not be able to
12		meet the 2020 deadline for all 261 of the wind turbines planned for Sagamore.
12 13	Q	meet the 2020 deadline for all 261 of the wind turbines planned for Sagamore.  HAS SPS MADE ANY COMMITMENT THAT WOULD GUARANTEE THAT THE
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13	Q	HAS SPS MADE ANY COMMITMENT THAT WOULD GUARANTEE THAT THE
13 14	<b>Q</b> A	HAS SPS MADE ANY COMMITMENT THAT WOULD GUARANTEE THAT THE ENTIRETY OF THE PROPOSED WIND PLANTS WOULD BE ELIGIBLE FOR THE
13 14 15		HAS SPS MADE ANY COMMITMENT THAT WOULD GUARANTEE THAT THE ENTIRETY OF THE PROPOSED WIND PLANTS WOULD BE ELIGIBLE FOR THE PTCS?
13 14 15 16		HAS SPS MADE ANY COMMITMENT THAT WOULD GUARANTEE THAT THE ENTIRETY OF THE PROPOSED WIND PLANTS WOULD BE ELIGIBLE FOR THE PTCS?  No. Without such a guarantee, Texas retail customers are at risk that some or all of
13 14 15 16		HAS SPS MADE ANY COMMITMENT THAT WOULD GUARANTEE THAT THE ENTIRETY OF THE PROPOSED WIND PLANTS WOULD BE ELIGIBLE FOR THE PTCS?  No. Without such a guarantee, Texas retail customers are at risk that some or all of the investment in the proposed Wind Plants would not be eligible for the PTCs, which
113 114 115 116 117	Α	HAS SPS MADE ANY COMMITMENT THAT WOULD GUARANTEE THAT THE ENTIRETY OF THE PROPOSED WIND PLANTS WOULD BE ELIGIBLE FOR THE PTCS?  No. Without such a guarantee, Texas retail customers are at risk that some or all of the investment in the proposed Wind Plants would not be eligible for the PTCs, which would likely make them uneconomic resources.
113 114 115 116 117 118	Α	HAS SPS MADE ANY COMMITMENT THAT WOULD GUARANTEE THAT THE ENTIRETY OF THE PROPOSED WIND PLANTS WOULD BE ELIGIBLE FOR THE PTCS?  No. Without such a guarantee, Texas retail customers are at risk that some or all of the investment in the proposed Wind Plants would not be eligible for the PTCs, which would likely make them uneconomic resources.  HOW WOULD SPS'S ESTIMATE OF THE TOTAL PTCS BE AFFECTED BY THE

#### 1 Q PLEASE SUMMARIZE YOUR RISK ASSESSMENT. 2 Α Even assuming that SPS's economic analysis is sound, there are significant risks that 3 the projected benefits may not materialize. Yet, there is virtually no doubt that the 4 Wind Projects would increase Texas retail base revenues by about \$116 million 5 (assuming no construction cost overruns) and that SPS shareholders would receive 6 over \$500 million in additional earnings (in total for both plants) regardless of whether 7 the benefits actually materialize. Accordingly, without a more balanced risk 8 apportionment, granting a CCN for the proposed Wind Plants would not be in the public 9 interest. 10 Ratepayer Protections 11 Q WHAT STEPS CAN BE TAKEN TO ESTABLISH A MORE BALANCED RISK 12 **APPORTIONMENT BETWEEN SPS AND TEXAS RETAIL CUSTOMERS?** 13 Α There are several measures that could provide a more balanced risk apportionment, 14 including: 15 Imposing a cap on the construction costs: 16 Establishing a performance standard for the proposed Wind Plants; and 17 Providing a guarantee that the Wind Plants are fully eligible to receive 18 PTCs and that all PTCs will be flowed through to Texas retail 19 customers. 20 Q **HOW WOULD A CAP ON CONSTRUCTION COST BE STRUCTURED?** 21 Α A construction cost cap would include all of the costs to construct and interconnect the 22 Wind Plants to SPS's transmission system. Thus, in addition to the wind turbines, the

cap would also include interconnection and integration costs as well as financing costs

(i.e., AFUDC). Because the installed costs will also depend on the number of wind

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turbines, the cap should be expressed in dollars per kW. SPS would be permitted to 1 2 recover actual reasonable costs up to the amount of the cap, but no more. WHAT COST CAP DO YOU RECOMMEND? 3 Q I recommend a cost cap of \$1,634 per kW, which is SPS's projected construction cost 4 Α 5 of the proposed Wind Plants. Q SHOULD ANY OTHER ALLOWANCES BE REFLECTED IN THE CONSTRUCTION 6 7 **COST CAP?** 8 Α No. The projected installed cost already includes a contingency. HAS THE COMMISSION PREVIOUSLY APPROVED COST CAPS FOR NEW 9 Q 10 LARGE GENERATION FACILITIES? 11 Yes. In Docket No. 33891, the Commission approved a cost cap for the Turk Plant Α 12 constructed by Southwestern Electric Power Company (SWEPCO).20 Recently, in 13 Docket No. 46416, the Commission also approved a cost cap for the Montgomery County Power Station that Entergy Texas, Inc. (ETI) is constructing.<sup>21</sup> Both Dockets 14 15 were requests for a CCN similar to this proceeding. Further, the approved cost caps 16 were based on the utility's projected construction costs of the proposed plants. 17 WOULD PERFORMANCE STANDARDS ALSO HELP TO REBALANCE THE Q 18 RISKS ASSOCIATED WITH THE PROPOSED WIND PLANTS?

Yes. As previously discussed, the amount of energy generated from the proposed

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<sup>&</sup>lt;sup>21</sup> Application of Entergy Texas, Inc. to Amend its Certificate of Convenience and Necessity to Construct Montgomery County Power Station in Montgomery County, Docket No. 46416, Order at FoF 25 (July 28, 2017).





<sup>&</sup>lt;sup>20</sup> Application of Southwestern Electric Power Company for A Certificate of Convenience and Necessity Authorization for Coal Fired Power Plant in Arkansas, Docket No. 33891, Order at 7 (Aug. 12, 2008).

Wind Plants is critical to determining the amount of PTCs that SPS will receive and whether and to what extent SPS realizes any fuel cost savings. The most logical performance standard would be to require that the Wind Plants achieve a minimum annual capacity factor. In the event that the minimum annual capacity factor standard is not met, ratepayers would be held harmless.

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#### WHAT MINIMUM ANNUAL CAPACITY FACTOR WOULD BE REASONABLE?

Given that SPS's projections are based on average annual capacity factors of 53.7% (Hale) and 53.8% (Sagamore), it would be reasonable to hold SPS to those projections. Alternatively, the Commission could adopt a somewhat lower capacity factor guarantee that would still provide some assurance that the ratepayers would receive sufficient benefits from these plants.

# Q HOW CAN THE COMMISSION ENSURE THAT TEXAS RETAIL CUSTOMERS BENEFIT FROM THE PTCS?

First, as a prerequisite for recovering any of the investment, the Wind Plants must qualify for the PTCs. Any portion of the investment that does not qualify should not be recovered in base rates. Alternatively, if SPS seeks cost recovery, Texas retail customers must be held harmless. This means that SPS should compensate customers for the value of the lost PTCs for any portion of the Wind Plants that do not fully qualify.

Second, to ensure that Texas retail customers receive the full benefits of the PTCs, the Commission should require that all PTCs be included as credits to SPS's eligible fuel expense once each plant is deemed to be in commercial operation.

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## WOULD IMPLEMENTING THESE THREE PROTECTIONS ELIMINATE ALL RISKS

#### **TO TEXAS RETAIL CUSTOMERS?**

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No. As previously stated, the amount of any fuel savings will also depend on future market prices. If LMPs are well below SPS's projections, the expected fuel savings may not fully materialize even if the Wind Plants operate at minimum or higher capacity factors. Further, if the increasing build-out of wind and other renewable generation exceeds the capacity of the regional transmission system, the resulting congestion could further limit the amount of displaced energy. This would constrain not only the amount of fuel savings, but also the PTCs that SPS receives and passes through to Texas retail customers.

In summary, Texas retail customers would continue to face significant risks even if the three protections are implemented. However, the risk apportionment would be more balanced than in the absence of any ratepayer protections.

#### 4. OTHER ISSUES

2	Α	In addition to the CCN, SPS is also requesting that the Commission approve the Bonita
3		PPA in this proceeding, and it has requested unprecedented special regulatory

WHAT OTHER ISSUES ARE RAISED BY SPS'S APPLICATION?

4 treatments based on concerns about the effects of regulatory lag.

#### **Bonita PPA**

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#### Q WHY IS SPS REQUESTING APPROVAL OF THE BONITA PPA?

A SPS has been pursuing wind generation facilities in order to take maximum advantage of the available PTCs. The Hale and Bonita sites were selected as the two of the few available remaining sites in SPS's service area. NextEra owned both the Hale and Bonita sites. NextEra agreed to sell the Hale project to SPS and NextEra committed to develop the Bonita site provided that SPS enter into a PPA with NextEra.<sup>22</sup>

#### Q DO YOU HAVE ANY SPECIFIC CONCERNS ABOUT THE BONITA PPA?

13 A Yes. SPS would be locked-in to a 30-year commitment to purchase wind energy starting at 1.8¢ per kWh. The price would escalate by 2% per year regardless of any change in market or commodity prices. Thus, by year 20 the price would exceed 2.6¢ per kWh. Prior to termination, the price would exceed 3¢.23 Because the contract energy price is not tied to any specific commodity or market index, the PPA could easily become uneconomical if market prices do not keep pace with the escalating energy price.

<sup>&</sup>lt;sup>22</sup> Direct Testimony of Tim Kawakami at 11-12.

<sup>&</sup>lt;sup>23</sup> Id., Attachment TK-1, at 93 (Exhibit J).

#### 1 Q IS THE COST-EFFECTIVENESS OF THE BONITA PPA ALSO SENSITIVE TO 2 **NATURAL GAS PRICES?** 3 Α Yes. The Bonita PPA would be more sensitive to changes in natural gas prices than 4 the Wind Plants. For example, under SPS's base gas price scenario, the Bonita PPA 5 would provide benefits of \$112 million NPV (total company). However, under SPS's 6 low gas price scenario, the estimated benefits would decline to only \$27 million NPV 7 (total company). 8 Q ARE THERE OTHER FACTORS THAT COULD MAKE THE BONITA PPA 9 **UNECONOMICAL?** 10 Α Yes. Wind generation technology is rapidly evolving. Newer wind turbines are capable 11 of generating more power at a more competitive price point. Given this rapid evolution, 12 entering into a 30-year escalating price contract imposes a risk that the PPA could 13 become uneconomical. 14 Another particular concern is that the energy price is fixed even if there is a 15 change in law affecting the economics of the project. For example, if the federal 16 corporate income tax rate is reduced, that could significantly reduce the seller's costs, 17 but it would have no impact whatsoever on the contract energy price.<sup>24</sup> This could 18 negate any actual ratepayer savings from the Bonita PPA, particularly in the later 19 years. 20 Q SHOULD THE COMMISSION PRE-APPROVE THE BONITA PPA IN THIS 21 PROCEEDING? 22 Α No. The Commission is not required to pre-approve a PPA in a CCN proceeding.

4. Other Issues



<sup>&</sup>lt;sup>24</sup> SPS Response to TIEC 6-1.

Further, the Commission typically does not provide pre-approval for PPAs. Absent a formal integrated resource plan process (that would require Commission approval of the utility's future resources, including a PPA), any determination about the prudence of a PPA is more appropriately made in a fuel reconciliation or base rate case after the PPA has commenced. Further, there are serious concerns about whether the PPA would be uneconomical in light of the less-than-favorable pricing and other terms and conditions.

#### Special Regulatory Treatment

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# Q WHAT SPECIAL REGULATORY TREATMENT HAS SPS REQUESTED IN THIS CASE?

SPS is proposing two extraordinary regulatory treatments to address regulatory lag.

The first is the "Cost Reconciliation Mechanism." The second is to include the PTCs that SPS flows through to customers in rate base through the year 2025.

Under the Cost Reconciliation Mechanism, SPS would calculate a deferral each month based on the difference between (1) the revenue requirement for each SPS Wind Plant, and (2) the revenues that SPS would earn by selling the output of each plant into the SPP Integrated Marketplace plus PTCs. If the monthly revenues exceed the monthly revenue requirement, the deferral would be booked as a regulatory liability. If the monthly revenues are less than the monthly revenue requirement, the deferral would be booked as a regulatory asset. After the plants are included in base rates, the cumulative deferral balance would be netted and either refunded (if the regulatory liability exceeds the regulatory asset) or surcharged (if the regulatory asset exceeds the regulatory liability) to customers in a future base rate case.

1 Rate basing the PTCs that SPS credits to customers would allow SPS to earn
2 a return on the accumulated PTCs. SPS asserts that it cannot benefit from PTCs
3 because of net operating losses.<sup>25</sup>

#### 4 Q WHAT IS THE BASIS FOR THESE REQUESTS?

5 A SPS asserts that it cannot afford to wait 8-10 months or more to begin receiving revenues attributable to the wind plants.<sup>26</sup>

#### 7 Q WHAT IS THE BASIS FOR THIS STATEMENT?

SPS's statement is based on a mathematical calculation that the estimated \$1.6 billion investment would increase SPS's total company rate base by about 40% and that SPS could not include any of those costs in rates until at least eight months after commercial operation. Beyond this statement, SPS has provided no evidence that it cannot afford to wait or that it would be harmed by regulatory lag. Further, it ignores various ratemaking alternatives that can be used to allow SPS to place some or all of the cost in rates sooner than SPS projects. Moreover, while regulatory lag may sometimes delay the inclusion of a plant in rate base, it can provide significant benefits to the utility once the plant is placed in rate base.

Q IS IT NECESSARY TO ADDRESS THESE SPECIAL REGULATORY TREATMENTS
IN THIS PROCEEDING BECAUSE CUSTOMERS WOULD BEGIN RECEIVING
BENEFITS FROM THE PROPOSED WIND PLANTS WHEN THEY ARE PLACED IN
COMMERCIAL OPERATION?

21 A No. Once a utility places a new generating resource into service, its customers will

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4. Other Issues



<sup>&</sup>lt;sup>25</sup> Application at 11-12.

<sup>&</sup>lt;sup>26</sup> *Id.* at 11.

begin receiving the benefits from that resource even though the resource has not ye
been included in rate base. <sup>27</sup> This is consistent with how regulation operates in Texas
and in other regulatory jurisdictions. It is not a legitimate reason for fundamentally
changing the rate-setting process to the detriment of SPS's customers. Further, SPS
has not demonstrated how its needs are any more urgent than for the other utilities
that have also placed new generating resources into service.

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### 7 Q IS A CCN PROCEEDING AN APPROPRIATE VENUE TO ADDRESS SPS'S 8 PROPOSED SPECIAL REGULATORY TREATMENTS?

A No. Evaluating SPS's requests would require the type of in-depth operating and financial projections that would be provided in a general rate case. However, SPS has not provided this information, but even if the necessary information had been provided, it would be based on numerous uncertain assumptions and projections because the first of the proposed Wind Plants would not be placed in service until June 2019 (20 months from now). Accordingly, SPS's proposed regulatory treatments are more appropriately addressed in a future rate case.

#### 16 Q DOES SPS HAVE ALTERNATIVES TO MITIGATE REGULATORY LAG?

Yes. First, SPS could seek to include construction work in progress (CWIP) in rate base if the financial impact of the proposed \$1.634 billion plant addition would threaten its financial integrity. SPS could make this request in any rate case filed while the

Utilities routinely tout the prospect of fuel savings associated with a new generating resource in seeking a CCN for that facility. See, e.g., Docket No. 46416, *Direct Testimony of Sallie Rainer* at 17-18 (Oct. 7, 2016); *Application of El Paso Electric Company to Amend its Certificate of Convenience and Necessity for Two Additional Generating Units at the Montana Power Station*, Docket No. 41763, Direct Testimony of Evan D. Evans at 22-23 (Sept. 6, 2013).

plants are under construction, and the rates approved would remain in place until a subsequent rate case.

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Second, recognizing that the proposed Wind Plants will increase SPS's plant investment by more than 10%, SPS could file a rate case and recognize the Wind Plants as a post test-year adjustments consistent with P.U.C. SUBST. R. 25.231(c)(2)(F). This would allow SPS to file a rate case with a relate-back date close to the projected in-service date of each wind plant. For example, assuming that the Hale Plant is placed in service on June 1, 2019, SPS could file a rate case on April 1st using a March 31, 2019 test year. The relate-back date would be September 3<sup>rd</sup>. Thus, SPS would commence recovery of the Hale Plant within three months after it was placed in commercial operation.

A third option would be to seek interim rates so that cost recovery could commence shortly after each wind plant is placed in service. This third alternative was used to minimize regulatory lag when SPS commenced purchasing power under a long-term PPA from the Lea Power Partners Hobbs Plant.<sup>28</sup>

# Q HAVE OTHER UTILITIES REQUIRED SPECIAL RATEMAKING TREATMENT TO ADDRESS THE REGULATORY LAG ASSOCIATED PLACING A NEW POWER PLANT INTO COMMERCIAL OPERATION?

19 A No. El Paso Electric Company (EPE) placed all of its new Montana units in service
20 and was able to include the costs of these units in several base rate cases. Similarly,
21 SWEPCO placed the Stall, Mattison, and Turk plants in service in base rate cases. At

<sup>&</sup>lt;sup>28</sup> Application of Southwestern Public Service Company for Authority to Change Rates, to Reconcile Fuel and Purchased Power Costs for 2006 and 2007, and to Provide a Credit for Fuel Cost Savings, Docket No. 35763, Order No. 6 (Aug. 11, 2008), Order No. 21 (Feb. 2, 2009) and [Final] Order (Jun 2, 2009).

the time, the Turk plant represented a 46% increase in SWEPCO's Texas retail rate base.<sup>29</sup> Neither EPE nor SWEPCO required any special ratemaking treatment to minimize regulatory lag. Further, ETI has just obtained a CCN to construct a \$937.3 million plant without any requirement of special ratemaking treatment.<sup>30</sup>

#### IS REGULATORY LAG ALWAYS TO THE UTILITY'S DETRIMENT?

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No. Regulatory lag means that full cost recovery may not begin precisely on the commercial operation date of a new power plant. However, when a base rate increase is implemented, rates reflect the full undepreciated value of the investment. Further, there is no downward glide path to cost recovery. Thus, it would allow the utility to recover more than its actual cost because the plant is being depreciated over time, which lowers the rate base value. Finally, cost recovery would not cease until the first rate case after the plant is retired.

Although utilities do not receive full cost recovery immediately when a new plant commences operation, Texas regulation provides utilities more than ample opportunity to fully recover the costs of their investment, as evidenced by the fact that every major integrated Texas utility is in the process of expanding its generation assets.

#### Q HOW DOES REGULATORY LAG BENEFIT A UTILITY?

A To illustrate I have prepared **Exhibit JP-3**, which is a graph that shows SPS would incur the costs associated with the proposed Wind Plants (the blue line) and how those costs would be recovered in rates (the red line). It assumes that SPS files two rate

<sup>&</sup>lt;sup>29</sup> Application of Southwestern Electric Power Company for Authority to Change Rates and Reconcile Fuel Costs, Docket No. 40443, Direct Testimony of Randall W. Hamlett at 38.

<sup>&</sup>lt;sup>30</sup> Docket No. 46416, *Order* at FoF 2 (Jul 28, 2017).

cases 60 days after each plant is placed in commercial operation (*i.e.*, August 2019 for Hale and July 2020 for Sagamore) with cost recovery commencing 155 days after the filing dates.

As the chart demonstrates, there would initially be a period of time in which the amount of costs incurred are higher than the amount of costs recovered. However, assuming that subsequent base rate cases occur every four years, the level of cost recovery remains constant until each subsequent rate case. As a result of this regulatory lag, the utility can more than compensate for the lag in recovery during the initial operating years. Finally, once the plants have been retired, the costs will remain in rates until a subsequent rate case.

Based on the example, more costs would be recovered (the blue line) in total than the utility actually incurred (the red line) on a NPV basis.

To summarize, regulatory lag may temporarily prevent a utility from recovering the costs of a new power plant. However, the utility will have more than ample opportunity to fully recover its costs over the life of the plant. Thus, the regulatory lag in Texas ratemaking is not the harmful side-effect SPS asserts.

### 5. CONCLUSION

1	Q	PLEASE SUMMARIZE YOUR RECOMMENDATIONS.
2	Α	My recommendations are as follows:
3 4		<ul> <li>The proposed Wind Plants are not in the public interest without a more balanced apportionment of risk.</li> </ul>
5 6		<ul> <li>If the Commission grants a CCN, it should condition its approval on three specific ratepayer protections:</li> </ul>
7		1. Imposing a cap on the construction costs stated on a per kW basis.
8 9		<ol><li>Establishing a performance standard (based on SPS's projected annual net capacity factors) for the proposed Wind Plants.</li></ol>
10 11 12		<ol> <li>Holding customers harmless from the risk that the Wind Plants fail to fully qualify for the PTCs and requiring that all PTCs be flowed- through to Texas retail customers.</li> </ol>
13		The Bonita PPA should not be pre-approved.
14 15		<ul> <li>SPS does not require special ratemaking treatment to mitigate any regulatory lag in seeking cost recovery for the proposed Wind Plants.</li> </ul>
16	Q	DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?
17	Α	Yes.

### **APPENDIX A**

### **QUALIFICATIONS OF JEFFRY POLLOCK**

1	Q	PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.
2	Α	Jeffry Pollock. My business mailing address is 12647 Olive Blvd., Suite 585, St. Louis,
3		Missouri 63141.
4	Q	WHAT IS YOUR OCCUPATION AND BY WHOM ARE YOU EMPLOYED?
5	Α	I am an energy advisor and President of J. Pollock, Incorporated.
6	Q	PLEASE STATE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.
7	Α	I have a Bachelor of Science Degree in Electrical Engineering and a Master in
8		Business Administration from Washington University. I have also completed a Utility
9		Finance and Accounting course.
10		Upon graduation in June 1975, I joined Drazen-Brubaker & Associates, Inc.
11		(DBA). DBA was incorporated in 1972 assuming the utility rate and economic
12		consulting activities of Drazen Associates, Inc., active since 1937. From April 1995 to
13		November 2004, I was a managing principal at Brubaker & Associates (BAI).
14		During my tenure at both DBA and BAI, I have been engaged in a wide range
15		of consulting assignments including energy and regulatory matters in both the United
16		States and several Canadian provinces. This includes preparing financial and
17		economic studies of investor-owned, cooperative and municipal utilities on revenue
18		requirements, cost of service and rate design, and conducting site evaluation. Recent
19		engagements have included advising clients on electric restructuring issues, assisting
20		clients to procure and manage electricity in both competitive and regulated markets,

Appendix A



developing and issuing requests for proposals (RFPs), evaluating RFP responses and contract negotiation. I was also responsible for developing and presenting seminars on electricity issues.

I have worked on various projects in over 20 states and several Canadian provinces, and have testified before the Federal Energy Regulatory Commission and the state regulatory commissions of Alabama, Arizona, Arkansas, Colorado, Delaware, Florida, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Michigan, Minnesota, Mississippi, Missouri, Montana, New Jersey, New Mexico, New York, Ohio, Pennsylvania, Texas, Virginia, Washington, and Wyoming. I have also appeared before the City of Austin Electric Utility Commission, the Board of Public Utilities of Kansas City, Kansas, the Board of Directors of the South Carolina Public Service Authority (a.k.a. Santee Cooper), the Bonneville Power Administration, Travis County (Texas) District Court, and the U.S. Federal District Court.

#### PLEASE DESCRIBE J. POLLOCK, INCORPORATED.

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J.Pollock assists clients to procure and manage energy in both regulated and competitive markets. The J.Pollock team also advises clients on energy and regulatory issues. Our clients include commercial, industrial and institutional energy consumers. J.Pollock is a registered Class I aggregator in the State of Texas.

PROJECT	UTILITY	ON BEHALF OF	DOCKET	TYPE	REGULATORY JURISDICTION	SUBJECT	DATE
170401	CONSUMERS ENERGY COMPANY	Association of Businesses Advocating Tariff Equity	18322	Rebuttal	MI	Class Cost-of-Service Study, Rate Design	9/7/2017
170801	PENNSYLVANIA-AMERICAN WATER COMPANY	Pennsylvania-American Water Large Users Group	R-2017-2595853	Rebuttal	PA	Rate Design	8/31/2017
170601	NIAGARA MOHAWK POWER CORP.	Multiple Intervenors	17-E-0238 / 17-G-0239	Direct	NY	Electric/Gas Embedded Class Cost of Service, Class Revenue Allocation, Electric/Gas Rate Design, Electric/Gas Rate Modifiers, AMI Cost Allocation	8/25/2017
170401	CONSUMERS ENERGY COMPANY	Association of Businesses Advocating Tanff Equity	18322	Direct	MI	Revenue Requirement, Class Cost-of- Service Study, Rate Design	8/10/2017
140201	FLORIDA POWER & LIGHT COMPANY, DUKE ENERGY FLORIDA, LLC, AND TAMPA ELECTRIC COMPANY	Florida Industrial Power Users Group	170057	Direct	FL	Fuel Hedging Practices	8/10/2017
140404	SOUTHWESTERN ELECTRIC POWER COMPANY	Texas Industrial Energy Consumers	46449	Cross-Rebuttal	TX	Class Revenue Allocation and Rate Design	5/19/2017
140404	SOUTHWESTERN ELECTRIC POWER COMPANY	Texas Industrial Energy Consumers	46449	Direct	тх	Revenue Requirement, class cost of service study, class revenue allocation and rate design	4/25/2017
170101	KENTUCKY UTILITIES COMPANY	Kentucky League of Cities	2016-00370	Supplemental Direct	KY	Class Cost-of-Service Study, Class Revenue Allocation	4/14/2017
160702	ENTERGY TEXAS, INC.	Texas Industrial Energy Consumers	46416	Direct	тх	Certificate of Convenience and Necessity - Montgomery County Power Station	3/31/2017
160402	SHARYLAND UTILITIES, L.P.	Texas Industrial Energy Consumers	45414	Cross-Rebuttal	TX	Cost Allocation Issues, Class Revenue Allocation	3/16/2017
150803	ENTERGY LOUISIANA, LLC	Occidental Chemical Corporation	U-34283	Direct*	LA	Approval to Construct Lake Charles Power Station	3/13/2017
170102	LOUISVILLE GAS AND ELECTRIC COMPANY	Louisville/Jefferson Metro Government	2016-00371	Direct	KY	Revenue Requirement Issues; Class Cost-of-Service Study Electric/Gas; Class Revenue Allocation Electric/Gas	3/3/2017
170101	KENTUCKY UTILITIES COMPANY	Kentucky League of Cities	2016-00370	Direct	KY	Revenue Requirement Issues; Class Cost-of-Service Study; Class Revenue Allocation	3/3/2017
160402	SHARYLAND UTILITIES, L.P.	Texas Industrial Energy Consumers	45414	Direct	TX	Class Cost-of-Service Study; Class Revenue Allocation; Rate Design; TCRF Allocation Factors; McAllen Division Deferrals	2/28/2017
140105	SOUTHWESTERN PUBLIC SERVICE COMPANY	Texas Industrial Energy Consumers	46025	Direct	TX	Long-Term Purchased Power Agreements	12/12/2016
151101	NORTHERN STATES POWER COMPANY	Xcel Large Industrials	15-826	Surrebuttal	MN	Settlement, Cost-of-Service Study, Class Revenue Allocation, Interruptible Rates, Renew-A-Source	10/18/2016

PROJECT	UTILITY	ON BEHALF OF	DOCKET	TYPE	REGULATORY JURISDICTION	SUBJECT	DATE
151101	NORTHERN STATES POWER COMPANY	Xcel Large Industrials	15-826	Rebutal	MN	Class Cost-of-Service Study, Class Revenue Allocation	9/23/2016
131001	VICTORY ELECTRIC COOPERATION ASSOCIATION, INC.	Westerm Kansas Industrial Electric Consumers	16-VICE-494-TAR	Surrebuttal	KS	Formula-Based Rate Plan	9/22/2016
160704	NATIONAL FUEL GAS DISTRIBUTION CORPORATION	Multiple Intervenors	16-G-0257	Rebuttal	NY	Embedded Class Cost of Service, Class Revenue Allocation, Rate Design	9/16/2016
140105	SOUTHWESTERN PUBLIC SERVICE COMPANY	Texas Industrial Energy Consumers	45524	Cross-Rebuttal	TX	Class Cost-of-Service Study,	9/7/2016
160301	METROPOLITAN EDISON COMPANY, PENNSYLVANIA ELECTRIC COMPANY AND WEST PENN POWER	MEIUG, PICA and WPPII	2016-2537349 2016-2537352 2016-2537359	Surrebuttal	PA	Post-Test Year Sales Adjustment, Class Cost-of-Service Study; Class Revenue Allocation, Rate Design	8/31/2016
131001	VICTORY ELECTRIC COOPERATION ASSOCIATION, INC.	Westerm Kansas Industrial Electric Consumers	16-VICE-494-TAR	Direct	KS	Formula-Based Rate Plan	8/30/2016
131001	WESTERN COOPERATIVE ELECTRIC ASSOCIATION, INC.	Westerm Kansas Industrial Electric Consumers	16-WSTE-496-TAR	Direct	KS	Formula-Based Rate Plan and Debt Service Payments	8/30/2016
160704	NATIONAL FUEL GAS DISTRIBUTION CORPORATION	Multiple Intervenors	16-G-0257	Direct	NY	Embedded Class Cost of Service, Class Revenue Allocation, Rate Design	8/26/2016
160301	METROPOLITAN EDISON COMPANY, PENNSYLVANIA ELECTRIC COMPANY AND WEST PENN POWER	MEIUG, PICA and WPPII	2016-2537349 2016-2537352 2016-2537359	Rebuttal	PA	Class Cost-of-Service, Class Revenue Allocation	8/17/2016
140105	SOUTHWESTERN PUBLIC SERVICE COMPANY	Texas Industrial Energy Consumers	45524	Direct	тх	Revenue Requirement, Class Cost-of- Service, Revenue Allocation, Rate Design	8/16/2016
160301	METROPOLITAN EDISON COMPANY, PENNSYLVANIA ELECTRIC COMPANY AND WEST PENN POWER	MEIUG, PICA and WPPII	2016-2537349 2016-2537352 2016-2537359	Direct	PA	Post-Test Year Sales Adjustment, Class Cost-of-Service Study, Class Revenue Altocation, Rate Design	7/22/2016
160101	FLORIDA POWER & LIGHT COMPANY	Flonda Industrial Power Users Group	160021	Direct	FL	Multi-Year Rate Plan, Construction Work in Progress, Cost of Capital, Class Revenue Allocation, Class Cost- of-Service Study, Rate Design	7/7/2016
160103	CENTERPOINT ENERGY ARKANSAS GAS	Arkansas Gas Consumers, Inc.	15-098-U	Supplemental	AR	Support for Settlement Stipulation	7/1/2016



PROJECT	UTILITY	ON BEHALF OF	DOCKET	TYPE	REGULATORY JURISDICTION	SUBJECT	DATE
160503	MIDAMERICAN ENERGY COMPANY	Tech Customers	RPU-2016-0001	Direct	IA	Application of Advanced Ratemaking Principles to Wind XI	6/21/2016
151101	NORTHERN STATES POWER COMPANY	Xcel Large Industrials	15-826	Direct	MN	Class Cost-of-Service Study, Class Revenue Allocation, Multi-Year Rate Plan, Rate Design	6/14/2016
160103	CENTERPOINT ENERGY ARKANSAS GAS	Arkansas Gas Consumers, Inc.	15-098-U	Surrebuttal	AR	Incentive Compensation, Class Cost-of- Service Study, Class Revenue Allocation, LCS-1 Rate Design	6/7/2016
150504	SOUTHWESTERN PUBLIC SERVICE COMPANY	Occidental Permian Ltd.	15-00296-UT	Direct	NM	Support of Stipulation	5/13/2016
160102	CHEYENNE LIGHT, FUEL AND POWER COMPANY	Dyno Nobel, Inc. and HollyFrontier Cheyenne Refining LLC	20003-146-ET-15	Cross	WY	Large Power Contract Service Tanff	4/15/2016
160103	CENTERPOINT ENERGY ARKANSAS GAS	Arkansas Gas Consumers, Inc.	15-098-U	Direct	AR	Incentive Compensation, Class Cost-of- Service Study, Class Revenue Allocation, Act 725, Formula Rate Plan	4/14/2016
160102	CHEYENNE LIGHT, FUEL AND POWER COMPANY	Dyno Nobel, Inc. and HollyFrontier Cheyenne Refining LLC	20003-146-ET-15	Direct	WY	Large Power Contract Service Tariff	3/18/2016
150803	ENTERGY LOUISIANA, LLC, ENTERGY GULF STATES LOUISIANA, L.L.C., AND ENTERGY LOUISIANA POWER, LLC	Occidental Chemical Corporation	U-33770	Cross-Answering	LA	Approval to Construct St. Charles Power Station	2/26/2016
151102	NORTHERN INDIANA PUBLIC SERVICE COMPANY	NLMK-Indiana	44688	Cross-Answering	IN	Cost-of-Service Study, Rider 775	2/16/2016
150803	ENTERGY LOUISIANA, LLC, ENTERGY GULF STATES LOUISIANA, L L C , AND ENTERGY LOUISIANA POWER, LLC	Occidental Chemical Corporation	U-33770	Direct	LA	Approval to Construct St. Charles Power Station	1/21/2016
150701	EL PASO ELECTRIC COMPANY	Freeport-McMoRan Copper & Gold, Inc	44941	Cross-Rebuttal	TX	Class Cost-of-Service Study, Class Revenue Allocation; Rate Design	1/15/2016
150503	ENTERGY ARKANSAS, INC	Arkansas Electric Energy Consumers, Inc	15-015	Supplemental	AR	Support for Settlement Stipulation	12/31/2015
150701	EL PASO ELECTRIC COMPANY	Freeport-McMoRan Copper & Gold, Inc.	44941	Direct	TX	Class Cost-of-Service Study, Class Revenue Allocation, Rate Design	12/11/2015
150503	ENTERGY ARKANSAS, INC.	Arkansas Electric Energy Consumers, Inc.	15-015	Surrebuttal	AR	Post-Test-Year Additions, Class Cost-of- Service Study, Class Revenue Allocation; Rate Design, Riders, Formula Rate Plan	11/24/2015



PROJECT	UTILITY	ON BEHALF OF	DOCKET	TYPE	REGULATORY JURISDICTION	SUBJECT	DATE
131001	MID-KANSAS ELECTRIC COMPANY, LLC, PRAIRIE LAND ELECTRIC COOPERATIVE, INC, SOUTHERN PIONEER ELECTRIC COMPANY, THE VICTORY ELECTRIC COOPERATIVE ASSOCIATION, INC., AND WESTERN COOPERATIVE ELECTRIC ASSOCIATION, INC.	Western Kansas Industrial Electric Consumers	16-MKEE-023	Direct	KS	Formula Rate Plan for Distribution Utility	11/17/2015
130901	ENTERGY TEXAS, INC.	Texas Industrial Energy Consumers	45084	Direct	TX	Transmission Cost Recovery Factor Revenue Increase.	11/17/2015
140103	GEORGIA POWER COMPANY	Georgia Industrial Group and Georgia Assocation of Manufacturers	39638	Direct	GA	Natural Gas Price Assumptions, IFR Mechanism, Seasonal FCR-24 Rates, Imputed Capacity	11/4/2015
150801	NEW YORK STATE ELECTRIC & GAS CORPORATION and ROCHESTER GAS AND ELECTRIC CORPORATION	Multiple Intervenors	15-E-0283 15-G-0284 15-E-0285 15-G-0286	Rebuttal	NY	Electric and Gas Embedded Class Cost- of-Service Studies, Class Revenue Allocation	10/13/2015
150503	ENTERGY ARKANSAS, INC.	Arkansas Electric Energy Consumers, Inc.	15-015	Direct	AR	Post-Test-Year Additions; Class Cost-of- Service Study, Class Revenue Allocation, Rate Design, Riders, Formula Rate Plan	9/29/2015
150801	NEW YORK STATE ELECTRIC & GAS CORPORATION and ROCHESTER GAS AND ELECTRIC CORPORATION	Multiple Intervenors	15-E-0283 15-G-0284 15-E-0285 15-G-0286	Direct	NY	Electric and Gas Embedded Class Cost- of-Service Studies, Class Revenue Allocation, Electric Rate Design	9/15/2015
130602	SHARYLAND UTILITIES	Texas Industrial Energy Consumers	44620	Cross-Rebuttal	TX	Transmission Cost Recovery Factor Class Allocation Factors	9/8/2015
150503	ENTERGY ARKANSAS, INC	Arkansas Electric Energy Consumers, Inc.	14-118	Surrebuttal	AR	Proposed Acquisition of Union Power Station Power Block 2 and Cost Recovery	8/21/2015
130602	SHARYLAND UTILITIES	Texas Industrial Energy Consumers	44620	Direct	TX	Transmission Cost Recovery Factor Class Allocation Factors	8/7/2015
150303	PECO ENERGY COMPANY	Philadelphia Area Industrial Energy Users Group	2015-2468981	Surrebuttal	PA	Class Cost-of-Service, Capacity Reservation Rider	8/4/2015
130701	WESTAR ENERGY INC. and KANSAS GAS & ELECTRIC CO.	Occidental Chemical Corporation	15-WSEE-115-RTS	Cross-Answering	KS	Class Cost-of-Service Study, Revenue Allocation	7/22/2015
150303	PECO ENERGY COMPANY	Philadelphia Area Industrial Energy Users Group	2015-2468981	Rebuttal	PA	Class Cost-of-Service, Class Revenue Allocation, Rate Design, Capacity Reservation Rider, Revenue Deoupling	7/21/2015
150504	SOUTHWEST ERN PUBLIC SERVICE COMPANY	Occidental Periman Ltd.	15-00083	Direct	NM	Long-Term Purchased Power Agreements	7/10/2015
150503	ENTERGY ARKANSAS, INC.	Arkansas Electric Energy Consumers, Inc.	15-014	Surrebuttal	AR	Solar Power Purchase Agreement	7/10/2015
130701	WESTAR ENERGY INC. and KANSAS GAS & ELECTRIC CO	Occidental Chemical Corporation	15-WSEE-115-RTS	Direct	KS	Class Cost-of-Service and Electric Distribution Grid Resiliency Program	7/9/2015



PROJECT	UTILITY	ON BEHALF OF	DOCKET	TYPE	REGULATORY JURISDICTION	SUBJECT	DATE
130901	ENTERGY TEXAS, INC.	Texas Industrial Energy Consumers	43958	Supplemental Direct	TX	Certificiate of Need for Union Power Station Power Block 1	7/7/2015
150503	ENTERGY ARKANSAS, INC.	Arkansas Electric Energy Consumers, Inc	14-118	Direct	AR	Proposed Acquisition of Union Power Station Power Block 2 and Cost Recovery	7/2/2015
150303	PECO ENERGY COMPANY	Philadelphia Area Industrial Energy Users Group	2015-2468981	Direct	PA	Class Cost-of-Service, Class Revenue Allocation, Rate Design, Capacity Reservation Rider	6/23/2015
150503	ENTERGY ARKANSAS, INC	Arkansas Electric Energy Consumers, Inc	15-014-U	Direct	AR	Solar Power Purchase Agreement	6/19/2015
140201	FLORIDA POWER & LIGHT COMPANY	Flonda Industrial Power Users Group	150075	Direct	FL	Cedar Bay Power Purchase Agreement	6/8/2015
140105	SOUTHWEST ERN PUBLIC SERVICE COMPANY	Texas Industrial Energy Consumers	43695	Cross-Rebuttal	TX	Class Cost of Service Study, Class Revenue Allocation	6/8/2015
140201	FLORIDA POWER AND LIGHT COMPANY, DUKE ENERGY FLORIDA, GULF POWER COMPANY, TAMPA ELECTRIC COMPANY	Flonda Industrial Power Users Group	140226	Surrebuttal	FL	Opt-Out Provision	5/20/2015
140105	SOUTHWEST ERN PUBLIC SERVICE COMPANY	Texas Industrial Energy Consumers	43695	Direct	TX	Post-Test Year Adjustments, Weather Normalization	5/15/2015
140105	SOUTHWEST ERN PUBLIC SERVICE COMPANY	Texas Industrial Energy Consumers	43695	Direct	TX	Class Cost of Service Study, Class Revenue Allocation	5/15/2015
130901	ENTERGY TEXAS, INC.	Texas Industrial Energy Consumers	43958	Direct	тх	Certrficiate of Need for Union Power Station Power Block 1	4/29/2015
140404	SOUTHWESTERN ELECTRIC POWER COMPANY	Texas Industrial Energy Consumers	42370	Cross-Rebuttal	тх	Allocation and recovery of Municipal Rate Case Expenses and the proposed Rate-Case-Expense Surcharge Tanff.	1/27/2015
140904	WEST PENN POWER COMPANY	West Penn Power Industrial Intervenors	2014-2428742	Surrebuttal	PA	Class Cost-of-Service Study, Class Revenue Allocation, Large Commercial and Industrial Rate Design, Storm Damage Charge Rider	1/6/2015
140903	PENNSYLVANIA ELECTRIC COMPANY	Penelec Industrial Customer Alliance	2014-2428743	Surrebuttal	PA	Class Cost-of-Service Study, Class Revenue Allocation, Large Commercial and Industrial Rate Design, Storm Damage Charge Rider	1/6/2015
140902	METROPOLITAN EDISON COMPANY	Med-Ed Industrial Users Group	2014-2428745	Surrebuttal	PA	Class Cost-of-Service Study, Class Revenue Allocation, Large Commercial and Industrial Rate Design, Storm Damage Charge Rider	1/6/2015



PROJECT	UTILITY	ON BEHALF OF	DOCKET	TYPE	REGULATORY JURISDICTION	SUBJECT	DATE
140904	WEST PENN POWER COMPANY	West Penn Power Industrial Intervenors	2014-2428742	Rebuttal	PA	Class Cost-of-Service Study, Class Revenue Allocation, Large Commercial and Industrial Rate Design, Storm Damage Charge Rider	12/18/2014
140903	PENNSYLVANIA ELECTRIC COMPANY	Penelec Industrial Customer Alliance	2014-2428743	Rebuttal	PA	Class Cost-of-Service Study; Class Revenue Allocation, Large Commercial and Industrial Rate Design, Storm Damage Charge Rider	12/18/2014
140902	METROPOLITAN EDISON COMPANY	Med-Ed Industrial Users Group	2014-2428745	Rebuttal	PA	Class Cost-of-Service Study, Class Revenue Allocation, Large Commercial and Industrial Rate Design, Storm Damage Charge Rider	12/18/2014
140804	PUBLIC SERVICE COMPANY OF COLORADO	Colorado Healthcare Electric Coordinating Council	14AL-0660E	Cross	со	Clean Air Clean Jobs Act Rider, Transmission Cost Adjustment	12/17/2014
140904	WEST PENN POWER COMPANY	West Penn Power Industrial Intervenors	2014-2428742	Direct	PA	Class Cost-of-Service Study, Class Revenue Allocation, Rate Design, Partial Services Rider; Storm Damage Rider	11/24/2014
140903	PENNSYLVANIA ELECTRIC COMPANY	Penelec Industrial Customer Alliance	2014-2428743	Direct	PA	Class Cost-of-Service Study; Class Revenue Allocation, Rate Design, Partial Services Rider; Storm Damage Rider	11/24/2014
140902	METROPOLITAN EDISON COMPANY	Med-Ed Industrial Users Group	2014-2428745	Direct	PA	Class Cost-of-Service Study, Class Revenue Allocation, Rate Design, Partial Services Rider, Storm Damage Rider	11/24/2014
140905	CENTRAL HUDSON GAS & ELECTRIC	Multiple Intervenors	14-E-0318 / 14-G-0319	Direct	NY	Class Cost-of-Service Study, Class Revenue Allocation (Electric)	11/21/2014
140804	PUBLIC SERVICE COMPANY OF COLORADO	Colorado Healthcare Electric Coordinating Council	14AL-0660E	Direct	со	Clean Air Clean Jobs Act Rider, Electric Commodity Adjustment Incentive Mechanism	11/7/2014
140201	FLORIDA POWER AND LIGHT COMPANY	Florida Industrial Power Users Group	140001-E	Direct	FL	Cost-Effectiveness and Policy Issues Surrounding the Investment in Working Gas Production Facilities	9/22/2014
140401	ROCKY MOUNTAIN POWER	Wyoming Industrial Energy Consumers	20000-446-ER14	Surrebuttal	WÝ	Class Cost-of-Service, Rule 12 (Line Extension Policy)	9/19/2014
140805	INDIANA MICHIGAN POWER COMPANY	I&M Industrial Group	44511	Direct	IN	Clean Energy Solar Pilot Project, Solar Power Rider and Green Power Rider	9/17/2014
140401	ROCKY MOUNTAIN POWER	Wyoming Industrial Energy Consumers	20000-446-ER14	Cross	WY	Class Cost-of-Service Study, Rule 12 Line Extension	9/5/2014



PROJECT	UTILITY	ON BEHALF OF	DOCKET	TYPE	REGULATORY JURISDICTION	SUBJECT	DATE
140201	VARIOUS UTILITIES	Fiorida Industrial Power Users Group	140002-EI	Direct	FL	Energy Efficiency Cost Recovery Opt- Out Provision	9/5/2014
131002	NORTHERN STATES POWER COMPANY	Xcel Large Industrials	E-002/GR-13-868	Surrebuttal	MN	Nuclear Depreciation Expense, Monticello EPU/LCM Project, Class Cost-of-Service Study, Class Revenue Allocation, Fuel Clause Rider Reform, Rate Design	8/4/2014
140401	ROCKY MOUNTAIN POWER	Wyoming Industrial Energy Consumers	20000-446-ER14	Direct	WY	Class Cost-of-Service Study, Rule 12 Line Extension	7/25/2014
140601	DUKE ENERGY FLORIDA	NRG Flonda, LP	140111 and 140110	Direct	FL	Cost-Effectiveness of Proposed Self Build Generating Projects	7/14/2014
131002	NORTHERN STATES POWER COMPANY	Xcel Large Industrials	E-002/GR-13-868	Rebuttal	MN	Class Cost-of-Service Study, Class Revenue Allocation	7/7/2014
140303	PPL ELECTRIC UTILITIES CORPORATION	PP&L Industrial Customer Alliance	2013-2398440	Rebuttal	PA	Energy Efficiency Cost Recovery	7/1/2014
131002	NORTHERN STATES POWER COMPANY	Xcel Large Industrials	E-002/GR-13-868	Direct	MN	Revenue Requirements, Fuel Clause Rider, Class Cost-of-Service Study, Rate Design and Revenue Allocation	6/5/2014
140303	PPL ELECTRIC UTILITIES CORPORATION	PP&L Industrial Customer Alliance	2013-2398440	Direct	PA	Energy Efficiency Cost Recovery	5/23/2014
140105	SOUTHWESTERN PUBLIC SERVICE COMPANY	Texas Industrial Energy Consumers	42042	Direct	TX	Transmission Cost Recovery Factor	4/24/2014
130901	ENTERGY TEXAS, INC.	Texas Industrial Energy Consumers	41791	Cross	TX	Class Cost-of-Service Study and Rate Design	1/31/2014
130901	ENTERGY TEXAS, INC	Texas Industrial Energy Consumers	41791	Direct	тх	Revenue Requirements, Fuel Reconciliation, Cost Allocation Issues, Rate Design Issues	1/10/2014
131005	DUQUESNE LIGHT COMPANY	Duquesne Industrial Intervenors	R-2013-2372129	Supplemental Surrebuttal	PA	Class Cost-of-Sevice Study	12/13/2013
131005	DUQUESNE LIGHT COMPANY	Duquesne Industrial Intervenors	R-2013-2372129	Surrebuttal	PA	Class Cost-of-Service Study, Cash Working Capital; Miscellaneous General Expense; Uncollectable Expense, Class Revenue Allocation	12/9/2013
131005	DUQUESNE LIGHT COMPANY	Duquesne Industrial Intervenors	R-2013-2372129	Rebuttal	PA	Rate L Transmission Service; Class Revenue Allocation	11/26/2013
130905	ENTERGY TEXAS, INC ITC HOLDINGS CORP.	Texas Industrial Energy Consumers	41850	Direct	TX	Rate Mitigation Plan, Conditions re Transfer of Control of Ownership	11/6/2013
130602	SHARYLAND UTILITIES	Texas Inustrial Energy Consumers and Atlas Pipeline Mid-Continent WestTex, LLC	41474	Cross-Rebuttal	TX	Customer Class Definitions; Class Revenue Allocation, Allocation of TTC costs	11/4/2013



PROJECT	UTILITY	ON BEHALF OF	DOCKET	TYPE	REGULATORY JURISDICTION	SUBJECT	DATE
130501	MIDAMERICAN ENERGY COMPANY	Deere & Company	RPU-2013-0004	Surrebuttal	IA	Class Cost-of-Service Study, Class Revenue Allocation, Depreciation Surplus	11/4/2013
131005	DUQUESNE LIGHT COMPANY	Duquesne Industrial Intervenors	R-2013-2372129	Direct	PA	Class Cost-of-Service, Class Revenue Allocations	11/1/2013
130906	PUBLIC SERVICE ENERGY AND GAS	New Jersey Large Energy Users Coalition	EO13020155 and GO13020156	Direct	NJ	Energy Strong	10/28/2013
130903	GEORGIA POWER COMPANY	Georgia Industrial Group and Georgia Association of Manufacturers	36989	Direct	GA	Depreciation Expense, Alternate Rate Plan, Return on Equity, Class Cost-of- Service Study, Class Revenue Allocation, Rate Design	10/18/2013
130602	SHARYLAND UTILITIES	Texas Inustrial Energy Consumers and Atlas Pipeline Mid-Continent WestTex, LLC	41474	Direct	TX	Regulatory Asset Cost Recovery, Class Cost-of-Service Study, Class Revenue Allocation, Rate Design	10/18/2013
130501	MIDAMERICAN ENERGY COMPANY	Deere & Company	RPU-2013-0004	Rebutal	IA	Class Cost-of-Service Study	10/1/2013
130902	FLORIDA POWER AND LIGHT COMPANY	Florida Industrial Power Users Group	130007	Direct	FL	Environmental Cost Recovery Clause	9/13/2013
130501	MIDAMERICAN ENERGY COMPANY	Deere & Company	RPU-2013-0004	Direct	IA	Class Cost-of-Service Study, Class Revenue Allocation, Depreciation, Cost Recovery Clauses, Revenue Sharing, Revenue True-up	9/10/2013
130202	SOUTHWESTERN PUBLIC SERVICE COMPANY	Occidental Permian Ltd.	12-00350-UT	Rebuttal	NM	RPS Cost Rider	9/9/2013
130701	WESTAR ENERGY INC. and KANSAS GAS & ELECTRIC CO.	Occidental Chemical Corporation	13-WSEE-629-RTS	Cross-Answering	KS	Cost Allocation Methodology	9/5/2013
130202	SOUTHWESTERN PUBLIC SERVICE COMPANY	Occidental Permian Ltd.	12-00350-UT	Direct	NM	Class Cost-of-Service Study	8/22/2013
130701	WESTAR ENERGY INC and KANSAS GAS & ELECTRIC CO.	Occidental Chemical Corporation	13-WSEE-629-RTS	Direct	KS	Class Revenue Allocation.	8/21/2013
130203	ENTERGY TEXAS, INC	Texas Industrial Energy Consumers	41437	Direct	TX	Avoided Cost, Standby Rate Design	8/14/2013
100902	MID-KANSAS ELECTRIC COMPANY, LLC	Western Kansas Industrial Electric Consumers	13-MKEE-699	Direct	KS	Class Revenue Allocation	8/12/2013
100902	MID-KANSAS ELECTRIC COMPANY, LLC	Western Kansas Industrial Electric Consumers	13-MKEE-447	Supplemental	KS	Testimony in Support of Settlement	8/9/2013
100902	MID-KANSAS ELECTRIC COMPANY, LLC	Western Kansas Industrial Electric Consumers	13-MKEE-447	Supplemental	KS	Modification Agreement	7/24/2013
130201	TAMPA ELECTRIC COMPANY	Florida Industrial Power Users Group	130040	Direct	FL	GSD-IS Consolidation, GSD and IS Rate Design, Class Cost-of-Service Study, Planned Outage Expense, Storm Damage Expense	7/15/2013
100902	MID-KANSAS ELECTRIC COMPANY, LLC	Western Kansas Industrial Electric Consumers	13-MKEE-452	Supplemental	KS	Testimony in Support of Nonunanimous Settlement	6/28/2013



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121203	JERSEY CENTRAL POWER & LIGHT COMPANY	Gerdau Ameristeel Sayreville, Inc.	ER12111052	Direct	NJ	Cost of Service Study for GT-230 KV Customers; AREP Rider	6/14/2013
100902	MID-KANSAS ELECTRIC COMPANY, LLC	Western Kansas Industrial Electric Consumers	13-MKEE-447	Direct	KS	Wholesale Requirements Agreement, Process for Excemption From Regulation, Conditions Required for Public Interest Finding on CCN spin- down	5/14/2013
100902	MID-KANSAS ELECTRIC COMPANY, LLC	Western Kansas Industrial Electric Consumers	13-MKEE-452	Cross	KS	Formula Rate Plan for Distribution Utility	5/10/2013
100902	MID-KANSAS ELECTRIC COMPANY, LLC	Western Kansas Industrial Electric Consumers	13-MKEE-452	Direct	KS	Formula Rate Plan for Distribution Utility	5/3/2013
121001	ENTERGY TEXAS, INC ITC HOLDINGS CORP.	Texas Industrial Energy Consumers	41223	Direct	TX	Public Interest of Proposed Divestiture of ETI's Transmission Business to an ITC Holdings Subsidiary	4/30/2013
121101	NORTHERN STATES POWER COMPANY	Xcel Large Industrials	12-961	Surrebuttal	MN	Depreciation; Used and Useful; Cost Allocation, Revenue Allocation	4/12/2013
121101	NORTHERN STATES POWER COMPANY	Xcel Large Industrials	12-961	Rebuttal	MN	Class Revenue Allocation	3/25/2013
121101	NORTHERN STATES POWER COMPANY	Xcel Large Industrials	12-961	Direct	MN	Depreciation, Used and Useful, Property Tax, Cost Allocation; Revenue Allocation; Competitive Rate & Property Tax Riders	2/28/2013
91203	ENTERGY TEXAS, INC.	Texas Industrial Energy Consumers	38951	Second Supplemental Rebuttal	TX	Competitive Generation Service Tanff	2/1/2013
91203	ENTERGY TEXAS, INC.	Texas Industrial Energy Consumers	38951	Second Supplemental Direct	TX	Competitive Generation Service Tariff	1/11/2013
110202	SOUTHWESTERN ELECTRIC POWER COMPANY	Texas Industrial Energy Consumers	40443	Cross Rebuttal	TX	Cost Allocation and Rate Design	1/10/2013
110202	SOUTHWESTERN ELECTRIC POWER COMPANY	Texas Industrial Energy Consumers	40443	Direct	TX	Application of the Turk Plant Cost-Cap, Revenue Requirements, Class Cost-of- Service Study, Class Revenue Allocation; Industrial Rate Design	12/10/2012
120301	FLORIDA POWER AND LIGHT COMPANY	Florida Industrial Power Users Group	120015	Corrected Supplemental Rebuttal	FL	Support for Non-Unanimous Settlement	11/13/2012
120301	FLORIDA POWER AND LIGHT COMPANY	Florida Industrial Power Users Group	120015	Corrected Supplemental Direct	FL	Support for Non-Unanimous Settlement	11/13/2012
120602	NIAGARA MOHAWK POWER CORP.	Multiple Intervenors	12-E-0201/12-G-0202	Rebuttal	NY	Electric and Gas Class Cost-of-Service Studies.	9/25/2012
120602	NIAGARA MOHAWK POWER CORP.	Multiple Intervenors	12-E-0201/12-G-0202	Direct	NY	Electric and Gas Class Cost-of-Service Study, Revenue Allocation, Rate Design, Historic Demand	8/31/2012
100902	MID-KANSAS ELECTRIC COMPANY, LLC	Western Kansas Industrial Electric Consumers	12-MKEE-650-TAR	Direct	KS	Transmission Formula Rate Plan	7/31/2012
120502	WESTAR ENERGY INC. and KANSAS GAS & ELECTRIC CO.	Occidental Chemical Corporation	12-WSEE-651-TAR	Direct	KS	TDC Tanff	7/30/2012



PROJECT	UTILITY	ON BEHALF OF	DOCKET	TYPE	REGULATORY JURISDICTION	SUBJECT	DATE
120301	FLORIDA POWER AND LIGHT COMPANY	Florida Industrial Power Users Group	120015	Direct	FL	Class Cost-of-Service Study, Revenue Allocation; and Rate Design	7/2/2012
120101	LONE STAR TRANSMISSION, LLC	Texas Industrial Energy Consumers	40020	Direct	TX	Revenue Requirement, Rider AVT	6/21/2012
111102	ENTERGY TEXAS, INC.	Texas Industrial Energy Consumers	39896	Cross	TX	Class Cost-of-Service Study, Revenue Allocation, and Rate Design	4/13/2012
111102	ENTERGY TEXAS, INC	Texas Industrial Energy Consumers	39896	Direct	TX	Revenue Requirements, Class Cost-of- Service Study, Revenue Allocation, and Rate Design	3/27/2012
91023	ENTERGY TEXAS, INC	Texas Industrial Energy Consumers	38951	Supplemental Rebuttal	TX	Competitive Generation Service Issues	2/24/2012
91203	ENTERGY TEXAS, INC	Texas Industrial Energy Consumers	38951	Supplemental Direct	TX	Competitive Generation Service Issues	2/10/2012
101101	AEP TEXAS CENTRAL COMPANY	Texas Industrial Energy Consumers	39722	Direct	TX	Carrying Charge Rate Applicable to the Additional True-Up Balance and Tax Balances	11/4/2011
110703	GULF POWER COMPANY	Florida Industrial Power Users Group	110138-EI	Direct	FL	Cost Allocation and Storm Reserve	10/14/2011
90404	CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC	Texas Industrial Energy Consumers	39504	Direct	TX	Carrying Charge Rate Applicable to the Additional True-Up Balance and Taxes	9/12/2011
101101	AEP TEXAS NORTH COMPANY	Texas Industrial Energy Consumers	39361	Cross-Rebuttal	TX	Energy Efficiency Cost Recovery Factor	8/10/2011
101101	AEP TEXAS CENTRAL COMPANY	Texas Industrial Energy Consumers	39360	Cross-Rebuttal	TX	Energy Efficiency Cost Recovery Factor	8/10/2011
100503	ONCOR ELECTRIC DELIVERY COMPANY, LLC	Texas Industrial Energy Consumers	39375	Direct	TX	Energy Efficiency Cost Recovery Factor	8/2/2011
90103	ALABAMA POWER COMPANY	Alabama Industrial Energy Consumers	31653	Direct	AL	Renewable Purchased Power Agreement	7/28/2011
101101	AEP TEXAS NORTH COMPANY	Texas Industrial Energy Consumers	39361	Direct	TX	Energy Efficiency Cost Recovery Factor	7/26/2011
101101	AEP TEXAS CENTRAL COMPANY	Texas Industrial Energy Consumers	36360	Direct	TX	Energy Efficiency Cost Recovery Factor	7/20/2011
90201	ENTERGY TEXAS, INC.	Texas Industrial Energy Consumers	39366	Direct	TX	Energy Efficiency Cost Recovery Factor	7/19/2011
90404	CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC	Texas Industrial Energy Consumers	39363	Direct	TX	Energy Efficiency Cost Recovery Factor	7/15/2011
101201	NORTHERN STATES POWER COMPANY	Xcel Large Industrials	E002/GR-10-971	Surrebuttal	MN	Depreciation; Non-Asset Margin Shanng, Step-In Increase, Class Cost-of Service Study, Class Revenue Allocation, Rate Design	5/26/2011
101201	NORTHERN STATES POWER COMPANY	Xcel Large Industrials	E002/GR-10-971	Rebuttal	MN	Classification of Wind Investment	5/4/2011



PROJECT	UTILITY	ON BEHALF OF	DOCKET	TYPE	REGULATORY JURISDICTION	SUBJECT	DATE
101201	NORTHERN STATES POWER COMPANY	Xcel Large Industnals	E002/GR-10-971	Direct	MN	Surplus Depreciation Reserve, Incentive Compensation, Non-Asset Trading Margin Sharing, Cost Allocation, Class Revenue Allocation, Rate Design	4/5/2011
101202	ROCKY MOUNTAIN POWER	Wyoming Industrial Energy Consumers	20000-381-EA-10	Direct	WY	2010 Protocols	2/11/2011
100802	TEXAS-NEW MEXICO POWER COMPANY	Texas Industrial Energy Consumers	38480	Direct	TX	Cost Allocation, TCRF	11/8/2010
90402	GEORGIA POWER COMPANY	Georgia Industrial Group/Georgia Traditional Manufacturers Group	31958	Direct	GA	Alternate Rate Plan, Return on Equity, Riders, Cost-of-Service Study, Revenue Allocation, Economic Development	10/22/2010
90404	CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC	Texas Industrial Energy Consumers	38339	Cross-Rebuttal	TX	Cost Allocation, Class Revenue Allocation	9/24/2010
90404	CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC	Texas Industrial Energy Consumers	38339	Direct	ТХ	Pension Expense, Surplus Depreciation Reserve, Cost Allocation, Rate Design, Riders	9/10/2010
100303	NIAGARA MOHAWK POWER CORP.	Multiple Intervenors	10-E-0050	Rebuttal	NY	Multi-Year Rate Plan, Cost Allocation, Revenue Allocation, Reconciliation Mechanisms, Rate Design	8/6/2010
100303	NIAGARA MOHAWK POWER CORP.	Multiple Intervenors	10-E-0050	Direct	NY	Multi-Year Rate Plan, Cost Allocation, Revenue Allocation, Reconciliation Mechanisms, Rate Design	7/14/2010
91203	ENTERGY TEXAS, INC.	Texas Industrial Energy Consumers	37744	Cross Rebuttal	TX	Cost Allocation, Revenue Allocation, CGS Rate Design, Interruptible Service	6/30/2010
91203	ENTERGY TEXAS, INC.	Texas Industrial Energy Consumers	37744	Direct	TX	Class Cost of Service Study, Revenue Allocation, Rate Design, Competitive Generation Services, Line Extension Policy	6/9/2010
90201	ENTERGY TEXAS, INC.	Texas Industrial Energy Consumers	37482	Cross Rebuttal	TX	Allocation of Purchased Power Capacity Costs	2/3/2010
90402	GEORGIA POWER COMPANY	Georgia Industrial Group/Georgia Traditional Manufacturers Group	28945	Direct	GA	Fuel Cost Recovery	1/29/2010
90201	ENTERGY TEXAS, INC	Texas Industrial Energy Consumers	37482	Direct	TX	Purchased Power Capacity Cost Factor	1/22/2010
90403	VIRGINIA ELECTRIC AND POWER COMPANY	MeadWestvaco Corporation	PUE-2009-00081	Direct	VA	Allocation of DSM Costs	1/13/2010
90201	ENTERGY TEXAS, INC	Texas Industrial Energy Consumers	37580	Direct	TX	Fuel refund	12/4/2009
90403	VIRGINIA ELECTRIC AND POWER COMPANY	MeadWestvaco Corporation	PUE-2009-00019	Direct	VA	Standby rate design; dynamic pricing	11/9/2009
90403	VIRGINIA ELECTRIC AND POWER COMPANY	MWV	PUE-2009-00019	Direct	VA	Base Rate Case	11/9/2009
80601	SOUTHWESTERN PUBLIC SERVICE COMPANY	Texas Industrial Energy Consumers	37135	Direct	TX	Transmission cost recovery factor	10/22/2009
80703	MID-KANSAS ELECTRIC COMPANY, LLC	Western Kansas Industrial Electric Consumers	09-MKEE-969-RTS	Direct	KS	Revenue requirements, TIER, rate design	10/19/2009



PROJECT	UTILITY	ON BEHALF OF	DOCKET	TYPE	REGULATORY JURISDICTION	SUBJECT	DATE
90601	VARIOUS UTILITIES	Flonda Industrial Power Users Group	090002-EG	Direct	FL	Interruptible Credits	10/2/2009
80505	ONCOR ELECTRIC DELIVERY COMPANY	Texas Industrial Energy Consumers	36958	Cross Rebuttal	TX	2010 Energy efficiency cost recovery factor	8/18/2009
81001	PROGRESS ENERGY FLORIDA	Florida Industrial Power Users Group	90079	Direct	FL	Cost-of-service study, revenue allocation, rate design, depreciation expense, capital structure	8/10/2009
90404	CENTERPOINT	Texas Industrial Energy Consumers	36918	Cross Rebuttal	TX	Allocation of System Restoration Costs	7/17/2009
90301	FLORIDA POWER AND LIGHT COMPANY	Florida Industrial Power Users Group	080677	Direct	FL	Depreciation, class revenue allocation, rate design, cost allocation; and capital structure	7/16/2009
90201	ENTERGY TEXAS, INC	Texas Industrial Energy Consumers	36956	Direct	TX	Approval to revise energy efficiency cost recovery factor	7/16/2009
90601	VARIOUS UTILITIES	Florida Industrial Power Users Group	VARIOUS DOCKETS	Direct	FL	Conservation goals	7/6/2009
90201	ENTERGY TEXAS, INC.	Texas Industrial Energy Consumers	36931	Direct	TX	System restoration costs under Senate Bill 769	6/30/2009
90502	SOUTHWESTERN ELECTRIC POWER COMPANY	Texas Industrial Energy Consumers	36966	Direct	TX	Authority to revise fixed fuel factors	6/18/2009
80805	TEXAS-NEW MEXICO POWER COMPANY	Texas Industrial Energy Consumers	36025	Cross-Rebuttal	TX	Cost allocation, revenue allocation and rate design	6/10/2009
81201	NORTHERN STATES POWER COMPANY	Xcel Large Industrials	08-1065	Surrebuttal	MN	Cost allocation, revenue allocation, rate design	5/27/2009
80805	TEXAS-NEW MEXICO POWER COMPANY	Texas Industrial Energy Consumers	36025	Direct	TX	Cost allocation, revenue allocation, rate design	5/27/2009
90403	VIRGINIA ELECTRIC AND POWER COMPANY	MeadWestvaco Corporation	PUE-2009-00018	Direct	VA	Transmission cost allocation and rate design	5/20/2009
90101	NORTHERN INDIANA PUBLIC SERVICE COMPANY	Beta Steel Corporation	43526	Direct	IN	Cost allocation and rate design	5/8/2009
81203	ENTERGY SERVICES, INC	Texas Industrial Energy Consumers	ER008-1056	Rebuttal	FERC	Rough Production Cost Equalization payments	5/7/2009
81201	NORTHERN STATES POWER COMPANY	Xcel Large Industrials	08-1065	Rebuttal	MN	Class revenue allocation and the classification of renewable energy costs	5/5/2009
81201	NORTHERN STATES POWER COMPANY	Xcel Large Industrials	08-1065	Direct	MN	Cost-of-service study, class revenue allocation, and rate design	4/7/2009
81203	ENTERGY SERVICES, INC	Texas Industrial Energy Consumers	ER08-1056	Answer	FERC	Rough Production Cost Equalization payments	3/6/2009
80901	ROCKY MOUNTAIN POWER	Wyoming Industrial Energy Consumers	20000-333-ER-08	Direct	WY	Cost of service study, revenue allocation, inverted rates, revenue requirements	1/30/2009
81203	ENTERGY SERVICES	Texas Industrial Energy Consumers	ER08-1056	Direct	FERC	Entergy's proposal seeking Commission approval to allocate Rough Production Cost Equalization payments	1/9/2009
80505	ONCOR ELECTRIC DELIVERY COMPANY & TEXAS ENERGY FUTURE HOLDINGS LTD	Texas Industrial Energy Consumers	35717	Cross Rebuttal	TX	Retail transformation, cost allocation, demand ratchet waivers, transmission cost allocation factor	12/24/200



PROJECT	UTILITY	ON BEHALF OF	DOCKET	TYPE	REGULATORY JURISDICTION	SUBJECT	DATE
70101	GEORGIA POWER COMPANY	Georgia Industrial Group and Georgia Traditional Manufacturers Association	27800	Direct	GA	Cash Return on CWIP associated with the Plant Vogtle Expansion	12/19/2008
80802	TAMPA ELECTRIC COMPANY	The Florida Industrial Power Users Group and Mosaic Company	080317-EI	Direct	FL	Revenue Requirements, retail class cost of service study, class revenue allocation, firm and non firm rate design and the Transmission Base Rate Adjustment	11/26/2008
80505	ONCOR ELECTRIC DELIVERY COMPANY & TEXAS ENERGY FUTURE HOLDINGS LTD	Texas Industrial Energy Consumers	35717	Direct	TX	Revenue Requirement, class cost of service study, class revenue allocation and rate design	11/26/2008
80601	SOUTHWESTERN PUBLIC SERVICE COMPANY	Texas Industrial Energy Consumers	35763	Supplemental Direct	TX	Recovery of Energy Efficiency Costs	11/6/2008
80601	SOUTHWESTERN PUBLIC SERVICE COMPANY	Texas Industrial Energy Consumers	35763	Cross-Rebuttal	TX	Cost Allocation, Demand Ratchet, Renewable Energy Certificates (REC)	10/28/2008
80601	SOUTHWESTERN PUBLIC SERVICE COMPANY	Texas Industrial Energy Consumers	35763	Direct	TX	Revenue Requirements, Fuel Reconciliation Revenue Allocation, Cost- of-Service and Rate Design Issues	10/13/2008
50106	ALABAMA POWER COMPANY	Alabama Industrial Energy Consumers	18148	Direct	AL	Energy Cost Recovery Rate (WITHDRAWN)	9/16/2008
50701	ENTERGY TEXAS, INC	Texas Industrial Energy Consumers	35269	Direct	TX	Allocation of rough production costs equalization payments	7/9/2008
70703	ENTERGY GULF STATES UTILITIES, TEXAS	Texas Industrial Energy Consumers	34800	Direct	TX	Non-Unanimous Stipulation	6/11/2008
50103	TEXAS PUC STAFF	Texas Industrial Energy Consumers	33672	Supplemental Rebuttal	TX	Transmission Optimization and Ancillary Services Studies	6/3/2008
50103	TEXAS PUC STAFF	Texas Industrial Energy Consumers	33672	Supplemental Direct	TX	Transmission Optimization and Ancillary Services Studies	5/23/2008
60104	SOUTHWESTERN ELECTRIC POWER COMPANY	Texas Industrial Energy Consumers	33891	Supplemental Cross Rebuttal	TX	Certificate of Convenience and Necessity	5/21/2008
60104	SOUTHWESTERN ELECTRIC POWER COMPANY	Texas Industrial Energy Consumers	33891	Supplemental Direct	TX	Certificate of Convenience and Necessity	5/8/2008
70703	ENTERGY GULF STATES UTILITES, TEXAS	Texas Industrial Energy Consumers	34800	Cross-Rebuttal	TX	Cost Allocation and Rate Design and Competitive Generation Service	4/18/2008
60303	GEORGIA POWER COMPANY	Georgia Industrial Group/Georgia Traditional Manufacturers Group	26794	Direct	GA	Fuel Cost Recovery	4/15/2008
41229	TEXAS-NEW MEXICO POWER COMPANY	Texas Industrial Energy Consumers	35038	Rebuttal	TX	Over \$5 Billion Compliance Filing	4/14/2008
70703	ENTERGY GULF STATES UTILITES, TEXAS	Texas Industrial Energy Consumers	34800	Direct	TX	Eligible Fuel Expense	4/11/2008
70703	ENTERGY GULF STATES UTILITES, TEXAS	Texas Industrial Energy Consumers	34800	Direct .	TX	Competitive Generation Service Tanff	4/11/2008
70703	ENTERGY GULF STATES UTILITES, TEXAS	Texas Industrial Energy Consumers	34800	Direct	TX	Revenue Requirements	4/11/2008
70703	ENTERGY GULF STATES UTILITIES, TEXAS	Texas Industrial Energy Consumers	34800	Direct	TX	Cost of Service study, revenue allocation, design of firm, interruptible and standby service tariffs, interconnection costs	4/11/2008



PROJECT	UTILITY	ON BEHALF OF	DOCKET	TYPE	REGULATORY JURISDICTION	SUBJECT	DATE
71202	SOUTHWESTERN PUBLIC SERVICE COMPANY	Occidental Penman Ltd.	07-00319-UT	Rebuttal	NM	Revenue requirements, cost of service study, rate design	3/28/2008
61101	AEP TEXAS CENTRAL COMPANY	Texas Industrial Energy Consumers	35105	Direct	TX	Over \$5 Billion Compliance Filing	3/24/2008
51101	CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC	Texas Industrial Energy Consumers	32902	Direct	TX	Over \$5 Billion Compliance Filing	3/20/2008
71202	SOUTHWESTERN PUBLIC SERVICE COMPANY	Occidental Penman Ltd.	07-00319-UT	Direct	NM	Revenue requirements, cost of service study (COS); rate design	3/7/2008
50701	ENTERGY GULF STATES UTILITIES TEXAS	Texas Industrial Energy Consumers	34724	Direct	TX	IPCR Rider increase and interim surcharge	11/28/2007
70601	GEÖRGIA POWER COMPANY	Georgia Industrial Group/Georgia Traditional Manufacturers Group	25060-U	Direct	GA	Return on equity, cost of service study; revenue allocation; ILR Rider; spinning reserve tariff, RTP	10/24/2007
70303	ONCOR ELECTRIC DELIVERY COMPANY & TEXAS ENERGY FUTURE HOLDINGS LTD	Texas Industrial Energy Consumers	34077	Direct	TX	Acquisition, public interest	9/14/2007
60104	SOUTHWESTERN ELECTRIC POWER COMPANY	Texas Industrial Energy Consumers	33891	Direct	TX	Certificate of Convenience and Necessity	8/30/2007
61201	ALTAMAHA ELECTRIC MEMBERSHIP CORPORATION	SP Newsprint Company	25226-U	Rebuttal	GA	Discriminatory Pricing; Service Territorial Transfer	7/17/2007
61201	ALTAMAHA ELECTRIC MEMBERSHIP CORPORATION	SP Newsprint Company	25226-U	Direct	GA	Discriminatory Pricing, Service Territorial Transfer	7/6/2007
70502	PROGRESS ENERGY FLORIDA	Florida Industrial Power Users Group	070052-EI	Direct	FL	Nuclear uprate cost recovery	6/19/2007
60601	TEXAS PUC STAFF	Texas Industrial Energy Consumers	32795	Rebuttal Remand	TX	Interest rate on stranded cost reconciliation	6/15/2007
70603	ELECTRIC TRANSMISSION TEXAS LLC	Texas Industrial Energy Consumers	33734	Direct	TX	Certificate of Convenience and Necessity	6/8/2007
60601	TEXAS PUC STAFF	Texas Industrial Energy Consumers	32795	Remand	TX	Interest rate on stranded cost reconciliation	6/8/2007
50103	TEXAS PUC STAFF	Texas Industrial Energy Consumers	33672	Rebuttal	TX	CREZ Nominations	5/21/2007
50701	ENTERGY GULF STATES UTILITES, TEXAS	Texas Industrial Energy Consumers	33687	Direct	TX	Transition to Competition	4/27/2007
50103	TEXAS PUC STAFF	Texas Industrial Energy Consumers	33672	Direct	TX	CREZ Nominations	4/24/2007
61101	AEP TEXAS CENTRAL COMPANY	Texas Industrial Energy Consumers	33309	Cross-Rebuttal	TX	Cost Allocation,Rate Design, Riders	4/3/2007
50701	ENTERGY GULF STATES UTILITIES TEXAS	Texas Industrial Energy Consumers	32710	Cross-Rebuttal	TX	Fuel and Rider IPCR Reconcilation	3/16/2007
61101	AEP TEXAS NORTH COMPANY	Texas Industrial Energy Consumers	33310	Direct	TX	Cost Allocation,Rate Design, Riders	3/13/2007
61101	AEP TEXAS CENTRAL COMPANY	Texas Industrial Energy Consumers	33309	Direct	TX	Cost Allocation,Rate Design, Riders	3/13/2007
50701	ENTERGY GULF STATES UTILITIES TEXAS	Texas Industrial Energy Consumers	32710	Direct	TX	Fuel and Rider IPCR Reconcilation	2/28/2007
41219	AEP TEXAS NORTH COMPANY	Texas Industrial Energy Consumers	31461	Direct	TX	Rider CTC design	2/15/2007
50701	ENTERGY GULF STATES UTILITIES TEXAS	Texas Industrial Energy Consumers	33586	Cross-Rebuttal	TX	Hurricane Rita reconstruction costs	1/30/2007
60104	SOUTHWESTERN ELECTRIC POWER COMPANY	Texas Industrial Energy Consumers	32898	Direct	TX	Fuel Reconciliation	1/29/2007
50701	ENTERGY GULF STATES UTILITIES TEXAS	Texas Industrial Energy Consumers	33586	Direct	TX	Hurricane Rita reconstruction costs	1/18/2007
60303	GEORGIA POWER COMPANY	Georgia Industrial Group/Georgia Textile Manufacturers Group	23540-U	Direct	GA	Fuel Cost Recovery	1/11/2007
60503	SOUTHWESTERN PUBLIC SERVICE COMPANY	Texas Industrial Energy Consumers	32766	Cross Rebuttal	TX	Cost allocation, Cost of service, Rate design	1/8/2007



PROJECT	UTILITY	ON BEHALF OF	DOCKET	TYPE	REGULATORY JURISDICTION	SUBJECT	DATE
60503	SOUTHWESTERN PUBLIC SERVICE COMPANY	Texas Industrial Energy Consumers	32766	Direct	TX	Cost allocation, Cost of service, Rate design	12/22/2006
60503	SOUTHWESTERN PUBLIC SERVICE COMPANY	Texas Industrial Energy Consumers	32766	Direct	TX	Revenue Requirements,	12/15/2006
60503	SOUTHWESTERN PUBLIC SERVICE COMPANY	Texas Industrial Energy Consumers	32766	Direct	TX	Fuel Reconcilation	12/15/2006
50701	ENTERGY GULF STATES UTILITIES TEXAS	Texas Industrial Energy Consumers	32907	Cross Rebuttal	TX	Hurricane Rita reconstruction costs	10/12/06
50701	ENTERGY GULF STATES UTILITIES TEXAS	Texas Industrial Energy Consumers	32907	Direct	TX	Hurricane Rita reconstruction costs	10/09/06
60101	COLQUITT EMC	ERCO Worldwide	23549-U	Direct	GA	Service Territory Transfer	09/13/06
60601	TEXAS PUC STAFF	Texas Industrial Energy Consumers	32795	Cross Rebuttal	TX	Stranded Cost Reallocation	09/07/06
50503	AEP TEXAS CENTRAL COMPANY	Texas Industrial Energy Consumers	32758	Direct	TX	Rider CTC design and cost recovery	08/24/06
60601	TEXAS PUC STAFF	Texas Industrial Energy Consumers	32795	Direct	TX	Stranded Cost Reallocation	08/23/06
60104	SOUTHWESTERN ELECTRIC POWER COMPANY	Texas Industrial Energy Consumers	32672	Direct	TX	ME-SPP Transfer of Certificate to SWEPCO	8/23/2006
60503	SOUTHWESTERN PUBLIC SERVICE COMPANY	Texas Industrial Energy Consumers	32685	Direct	TX	Fuel Surcharge	07/26/06
60301	PUBLIC SERVICE ELECTRIC AND GAS COMPANY	New Jersey Large Energy Consumers	171406	Direct	NJ	Gas Delivery Cost allocation and Rate design	06/21/06
60303	GEORGIA POWER COMPANY	Georgia Industrial Group/Georgia Textile Manufacturers Group	22403-U	Direct	GA	Fuel Cost Recovery Allowance	05/05/06
50503	AEP TEXAS CENTRAL COMPANY	Texas Industrial Energy Consumers	32475	Cross-Rebuttal	TX	ADFIT Benefit	04/27/06
50503	AEP TEXAS CENTRAL COMPANY	Texas Industrial Energy Consumers	32475	Direct	TX	ADFIT Benefit	04/17/06
41229	TEXAS-NEW MEXICO POWER COMPANY	Texas Industrial Energy Consumers	31994	Cross-Rebuttal	TX	Stranded Costs and Other True-Up Balances	3/16/2006
41229	TEXAS-NEW MEXICO POWER COMPANY	Texas Industrial Energy Consumers	31994	Direct	TX	Stranded Costs and Other True-Up Balances	3/10/2006
50303	SOUTHWESTERN PUBLIC SERVICE COMPANY	Occidental Perman Ltd. Occidental Power Marketing	05-00341	Direct	NM	Fuel Reconciliation	3/7/2006
50701	ENTERGY GULF STATES UTILITIES TEXAS	Texas Industrial Energy Consumers	31544	Cross-Rebuttal	TX	Transition to Competition Costs	01/13/06
50701	ENTERGY GULF STATES UTILITIES TEXAS	Texas Industrial Energy Consumers	31544	Direct	TX	Transition to Competition Costs	01/13/06
50601	PUBLIC SERVICE ELECTRIC AND GAS COMPANY AND EXELON CORPORATION	New Jersey Large Energy Consumers Retail Energy Supply Association	BPU EM05020106 OAL PUC-1874-05	Surrebuttal	NJ	Merger	12/22/2005
50705	SOUTHWESTERN PUBLIC SERVICE COMPANY	Occidental Penman Ltd. Occidental Power Marketing	EL05-19-002, ER05-168-001	Responsive	FERC	Fuel Cost adjustment clause (FCAC)	11/18/2005
50601	PUBLIC SERVICE ELECTRIC AND GAS COMPANY AND EXELON CORPORATION	New Jersey Large Energy Consumers Retail Energy Supply Association	BPU EM05020106 OAL PUC-1874-05	Direct	NJ	Merger	11/14/2005
50102	PUBLIC UTILITY COMMISSION OF TEXAS	Texas Industrial Energy Consumers	31540	Direct	TX	Nodal Market Protocols	11/10/2005
50701	ENTERGY GULF STATES UTILITIES TEXAS	Texas Industrial Energy Consumers	31315	Cross-Rebuttal	TX	Recovery of Purchased Power Capacity Costs	10/4/2005
50701	ENTERGY GULF STATES UTILITIES TEXAS	Texas Industrial Energy Consumers	31315	Direct	TX	Recovery of Purchased Power Capacity Costs	9/22/2005
50705	SOUTHWESTERN PUBLIC SERVICE COMPANY	Occidental Penman Ltd. Occidental Power Marketing	EL05-19-002, ER05-168-001	Responsive	FERC	Fuel Cost Adjustment Clause (FCAC)	9/19/2005
50503	AEP TEXAS CENTRAL COMPANY	Texas Industrial Energy Consumers	31056	Direct	TX	Stranded Costs and Other True-Up Balances	9/2/2005



PROJECT	UTILITY	ON BEHALF OF	DOCKET	TYPE	REGULATORY JURISDICTION	SUBJECT	DATE
50705	SOUTHWESTERN PUBLIC SERVICE COMPANY	Occidental Periman Ltd. Occidental Power Marketing	EL05-19-00, ER05-168-00	Direct	FERC	Fuel Cost adjustment clause (FCAC)	8/19/2005
50203	GEORGIA POWER COMPANY	Georgia Industrial Group/Georgia Textile Manufacturers Group	19142-U	Direct	GA	Fuel Cost Recovery	4/8/2005
41230	CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC	Texas Industrial Energy Consumers	30706	Direct	TX	Competition Transition Charge	3/16/2005
41230	CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC	Texas Industrial Energy Consumers	30485	Supplemental Direct	TX	Financing Order	1/14/2005
41230	CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC	Texas Industrial Energy Consumers	30485	Direct	TX	Financing Order	1/7/2005
8201	PUBLIC SERVICE COMPANY OF COLORADO	Colorado Energy Consumers	04S-164E	Cross Answer	СО	Cost of Service Study, Interruptible Rate Design	12/13/2004
8201	PUBLIC SERVICE COMPANY OF COLORADO	Colorado Energy Consumers	04S-164E	Answer	со	Cost of Service Study, Interruptible Rate Design	10/12/2004
8244	GEORGIA POWER COMPANY	Georgia Industrial Group/Georgia Textile Manufacturers Group	18300-U	Direct	GA	Revenue Requirements, Revenue Aflocation, Cost of Service, Rate Design, Economic Development	10/8/2004
8195	CENTERPOINT, RELIANT AND TEXAS GENCO	Texas Industrial Energy Consumers	29526	Direct	TX	True-Up	6/1/2004
8156	GEORGIA POWER COMPANY/SAVANNAH ELECTRIC AND POWER COMPANY	Georgia Industrial Group	17687-U/17688-U	Direct	GA	Demand Side Management	5/14/2004
8148	TEXAS-NEW MEXICO POWER COMPANY	Texas Industrial Energy Consumers	29206	Direct	TX	True-Up	3/29/2004
8095	CONECTIV POWER DELIVERY	New Jersey Large Energy Consumers	ER03020110	Surrebuttal	NJ	Cost of Service	3/18/2004
8111	AEP TEXAS CENTRAL COMPANY	Texas Industrial Energy Consumers	28840	Rebuttal	TX	Cost Allocation and Rate Design	2/4/2004
8095	CONECTIV POWER DELIVERY	New Jersey Large Energy Consumers	ER03020110	Direct	NJ	Cost Allocation and Rate Design	1/4/2004
7850	RELIANT ENERGY HL&P	Texas Industrial Energy Consumers	26195	Supplemental Direct	TX	Fuel Reconciliation	9/23/2003
8045	VIRGINIA ELECTRIC AND POWER COMPANY	Virginia Committee for Fair Utility Rates	PUE-2003-00285	Direct	VA	Stranded Cost	9/5/2003
8022	GEORGIA POWER COMPANY	Georgia Industrial Group/Georgia Textile Manufacturers Group	17066-U	Direct	GA	Fuel Cost Recovery	7/22/2003
8002	AEP TEXAS CENTRAL COMPANY	Flint Hills Resources, LP	25395	Direct	TX	Delivery Service Tariff Issues	5/9/2003
7857	PUBLIC SERVICE ELECTRIC AND GAS COMPANY	New Jersey Large Energy Consumers	ER02050303	Supplemental	NJ	Cost of Service	3/14/2003
7850	RELIANT ENERGY HL&P	Texas Industrial Energy Consumers	26195	Direct	TX	Fuel Reconciliation	12/31/2002
7857	PUBLIC SERVICE ELECTRIC AND GAS COMPANY	New Jersey Large Energy Consumers	ER02050303	Surrebuttal	NJ	Revenue Allocation	12/16/2002
7836	PUBLIC SERVICE COMPANY OF COLORADO	Colorado Energy Consumers	02S-315EG	Answer	co	Incentive Cost Adjustment	11/22/2002
7857	PUBLIC SERVICE ELECTRIC AND GAS COMPANY	New Jersey Large Energy Consumers	ER02050303	Direct	NJ	Revenue Allocation	10/22/2002
7863	DOMINION VIRGINIA POWER	Virginia Committee for Fair Utility Rates	PUE-2001-00306	Direct	VA	Generation Market Prices	8/12/2002
7718	FLORIDA POWER CORPORATION	Florida Industrial Power Users Group	000824-EI	Direct	FL	Rate Design	1/18/2002
7633	GEORGIA POWER COMPANY	Georgia Industrial Group/Georgia Textile Manufacturers Group	14000-U	Direct	GA	Cost of Service Study, Revenue Allocation, Rate Design	10/12/2001
7555	TAMPA ELECTRIC COMPANY	Florida Industrial Power Users Group	010001-EI	Direct	FL	Rate Design	10/12/2001
7658	SOUTHWESTERN ELECTRIC POWER COMPANY	Texas Industrial Energy Consumers	24468	Direct	TX	Delay of Retail Competition	9/24/2001
7647	ENTERGY GULF STATES, INC.	Texas Industrial Energy Consumers	24469	Direct	TX	Delay of Retail Competition	9/22/2001
7608	RELIANT ENERGY HL&P	Texas Industrial Energy Consumers	23950	Direct	TX	Price to Beat	7/3/2001
7593	GEORGIA POWER COMPANY	Georgia Industrial Group/Georgia Textile Manufacturers Group	13711-U	Direct	GA	Fuel Cost Recovery	5/11/2001



PROJECT	UTILITY	ON BEHALF OF	DOCKET	TYPE	REGULATORY JURISDICTION	SUBJECT	DATE
7520	GEORGIA POWER COMPANY SAVANNAH ELECTRIC & POWER COMPANY	Georgia Industrial Group/Georgia Textile Manufacturers Group	12499-U,13305-U, 13306-U	Direct	GA	Integrated Resource Planning	5/11/2001
7303	ENTERGY GULF STATES, INC.	Texas Industrial Energy Consumers	22356	Rebuttal	TX	Allocation/Collection of Municipal Franchise Fees	3/31/2001
7309	SOUTHWESTERN PUBLIC SERVICE COMPANY	Texas Industrial Energy Consumers	22351	Cross-Rebuttal	TX	Energy Efficiency Costs	2/22/2001
7305	CPL, SWEPCO, and WTU	Texas Industrial Energy Consumers	22352, 22353, 22354	Cross-Rebuttal	TX	Allocation/Collection of Municipal Franchise Fees	2/20/2001
7423	GEORGIA POWER COMPANY	Georgia Industrial Group/Georgia Textile Manufacturers Group	13140-U	Direct	GA	Interruptible Rate Design	2/16/2001
7305	CPL, SWEPCO, and WTU	Texas Industrial Energy Consumers	22352, 22353, 22354	Supplemental Direct	TX	Transmission Cost Recovery Factor	2/13/2001
7310	TEXAS-NEW MEXICO POWER COMPANY	Texas Industrial Energy Consumers	22349	Cross-Rebuttal	TX	Rate Design	2/12/2001
7308	TXU ELECTRIC COMPANY	Texas Industrial Energy Consumers	22350	Cross-Rebuttal	TX	Unbundled Cost of Service	2/12/2001
7303	ENTERGY GULF STATES, INC.	Texas Industrial Energy Consumers	22356	Cross-Rebuttal	TX	Stranded Cost Allocation	2/6/2001
7308	TXU ELECTRIC COMPANY	Texas Industrial Energy Consumers	22350	Direct	TX	Rate Design	2/5/2001
7303	ENTERGY GULF STATES, INC.	Texas Industrial Energy Consumers	22356	Supplemental Direct	TX	Rate Design	1/25/2001
7307	RELIANT ENERGY HL&P	Texas Industrial Energy Consumers	22355	Cross-Rebuttal	TX	Stranded Cost Allocation	1/12/2001
7303	ENTERGY GULF STATES, INC	Texas Industrial Energy Consumers	22356	Direct	TX	Stranded Cost Allocation	1/9/2001
7307	RELIANT ENERGY HL&P	Texas Industrial Energy Consumers	22355	Direct	TX	Cost Allocation	12/13/2000
7375	CENTRAL POWER AND LIGHT COMPANY	Texas Industrial Energy Consumers	22352	Cross-Rebuttal	TX	CTC Rate Design	12/1/2000
7375	CENTRAL POWER AND LIGHT COMPANY	Texas Industrial Energy Consumers	22352	Direct	TX	Cost Allocation	11/1/2000
7308	TXU ELECTRIC COMPANY	Texas Industrial Energy Consumers	22350	Direct	TX	Cost Allocation	11/1/2000
7308	TXU ELECTRIC COMPANY	Texas Industrial Energy Consumers	22350	Cross-Rebuttal	TX	Cost Allocation	11/1/2000
7305	CPL, SWEPCO, and WTU	Texas Industrial Energy Consumers	22352, 22353, 22354	Direct	TX	Excess Cost Over Market	11/1/2000
7315	VARIOUS UTILITIES	Texas Industrial Energy Consumers	22344	Direct	TX	Generic Customer Classes	10/14/2000
7308	TXU ELECTRIC COMPANY	Texas Industrial Energy Consumers	22350	Direct	TX	Excess Cost Over Market	10/10/2000
7315	VARIOUS UTILITIES	Texas Industrial Energy Consumers	22344	Rebuttal	TX	Excess Cost Over Market	10/1/2000
7310	TEXAS-NEW MEXICO POWER COMPANY	Texas Industrial Energy Consumers	22349	Cross-Rebuttal	TX	Generic Customer Classes	10/1/2000
7310	TEXAS-NEW MEXICO POWER COMPANY	Texas Industrial Energy Consumers	22349	Direct	TX	Excess Cost Over Market	9/27/2000
7307	RELIANT ENERGY HL&P	Texas Industrial Energy Consumers	22355	Cross-Rebuttal	TX	Excess Cost Over Market	9/26/2000
7307	RELIANT ENERGY HL&P	Texas Industrial Energy Consumers	22355	Direct	TX	Excess Cost Over Market	9/19/2000
7334	GEORGIA POWER COMPANY	Georgia Industrial Group/Georgia Textile Manufacturers Group	11708-U	Rebuttal	GA	RTP Petition	3/24/2000
7334	GEORGIA POWER COMPANY	Georgia Industrial Group/Georgia Textile Manufacturers Group	11708-U	Direct	GA	RTP Petition	3/1/2000
7232	PUBLIC SERVICE COMPANY OF COLORADO	Colorado Industrial Energy Consumers	99A-377EG	Answer	co	Merger	12/1/1999
7258	TXU ELECTRIC COMPANY	Texas Industrial Energy Consumers	21527	Direct	TX	Secuntization	11/24/1999
7246	CENTRAL POWER AND LIGHT COMPANY	Texas Industrial Energy Consumers	21528	Direct	TX	Secuntization	11/24/1999
7089	VIRGINIA ELECTRIC AND POWER COMPANY	Virginia Committee for Fair Utility Rates	PUE980813	Direct	VA	Unbundled Rates	7/1/1999
7090	AMERICAN ELECTRIC POWER SERVICE CORPORATION	Old Dominion Committee for Fair Utility Rates	PUE980814	Direct	VA	Unbundled Rates	5/21/1999



PROJECT	UTILITY	ON BEHALF OF	DOCKET	TYPE	REGULATORY JURISDICTION	SUBJECT	DATE
7142	SHARYLAND UTILITIES, L.P.	Sharyland Utilities	20292	Rebuttal	TX	Certificate of Convenience and Necessity	4/30/1999
7060	PUBLIC SERVICE COMPANY OF COLORADO	Colorado Industrial Energy Consumers Group	98A-511E	Direct	со	Allocation of Pollution Control Costs	3/1/1999
7039	SAVANNAH ELECTRIC AND POWER COMPANY	Various Industrial Customers	10205-U	Direct	GA	Fuel Costs	1/1/1999
6945	TAMPA ELECTRIC COMPANY	Florida Industrial Power Users Group	950379-EI	Direct	FL	Revenue Requirement	10/1/1998
6873	GEORGIA POWER COMPANY	Georgia Industrial Group	9355-U	Direct	GA	Revenue Requirement	10/1/1998
6729	VIRGINIA ELECTRIC AND POWER COMPANY	Virginia Committee for Fair Utility Rates	PUE960036,PUE960296	Direct	VA	Alternative Regulatory Plan	8/1/1998
6713	CENTRAL POWER AND LIGHT COMPANY	Texas Industrial Energy Consumers	16995	Cross-Rebuttal	TX	IRR	1/1/1998
6758	SOUTHWESTERN ELECTRIC POWER COMPANY	Texas Industrial Energy Consumers	17460	Direct	TX	Fuel Reconciliation	12/1/1997
6729	VIRGINIA ELECTRIC AND POWER COMPANY	Virginia Committee for Fair Utility Rates	PUE960036,PUE960296	Direct	VA	Alternative Regulatory Plan	12/1/1997
6713	CENTRAL POWER AND LIGHT COMPANY	Texas Industrial Energy Consumers	16995	Direct	TX	Rate Design	12/1/1997
6646	ENTERGY TEXAS	Texas Industrial Energy Consumers	16705	Rebuttal	TX	Competitive Issues	10/1/1997
6646	ENTERGY TEXAS	Texas Industrial Energy Consumers	16705	Rebuttal	TX	Competition	10/1/1997
6646	ENTERGY TEXAS	Texas Industrial Energy Consumers	473-96-2285/16705	Direct	TX	Rate Design	9/1/1997
6646	ENTERGY TEXAS	Texas Industrial Energy Consumers	16705	Direct	TX	Wholesale Sales	8/1/1997
6744	TAMPA ELECTRIC COMPANY	Florida Industrial Power Users Group	970171-EU	Direct	FL	Interruptible Rate Design	5/1/1997
6632	MISSISSIPPI POWER COMPANY	Colonial Pipeline Company	96-UN-390	Direct	MS	Interruptible Rates	2/1/1997
6558	TEXAS-NEW MEXICO POWER COMPANY	Texas Industrial Energy Consumers	15560	Direct	TX	Competition	11/11/1996
6508	TEXAS UTILITIES ELECTRIC COMPANY	Texas Industrial Energy Consumers	15195	Direct	TX	Treatment of margins	9/1/1996
6475	TEXAS UTILITIES ELECTRIC COMPANY	Texas Industrial Energy Consumers	15015	DIRECT	TX	Real Time Pricing Rates	8/8/1996
6449	CENTRAL POWER AND LIGHT COMPANY	Texas Industrial Energy Consumers	14965	Direct	TX	Quantification	7/1/1996
6449	CENTRAL POWER AND LIGHT COMPANY	Texas Industrial Energy Consumers	14965	Direct	TX	Interruptible Rates	5/1/1996
6449	CENTRAL POWER AND LIGHT COMPANY	Texas Industrial Energy Consumers	14965	Rebuttal	TX	Interruptible Rates	5/1/1996
6523	PUBLIC SERVICE COMPANY OF COLORADO	Multiple Intervenors	95A-531EG	Answer	co	Merger	4/1/1996
6235	TEXAS UTILITIES ELECTRIC COMPANY	Texas Industrial Energy Consumers	13575	Direct	TX	Competitive Issues	4/1/1996
6435	SOUTHWESTERN PUBLIC SERVICE COMMISSION	Texas Industrial Energy Consumers	14499	Direct	TX	Acquisition	11/1/1995
6391	HOUSTON LIGHTING & POWER COMPANY	Grace, W R. & Company	13988	Rebuttal	TX	Rate Design	8/1/1995
6353	SOUTHWESTERN PUBLIC SERVICE COMPANY	Texas Industrial Energy Consumers	14174	Direct	ŤΧ	Costing of Off-System Sales	8/1/1995
6157	WEST TEXAS UTILITIES COMPANY	Texas Industrial Energy Consumers	13369	Rebuttal	TX	Cancellation Term	8/1/1995
6391	HOUSTON LIGHTING & POWER COMPANY	Grace, W.R. & Company	13988	Direct	TX	Rate Design	7/1/1995
6157	WEST TEXAS UTILITIES COMPANY	Texas Industrial Energy Consumers	13369	Direct	TX	Cancellation Term	7/1/1995
6296	GEORGIA POWER COMPANY	Georgia Industrial Group	5601-U	Rebuttal	GA	EPACT Rate-Making Standards	5/1/1995
6296	GEORGIA POWER COMPANY	Georgia Industrial Group	5601-U	Direct	GA	EPACT Rate-Making Standards	5/1/1995
6278	COMMONWEALTH OF VIRGINIA	VCFUR/ODCFUR	PUE940067	Rebuttal	VA	Integrated Resource Planning	5/1/1995
6295	GEORGIA POWER COMPANY	Georgia Industrial Group	5600-U	Supplemental	GA	Cost of Service	4/1/1995
6063	PUBLIC SERVICE COMPANY OF COLORADO	Multiple Intervenors	941-430EG	Rebuttal	co	Cost of Service	4/1/1995



PROJECT	UTILITY	ON BEHALF OF	DOCKET	TYPE	REGULATORY JURISDICTION	SUBJECT	DATE
6063	PUBLIC SERVICE COMPANY OF COLORADO	Multiple Intervenors	94I-430EG	Reply	co	DSM Rider	4/1/1995
6295	GEORGIA POWER COMPANY	Georgia Industrial Group	5600-U	Direct	GA	Interruptible Rate Design	3/1/1995
6278	COMMONWEALTH OF VIRGINIA	VCFUR/ODCFUR	PUE940067	Direct	VA	EPACT Rate-Making Standards	3/1/1995
6125	SOUTHWESTERN PUBLIC SERVICE COMPANY	Texas Industrial Energy Consumers	13456	Direct	TX	DSM Rider	3/1/1995
6235	TEXAS UTILITIES ELECTRIC COMPANY	Texas Industrial Energy Consumers	13575 13749	Direct	TX	Cost of Service	2/1/1995
6063	PUBLIC SERVICE COMPANY OF COLORADO	Multiple Intervenors	94I-430EG	Answering	со	Competition	2/1/1995
6061	HOUSTON LIGHTING & POWER COMPANY	Texas Industrial Energy Consumers	12065	Direct	TX	Rate Design	1/1/1995
6181	GULF STATES UTILITIES COMPANY	Texas Industrial Energy Consumers	12852	Direct	TX	Competitive Alignment Proposal	11/1/1994
6061	HOUSTON LIGHTING & POWER COMPANY	Texas Industrial Energy Consumers	12065	Direct	TX	Rate Design	11/1/1994
5929	CENTRAL POWER AND LIGHT COMPANY	Texas Industrial Energy Consumers	12820	Direct	TX	Rate Design	10/1/1994
6107	SOUTHWESTERN ELECTRIC POWER COMPANY	Texas Industrial Energy Consumers	12855	Direct	TX	Fuel Reconciliation	8/1/1994
6112	HOUSTON LIGHTING & POWER COMPANY	Texas Industrial Energy Consumers	12957	Direct	TX	Standby Rates	7/1/1994
5698	GULF POWER COMPANY	Misc. Group	931044-EI	Direct	FL	Standby Rates	7/1/1994
5698	GULF POWER COMPANY	Misc. Group	931044-EI	Rebuttal	FL	Competition	7/1/1994
6043	EL PASO ELECTRIC COMPANY	Phelps Dodge Corporation	12700	Direct	TX	Revenue Requirement	6/1/1994
6082	GEORGIA PUBLIC SERVICE COMMISSION	Georgia Industrial Group	4822-U	Direct	GA	Avoided Costs	5/1/1994
6075	GEORGIA POWER COMPANY	Georgia Industrial Group	4895-U	Direct	GA	FPC Certification Filing	4/1/1994
6025	MISSISSIPPI POWER & LIGHT COMPANY	MIEG	93-UA-0301	Comments	MS	Environmental Cost Recovery Clause	1/21/1994
5971	FLORIDA POWER & LIGHT COMPANY	Florida Industrial Power Users Group	940042-EI	Direct	FL	Section 712 Standards of 1992 EPACT	1/1/1994
*Testimony wa	as subsequently removed from the official record by Rulin	g dated March 30, 2017					

### Installed Cost of Wind Projects <u>Placed in Commercial Operation in 2015-2016</u>

Line	Wind Project	State	Commercial Operation Date	Capacity (MW)	Installed Cost (\$/kW)	Cost Differential
		(1)	(2)	(3)	(4)	(5)
1	Project Beethoven (B&H Wind Farm)	SD	<b>M</b> ay 2015	80	\$1,447	-12.9%
2	Courtenay Wind Farm Highland II Wind Project (Wind X) (O'Brien	ND	Nov 2016	200	\$1,465	-11.5%
3	County)	IA	Dec 2016	250	\$1,488	-9.8%
4	Adams Wind Farm (Wind IX Iowa Project)	IA	Jan 2016	150	\$1,529	-6.9%
5	Sagamore & Hale Wind Projects	NM TX	Jun 2019 <b>M</b> ay 2020	522 476	\$1,634	0.0%
6	Bison 4 Wind Farm	ND	Jan 2015	205	\$1,591	-2.7%
7	Ida Grove Wind Project (Wind X)	IA	Dec 2016	301	\$1,656	1.3%
8	Pleasant Valley Wind Farm	MN	Nov 2015	200	\$1,680	2.7%
9	Highland Wind (Wind VIII & IX Project)	IA	Dec 2015	459	\$1,689	3.3%
10	Border Winds Power Project	ND	Dec 2015	150	\$1,764	7.4%
11	Peak View Wind Project	co	Nov 2016	60	\$1,780	8.2%
12	Thunder Spirit Wind Farm	ND	Dec 2015	108	\$1,953	16.3%

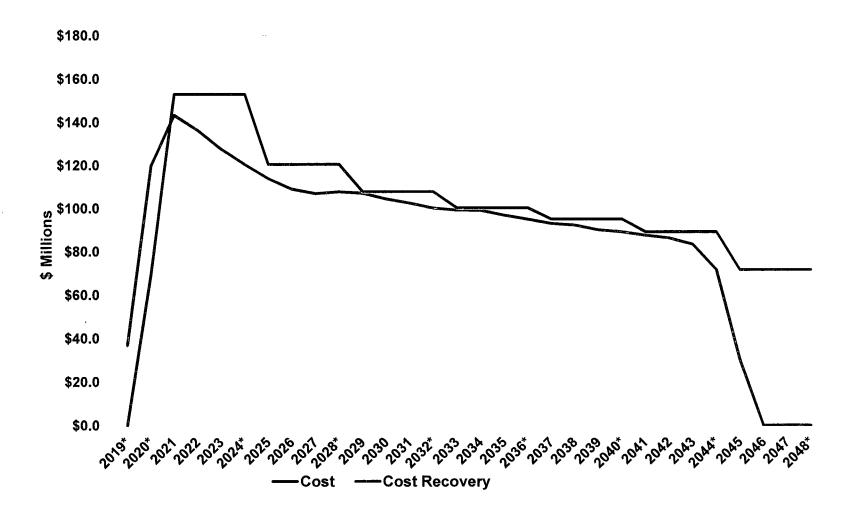
Source: Application; SNL, an offering of S&P Global Market Intelligence; Table RH-5.

## Net Capacity Factor of Wind Projects Within 100 Miles of Either The Hale or The Sagamore Plant Sites Placed in Commercial Operation in 2015

Line	Wind Project	State	Commercial Operation Date	Capacity (MW)	2016 Net Capacity Factor
		(1)	(2)	(3)	(4)
1	Roosevelt Wind Ranch	NM	Dec 2015	250	47.8%
2	Hereford Wind Farm II (Jumbo Road)	TX	Apr 2015	300	37.8%
3	Spinning Spur Wind III	TX	Sep 2015	194	47.8%
4	South Plains Wind Energy (Floyd County Wind Farm)	TX	Nov 2015	200	46.6%
5	Briscoe Wind Farm	TX	Oct 2015	150	36.5%
6	Longhorn North Wind Project	TX	May 2015	200	43.5%
7	Route 66 Wind Power Project	TX	Aug 2015	150	52.1%
8	Mesquite Creek Wind Project	TX	Apr 2015	211	39.2%
9	Stephens Ranch Wind Energy Project	TX	May 2015	376	41.3%
10	Average				43.6%

Source: SNL, an offering of S&P Global Market Intelligence.

### **Regulatory Lag Illustration**



<sup>\*</sup> Rate Case Filed.