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Charles J. Beck Deputy Public Counsel

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June 27, 2005

Blanca S. Bayo, Director **Division of Records and Reporting** Florida Public Service Commission 2540 Shumard Oak Blvd. Tallahassee, FL 32399-0850

Re: Docket Nos. 050045-EI & 050188-EI

Dear Ms. Bayo:

Enclosed for filing, on behalf of the Office of Public Counsel, are the original and 25 copies of the Direct Testimony of David E. Dismukes, PH.D.

Please indicate the time and date of receipt on the enclosed duplicate of this letter and return it to our office.

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Sincerely,

charles Bick

Charles J. Beck **Deputy Public Counsel**

DOCUMENT NUMBER-CATE 06072 JUN 27 8

FPSC-COMMISSION CLEEK

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition for rate increase by Florida Power & Light Company.

In re: 2005 comprehensive depreciation study by Florida Power & Light Company. Docket No. 050045-EI

Docket No. 050188-EI

Dated: June 27, 2005

DIRECT TESTIMONY

OF

DAVID E. DISMUKES, PH.D.

On Behalf of the Citizens of the State of Florida

Harold McLean Public Counsel

Office of Public Counsel c/o The Florida Legislature 111 West Madison Street Room 812 Tallahassee, FL 32399-1400

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Attorney for the Citizens of the State of Florida

0000MENT NUMBER-DATE 06072 JUN 27 8 FPSC-COMMISSION CLERK

1	BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION						
2	DOCKET NUMBERS 050045-EI & 050188-EI						
3	DIRECT TESTIMONY OF DAVID E. DISMUKES, PH.D.						
4	ON BEHALF OF THE CITIZENS OF THE STATE OF FLORIDA						
5							
6	INTRODUCTION						
7	Q WOULD YOU PLEASE STATE YOUR NAME AND BUSINESS						
8	ADDRESS?						
9	A My name is David E. Dismukes. My business address is 6455 Overton						
10	Street, Baton Rouge, Louisiana 70808.						
11	Q WOULD YOU PLEASE STATE YOUR OCCUPATION AND						
12	CURRENT PLACE OF EMPLOYMENT?						
13	A I am a Consulting Economist with the Acadian Consulting Group						
14	("ACG") in Baton Rouge, Louisiana. ACG was formed in 1995 and is a research						
15	and consulting firm that specializes in the analysis of issues associated with						
16	regulated and energy industries						
17	Q HAVE YOU PREPARED AN ATTACHMENT OUTLINING YOUR						
18	PROFESSIONAL QUALIFICATIONS?						
19	A. Yes. Attachment 1 was prepared for that purpose.						
20	Q DO YOU HAVE AN EXHIBIT IN SUPPORT OF YOUR TESTIMONY?						
21	A Yes. OPC Exhibit No. 1, (Schedules DED-1 through DED-10), was						
22	prepared for that purpose.						

1 **Q**.

WHAT IS THE PURPOSE OF YOUR TESTIMONY?

I have been retained by the Florida Office of Public Counsel ("OPC") on 2 А 3 the behalf of the Citizens of the State of Florida ("Citizens") to examine issues associated with the proposed load forecast prepared by Florida Power & Light 4 Company ("FPL" or "the Company") in this proceeding. I have also presented 5 6 information associated with the Company's proposed test year operation and maintenance (O&M) expenditures that should be considered in evaluating the 7 8 Company's request for an additional 50 basis point incentive to its allowed return 9 on equity ("ROE").

10 Q WOULD YOU PLEASE SUMMARIZE YOUR LOAD FORECASTING 11 RECOMMENDATIONS?

12 Α Yes. I recommend that the Commission make four adjustments to the 13 Company's load forecasts. These adjustments include: (1) removing the 14 Company's proposed customer forecast adjustment associated with the 15 hurricanes of 2004; (2) updating the population forecasts to reflect more 16 contemporaneous information; (3) removing the Company's proposed price 17 adjustment for its proposed storm damage surcharge used to estimate the net 18 energy for load ("NEL") model; and (4) utilizing a different industrial sales model 19 specification to generate empirical results that are more consistent with both 20 economic theory and past sales trends. The overall revenue impact of these 21 adjustments is \$38,550,538, and my proposed forecasted customers, NEL/customer, and total NEL have been provided in Schedule DED-1. 22 My 23 revenue estimate is preliminary and may be revised in the future since many of

the inputs and assumptions requested in discovery have not been providedand/or clarified by the Company.

3 Q WOULD YOU PLEASE SUMMARIZE YOUR RECOMMENDATIONS 4 REGARDING THE COMPANY'S PROPOSED INCENTIVE RETURN 5 RECOMMENDATION?

- A. Yes. Based on my analysis of the Company's forecasted O&M expenses
 relative to industry trends, a 50 basis point ROE incentive factor is not warranted.
 I recommend that the Commission reject the Company's proposal for this
 incentive factor.
- 10 ANALYSIS OF COMPANY'S PROPOSED FORECAST

11 Q WOULD YOU PLEASE DISCUSS THE COMPANY'S PROPOSED 12 FORECASTING METHODOLOGIES?

A Generally, the Company has developed three sets of empirical models. The first set of models is associated with forecasting the annual number of customers. The second is a NEL per customer model that is used to project average customer load. The third set of models includes a number of customer class specific forecasts that are used to allocate total sales into different revenue classes.

19QDIDYOUREVIEWTHEINDIVIDUALFORECASTSINTHE20COMPANY'S FILING?

A Yes. I have reviewed the assumptions of the various models, the data,
and checked each of the statistical forecasts using SAS, a statistical software

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package. In all cases I was able to obtain extremely close, if not exact,
 estimates for each of the Company's statistical models.

3 Q HOW ARE THE COMPANY'S CUSTOMER FORECASTS DEVELOPED?

A The Company's customer forecasts are driven primarily by changes in population. As state-wide population increases, the number of FPL customers is also expected to increase. FPL relies upon population projections developed by the University of Florida's Bureau of Economic and Business Research ("BEBR"). The Company relied upon the April 2004 BEBR population projection to develop is own customer forecast. This appears to be the most recently available state population projection at the time the forecast was prepared.

11 Q ARE THE CUSTOMER FORECASTS IMPORTANT IN THE OVERALL 12 FORECASTING PROCESS?

13 А Yes. The customer forecasts are an important part of the Company's load 14 forecasting process for two reasons. First, the total number of forecasted customers is one half of the overall equation used to estimate total Company 15 usage. The other half of the equation, the NEL per customer estimate, will be 16 17 discussed in greater detail later in my testimony. Second, the customer forecasts developed by the Company feed into a series of other empirical models that 18 19 include the NEL per customer model; the residential customer forecast (as a lagged independent variable), the commercial customer forecast (as a dependent 20 21 variable), the residential sales forecast (as a per customer dependent variable). 22 and both summer and winter peak forecasts (as a per customer dependent

variable). Schedule DED-2 provides flow charts showing the interrelationships
 between the forecasting models and their respective inputs.

3 Q HAS THE COMPANY MADE ANY ADJUSTMENTS TO ITS TOTAL

4 CUSTOMER FORECAST?

5 А Yes. The Company's original customer forecast anticipated growth of 80,131 customers in 2005, 81,500 customers in 2006 and 80,616 customers in 6 2007. [Response to OPC POD 259.] However, the Company has reduced this 7 customer growth projection "...based on FPL's experience following Hurricane 8 Andrew". [Green Direct Testimony, 6: 23, 7:1.] According to the Company, it 9 10 expects customer growth to increase more slowly, at levels that will be 11 approximately 72,448 customers in 2005, 74,999 customers in 2006, and 80,001 customers in 2007. [Green Direct Testimony, LEG-2]. 12

13 Q HOW IS THE COMPANY'S NEL PER CUSTOMER MODEL 14 DEVELOPED?

15 A The NEL per customer model is based upon monthly data from the period 16 starting in January 1990 and ending with data from August 2004. The model is 17 expressed as a mathematical relationship linking total usage per customer to 18 weather trends (heating and cooling degree days), prices (real price of 19 electricity), income (Florida real personal income), and an indicator variable 20 representing the month of February.

21 Q HOW ARE THE INDIVIDUAL CUSTOMER-CLASS USAGE MODELS 22 DEVELOPED?

A The Company has developed a series of individual customer-class
 models, the results of which are used to develop allocation factors for total sales.
 There are two sets of models (customers and usage) for each major customer
 class including residential, commercial, and industrial classes. Each model is
 based upon a different set of empirical relationships.

6

7

Q ARE YOU RECOMMENDING ANY ADJUSTMENTS OR CHANGES TO ANY OF THE COMPANY'S MODELS OR FORECASTING RESULTS?

8 Α Yes. I am recommending four different adjustments that include: (1) removing the Company's proposed "out-of-model" customer forecast adjustment 9 associated with the hurricanes of 2004; (2) updating the population forecasts to 10 11 reflect more contemporaneous information; (3) removing the Company's proposed price adjustment for its proposed storm damage surcharge used to 12 13 estimate the net energy for load ("NEL") model: and (4) utilizing a different industrial sales model specification that generates empirical results that are more 14 consistent with both economic theory and past sales trends. The overall revenue 15 16 impact of these adjustments is \$38,550,538.

17 HURRICANE-RELATED CUSTOMER FORECAST ADJUSTMENT

18 Q LET'S TURN TO YOUR FIRST ADJUSTMENT. WOULD YOU EXPLAIN

19 WHY YOU BELIEVE THE COMPANY'S HURRICANE-RELATED CUSTOMER

- 20 FORECAST ADJUSTMENT SHOULD BE REJECTED?
- A Yes. I believe the adjustment should be rejected for two reasons. First,
 the Company's adjustment, even if accepted as accurate, is inappropriate to use

for rate making purposes. The test year for ratemaking purposes should reflect typical conditions and should be adjusted for one-time exogenous factors. Second, the Company's hurricane-related adjustment has been based on subjective factors that do not have a very strong empirical foundation. As I will discuss later in my testimony, the Company's last experience in making an out-of model correction of this nature was not that good.

7 Q HOW HAS THE COMMISSION DEFINED A TYPICAL TEST YEAR FOR

8 RATEMAKING PURPOSES?

9 A In 1983, the Commission noted that:

10 The function of a test year in a rate case is to provide a set period 11 of utility operations that may be analyzed so as to allow the Commission to set reasonable rates for the period the rates will be 12 in effect. A test period may be based upon an historic test year 13 14 with such adjustments (often extensive) as will make it reflect 15 typical conditions in the immediate future, and make it reasonably representative of expected future operations. Alternatively, a test 16 17 period may be based upon a projected test year which, if 18 appropriately developed and adjusted, may reasonably represent 19 expected future operations. [Tampa Electric, Docket No. 830012-20 EU; ORDER NO. 12663, November 7, 1983.]

21

22 Q DOES THE COMPANY RECOGNIZE THAT ITS TEST YEAR 23 CUSTOMER ESTIMATES ARE NOT TYPICAL?

A Yes. The Company clearly recognizes that its test year customer forecast is not in keeping with typical trends. The Company notes that they are "...assuming the impact of the 2004 hurricanes will be short-lived and customer

growth will return to normal in a couple of years as opposed to the impact of Hurricane Andrew which lasted six years." [Green Direct Testimony, 8:1-3.] Thus, in addition to noting that the forecast is not based on a typical year, the Company has also noted that trends in customer and sales growth will be different than the experience of Hurricane Andrew – the source of its underlying hurricane-related adjustments.

7 Q WHY DO YOU BELIEVE THAT THE COMPANY'S HURRICANE-8 RELATED ADJUSTMENTS ARE NOT IN KEEPING WITH THE REGULATORY 9 PRINCIPLES OF A TYPICAL TEST YEAR?

10 The hurricanes of 2004 occurred in the past, and while they may have Α 11 impacted customer growth and sales during the period of their occurrence, there 12 is no compelling evidence to suggest that these negative trends will continue and be maintained over a longer period of time in the future. In fact, the Company, by 13 14 its own admission, notes that customer growth figures will return to normal in two 15 years. Since rates in this proceeding could remain in effect for numerous years, 16 it is important to ensure that test year conditions are as close to normal as 17 reasonably possible. Building the impacts of recent hurricanes into test year 18 customers and sales estimates unnecessarily perpetuates those impacts into the 19 future.

20 Q WOULD YOU DESCRIBE THE ANALYSIS UPON WHICH THE 21 COMPANY HAS BASED ITS HURRICANE-RELATED CUSTOMER 22 ADJUSTMENT?

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1 А The Company notes that it has made its adjustment based upon the 2 experiences associated with Hurricane Andrew which occurred in 1992. [Green 3 Direct Testimony, 7: 1-23; 8:1-6.] While the Company makes this general 4 description of its adjustment, it is not entirely clear how the out-of-model 5 adjustments were specifically developed. In other words, the Company has not clearly indicated what calculations, correlations, or other quantitative estimates 6 7 were made to develop percent adjustment factors, or total customer gain reductions. When asked to provide this information in discovery, the Company 8 9 referenced the description included in the testimony. [Response to OPC 10 Interrogatory 16.] Other analyses associated with guantifying the impacts of hurricanes appears to be equally subjective. [Response to OPC Interrogatory 11 231.] It would appear from looking at the historical information on customer gain, 12 13 that the Company may have applied the same customer growth rate experienced during the Hurricane Andrew (1.7 percent) to 2004 customer information (i.e., 14 4.224,509 customers multiplied 1.7 percent). 15

16 Q WOULD YOU PLEASE EXPLAIN WHY YOU ARE REFERRING TO THIS 17 ADJUSTMENT AS "OUT-OF-MODEL?"

A The Company's adjustment has not been developed from the statistical forecasting models it has used to estimate overall sales and customers. Instead, this adjustment appears to have been made from reviews of past data and not upon any statistically estimated relationship. Hence, the adjustments are made from outside the modeling process, or "out-of-model."

1 Q ARE THERE ANY PROBLEMS ASSOCIATED WITH BASING THIS 2 OUT-OF-MODEL ADJUSTMENT ON THE HURRICANE ANDREW 3 EXPERIENCE?

4 Using factors developed from the Hurricane Andrew experience А Yes. 5 assumes that all conditions and factors that occurred during that period are the same as the ones from 2004-2006. This is clearly not the case, and an important 6 7 difference is that Hurricane Andrew occurred during a recession year (1992) in 8 which there was a contraction of economic activity in Florida. Using this 9 experience as a means to adjust customers (and ultimately sales) is going to bias 10 the resulting forecasts since the reductions associated with the hurricane versus 11 the recession cannot be separated. This bias will overestimate the decrease in 12 customer growth (i.e., the decrease will be too large). The Company has 13 provided no evidence or analyses that shows their adjustments have separated 14 the decrease in 1992 customer activity from its respective hurricane and 15 recession-related components.

16 Q WHAT WAS THE LEVEL OF ACTIVITY IN 1993, THE YEAR AFTER 17 HURRICANE ANDREW?

A Activity picked up considerably after 1992 on a percentage basis. In 1993, customer growth was some 2.3 percent. If this percent were applied to the Company's forecast, customer gain should be around 99,000 customers instead of the lower 75,000 customers assumed under the Company's out-of-model adjustment.

1 Q HAS THE COMPANY MADE SIMILAR OUT-OF-MODEL CUSTOMER 2 FORECAST ADJUSTMENTS IN PAST PROCEEDINGS?

A Yes. In the Company's last proposed rate case (Docket 001148-EI), which ended in a settlement agreement, the Company proposed to make a similar out-of-model adjustment to its customer growth forecasts because of the effects of September 11th and the economic recession during that period. During this proceeding, the Company filed an original forecast without a recession but claimed later that this forecast was too optimistic and should be revised downwards.

10 Q HOW DID THE COMPANY MAKE THESE OUT-OF-MODEL CUSTOMER 11 FORECAST REVISIONS IN THE LAST RATE CASE?

12 А Like the current proceeding, the Company made a number of general observations about past recessions and assumed that the then-current recession 13 14 would be similar to those of the past. This adjustment was "sanity-checked' by a 15 rather contorted analysis that started with a review of the annual customer gains in the 12-month period beginning 9 months after the start of each recession and 16 17 the customer gains in the 12 month period beginning 21 months after the start of each recession. These gains, in turn, were compared to the gains in the two-18 year period 15 months before the start of the recession and extending until nine 19 20 months after the start of each recession. [McMenamin Direct Testimony, Docket 001148-EI, 8:10-18.] 21

22 Q WHAT OUT-OF-MODEL ADJUSTMENTS DID THE COMPANY MAKE IN 23 THAT PROCEEDING?

1 А A comparison of the Company's last recession-related, out-of-model customer adjustments has been replicated in Schedule DED-3. This schedule 2 provides three separate customer growth forecast numbers: (1) the original 3 4 customer growth forecast developed by the Company in its original MFRs; (2) the 5 revised customer growth forecast developed by the Company in its revised 6 MFRs; and (3) the actual customer growth numbers. This schedule shows that 7 for the 2002 test year, the Company's forecasted customer growth numbers were 8 revised downwards from a gain of 85,643 customers to a gain of only 65,000 9 customers – a downward revision of 20,643 customers.

10 Q HOW DID THOSE OUT-OF-MODEL ADJUSTMENTS COMPARE TO 11 ACTUAL EXPERIENCE?

Badly. As seen in Schedule DED-3 actual customer growth was 86,931 in 12 А 13 2001 and 84,523 in 2002 (the test year). Thus, the out-of-model customer adjustment prepared by the Company in the last rate case was off by 19.523 14 15 customers in the test year. In other words, the out-of-model adjustment significantly under-predicted customer growth. Interestingly, actual customer 16 17 deviation from the originally-prepared forecast was only 1,120 customers (1.3 18 percent higher than actual).

19 Q WHAT CONCLUSIONS WOULD YOU DRAW FROM THIS 20 COMPARISON OF THE COMPANY'S LAST OUT-OF-MODEL CUSTOMER 21 GROWTH FORECAST ADJUSTMENTS?

A Recessions, like hurricanes, are somewhat unique events from a load
forecasting perspective. Their size, location, duration, and impact all have their

own characteristics and distributions. Drawing parallels between these past experiences and current events can be very difficult, if not impossible. As a result, a well-defined statistical model can perform better over the long run to any subjective review of unexpected shocks that may occur in utility's service territory.

IF THE COMMISSION ACCEPTS YOUR RECOMMENDATION DOES IT 6 Q 7 MEAN THAT ALL HISTORIC HURRICANE-RELATED IMPACTS ON 8 CUSTOMERS (AND SALES) WILL BE ELIMINATED FROM THE FORECAST? 9 А Not necessarily. The historic data upon which the Company's customer 10 and sales forecast are developed span numerous years, many of which includes 11 hurricanes and tropical storm activity. My recommendation would not attempt to 12 completely normalize all of this historic information for storms and hurricanes. 13 Rather, the recommendation is to remove the somewhat subjective, out-of-model 14 recommendation that has been developed by the Company for this specific 15 proceeding. Further, an important consideration to keep in mind is that some 16 significant slowing of customer growth is built into the original (unadjusted) 17 customer forecast. Customer growth is forecasted to decrease from 107,289 in 2004 to 80,131 in 2005 - a decrease in customer growth of some 26,806 18 19 customers. [Green Direct Testimony, LEG-1; and Response to Production of 20 Documents 259]. This is the largest absolute decrease in annual customer gain 21 in over a decade. Under my recommendation, forecasted customer gain in 2005 22 would be 85,920 customers still representing a 21,018 customer decrease over 23 the prior year.

1 Q WHAT ARE YOUR RECOMMENDATIONS REGARDING THE 2 COMPANY'S OUT-OF-MODEL HURRICANE-RELATED CUSTOMER 3 ADJUSTMENTS?

A The Commission should reject these out-of-model changes. However, a
number of other adjustments need to be made the Company's forecasting
approach before a final revenue impact adjustment can be developed.

7 ADJUSTMENTS TO CUSTOMER FORECAST DUE TO UPDATED 8 POPULATION ESTIMATES

9 Q ARE ANY UPDATED POPULATION PROJECTIONS AVAILABLE?

10 A Yes. The Company used the most recently available BEBR population 11 estimates at the time they developed their forecast. However, there is a more 12 recent state population forecast that has been provided by the Demographic 13 Estimating Conference that was released in March 2005. I recommend that the 14 Commission use these updated population projections for modeling purposes 15 and establishing forecasted customer levels for the test year.

16 Q WHAT IS THE IMPACT OF USING THE UPDATED BEBR POPULATION PROJECTIONS FOR THE COMPANY'S 17 CUSTOMER FORECASTS? 18

A Given the inter-related nature of the Company's various forecasting models, there are two general impacts that result from the use of an updated population forecast. The first is the direct impact that a revised population estimate will have on the customer forecast. The second is the indirect impact that a change in the individual customer forecast will have on other models such

as the NEL per customer model. My proposed customer forecasts, provided on
 Schedule DED-1, include both the hurricane-related customer adjustments as
 well as the adjustment for the updated population projections.

4 NEL PER CUSTOMER ADJUSTMENT

5 Q WOULD YOU PLEASE DESCRIBE THE NEL PER CUSTOMER 6 FORECAST?

7 A Yes. The NEL per customer forecast projects per customer load on a 8 monthly basis and is dependent upon a number of variables including weather 9 (heating and cooling degree days), prices, income, and an indicator variable for 10 the month of February. The NEL per customer estimate is then multiplied by the 11 total number of forecasted customers to arrive at an overall Company usage 12 amount. This overall usage forecast, in turn, is allocated to customer classes 13 after the customer class-specific sales forecasts are completed.

14 Q ARE YOU RECOMMENDING ANY CHANGES TO THE NEL PER
 15 CUSTOMER FORECAST?

16 Yes. I am recommending two changes to the manner in which this A 17 forecast is developed. First, the Company appears to have made an additional adjustment in its modeling process for hurricane-related effects. The forecasted 18 19 price of electricity that is used in many of the Company's statistical models (including the NEL per customer model) appears to have been increased to 20 account for the Company's proposed \$2.09 per 1,000 kWh two-year storm 21 22 surcharge. [Response to OPC Interrogatory 133.] I am recommending that the 23 proposed storm surcharge adjustment be removed for forecasting purposes

since it is being recovered as a rate surcharge (not in base rates) and is being
applied for a short time duration (2 years). Rates set in this proceeding could
very likely be set for a much longer period of time and a short term adjustment of
this nature does not appear to be in keeping with a typical test year. Second, the
NEL forecast should be adjusted for updated population and customer forecasts I
discussed earlier in my testimony.

7 Q WHAT IS THE IMPACT OF YOUR RECOMMENDATIONS ON THE NEL

8 PER CUSTOMER FORECAST?

9 A The 2006 NEL per customer forecast changes from 26.41 MWh per
10 customer (Company estimate) to 26.50 MWh per customer (proposed estimate).
11 The revision results in an increase to forecasted NEL per customer originally
12 provided by the Company and has been summarized on Schedule DED-1.

13 ADJUSTMENTS TO INDIVIDUAL CUSTOMER CLASS FORECASTS

14 Q DO YOU HAVE ANY RECOMMENDED CHANGES TO ANY OF THE

15 INDIVIDUAL CUSTOMER CLASS FORECASTS?

16 A Yes, I have two general recommendations. The first is to update all the 17 models, where appropriate, for updated population forecasts. The second 18 recommendation is associated with a specification change to the Company's 19 industrial customer forecast.

20 Q WOULD YOU PLEASE EXPLAIN THE REVISIONS TO THE 21 INDUSTRIAL CUSTOMER FORECAST?

A Yes. I believe that specification of the industrial customer forecast could
be improved. Currently, the Company models industrial customers as a function

1 of housing starts and population. However, the empirical results lead to an anomalous negative sign on the parameter estimates for the relationship 2 3 between industrial customers and population. In other words, the Company's 4 model predicts that industrial customers will decrease as population increases. 5 other things equal.

6 Q

HOW WOULD YOU CORRECT THIS MODEL?

7 А I would change the specification of the industrial customer model to one 8 where the dependent variable (industrial customers) is a function of housing 9 starts and industrial customers lagged by one period. The empirical results 10 associated with this new specification have been provided in Schedule DED-4.

11 Q WHAT ARE THE IMPACTS OF YOUR RECOMMENDATIONS?

12 Since the individual customer class forecasts (customers, sales) are used А 13 for allocation purposes, there are no overall changes in the forecasted total sales 14 for the test year. However, there may be revenue implications associated with 15 the shift in the allocation of sales between various customer classes.

16 ANALYSIS OF O&M TRENDS AND BENCHMARKING

17 Q HAVE YOU REVIEWED THE O&M BENCHMARKING ANALYSIS **PROVIDED BY THE COMPANY?** 18

19 Α Yes. Dr. Landon has conducted a benchmarking analysis of the 20 Company's O&M cost performance, among other analyses. The data used for 21 the O&M benchmarking analysis comes from the FERC Form 1 database and 22 spans the period from 1998-2003. The benchmarking analysis uses a variety of 23 different metrics as well as a number of different peer groups in order to examine

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the Company's O&M performance. The conclusions of the study is that FPL has
achieved high levels of performance over the historic period examined, and that
the Company has been successful in controlling and reducing operating
expenses for a period of more than 13 years. [Landon Direct Testimony, 30:3-5.]
Q WHAT IS YOUR UNDERSTANDING OF THE COMPANY'S O&M
PERFORMANCE DURING THE HISTORIC PERIOD INCLUDED IN THE
BENCHMARKING STUDY?

That the Company has performed relatively well. 8 А Schedule DED-5 9 includes a table providing the detail of FPL's performance relative over the same 10 period examined by the Company (1998-2003). As seen from the table, the 11 Company's performance has increased relatively well as compared to others in the industry. In the last few years, FPL has ranked in the top ten in terms of the 12 lowest overall non-fuel O&M costs relative to the peer group defined by Dr. 13 14 Landon.

15 Q ARE YOU FAMILIAR WITH THE COMPANY'S PROPOSAL TO OBTAIN
16 A 50 BASIS POINT BONUS ON ITS ALLOWED RETURN ON EQUITY?

A Yes. The Company is requesting a 50 basis point ROE incentive to
"recognize past superior performance and to encourage continued strong
operational performance over the long term." [Dewhurst Direct Testimony, 20: 57.]

21 Q GIVEN THE RESULTS OF THE BENCHMARKING ANALYSIS, 22 WOULDN'T THIS RECOMMENDATION SEEM REASONABLE?

While the Company has done well in terms of past O&M А No. 1 performance, it has been rewarded for this performance through the incentive 2 sharing plans approved by the Commission in 1999 and 2002. [Dewhurst Direct 3 4 Testimony, 22:11-12] No further incentive return is necessary. From a regulatory policy perspective, what has occurred in the past should remain in the 5 past. especially if the Company has already been rewarded for this behavior. 6 The important issue is the forward-looking implications of how well the Company 7 is forecasted to perform relative to its peers and whether this performance is 8 9 exceptional enough to warrant any kind of incentive.

10 Q HAVE YOU DONE ANY ANALYSIS EXAMINING THE COMPANY'S 11 FORECASTED 0&M RELATIVE TO FORECASTED INDUSTRY AVERAGES?

A Yes. I have prepared a number of schedules that examine overall, nonfuel O&M, and various sub-categories of non-fuel O&M expenses. These analyses are similar in nature to the analysis provided by the Company that examines FPL's performance relative to the large peer group of comparable utilities. Peer group utilities' O&M expenditures are forecasted into the future based upon their 5 year average expense trends.

18 Q HOW DOES THE COMPANY'S OVERALL O&M COMPARE TO THE

19 FORECASTED INDUSTRY TRENDS?

A Schedule DED-6 shows overall non-fuel O&M expenses forecasted into the period 2004-2007. Two numbers for FPL have been highlighted: one for "trend" O&M and one for "proposed" O&M. The "trend" O&M is based upon FPL's five year average O&M expense growth, the "proposed" is what has been

presented by Dr. Landon. As seen in the table, under its O&M expense proposal 1 in this rate case, the Company's position falls relative to other peer-group utilities. 2 HOW DOES THE A&G PORTION OF THE COMPANY'S O&M 3 Q COMPARE WITH INDUSTRY TRENDS? 4 5 Α Schedule DED-7 shows the sub-detail for the Company's A&G expenses 6 relative to its industry peer group. The table shows both the trend and proposed 7 expense levels. Under its proposal in this rate case, the Company's A&G 8 expense performance falls relative to other peer group utilities. HOW DOES THE COMPANY'S NUCLEAR O&M COMPARE TO 9 Q INDUSTRY TRENDS? 10 11 Α Schedule DED-8 shows the sub-detail for the Company's nuclear non-fuel 12 O&M expenses relative to its industry peer group. Like A&G expenses, the 13 Company's nuclear O&M expense level proposals would have it losing ground 14 relative to other peer group utilities.

15 Q HOW DOES THE COMPANY'S TRANSMISSION O&M COMPARE TO 16 INDUSTRY TRENDS?

A Schedule DED-9 shows the sub-detail for the Company's transmission
O&M expenses relative to its industry peer group. As seen in the table, FPL's
position deteriorates relative to the trend for other peer group utilities.

20 Q HOW DOES THE COMPANY'S STEAM GENERATION O&M COMPARE

21 TO INDUSTRY TRENDS?

A Schedule DED-10 shows the sub-detail for the Company's steam
generation O&M expenses relative to its industry peer group. Like the other

expense categories, relative performance is deteriorating relative to trend, not
 improving.

3 Q GIVEN THESE TRENDS, DOES APPROVING AN INCENTIVE RETURN

4 SEEM TO BE IN ORDER?

5 А No. The important consideration for the Commission should be the extent 6 to which accepting the Company's proposed incentive will stimulate exceptional 7 performance on a forward going basis. Given existing industry trends, and the 8 Company's proposals in this proceeding, its relative O&M position will deteriorate 9 relative to the trends in the peer group (as well as its own historic trends), not 10 improve. This is not a good justification for an incentive return. Further, the 11 Company has noted that "[f]urther opportunities to realize operational efficiencies 12 are more limited [in the future] than in the past." [Stamm Direct Testimony, 9:9-13 10] If this is true, then it seems doubtful that an incentive of the nature proposed by the Company will have any impact in improving the Company's performance 14 15 and encouraging greater efficiencies.

16 **CONCLUSIONS**

17 Q WOULD YOU PLEASE SUMMARIZE YOUR FORECASTING 18 RECOMMENDATIONS?

A. Yes. I recommend that the Commission make the four adjustments to the Company's load forecasts. These adjustments include: (1) removing the Company's proposed customer forecast adjustment associated with the hurricanes of 2004; (2) updating the population forecasts to reflect more contemporaneous information; (3) removing the Company's proposed price

1 adjustment for its proposed storm damage surcharge used to estimate the net 2 energy for load ("NEL") model; and (4) utilizing a different industrial sales model 3 specification that generates empirical results that are more consistent with both 4 economic theory and past sales trends. The overall revenue impact of these adjustments is \$38,550,538, and my proposed forecasted customers, 5 6 NEL/customer, and total NEL have been provided in Schedule DED-1. My 7 revenue estimate is preliminary and may be revised in the future since many of 8 the inputs and assumptions requested in discovery have not been provided 9 and/or clarified by the Company. 10 Q WOULD YOU PLEASE SUMMARIZE YOUR INCENTIVE ROE 11 **RECOMMENDATION?** 12 Yes. Based on my analysis of the Company's forecasted O&M expenses Α. 13 relative to industry trends, a 50 basis point ROE incentive factor is not warranted. 14

14 I recommend that the Commission reject the Company's proposal for this15 incentive factor.

16 Q DOES THIS CONCLUDE YOUR TESTIMONY FILED ON JUNE 27,
17 2005?

18 A Yes it does.

19

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CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a copy of the foregoing has been furnished by U.S.

Mail or hand-delivery to the following parties on this 27th day of June, 2005.

anarles 1 Bedr

Charles J. Beck

R. Wade Litchfield

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ATTACHMENT 1

QUALIFICATIONS OF DAVID E. DISMUKES, PH.D.

ATTACHMENT 1

DAVID E. DISMUKES

Associate Professor & Associate Director Center for Energy Studies Louisiana State University Baton Rouge, LA 70803-0301 (225) 578-4343

Consulting Economist Acadian Consulting Group 6455 Overton Street Baton Rouge, LA 70808 dismukes@Jsu.edu

EDUCATION

Ph.D., Economics, Florida State University, 1995.
M.S., Economics, Florida State University, 1992.
M.S., International Affairs, Florida State University, 1988.
B.A., History, University of West Florida, 1987.
A.A., Liberal Arts, Pensacola Junior College, 1985.

Master's Thesis: Nuclear Power Project Disallowances: A Discrete Choice Model of Regulatory Decisions

Ph.D. Dissertation: An Empirical Examination of Environmental Externalities and the Least-Cost Selection of Electric Generation Facilities

ACADEMIC APPOINTMENTS

Louisiana State University, Baton Rouge, Louisiana

Center for Energy Studies

2003-Current	Associate Director
2001-Current	Associate Professor
2000-2001	Research Fellow and Adjunct Assistant Professor
1999-2000	Managing Director, Distributed Energy Resources Initiative
1995-2000	Assistant Professor

E.J. Ourso College of Business Administration, Department of Economics

2001-Current	Adjunct Associate Professor
1999-2000	Adjunct Assistant Professor

Florida State University, Tallahassee, Florida Department of Economics

1995 Instructor

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PROFESSIONAL EXPERIENCE

Acadian Consulting Group, Baton Rouge, Louisiana

2001-Current	Consulting Economist/Principal
1995-2000	Consulting Economist/Principal

Econ One Research, Inc., Houston, Texas

2000-2001 Senior Economist

Florida Public Service Commission, Tallahassee, Florida Division of Communications, Policy Analysis Section

1995 Planning & Research Economist

Division of Auditing & Financial Analysis, Forecasting Section

1993	Planning & Research Economist
1992-1993	Economist

Project for an Energy Efficient Florida & Florida Solar Energy Industries Association, Tallahassee, Florida

1994 Energy Economist

Ben Johnson Associates, Inc., Tallahassee, Florida

1991-1992	Research Associate
1989-1991	Senior Research Analyst
1988-1989	Research Analyst

GOVERNMENT APPOINTMENTS

2005-Current	Member, Task Force on Energy Sector Workforce and Economic
	Development (HCR 322).
2003-Current	Member, Energy and Basic Industries Task Force, Louisiana
	Economic Development Council
2001-2003	Member, Louisiana Comprehensive Energy Policy Commission.

PUBLICATIONS: PEER REVIEWED ACADEMIC JOURNALS

"The Demand for Long Distance Telephone Communication: A Route-Specific Analysis of Short-Haul Service." (1996). *Studies in Economics and Finance* 17:33-45.

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"A Comment on Cost Savings from Nuclear Regulatory Reform" (1997). Southern Economic Journal. 63:1108-1112.

"Oil Spills, Workplace Safety, and Firm Size: Evidence from the U.S. Gulf of Mexico OCS." (1997). With O. O. Iledare, A. G. Pulsipher, and Dmitry Mesyanzhinov. *Energy Journal* 4: 73-90.

"Capacity and Economies of Scale in Electric Power Transmission" (1999). With Robert F. Cope and Dmitry Mesyanzhinov. *Utilities Policy* 7: 155-162.

"Cogeneration and Electric Power Industry Restructuring" (1999). With Andrew N. Kleit. *Resource and Energy Economics*. 21:153-166.

"A Data Envelopment Analysis of Levels and Sources of Coal Fired Electric Power Generation Inefficiency" (2000). With Williams O. Olatubi. *Utilities Policy*. 9 (2): 47-59.

"Modeling Regional Power Markets and Market Power." (2001). With Robert F. Cope. *Managerial and Decision Economics*. 22:411-429.

"A Comment on the Integration of Price Cap and Yardstick Competition Schemes in Electrical Distribution Regulation." (2001). With Steven A. Ostrover. *IEEE Transactions on Power Systems*. 16 (4): 940 -942.

"A is for Access: A Definitional Tour Through Today's Energy Vocabulary." (2001) *Public Resources Law Digest.* 38: 2.

"Reflections on the U.S. Electric Power Production Industry: Precedent Decisions Vs. Market Pressures." With Robert F. Cope III and John W. Yeargain. *Journal of Legal, Ethical, and Regulatory Issues.* (2003). Volume 6, Number 1.

"Deregulation of Generating Assets and the Disposition of Excess Deferred Federal Income Taxes." (2004). With K.E. Hughes II. *International Energy Law and Taxation Review*. 10 (October): 206-212.

"Using Competitive Bidding As A Means of Securing the Best of Competitive and Regulated Worlds." (2004). With Tom Ballinger and Elizabeth A. Downer. *NRRI Journal of Applied Regulation*. 2 (November): 69-85. (*Received 2005 Best Paper Award by NARUC*)

"Estimating the Impact of Royalty Relief on Oil and Gas Production on Marginal State Leases in the US." (2005). With Jeffrey M. Burke and Dmitry V. Mesyanzhinov. *Energy Policy (forthcoming)*

PUBLICATIONS: PEER REVIEWED PROCEEDINGS

"Comparing the Safety and Environmental Records of Firms Operating Offshore Platforms in the Gulf of Mexico." (1996). With Allan Pulsipher, Omowumi Iledare, Dmitry Mesyanzhinov, William Daniel, and Bob Baumann. *Proceedings of the American Society of Mechanical Engineers: Offshore and Arctic Operations 1996*, January.

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"Safety Regulations, Firm Size, and the Risk of Accidents in E&P Operations on the Gulf of Mexico Outer Continental Shelf" (1996). With Allan Pulsipher, Omowumi Iledare, and Bob Baumann. *Proceedings of the American Society of Petroleum Engineers: Third International Conference on Health, Safety, and the Environment in Oil and Gas Exploration and Production, June.*

"New Paradigms for Power Engineering Education." (1997). With Fred I. Denny. *Proceedings of the International Association of Science and Technology for Development*. October. 499-504.

"Power System Operations, Control, and Environmental Protection in a Restructured Electric Power Industry" (1998). With Fred I. Denny. *IEEE Proceedings: Large Engineering Systems Conference on Power Engineering*. June: 294-298.

"Applications for Distributed Energy Resources in Oil and Gas Production: Methods for Reducing Flare Gas Emissions and Increasing Generation Availability" (2000). With Ritchie D. Priddy. *Proceedings of the International Energy Foundation – ENERGEX 2000.* July.

"Electric Utility Restructuring and Strategies for the Future." (2001). With Scott W. Geiger. *Proceedings of the Southwest Academy of Management*. March.

"Technology Based Ethical Issues Surrounding the California Energy Crisis." (2002). With Robert F. Cope III and John Yeargain. *Proceedings of the Academy of Legal, Ethical, and Regulatory Issues*. September. 17-21.

PUBLICATIONS: OTHER PROCEEDINGS

"Comparing the Safety and Environmental Performance of Offshore Oil and Gas Operators." (1995). With Allan Pulsipher, Omowumi Iledare, Dmitry Mesyanzhinov, William Daniel, and Bob Baumann. *Proceedings of the 15th Annual Information Transfer Meeting*. U.S. Department of Interior, Minerals Management Service: New Orleans, Louisiana.

"Assessing Environmental and Safety Risks of the Expanding Role of Independents in E&P Operations on the Gulf of Mexico OCS." (1996). With Allan Pulsipher, Omowumi Iledare, Bob Baumann, and Dmitry Mesyanzhinov. *Proceedings of the 16th Annual Information Transfer Meeting*. U.S. Department of Interior, Minerals Management Service: New Orleans, Louisiana: 162-166.

"Modeling Electric Power Markets in a Restructured Environment" (1998). With Robert F. Cope and Dan Rinks. *Proceedings of the International Association for Energy Economics: Technology's Critical Role in Energy and Environmental Markets*. October. 48-56.

"Asymmetric Choice and Customer Benefits: Lessons from the Natural Gas Industry." (1999). With Rachelle F. Cope and Dmitry Mesyanzhinov. *Proceedings of the International Association for Energy Economics: The Only Constant is Change* August: 444452.

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"Modeling the Economic Impact of Offshore Activities on Onshore Communities." (2000). With Williams O. Olatubi. *Proceedings of the 20th Annual Information Transfer Meeting*. U.S. Department of Interior, Minerals Management Service: New Orleans, Louisiana.

"Do Deepwater Activities Create Different Impacts to Communities Surrounding the Gulf OCS?" (2001). *Proceedings of the International Association for Energy Economics: 2001: An Energy Odyssey?* April.

"Analysis of the Economic Impact Associated with Oil and Gas Activities on State Leases." (2002). With Dmitry Mesyanzhinov, Robert H. Baumann, and Allan G. Pulsipher. *Proceedings of the 2002 National IMPLAN Users Conference*: 149-155.

"A New Consistent Approach to Modeling Regional Economic Impacts of Offshore Oil and Gas Activities." (2002). With Vicki Zatarain. *Proceedings of the 2002 National IMPLAN Users Conference*: 241-258.

"The Role of ANS Gas on Southcentral Alaskan Development." (2002). With William Nebesky and Dmitry Mesyanzhinov. *Proceedings of the International Association for Energy Economics: Energy Markets in Turmoil: Making Sense of It All.* October.

"Competitive Bidding in the Electric Power Industry." (2003). *Proceedings of the Association of Energy Engineers*. December 2003.

"Trends and Issues in the Natural Gas Industry and the Development of LNG: Implications for Louisiana. (2004) *Proceedings of the 51st Mineral Law Institute*, Louisiana State University, Baton Rouge, LA. April 2, 2004.

"A Collaborative Investigation of Baseline and Scenario Information for Environmental Impact Statements" (2005). *Proceedings of the 23rd Annual Information Technology Meetings*. U.S. Department of the Interior, Minerals Management Service, Gulf Coast Region, New Orleans, LA. January 12, 2005.

PUBLICATIONS: BOOKS AND MONOGRAPHS

Distributed Energy Resources: A Practical Guide for Service. (2000) With Ritchie Priddy. London: Financial Times Energy.

Power System Operations and Planning in a Competitive Market. (2002) With Fred I. Denny. New York: CRC Press.

PUBLICATIONS: BOOK CHAPTERS

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"Electric Power Generation." (2000). In the *Macmillan Encyclopedia of Energy*. Edited by John Zumerchik. New York: Macmillan Reference.

"The Hydropower Industry of the United States." (2000). With Dmitry Mesyanzhinov. In *Renewable Energy: Trends and Prospects.* Edited by E.W. Miller and A.I. Panah. Lafayette, PN: The Pennsylvania Academy of Science, 133-146.

"Challenges and Opportunities for Distributed Energy Resources in the Natural Gas Industry." (2002). In *Natural Gas and Electric Industries Analysis 2001-2002*. Edited by Robert Willett. With Martin J. Collette, Ritchie D. Priddy, and Jeffrey M. Burke. Houston, TX: Financial Communications Company, 114-131.

"Alaskan North Slope Natural Gas Development." (2003). In *Natural Gas and Electric Industries Analysis 2003*. With William E. Nebesky, Dmitry Mesyanzhinov, and Jeffrey M. Burke. Edited by Robert Willett. Houston, TX: Financial Communications Company, 185-205.

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"The Role of Distributed Energy Resources in a Restructured Power Industry." (2005). In *The Future of Electric Power Deregulation*. Edited by Andrew N. Kleit. Washington, DC: Freedom Press, forthcoming.

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Review of *Electric Cooperatives on the Threshold of a New Era* by Public Utilities Reports. (Vienna, Virginia: Public Utilities Reports, 1996) pp. 232. ISBN 0-910325-63-4. *Energy Journal* 17 (1996): 161-62.

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Review of Renewable Resources for Electric Power: Prospects and Challenges. Raphael Edinger and Sanjay Kaul. (Westport, Connecticut: Quorum Books, 2000), pp 154. ISBN 1-56720-233-0. *Natural Resources Forum.* (2000).

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"Stranded Investment and Non-Utility Generation." (1999). With Michael T. Maloney. *Electricity Journal* 12: 50-61.

"Slow as Molasses: The Political Economy of Electric Restructuring in the South." (1999). With K.E. Hughes II. *Oil, Gas, and Energy Quarterly.* 48: 163-183.

"Coming to a Neighborhood Near You: The Merchant Electric Power Plant." (1999). With K.E. Hughes II. Oil, Gas, and Energy Quarterly. 48:433-441.

"Distributed Energy Resources: The Next Paradigm Shift in the Electric Power Industry." (2000). With K.E. Hughes II *Oil, Gas and Energy Quarterly*. 48:593-602.

"Issues and Opportunities for Small Scale Electricity Production in the Oil Patch." (2000). With Ritchie D. Priddy. *American Oil and Gas Reporter*. 49: 78-82.

"The Post-Restructuring Consolidation of Nuclear-Power Generation in the Electric Power Industry." (2000) With K.E. Hughes II. *Oil, Gas and Energy Quarterly*. 49: 751-765.

"Energy Conservation Programs and Electric Restructuring: Is There a Conflict?" (2000). With K.E. Hughes II. *Oil, Gas and Energy Quarterly*. September: 211-224.

"Clean Air, Kyoto, and the Boy Who Cried Wolf." (2000). With K.E. Hughes II. Oil, Gas and Energy Quarterly. December: 529-540.

"Distributed Energy Must Be Watched As Opportunity for Gas Companies." (2001). With Martin Collette, and Ritchie D. Priddy. Natural Gas Journal. January: 9-16.

"California Dreaming: Are Competitive Markets Achievable?" (2001). With K.E. Hughes II. Oil, Gas and Energy Quarterly. 49: 743-759.

"A is for Access: A Definitional Tour Through Today's Energy Vocabulary." (2001). With K.E. Hughes II. *Oil, Gas and Energy Quarterly*. 49:947-973.

"Energy Policy by Crisis: Proposed Federal Changes for the Electric Power Industry." (2001). With K.E. Hughes II. Oil, Gas and Energy Quarterly. 50:235-249.

"The EPA v. The TVA, et. al. Over New Source Review." (2001) With K.E. Hughes, II. Oil, Gas and Energy Quarterly. 50:531-543.

"An Assessment of the Role and Importance of Power Marketers." (2002). With K.E. Hughes II. *Oil, Gas and Energy Quarterly.* 50: 713-731.

"Will Electric Restructuring Ever Get Back on Track? Texas is not California." (2002). With K.E. Hughes II. Oil, Gas and Energy Quarterly. 50: 943-960.

"Do Economic Activities Create Different Economic Impacts to Communities Surrounding the Gulf OCS?" (2002). With Williams O. Olatubi. *IAEE Newsletter*. Second Quarter: 16-20.

"Standardizing Wholesale Markets For Energy." (2002). With K.E. Hughes II. Oil, Gas and Energy Quarterly. 51: 207-225.

"The Role of Alaska North Slope Gas in the Southcentral Alaska Regional Energy Balance." (2002). With William Nebesky and Dmitry Mesyanzhinov. *Natural Gas Journal*. 19: 10-15.

"Is There a Role for the TVA in Post-Restructured Electric Markets?" (2002). With K.E. Hughes II. *Oil, Gas and Energy Quarterly.* 51: 433-454.

"What's Happened to the Merchant Energy Industry? Issues, Challenges, and Outlook" (2003). With K.E. Hughes II. *Oil, Gas and Energy Quarterly.* 51: 635-652.

"Economic Displacement Opportunities in Southeastern Power Markets." (2003). With Dmitry V. Mesyanzhinov. USAEE Dialogue. 11: 20-24.

"Clear Skies" or Storm Clouds Ahead? The Continuing Debate over Air Pollution and Climate Change" (2003). With K.E. Hughes II. *Oil, Gas and Energy Quarterly*. 51: 823-848.

"White Paper or White Flag: Do FERC's Concessions Represent A Withdrawal from Wholesale Power Market Reform?" (2003). With K.E. Hughes II. *Oil, Gas and Energy Quarterly.* 52: 197-207.

"An Electric Utility's Exposure to Future Environmental Costs: Does It Matter? You Bet!" (2003). With K.E. Hughes II. *Oil, Gas and Energy Quarterly*. 52: 457-469.

"Will Competitive Bidding Make a Comeback?" (2004). With K.E. Hughes II. Oil, Gas and Energy Quarterly. 52: 659-674

"Deregulation of Generating Assets and The Disposition of Excess Deferred Federal Income Taxes: A 'Catch-22' for Ratepayers." (2004). With K.E. Hughes II. *Oil, Gas and Energy Quarterly*. 52: 873-891.

"The Challenges Associated with a Nuclear Power Revival: Its Past." (2004). With K.E. Hughes II. *Oil, Gas and Energy Quarterly.* 53 (1): 193-211.

"The Evolving Markets for Polluting Emissions: From Sulfur Dioxide to Carbon Dioxide." (2004). With K.E. Hughes II. *Oil, Gas and Energy Quarterly.* 53(2): 479-494.

"Competitive Bidding as a Means of Securing Opportunities for Efficiency." (2004). With Elizabeth A. Downer. *Electricity and Natural Gas* 21 (4): 15-21.

"Can LNG Preserve the Gas-Power Convergence?" (2005). With K.E. Hughes II. *Oil, Gas and Energy Quarterly*. 53 (3):783-796.

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"The Nuclear Power Plant Endgame: Decommissioning and Permanent Waste Storage. (2005). With K.E. Hughes II. Oil, Gas and Energy Quarterly. 53 (4): 981-997

"Using Industrial-Only Retail Choice as a Means of Moving Competition Forward." (2006). With K.E. Hughes II. Oil, Gas and Energy Quarterly. Forthcoming.

PUBLICATIONS: REPORTS AND OTHER PUBLICATIONS

Restructuring the Electric Utility Industry: Implications for Louisiana. (1996). With Allan Pulsipher and Kimberly H. Dismukes. Baton Rouge, LA: Louisiana State University, Center for Energy Studies.

Assessing the Environmental and Safety Risks of the Expanded Role of Independents in Oil and Gas E&P Operations on the U.S. Gulf of Mexico OCS. (1996). With Allan Pulsipher, Omowumi Iledare, Dmitry Mesyanzhinov, William Daniel, and Bob Baumann. Baton Rouge, LA: Louisiana State University, Center for Energy Studies.

Energy Conservation and Electric Restructuring In Louisiana. (2000). With Dmitry Mesyanzhinov, Ritchie D. Priddy, Robert F. Cope III, and Vera Tabakova. Baton Rouge, LA: Louisiana State University, Center for Energy Studies.

The Economic Impacts of Merchant Power Plant Development in Mississippi. (2001). Report Prepared on Behalf of the US Oil and Gas Association, Alabama and Mississippi Division. Houston, TX: Econ One Research, Inc.

Moving to the Front of the Lines: The Economic Impacts of Independent Power Plant Development in Louisiana. (2001). With Dmitry Mesyanzhinov and Williams O. Olatubi. Baton Rouge, LA: Louisiana State University, Center for Energy Studies.

Alaska In-State Natural Gas Demand Study. (2002). With Dmitry Mesyanzhinov, et.al. Anchorage, Alaska: Alaska Department of Natural Resources, Division of Oil and Gas.

An Analysis of the Economic Impacts Associated with Oil and Gas Activities on State Leases. (2002) With Robert H. Baumann, Dmitry V. Mesyanzhinov, and Allan G. Pulsipher. Baton Rouge, LA: Louisiana Department of Natural Resources, Office of Mineral Resources.

Modeling the Economic Impact of Offshore Oil and Gas Activities in the Gulf of Mexico: Methods and Application. (2003). With Williams O. Olatubi, Dmitry V. Mesyanzhinov, and Allan G. Pulsipher. Prepared by the Center for Energy Studies, Louisiana State University, Baton Rouge, La. OCS Study MMS2000-0XX. U.S. Department of the Interior, Minerals Management Service, Gulf of Mexico OCS Region, New Orleans, La.

The Power of Generation: The Ongoing Benefits of Independent Power Development in Louisiana. With Dmitry V. Mesyanzhinov, Jeffrey M. Burke, and Elizabeth A. Downer. Baton Rouge, LA: LSU

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Center for Energy Studies, 2003.

Deepwater Program: OCS-Related Infrastructure in the Gulf of Mexico Fact Book. (2004). With Louis Berger Associates, University of New Orleans National Ports and Waterways Institute, and Research and Planning Associates. MMS Study No. 1435-01-99-CT-30955. U.S. Department of the Interior, Minerals Management Service.

Marginal Oil and Gas Production in Louisiana: An Empirical Examination of State Activities and Policy Mechanisms for Stimulating Additional Production. (2004). With Dmitry V. Mesyanzhinov, Jeffrey M. Burke, Robert H. Baumann. Baton Rouge, LA: Louisiana Department of Natural Resources, Office of Mineral Resources.

Economic Opportunities for LNG Development in Louisiana. (2004). With Elizabeth A. Downer and Dmitry V. Mesyanzhinov. Baton Rouge, LA: Louisiana Department of Economic Development and Greater New Orleans, Inc.

Economic Opportunities for a Limited Industrial Retail Choice Plan in Louisiana. (2004). With Elizabeth A. Downer and Dmitry V. Mesyanzhinov. Baton Rouge, LA: Louisiana State University Center for Energy Studies.

Comparison of Methods for Estimating the NO_x Emission Impacts of Energy Efficiency and Renewable Energy Projects Shreveport, Louisiana Case Study. (2005). With Adam Chambers, David Kline, Laura Vimmerstedt, Art Diem, and Dmitry Mesyanzhinov. Golden, Colorado: National Renewable Energy Laboratory.

GRANT RESEARCH

Co-Principal Investigator. "Assessing the Environmental and Safety Risks of the Expanded Role of Independents in Oil and Gas E&P Operations on the U.S. Gulf of Mexico OCS." (1996). With Allan Pulsipher, Omowumi Iledare, Dmitry Mesyanzhinov, William Daniel, and Bob Baumann. U.S. Department of Interior, Minerals Management Service, Grant Number 95-0056. Total Project Funding: \$109,361. Status: Completed.

Principal Investigator. "The Industrial Supply of Electricity: Commercial Generation, Self-Generation, and Industry Restructuring" (1996). With Andrew Kleit. Louisiana Energy Enhancement Program, LSU Office of Research and Development. Total Project Funding: \$19,948. Status: Completed.

Principal Investigator. "Energy Conservation and Electric Restructuring in Louisiana." (1997). Louisiana Department of Natural Resources. Petroleum Violation Escrow Program Funds. Total Project Funding: \$43,169. Status: Completed.

Principal Investigator. "An Economic Impact Analysis of OCS Activities on Coastal Louisiana." (1998). With Dmitry Mesyanzhinov and David Hughes. U.S. Department of Interior, Minerals Management Service. Total Project Funding: \$190,166. Status: Completed.

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Principal Investigator. "Cost Profiles and Cost Functions for Gulf of Mexico Oil and Gas Development Phases for Input Output Modeling." (1998). With Dmitry Mesyanzhinov and Allan G. Pulsipher. U.S. Department of Interior, Minerals Management Service. Total Project Funding: \$244,956. Status: Completed.

Co-Principal Investigator. "An Analysis of the Economic Impacts of Drilling and Production Activities on State Leases." (2002) With Robert H. Baumann, Allan G. Pulsipher, and Dmitry V. Mesyanzhinov. Louisiana Office of Mineral Resources. Total Project Funding: \$8,000. Status: Completed.

Principal Investigator. "A Collaborative Investigation of Baseline and Scenario Information for Environmental Impact Statements." (2002). With Dmitry V. Mesyanzhinov and Williams O. Olatubi. U.S. Department of Interior, Minerals Management Service. Total Project Funding: \$600,000. Status: Awarded, In Progress, three year project.

Principal Investigator. "Marginal Oil and Gas Properties on State Leases in Louisiana: An Empirical Examination and Policy Mechanisms for Stimulating Additional Production." (2002). With Robert H. Baumann and Dmitry V. Mesyanzhinov. Louisiana Office of Mineral Resources. Total Project Funding: \$72,000. Status: Completed.

Principal Investigator. "Economic Opportunities from LNG Development in Louisiana." (2003). With Dmitry V. Mesyanzhinov. Metrovision/New Orleans Chamber of Commerce and the Louisiana Department of Economic Development. Total Project Funding: \$25,000. Status: Completed.

Principal Investigator. "Examination of the Economic Impacts Associated with Large Customer, Industrial Retail Choice." (2004). With Dmitry V. Mesyanzhinov. Louisiana Mid-Continent Oil and Gas Association. Total Project Funding: \$37,000. Status: Completed.

Principal Investigator. "An Examination on the Development of Liquefied Natural Gas Facilities on the Gulf of Mexico." (2004). With Dmitry V. Mesyanzhinov and Mark J. Kaiser. U.S. Department of the Interior, Minerals Management Service. Total Project Funding \$101,054. Status: Awarded, In Progress.

Principal Investigator. "An Examination of the Opportunities for Drilling Incentives on State Leases." (2004). With Robert H. Baumann and Kristi A. R. Darby. Louisiana Office of Mineral Resources. Total Project Funding: \$75,000. Status: Awarded, In Progress.

Co-Principal Investigator. "The Impact of Sustainability Policies on Oil and Gas Business Development in the Gulf Of Mexico." (2005). With Kristi A. R. Darby. U.S. Department of the Interior, Minerals Management Service. Total Project Funding \$130,000. Status: LOI Accepted, Full Proposal Requested and Under Review.

ACADEMIC CONFERENCE PRESENTATIONS

"A Cross-Sectional Model of IntraLATA MTS Demand." (1995). Southern Economic Association, Sixty-Fifth Annual Conference. New Orleans, Louisiana.

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"Empirical Determinants of Nuclear Power Plant Disallowances." (1995). Southern Economic Association, Sixty-Fifth Annual Conference. New Orleans, Louisiana.

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"The Unintended Consequences of the Public Utilities Regulatory Policies Act of 1978." (1997). National Policy History Conference on the Unintended Consequences of Policy Decisions. Bowling Green State University. Bowling Green, Ohio. June 5-7.

"Cogeneration and Electric Power Industry Restructuring." (1997). With Andrew N. Kleit. Western Economic Association, Seventy-fifth Annual Conference. Seattle, Washington. July 9-13.

"New Paradigms for Power Engineering Education." (1997). With Fred I. Denny. International Association of Science and Technology for Development, High Technology in the Power Industry Conference. Orlando, Florida. October 27-30

"A Non-Linear Programming Model to Estimate Stranded Generation Investments in a Deregulated Electric Utility Industry." (1997). With Robert F. Cope and Dan Rinks. Institute for Operations Research and Management Science Annual Conference. Dallas Texas. October 26-29.

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"Benchmarking Electric Utility Transmission Performance." (1997). With Robert F. Cope and Dmitry Mesyanzhinov. Southern Economic Association, Sixty-seventh Annual Conference. Atlanta, Georgia. November 21-24.

"Power System Operations, Control, and Environmental Protection in a Restructured Electric Power Industry." (1998). With Fred I. Denny. IEEE Large Engineering Systems Conference on Power Engineering. Nova Scotia, Canada. June.

"Benchmarking Electric Utility Distribution Performance." (1998) With Robert F. Cope and Dmitry Mesyanzhinov. Western Economic Association, Seventy-sixth Annual Conference. Lake Tahoe, Nevada. June.

"Modeling Electric Power Markets in a Restructured Environment." (1998). With Robert F. Cope and Dan Rinks. International Association for Energy Economics Annual Conference. Albuquerque, New Mexico. October.

"Empirical Issues in Electric Power Transmission and Distribution Cost Modeling." (1998). With Robert F. Cope and Dmitry Mesyanzhinov. Southern Economic Association. Sixty-Eighth Annual Conference. Baltimore, Maryland. November.

"Economic Impact of Offshore Oil and Gas Activities on Coastal Louisiana" (1999). With Dmitry Mesyanzhinov. Annual Meeting of the Association of American Geographers. Honolulu, Hawaii. March.

"Modeling Regional Power Markets and Market Power." (1999). With Robert F. Cope. Western Economic Association Annual Conference. San Diego, California. July.

"Asymmetric Choice and Customer Benefits: Lessons from the Natural Gas Industry." (1999). With Rachelle F. Cope and Dmitry Mesyanzhinov. International Association of Energy Economics Annual Conference. Orlando, Florida. August.

"Parametric and Non-Parametric Approaches to Measuring Efficiency Potentials in Electric Power Generation." (1999). With Williams O. Olatubi. International Atlantic Economic Society Annual Conference, Montreal, October.

"Applied Approaches to Modeling Regional Power Markets." (1999.) With Robert F. Cope. Southern Economic Association Sixty-ninth Annual Conference. New Orleans, November 1999.

"Estimating Efficiency Opportunities for Coal Fired Electric Power Generation: A DEA Approach." (1999). With Williams O. Olatubi. Southern Economic Association Sixty-ninth Annual Conference. New Orleans, November.

"Distributed Energy Resources, Energy Efficiency, and Electric Power Industry Restructuring." (1999). American Society of Environmental Science Fourth Annual Conference. Baton Rouge, Louisiana. December.

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"Moving to the Front of the Lines: The Economic Impact of Independent Power Plant Development in Louisiana." (2002). With Dmitry V. Mesyanzhinov and Williams O. Olatubi. 2002 National IMPLAN Users' Conference. New Orleans, Louisiana, September 4-6.

"The Economic Impact of State Oil and Gas Leases on Louisiana." (2002). With Dmitry V. Mesyanzhinov. 2002 National IMPLAN Users' Conference. New Orleans, Louisiana, September 4-6.

"Are There Any In-State Uses for Alaska Natural Gas?" (2002). With Dmitry V. Mesyanzhinov and William E. Nebesky. IAEE/USAEE 22nd Annual North American Conference: "Energy Markets in Turmoil: Making Sense of It All." October 7, 2002, Vancouver, British Columbia, Canada.

"GIS and Applied Economic Analysis: The Case of Alaska Residential Natural Gas Demand." With Dmitry V. Mesyanzhinov. Presented at the Joint Meeting of the East Lakes and West Lakes Divisions of the Association of American Geographers in Kalamazoo, MI, October 16-18, 2003.

"Fiscal Mechanisms for Stimulating Oil and Gas Production on Marginal Leases." With Jeffrey M. Burke. International Association of Energy Economics Annual Conference, Washington, D.C. (July, 2004).

ACADEMIC SEMINARS AND PRESENTATIONS

"The Empirical Determinants of Co-generated Electricity: Implications for Electric Power Industry Restructuring." (1997). With Andrew N. Kleit. Florida State University. Department of Economics: Applied Microeconomics Workshop Series. October 17, Tallahassee, Florida.

"Electric Restructuring and Nuclear Power." (1997). Louisiana State University. Department of Nuclear Science. November 7, Baton Rouge, Louisiana.

"Electric Restructuring and the Environment." (1998). Environment 98: Science, Law, and Public Policy. Tulane University. Tulane Environmental Law Clinic. March 7, New Orleans, Louisiana.

"Electric Restructuring and Conservation." (2001). Presentation before the Department of Electrical Engineering, McNesse State University. Lake Charles, Louisiana. May 2, 2001.

"Trends and Issues in the Natural Gas Industry and the Development of LNG: Implications for Louisiana. (2004) 51st Mineral Law Institute, Louisiana State University, Baton Rouge, LA. April 2, 2004.

PROFESSIONAL AND CIVIC PRESENTATIONS

Panelist, "Deregulation and Competition." American Nuclear Society: Second Annual Joint

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Louisiana and Mississippi Section Meetings, Baton Rouge, Louisiana, April 20, 1996.

Roundtable Moderator, "Stakeholder Perspectives on Electric Utility Stranded Costs." Louisiana State University, Center for Energy Studies Seminar on Electric Utility Restructuring in Louisiana, Baton Rouge, May 29, 1996.

"Electric Utility Restructuring." Sunshine Rotary Club Meetings, Baton Rouge, Louisiana, August 8, 1996.

"Electric Utility Restructuring -- Background and Overview." Louisiana Public Service Commission, Baton Rouge, Louisiana, August 14, 1996.

"Electric Utility Restructuring" Louisiana Electric Cooperative Association, Baton Rouge, Louisiana, August 27, 1996.

"Electric Utility Restructuring in Louisiana." Entergy Services, Transmission and Distribution Division, Energy Centre, New Orleans, Louisiana, September 12, 1996

"Electric Utility Restructuring in Louisiana." Jennings Rotary Club, Jennings, Louisiana, November 19, 1996.

"Deregulating the Electric Utility Industry." Eighth Annual Economic Development Summit, Baton Rouge, Louisiana, November 21, 1996.

"Restructuring the Electric Utility Industry." Louisiana Propane Gas Association Annual Meeting, Alexandria, Louisiana, December 12, 1996.

"Electric Restructuring: Louisiana Issues and Outlook for 1997." Louisiana State University, Center for Energy Studies Industry Associates Meeting, Baton Rouge, Louisiana, January 15, 1997.

"The Electric Utility Restructuring Debate In Louisiana: An Overview of the Issues." Annual Conference of the Public Affairs Research Council of Louisiana. Baton Rouge, Louisiana. March 25, 1997.

"Electric Utility Restructuring: Issues and Trends for Louisiana." Opelousas Chamber of Commerce, Opelousas, Louisiana. June 24, 1997.

"Electric Utility Restructuring." Louisiana Association of Energy Engineers. Baton Rouge, Louisiana. September 11, 1997.

"Electric Utility Restructuring in Louisiana." Hammond Chamber of Commerce, Hammond, Louisiana. October 30, 1997.

"Reflections and Predictions on Electric Utility Restructuring in Louisiana." With Fred I. Denny. Louisiana State University, Center for Energy Studies Industry Associates Meeting. November 20,

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1997.

"How Will Utility Deregulation Affect Tourism." Louisiana Travel Promotion Association Annual Meeting, Alexandria, Louisiana. January 15, 1998.

"The Implications of Electric Restructuring on Independent Oil and Gas Operations." Petroleum Technology Transfer Council Workshop: Electrical Power Cost Reduction Methods in Oil and Gas Field Operations. Shreveport, Louisiana, October 13, 1998.

"A Short Course on Electric Restructuring." Central Louisiana Electric Company. Sales and Marketing Division. Mandeville, Louisiana, October 22, 1998.

"What's Happened to Electricity Restructuring in Louisiana?" Louisiana State University, Center for Energy Studies Industry Associates Meeting. March 22, 1999.

"The Implications of Electric Restructuring on Independent Oil and Gas Operations." Petroleum Technology Transfer Council Workshop: Electrical Power Cost Reduction Methods in Oil and Gas Field Operations. Lafayette, Louisiana, March 24, 1999.

"The Dynamics of Electric Restructuring in Louisiana." Joint Meeting of the American Association of Energy Engineers and the International Association of Facilities Managers. Metairie, Louisiana. April 29, 1999.

"The Political Economy of Electric Restructuring In the South" Southeastern Electric Exchange, Rate Section Annual Conference. New Orleans, Louisiana. May 7, 1999.

Roundtable Discussant. "Environmental Regulation in a Restructured Market" The Big E: How to Successfully Manage the Environment in the Era of Competitive Energy. PUR Conference. New Orleans, Louisiana. May 24, 1999.

"Merchant Power Opportunities in Louisiana." Louisiana Mid-Continent Oil and Gas Association (LMOGA) Power Generation Committee Meetings. Baton Rouge, Louisiana. November 10, 1999.

"Distributed Energy Resources Initiatives." Louisiana State University, Center for Energy Studies Industry Associates Meeting. Baton Rouge, Louisiana. December 15, 1999.

"LSU/CES Distributed Energy Resources Initiatives." Los Alamos National Laboratories. Office of Energy and Sustainable Systems. Los Alamos, New Mexico. February 16, 2000.

"Electricity 101: Definitions, Precedents, and Issues." Energy Council's 2000 Federal Energy and Environmental Matters Conference. Loews L'Enfant Plaza Hotel, Washington, D.C. March 11-13, 2000.

Roundtable Moderator/Discussant. Mid-South Electric Reliability Summit. U.S. Department of Energy. New Orleans, Louisiana. April 24, 2000.

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"A Introduction to Distributed Energy Resources." Summer Meetings, Southeastern Association of Regulatory Utility Commissioners (SEARUC). New Orleans, LA. June 27, 2000.

"Electric Reliability and Merchant Power Development Issues." Technical Meetings of the Louisiana Public Service Commission. Baton Rouge, LA. August 29, 2000.

"Pricing and Regulatory Issues Associated with Distributed Energy." Joint Conference by Econ One Research, Inc., the Louisiana State University Distributed Energy Resources Initiative, and the University of Houston Energy Institute: "Is the Window Closing for Distributed Energy?" Houston, Texas, October 13, 2000.

"Energy Conservation and Electric Restructuring." With Ritchie D. Priddy. Presentation before the Louisiana Department of Natural Resources. Baton Rouge, Louisiana, October 23, 2000.

"The Economic Impacts of Merchant Power Plant Development In Mississippi." Presentation before the Mississippi Public Service Commission. Jackson, Mississippi, March 20, 2001.

"The Changing Nature of the Electric Power Business in Louisiana: Background and Issues." Presentation before the Louisiana Department of Economic Development. Baton Rouge, LA, July 3, 2001.

"The Changing Nature of the Electric Power Business in Louisiana: Background and Issues." Presentation before the Louisiana Office of the Governor. Baton Rouge, LA, July 16, 2001.

"Power Business in Louisiana: Background and Issues." Presentation before the Louisiana Interagency Group on Merchant Power Development . Baton Rouge, LA, July 16, 2001.

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"Economic Opportunities for Merchant Power Development in the South." Presentation before the Southern Governor's Association/Southern State Energy Board Meetings. Lexington, KY. September 9, 2001.

"Economic Impacts of Merchant Power Plant Development in Mississippi." Presentation before the U.S. Oil and Gas Association Annual Oil and Gas Forum. Jackson, Mississippi. October 10, 2001.

"Moving to the Front of the Lines: The Economic Impact of Independent Power Production in Louisiana." Presentation before the LSU Center for Energy Studies Merchant Power Generation and Transmission Conference, Baton Rouge, LA. October 11, 2001.

"Merchant Power and Deregulation: Issues and Impacts." Presentation before the Air and Waste Management Association Annual Meeting. Baton Rouge, LA, November 15, 2001.

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"Power Plant Siting Issues in Louisiana." Presentation before 24th Annual Conference on Waste and the Environment. Sponsored by the Louisiana Department of Environmental Quality. Lafayette, Louisiana, Cajundome. March 12, 2002.

"Merchant Energy Development Issues in Louisiana." Presentation before the Program Committee of the Center for Legislative, Energy, and Environmental Research (CLEER), Energy Council. April 19, 2002.

"An Introduction to Distributed Energy Resources." Presentation before the U.S. Department of Energy, Office of Renewable Energy and Energy Efficiency, State Energy Program/Rebuild America Conference, August 1, 2002, New Orleans, Louisiana.

"What's Happened to the Merchant Energy Industry? Issues, Challenges, and Outlook" Presentation before the LSU Center for Energy Studies Industry Associates Advisory Council Meeting. November 12, 2002. Baton Rouge, Louisiana.

"Issues and Opportunities with Distributed Energy Resources." Presentation before the Louisiana Biomass Council. April 17, 2003, Baton Rouge, Louisiana.

"Natural Gas Outlook." Presentation before the Louisiana Chemical Association, October 17, 2003, Pointe Clear, Alabama.

"Affordable Energy: The Key Component to a Strong Economy." Presentation before the National Association of Regulatory Utility Commissioners ("NARUC"), November 18, 2003, Atlanta, Georgia.

"Regional Transmission Organization in the South: The Demise of SeTrans" Presentation before the LSU Center for Energy Studies Industry Associates Advisory Council Meeting. December 9, 2003. Baton Rouge, Louisiana.

"Competitive Bidding in the Electric Power Industry." Presentation before the Association of Energy Engineers. Business Energy Solutions Expo. December 11-12, 2003, New Orleans, Louisiana.

"Natural Gas Outlook" Presentation before the St. James Parish Community Advisory Panel Meeting. January 7, 2004, IMC Production Facility, Convent, Louisiana.

"Natural Gas Outlook: Trends and Issues for Louisiana." Presentation before the Louisiana Joint Agricultural Association Meetings. January 14, 2004, Hotel Acadiana, Lafayette, Louisiana.

"The Economic Opportunities for LNG Development in Louisiana." Presentation before the Board of Directors, Greater New Orleans, Inc. May 13, 2004, New Orleans, LA.

"Industry Development Issues for Louisiana: LNG, Retail Choice, and Energy." Presentation before the LSU Center for Energy Studies Industry Associates. May 14, 2004, Baton Rouge, LA.

"The Economic Opportunities for LNG Development in Louisiana." Presentation before the Petrochemical Industry Cluster, Greater New Orleans, Inc. May 19, 2004, Destrehan, LA.

"The Economic Opportunities for LNG Development in Louisiana." Presentation before the Louisiana Chemical Association/Louisiana Chemical Industry Alliance Legislative Conference. May 26, 2004. Baton Rouge, LA.

"The Economic Opportunities for LNG Development in Louisiana." Presentation before the Louisiana Chemical Association Plant Managers Meeting. May 27, 2004. Baton Rouge, LA.

"Natural Gas and LNG Issues for Louisiana." Presentation before the Rhodia Community Advisory Panel. May 20, 2004, Baton Rouge, LA.

"The Gulf South: Economic Opportunities Related to LNG." Presentation before the Energy Council's 2004 State and Provincial Energy and Environmental Trends Conference. Point Clear, AL, June 26, 2004.

"Louisiana Energy Issues." Louisiana Mid-Continent Oil and Gas Association Post Legislative Meetings. Sandestin, Florida. July 28, 2004.

"LNG In Louisiana." Joint Meeting of the Louisiana Economic Development Council and the Governors Cabinet Advisory Council. Baton Rouge, LA. August 5, 2004.

"Energy Issues for Industrial Customers of Gas and Power." Louisiana Chemical Association Post-Legislative Meeting. Springfield, LA. August 9, 2004.

"Natural Gas Supply, Prices and LNG: Implications for Louisiana Industry." Dow Chemical Company Community Advisory Panel Meeting. Plaquemine, LA. August 9, 2004.

"Energy Issues for Industrial Customers of Gas and Power." American Institute of Chemical Engineers – New Orleans Section. New Orleans, LA. September 22, 2004.

"Energy Issues for Industrial Customers of Gas and Power." Annual Meeting of the Louisiana Chemical Association and the Louisiana Chemical Industry Alliance. Point Clear, Alabama. October 8, 2004.

"Energy Issues for Industrial Customers of Gas and Power." Louisiana Association of Business and Industry, Energy Council Meeting. Baton Rouge, Louisiana. October 11, 2004.

"The Economic Opportunities for a Limited Industrial Retail Choice Plan." Louisiana Department of Economic Development. Baton Rouge, Louisiana. November 19, 2004.

"Natural Gas Supply, Prices, and LNG: Implications for Louisiana Industry." Cytec Corporation Community Advisory Panel. Fortier, LA January 14, 2005.

"Background and Overview of LNG Development." Energy Council Workshop on LNG/CNG. Biloxi, Ms: Beau Rivage Resort and Hotel, April 9, 2005.

"The Outlook for Energy." Sunshine Rotary Club. Baton Rouge, Louisiana. April 27, 2005.

EXPERT WITNESS, LEGISLATIVE, AND PUBLIC TESTIMONY; EXPERT REPORTS AND AFFIDAVITS

Docket 920188-TL, (1992). Before the Florida Public Service Commission. On the Behalf of the Florida Public Service Commission Staff. Company analyzed: GTE-Florida. Issues: Telephone Demand Forecasts and Empirical Estimates of the Price Elasticity of Demand for Telecommunication Services.

Docket 920260-TL, (1993). Before the Florida Public Service Commission. On the Behalf of the Florida Public Service Commission Staff. Company analyzed: BellSouth Communications, Inc. Issues: Telephone Demand Forecasts and Empirical Estimates of the Price Elasticity of Demand for Telecommunication Services.

Docket 940448-EG -- 940551-EG (1994). Before the Florida Public Service Commission. On the Behalf of the Legal Environmental Assistance Foundation. Companies analyzed: Florida Power & Light Company; Florida Power Corporation; Tampa Electric Company; and Gulf Power Company. Issues: Comparison of Forecasted Cost-Effective Conservation Potentials for Florida.

Docket 950495-WS (1996). Before the Florida Public Service Commission. On the Behalf of the Citizens of the State of Florida. Company analyzed: Southern States Utilities, Inc. Issues: Revenue Repression Adjustment, Residential and Commercial Demand for Water Service.

Louisiana House of Representatives, Special Subcommittee on Utility Deregulation. (1997). On Behalf of the Louisiana Public Service Commission Staff. Issue: Electric Restructuring.

Docket 990001-EI (1999). Before the Florida Public Service Commission. On the Behalf of the Citizens of the State of Florida. Companies analyzed: Florida Power & Light Company; Florida Power Corporation; Tampa Electric Company; and Gulf Power Company. Issues: Regulatory Treatment of Incentive Returns on Gains from Economic Energy Sales.

Docket 991779-EI (2000). Before the Florida Public Service Commission. On the Behalf of the Citizens of the State of Florida. Companies analyzed: Florida Power & Light Company; Florida Power Corporation; Tampa Electric Company; and Gulf Power Company. Issues: Competitive Nature of Wholesale Markets, Regional Power Markets, and Regulatory Treatment of Incentive Returns on Gains from Economic Energy Sales.

Docket 22351 (2001). Before the Public Utility Commission of Texas. On the Behalf of the City of Amarillo. Company analyzed: Southwestern Public Service Company. Issues: Unbundled cost of service, affiliate transactions, load forecasting.

Docket Number 01-1048 (2001). Before the Public Utilities Commission of Nevada. On the Behalf of the Nevada Office of the Attorney General, Bureau of Consumer Protection. Company analyzed: Nevada Bell Telephone Company. Issues: Statistical Issues Associated with Performance Incentive Plans.

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Louisiana Board of Commerce and Industry (2001). Testimony on the Economic and Ratepayer Benefits of Merchant Power Generation and Issues Associated with Tax Incentives on Merchant Power Generation and Transmission.

Expert Affidavit before the Federal District Court, Middle District of Louisiana (2001). Issues: Competitive Nature of the Natural Gas Transportation Market in Louisiana. On behalf of a Consortium of Interstate Natural Gas Transportation Companies.

Multiple Dockets (2001). Before the Louisiana Tax Commission. On the Behalf of Louisiana Interstate Pipeline Companies. Testimony on the Competitive Nature of Natural Gas Transportation Services in Louisiana.

Docket Number 01-1049, Docket Number 01-3001. (2001) On behalf the Nevada Office of Attorney General, Bureau of Consumer Protection. Petition of Central Telephone Company-Nevada D/b/a Sprint of Nevada and Sprint Communications L.P. for Review and Approval of Proposed Revised Performance Measures and Review and Approval of Performance Measurement Incentive Plans. Before the Public Utilities Commission of Nevada.

Expert Report. (2001) On Behalf of David Liou and Pacific Richland Products, Inc. to Review Cogeneration Issues Associated with Dupont Dow Elastomers, L.L.C. (DDE) and the Dow Chemical Company (Dow).

Docket Number 24468. (2001). On the Behalf of the Texas Office of Public Utility Counsel. Public Utility Commission of Texas Staff's Petition to Determine Readiness for Retail Competition in the Portion of Texas Within the Southwest Power Pool. Company examined: AEP-SWEPCO.

Louisiana Board of Commerce and Industry (2001). Testimony on the Economic Impacts of Merchant Power Generation.

Docket Number 000824-EI. Before the Florida Public Service Commission. (2002). On the Behalf of the Citizens of the State of Florida. Company examined: Florida Power Corporation. Issues: Load Forecasts and Billing Determinants for the Projected Test Year.

Docket Number U-22407. Before the Louisiana Public Service Commission (2002). On the Behalf of the Louisiana Public Service Commission Staff. Company examined: Louisiana Gas Services, Inc. Issues: Purchased Gas Acquisition audit, fuel procurement and planning practices.

Export Report and Testimony. Docket 1997-4665-PV, 1998-4206-PV, 1999-7380-PV, 2000-5958-PV, 2001-6039-PV, 2002-64680-PV, 2003-6231-PV. (2003) Before the Kansas Board of Tax Appeals. (2003). In the Matter of the Appeals of CIG Field Services Company from orders of the Division of Property Valuation. On the Behalf of CIG Field Services. Issues: the competitive nature of natural gas gathering in Kansas.

Docket Number 27363. (2004). Before the Public Utilities Commission of Texas. Joint Affidavit on Behalf of the Cities of Texas and the Staff of the Public Utilities Commission of Texas Regarding

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Certified Issues. In Re: Application of Valor Telecommunications, L.P. For Authority to Establish Extended Local Calling Service (ELCS) Surcharges For Recovery of ELCS Surcharge.

Docket Number 040001-EI. (2004). Before the Florida Public Service Commission. On behalf of Power Manufacturing Systems LLC, Thomas K. Churbuck, and the Florida Industrial Power Users Group. In re: Fuel Adjustment Proceedings; Request for Approval of New Purchase Power Agreements. Company examined: Florida Power & Light Company.

Docket Number 2004-178-E. (2004). Before the South Carolina Public Service Commission. On behalf of Columbia Energy LLC. In re: Rate Increase Request of South Carolina Electric and Gas. (Direct and Surrebuttal Testimony)

Docket No. U-27159. (2004). On Behalf of the Louisiana Public Service Commission Staff. Expert Report on Overcharges Assessed by Network Operator Services, Inc. Before the Louisiana Public Service Commission.

ANR Pipeline Company v. Louisiana Tax Commission (2005), Number 468,417 Section 22, 19th Judicial District Court, Parish of East Baton Rouge, State of Louisiana Consolidated with Docket Numbers: 480,159; 489,776;480,160; 480,161; 480,162; 480,163; 480,373; 489,776; 489,777; 489,778;489,779; 489,780; 489,803; 491,530; 491,744; 491,745; 491,746; 491,912;503,466; 503,468; 503,469; 503,470; 515,414; 515,415; and 515,416. In re: Market structure issues and competitive implications of tax differentials and valuation methods in natural gas transportation markets for interstate and intrastate pipelines.

Docket No. (2005). On behalf of the City of Lafayette, Louisiana and the Lafayette Utilities Services. Expert Rebuttal Report of the Harborfront Consulting Group Valuation Analysis of the LUS Expropriation. Filed before State District Court, Lafayette, Louisiana.

Docket No. 2003-K-1876. (2005). On Behalf of Columbia Gas Transmission. Expert Testimony on the Competitive Market Structure for Gas Transportation Service in Ohio. Before the Ohio Board of Tax Appeals.

Docket No. U-21453. (2005). Technical Conference before the Louisiana Public Service Commission. Comments on an Investigation for a Limited Industrial Retail Choice Plan.

Legislative Testimony (2005). Background and Impact of LNG Facilities on Louisiana. Joint Meeting of Senate and House Natural Resources Committee. Louisiana Legislature. May 19, 2005.

REFEREE AND EDITORIAL APPOINTMENTS

Referee, 1995-Current, Energy Journal Referee, 2002, Resource & Energy Economics Referee, 2004, Southern Economic Journal Contributing Editor, 2000-Current, Oil, Gas and Energy Quarterly Committee Member, IAEE/USAEE Student Paper Scholarship Award Committee, 2003

PROPOSAL TECHNICAL REVIEWER

California Energy Commission, Public Interest Energy Research (PIER) Program (1999).

PROFESSIONAL ASSOCIATIONS

American Economic Association, American Statistical Association, Econometric Society, Southern Economic Association, Western Economic Association, and the International Association of Energy Economists.

HONORS AND AWARDS

Omicron Delta Epsilon (1992-Current)

Florida Public Service Commission, Staff Excellence Award for Assistance in the Analysis of Local Exchange Competition Legislation (1995).

Distinguished Research Award, Academy of Legal, Ethical and Regulatory Issues, Allied Academics (2002).

Interstate Oil and Gas Compact Commission (IOGCC) "Best Practice" Award for Research on the Economic Impact of Oil and Gas Activities on State Leases for the Louisiana Department of Natural Resources (2003).

Baton Rouge Business Report, Selected as "Top 40 Under 40" (2003).

National Association of Regulatory Utility Commissioners (NARUC). Best Paper Award for papers published in the *Journal of Applied Regulation*.

TEACHING EXPERIENCE

Principles of Microeconomic Theory

Principles of Macroeconomic Theory

Lecturer, Electric Power Industry Environmental Issues, Field Course on Energy and the Environment. (Dept of Environmental Studies).

Lecturer, Electric Power Industry Trends, Principles Course in Power Engineering (Dept. of Electric Engineering).

Continuing Education. Electric Power Industry Restructuring for Energy Professionals.

THESIS/DISSERTATIONS COMMITTEES

5 Thesis Committee Memberships (Environmental Studies, Geography) 3 Doctoral Committee Memberships (Information Systems & Decision Sciences, Agricultural and Resource Economics, Economics).

LSU SERVICE AND COMMITTEE MEMBERSHIPS

LSU Faculty Senate Committee on Public Relations (1997-1999). LSU Faculty Senate Committee on Student Retention and Recruitment (1999-2003). LSU CES/SCE Public Art Selection Committee (2003-2005). LSU InterCollege Environmental Cooperative. (1999-2001). LSU Main Campus Cogeneration/Turbine Project, (1999-2000).

Co-Chairman, Review Committee, Louisiana Port Construction and Development Priority Program Rules and Regulations, On Behalf of the LSU Ports and Waterways Institute. (1997).

Conference Coordinator. Center for Energy Studies Seminar Series on Electric Utility Restructuring and Wholesale Competition. (1996-2003).

Conference Coordinator. Center for Energy Studies Annual Energy Conference/Summit. (2003-Current).

Conference Coordinator. (2005) Center for Energy Studies Conference on Alternative Energy.

LSU Faculty Senate (2003-2006)

LSU Graduate Faculty, Associate Member (1997-2004); Full Member (2004-Current)

Advisor, Louisiana LNG Buyers/Developers Summit, Office of the Governor/Louisiana Department of Economic Development/Louisiana Department of Natural Resources, and Greater New Orleans, Inc. (2004).

Search Committee Member (2005), CES Communications Manager.

Search Committee Member (2005), Research Associate 4 Position.

Docket Nos. 050045-EI & 050188-EI

EXHIBIT 1

Schedules DED-1 through DED-10

Proposed Forecast: NEL per Customer, Number of Customers, Sales

Docket Nos. 050045-El & 050188-El Office of Public Counsel Exhibit No. <u>1</u> Witness: David Dismukes Schedule DED-1 Page 1 of 1

	Proposed Forecast									
		Net Energy			Percent Change					
	Year	for Load per Customer (MWh)	Total Customers	Net Energy for Load (MWh)	NEL per Customer	Customers (%)	NEL			
	2003	26.33	4,117,221	108,390,489						
	2004	25.70	4,224,158	108,549,080	-2.39%	2.60%	0.15%			
	2005	26.08	4,310,078	112,411,742	1.49%	2.03%	3.56%			
	2006	26.50	4,400,496	116,600,364	1.59%	2.10%	3.73%			
	2007	26.92	4,489,535	120,877,355	1.61%	2.02%	3.67%			
			Com	pany Forecast						
		Net Energy			Pe	ercent Change				
		for Load per	Total	Net Energy	NEL per					
-		Customer	Customers	for Load	Customer	Customers	NEL			
	Year	(MWh)		(MWh)		(%)				
	2003	26.33	4,117,221	108,392,543						
	2004	25.63	4,226,957	108,321,828	-2.66%	2.67%	-0.07%			
	2005	25.99	4,296,957	111,694,680	1.43%	1.66%	3.11%			
	2006	26.41	4,371,957	115,462,520	1.60%	1.75%	3.37%			
	2007	26.84	4,451,957	119,477,180	1.62%	1.83%	3.48%			
1.1.1		Differ	ence Between`P	roposed and Con	npany Forecas	st				
		Net Energy			Pe	ercent Change				
		for Load per	Total	Net Energy	NEL per					
		Customer	Customers	for Load	Customer	Customers	NEL			
	Year	(MWh)		(MWh)		(%)				
	2003	(0.00)	(0)	(2,054)						
	2004	0.07	(2,799)	227,253	0.27%	-0.07%	0.21%			
	2005	0.09	13,121	717,061	0.06%	0.38%	0.44%			
	2006	0.09	28,539	1,137,845	-0.01%	0.35%	0.35%			
	2007	0.09	37,578	1,400,175	-0.01%	0.19%	0.19%			



Ν





Comparison of Customer Growth Forecasts and Out of Model Adjustments in Last Rate Case Docket Nos. 050045-EI & 050188-EI Office of Public Counsel Exhibit No. <u>1</u> Witness: David Dismukes Schedule DED-3 Page 1 of 1

Year	Original MFRs	Revised MFRs	Actual	Deviation from Revised	Deviation from Original
2001	86,760	86,606	86,931	325	171
2002	85,643	65,000	84,523	19,523	(1,120)

Notes:

Deviation is estimated as actual less forecasted value.

Positive number indicates that customers were underestimated, negative number indicates that customers were overestimated.

Source: Document SSW-23, Docket 001148-EI, Response to OPC POD 259.

Revised Industrial Customer Model

Docket Nos. 050045-El & 050188-El Office of Public Counsel Exhibit No. <u>1</u> Witness: David Dismukes Schedule DED-4 Page 1 of 1

Dependent Variable: Industrial Customers

		Analysis of Variand	e:		
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model Error	2 11	3,106,103,055 3,029,789	1,553,051,528 275,435	5,638.53	<.0001
Uncorrected Total	13 Root MSE	3,109,132,845 524,81940	R-Square	0.9990	
Deper	ndent Mean Coeff Var	15,451 3.39672	Adj R-Sq	0.9988	
		Parameter Estimate	es		
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > F
Industrial Customers (1 year lag)	1	0.81213	0.04962	16.37	<.0001
Florida Housing Starts	1	19.74084	5.09600	3.87	0.0026

Historic Non-Fuel O&M Expense per kWh (1994-2003)

Docket Nos. 050045-El & 050188-El Office of Public Counsel Exhibit No. __1_ Witness: David Dismukes Schedule DED-5 Page 1 of 3

	1994		1995		1996	an a	1997
Ohio Power Company	1.16	Public Service Company of Oklahoma	1.07	Entergy Louisiana, Inc.	1.02	Entergy Gulf States, Inc.	0.91
Public Service Company of Oklahoma	1.22	Entergy Louisiana, Inc.	1.10	Puget Sound Energy, Inc.	1.08	Public Service Company of Oklahoma	1.10
Entergy Louisiana, Inc.	1.27	Puget Sound Energy, Inc.	1.14	Public Service Company of Oklahoma	1.08	Entergy Louisiana, Inc.	1.14
Kentucky Utilities Company	1.30	Oklahoma Gas and Electric Company	1.25	Entergy Gulf States, Inc.	1.23	Oklahoma Gas and Electric Company	1.15
Nevada Power Company	1.31	Nevada Power Company	1.26	Oklahoma Gas and Electric Company	1.24	Kentucky Utilities Company	1.22
Appalachian Power Company	1.31	AEP Texas Central Company	1.27	Nevada Power Company	1.24	Public Service Company of Colorado	1.24
Oklahoma Gas and Electric Company	1.33	Kentucky Utilities Company	1.27	Kentucky Utilities Company	1.26	Nevada Power Company	1.27
Puget Sound Energy, Inc.	1.35	South Carolina Electric & Gas Compan	1.33	Public Service Company of Colorado	1.26	Puget Sound Energy, Inc.	1.29
Portland General Electric Company	1.39	Appalachian Power Company	1.38	Appalachian Power Company	1.37	Appalachian Power Company	1.33
Dayton Power and Light Company	1.41	Portland General Electric Company	1.39	AEP Texas Central Company	1.39	Virginia Electric and Power	1.38
South Carolina Electric & Gas Compan	1.42	Public Service Company of Colorado	1.42	South Carolina Electric & Gas Compan	1.42	Florida Power & Light Company	1.41
PSI Energy, Inc.	1.43	Entergy Gulf States, Inc.	1.42	Florida Power & Light Company	1.46	Consumers Energy Company	1.42
Virginia Electric and Power	1.43	PSI Energy, Inc.	1.42	Virginia Electric and Power	1.46	South Carolina Electric & Gas Compan	1.46
AEP Texas Central Company	1.57	Virginia Electric and Power	1.48	Dayton Power and Light Company	1.53	Portland General Electric Company	1.46
Consumers Energy Company	1.61	Ohio Power Company	1.49	Florida Power Corporation	1.53	Dayton Power and Light Company	1.47
Florida Power & Light Company	1.67	Florida Power & Light Company	1.49	Portland General Electric Company	1.54	Cincinnati Gas & Electric Company, The	1.49
Alabama Power Company	1.69	Dayton Power and Light Company	1.50	Ohio Power Company	1.54	Ohio Power Company	1.52
Public Service Company of Colorado	1.70	Cincinnati Gas & Electric Company, Th	1.57	Tampa Electric Company	1.56	Georgia Power Company	1.53
Georgia Power Company	1.71	Consumers Energy Company	1.58	Consumers Energy Company	1.57	AEP Texas Central Company	1.59
nterstate Power and Light Company	1.72	Florida Power Corporation	1.60	PSI Energy, Inc.	1.59	Alabama Power Company	1.63
Columbus Southern Power Company	1.74	Georgia Power Company	1.60	Interstate Power and Light Company	1.62	Tampa Electric Company	1.63
Union Electric Company	1.79	Tampa Electric Company	1.61	Georgia Power Company	1.62	Columbus Southern Power Company	1.65
Cincinnati Gas & Electric Company, The	1.81	Interstate Power and Light Company	1.66	Cincinnati Gas & Electric Company, Th	1.67	Interstate Power and Light Company	1.69
Duke Energy Corporation	1.83	Alabama Power Company	1.67	Alabama Power Company	1.67	Carolina Power & Light Company	1.70
Entergy Gulf States, Inc.	1.85	Duke Energy Corporation	1.76	Wisconsin Electric Power Company	1.69	PSI Energy, Inc.	1.78
Florida Power Corporation	1.85	Columbus Southern Power Company	1.76	Columbus Southern Power Company	1.75	Union Electric Company	1.80
Tampa Electric Company	1.91	Wisconsin Electric Power Company	1.76	MidAmerican Energy Company	1.75	Duke Energy Corporation	1.82
Detroit Edison Company	2.02	Union Electric Company	1.78	Union Electric Company	1.76	Wisconsin Electric Power Company	1.84
Northern States Power Company	2.06	Detroit Edison Company	1.93	Duke Energy Corporation	1.77	Detroit Edison Company	1.89
Carolina Power & Light Company	2.13	MidAmerican Energy Company	1.98	Carolina Power & Light Company	1.93	Florida Power Corporation	1.89
Nisconsin Electric Power Company	2.15	Carolina Power & Light Company	2.00	Northern States Power Company	1.96	Arizona Public Service Company	2.03
Arizona Public Service Company	2.41	Northern States Power Company	2.02	Detroit Edison Company	2.00	Northern States Power Company	2.08
Entergy Arkansas, Inc.	2.69	Entergy Arkansas, Inc.	2.10	Entergy Arkansas, Inc.	2.26	MidAmerican Energy Company	2.10
ndiana Michigan Power Company	2.79	Arizona Public Service Company	2.30	Arizona Public Service Company	2.29	Entergy Arkansas, Inc.	2.24
MidAmerican Energy Company	-	Indiana Michigan Power Company	2.78	Indiana Michigan Power Company	2.56	Indiana Michigan Power Company	2.65

Historic Non-Fuel O&M Expense per kWh (1994-2003)

Docket Nos. 050045-El & 050188-El Office of Public Counsel Exhibit No. <u>1</u> Witness: David Dismukes Schedule DED-5 Page 2 of 3

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Public Service Company of Oklahoma	0.87	Public Service Company of Oklahoma	1.02	Public Service Company of Oklahoma	0.97
Puget Sound Energy, Inc.	1.01	Entergy Louisiana, Inc.	1.05	Kentucky Utilities Company	1.00
Oklahoma Gas and Electric Company	1.07	Puget Sound Energy, Inc.	1.05	Puget Sound Energy, Inc.	1.01
Entergy Louisiana, Inc.	1.07	Kentucky Utilities Company	1.07	Nevada Power Company	1.05
Entergy Gulf States, Inc.	1.15	Oklahoma Gas and Electric Company	1.15	Entergy Louisiana, Inc.	1.12
Kentucky Utilities Company	1.17	Public Service Company of Colorado	1.19	Oklahoma Gas and Electric Company	1.15
Virginia Electric and Power	1.17	Dayton Power and Light Company	1.21	Dayton Power and Light Company	1.17
Public Service Company of Colorado	1.25	Entergy Gulf States, Inc.	1.22	Entergy Gulf States, Inc.	1.21
Nevada Power Company	1.29	Nevada Power Company	1.25	Florida Power & Light Company	1.27
Florida Power & Light Company	1.36	Appalachian Power Company	1.34	Public Service Company of Colorado	1.29
Consumers Energy Company	1.40	Florida Power & Light Company	1.37	Consumers Energy Company	1.34
Appalachian Power Company	1.41	Virginia Electric and Power	1.39	Virginia Electric and Power	1.37
AEP Texas Central Company	1.43	Consumers Energy Company	1.43	South Carolina Electric & Gas Compan	1.37
South Carolina Electric & Gas Compan	1.45	Ohio Power Company	1.43	Appalachian Power Company	1.39
Cincinnati Gas & Electric Company, Th	1.45	Portland General Electric Company	1.44	Portland General Electric Company	1.48
Dayton Power and Light Company	1.49	South Carolina Electric & Gas Compan	1.44	Interstate Power and Light Company	1.57
Ohio Power Company	1.54	Cincinnati Gas & Electric Company, Th	1.52	Georgia Power Company	1.58
Portland General Electric Company	1.58	Columbus Southern Power Company	1.58	Alabama Power Company	1.62
Georgia Power Company	1.64	AEP Texas Central Company	1.58	PSI Energy, Inc.	1.65
Tampa Electric Company	1.64	Tampa Electric Company	1.61	Columbus Southern Power Company	1.66
Carolina Power & Light Company	1.64	Alabama Power Company	1.63	Cincinnati Gas & Electric Company, Th	1.68
Florida Power Corporation	1.64	Florida Power Corporation	1.63	AEP Texas Central Company	1.68
Alabama Power Company	1.68	Interstate Power and Light Company	1.64	Florida Power Corporation	1.69
Columbus Southern Power Company	1.68	Georgia Power Company	1.65	Tampa Electric Company	1.70
Duke Energy Corporation	1.71	Carolina Power & Light Company	1.69	Carolina Power & Light Company	1.76
Interstate Power and Light Company	1.86	PSI Energy, Inc.	1.71	Ohio Power Company	1.85
Union Electric Company	1.90	Duke Energy Corporation	1.86	Arizona Public Service Company	1.92
Detroit Edison Company	2.00	Union Electric Company	1.91	Detroit Edison Company	1.93
Arizona Public Service Company	2.04	Northern States Power Company	1.98	Duke Energy Corporation	1.96
PSI Energy, Inc.	2.06	Detroit Edison Company	2.00	MidAmerican Energy Company	1.99
Entergy Arkansas, Inc.	2.11	Wisconsin Electric Power Company	2.02	Union Electric Company	2.02
Wisconsin Electric Power Company	2.12	Arizona Public Service Company	2.07	Northern States Power Company	2.06
Northern States Power Company	2.14	MidAmerican Energy Company	2.11	Wisconsin Electric Power Company	2.10
MidAmerican Energy Company	2.16	Entergy Arkansas, Inc.	2.24	Entergy Arkansas, Inc.	2.34
Indiana Michigan Power Company	2.86	Indiana Michigan Power Company	3.23	Indiana Michigan Power Company	4.41

Ш 80	1.04 1.17 1.26 1.29 1.33	1.39 1.54 1.54 1.58 1.61 1.61	1.66 1.68 1.73 1.78 1.78 1.78 1.78	1.92 1.92 2.01 2.03 2.16 2.93 3.09 3.09
Docket Nos. 050045-El & 0501 Office of Public Counsel Exhibit No. <u>1</u> Witness: David Dismukes Schedule DED-5 Page 3 of 3	Public Service Company of Oklahoma Kentucky Utilities Company Oklahoma Gas and Electric Company Florida Power & Light Company Appalachian Power Company Nevada Power Company Entergy Gulf States, Inc.	Entergy Louisiana, Inc. Puget Sound Energy, Inc. Virginia Electric and Power Public Service Company of Colorado Columbus Southern Power Company Georgia Power Company Tampa Electric Company PSI Energy, Inc.	Florida Power Corporation South Carolina Electric & Gas Compan Portland General Electric Company Alabama Power Company Interstate Power and Light Company, Th Cincinnati Gas & Electric Company, Th Carolina Power & Light Company	Ohio Power Company Duke Energy Corporation MidAmerican Energy Company Union Electric Company Arizona Public Service Company Entergy Arkansas, Inc. Northern States Power Company Wisconsin Electric Power Company Indiana Michigan Power Company Detroit Edison Company Detroit Edison Company AEP Texas Central Company Consumers Energy Company
	1.10 1.19 1.19	1.29 1.32 1.39 1.54 1.58	1.63 1.65 1.66 1.70 1.73 1.73	1.82 1.90 1.91 1.91 2.13 2.13 2.26 2.13 2.13 2.26 3.18 3.18 3.18
Φ	Public Service Company of Oklahoma Dayton Power and Light Company Kentucky Utilities Company Virginia Electric and Power Entergy Louisiana, Inc. Nevada Power Company Oklahoma Gas and Electric Company	Florida Power & Light Company Entergy Gulf States, Inc. Appalachian Power Company Puget Sound Energy, Inc. Public Service Company of Colorado Columbus Southern Power Company South Carolina Electric & Gas Compan Florida Power Corporation	PSI Energy, Inc. Consumers Energy Company Alabama Power Company Portland General Electric Company Georgia Power Company Tampa Electric Company Interstate Power and Light Company	MidAmerican Energy Company Cincinnati Gas & Electric Company, Th Carolina Power & Light Company Ohio Power Company Duke Energy Corporation Arizona Public Service Company Northern States Power Company Wisconsin Electric Power Company Union Electric Company Union Electric Company Detroit Edison Company Entergy Arkansas, Inc. Indiana Michigan Power Company AEP Texas Central Company
bens	1.03 1.20 1.22 1.23	1.26 1.37 1.37 1.41 1.43 1.52 1.52	1.57 1.60 1.65 1.65 1.66 1.69	1.76 1.76 1.81 1.87 2.03 2.11 2.12 2.12 2.12 2.12 2.12 3.09
Historic Non-Fuel O&M Ex ber kWh (1994-2003)	Public Service Company of Oklahoma Entergy Louisiana, Inc. Kentucky Utilities Company Dayton Power and Light Company Puget Sound Energy, Inc. Florida Power & Light Company Oklahoma Gas and Electric Company	Entergy Gulf States, Inc. Nevada Power Company Appalachian Power Company Florida Power Corporation PSI Energy, inc. South Carolina Electric & Gas Compan Columbus Southern Power Company Cincinnati Gas & Electric Company, Th	Virginia Electric and Power Alabama Power Company Public Service Company of Colorado Consumers Energy Company Portland General Electric Company Georgia Power Company Tampa Electric Company	Interstate Power and Light Company Carolina Power & Light Company AEP Texas Central Company Ohio Power Company Arizona Public Service Company MidAmerican Energy Company Entergy Arkansas, Inc. Duke Energy Corporation Union Electric Company Wisconsin Electric Power Company Northern States Power Company Detroit Edison Company Indiana Michigan Power Company

Forecast Non-Fuel O&M Expense per kWh (2004-2007)

Docket Nos. 050045-EI & 050188-EI Office of Public Counsel Exhibit No. <u>1</u> Witness: David Dismukes Schedule DED-6 Page 1 of 1

	2004		2005		2006		2007
Public Service Company of Oklahoma	1.07	Public Service Company of Oklahoma	1.11	Public Service Company of Oklahoma	1.16	FPL (trend)	1.18
Kentucky Utilities Company	1.18	Kentucky Utilities Company	1.18	Kentucky Utilities Company	1.18	Kentucky Utilities Company	1.19
FPL (trend)	1.24	FPL (trend)	1.22	FPL (trend)	1.20	Public Service Company of Oklahoma	1.20
FPL (proposed)	1.24	Appalachian Power Company	1.24	Appalachian Power Company	1.22	Appalachian Power Company	1.20
Appalachian Power Company	1.27	FPL (proposed)	1.28	Oklahoma Gas and Electric Company	1.35	PSI Energy, Inc.	1.39
Oklahoma Gas and Electric Company	1.27	Oklahoma Gas and Electric Company	1.31	Nevada Power Company	1.38	Oklahoma Gas and Electric Company	1.39
Nevada Power Company	1.35	Nevada Power Company	1.36	PSI Energy, Inc.	1.44	Nevada Power Company	1.40
Entergy Gulf States, Inc.	1.40	Entergy Gulf States, Inc.	1.45	Entergy Gulf States, Inc.	1.49	Columbus Southern Power Company	1.50
Entergy Louisiana, Inc.	1.47	PSI Energy, Inc.	1.50	Columbus Southern Power Company	1.52	Entergy Gulf States, Inc.	1.54
Puget Sound Energy, Inc.	1.55	Columbus Southern Power Company	1.54	FPL (proposed)	1.53	FPL (proposed)	1.55
Columbus Southern Power Company	1.56	Entergy Louisiana, Inc.	1.56	Georgia Power Company	1.59	Georgia Power Company	1.59
PSI Energy, Inc.	1.56	Georgia Power Company	1.60	Tampa Electric Company	1.60	Tampa Electric Company	1.60
Georgia Power Company	1.60	Tampa Electric Company	1.60	Entergy Louisiana, Inc.	1.64	Florida Power Corporation	1.72
Tampa Electric Company	1.61	Puget Sound Energy, Inc.	1.66	Florida Power Corporation	1.71	Entergy Louisiana, Inc.	1.74
Public Service Company of Colorado	1.62	Florida Power Corporation	1.69	Public Service Company of Colorado	1.79	Portland General Electric Company	1.85
Virginia Electric and Power (Dominion)	1.64	Public Service Company of Colorado	1.70	Puget Sound Energy, Inc.	1.79	Alabama Power Company	1.87
Florida Power Corporation	1.67	Virginia Electric and Power (Dominion)	1.76	Portland General Electric Company	1.82	Public Service Company of Colorado	1.88
South Carolina Electric & Gas Co	1.73	South Carolina Electric & Gas Co	1.79	South Carolina Electric & Gas Co	1.84	South Carolina Electric & Gas Co	1.90
Portland General Electric Company	1.76	Portland General Electric Company	1.79	Alabama Power Company	1.85	MidAmerican Energy Company	1.90
Alabama Power Company	1.80	Alabama Power Company	1.82	Virginia Electric and Power (Dominion)	1.88	Puget Sound Energy, Inc.	1.92
Carolina Power & Light Company	1.94	MidAmerican Energy Company	1.95	MidAmerican Energy Company	1.93	Virginia Electric and Power (Dominion)	2.02
Cincinnati Gas & Electric Company	1.97	Carolina Power & Light Company	2.00	Carolina Power & Light Company	2.05	Carolina Power & Light Company	2.11
Duke Energy Corporation	1.97	Duke Energy Corporation	2.02	Duke Energy Corporation	2.07	Duke Energy Corporation	2.13
MidAmerican Energy Company	1.98	Cincinnati Gas & Electric Company	2.08	Arizona Public Service Company	2.16	Arizona Public Service Company	2.18
Ohio Power Company	2.01	Ohio Power Company	2.10	Ohio Power Company	2.19	Union Electric Company	2.25
Union Electric Company	2.12	Arizona Public Service Company	2.14	Cincinnati Gas & Electric Company	2.20	Ohio Power Company	2.29
Arizona Public Service Company	2.13	Union Electric Company	2.16	Union Electric Company	2.21	Cincinnati Gas & Electric Company	2.33
Entergy Arkansas, Inc.	2.23	Entergy Arkansas, Inc.	2.30	Entergy Arkansas, Inc.	2.37	Entergy Arkansas, Inc.	2.44
Northern States Power Company	2.34	Northern States Power Company	2.38	Northern States Power Company	2.42	Northern States Power Company	2.46
Wisconsin Electric Power Company	2.53	Wisconsin Electric Power Company	2.61	Wisconsin Electric Power Company	2.69	Wisconsin Electric Power Company	2.78
Indiana Michigan Power Company	3.02	Indiana Michigan Power Company	3.12	Indiana Michigan Power Company	3.21	Indiana Michigan Power Company	3.31
Detroit Edison Company	3.38	Detroit Edison Company	3.69	Detroit Edison Company	4.04	Detroit Edison Company	4.42
AEP Texas Central Company		AEP Texas Central Company		AEP Texas Central Company		AEP Texas Central Company	
Consumers Energy Company		Consumers Energy Company		Consumers Energy Company		Consumers Energy Company	
Dayton Power and Light Company		Dayton Power and Light Company		Dayton Power and Light Company		Dayton Power and Light Company	
Interstate Power and Light Company		Interstate Power and Light Company		Interstate Power and Light Company		Interstate Power and Light Company	

Forecast Administrative and General O&M Expense per kWh (2004-2006)

Docket Nos. 050045-El & 050188-El Office of Public Counsel Exhibit No. <u>1</u> Witness: David Dismukes Schedule DED-7 Page 1 of 1

2006

0.31 0.31

0.33 **0.34** 0.36

0.37

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1.77

1.92

and the second		[1] M. M. Martin, A. M. Martin, M. M. Mathamatik, and M. Martin, and M.	and a second second	and a state of the second s
	2004		2005	
FPL (proposed)	0.27	Columbus Southern Power Company	0.31	Public Service Company of Oklahoma
Columbus Southern Power Company	0.31	Public Service Company of Oklahoma	0.31	Columbus Southern Power Company
Ohio Power Company	0.32	FPL (proposed)	0.32	Puget Sound Energy, Inc.
Puget Sound Energy, Inc.	0.32	Puget Sound Energy, Inc.	0.32	FPL (trend)
Public Service Company of Oklahoma	0.32	FPL (trend)	0.33	Ohio Power Company
FPL (trend)	0.32	Ohio Power Company	0.34	Georgia Power Company
Appalachian Power Company	0.38	Georgia Power Company	0.38	Appalachian Power Company
Georgia Power Company	0.38	Appalachian Power Company	0.38	Alabama Power Company
Alabama Power Company	0.41	Alabama Power Company	0.41	Tampa Electric Company
Entergy Gulf States, Inc.	0.43	Tampa Electric Company	0.43	FPL (proposed)
Tampa Electric Company	0.45	Entergy Gulf States, Inc.	0.44	Entergy Gulf States, Inc.
Kentucky Utilities Company	0.45	Kentucky Utilities Company	0.47	Kentucky Utilities Company
Entergy Louisiana, Inc.	0.48	Entergy Louisiana, Inc.	0.51	Portland General Electric Company
Virginia Electric and Power (Dominion)	0.49	Portland General Electric Company	0.52	Nevada Power Company
Northern States Power Company	0.50	Northern States Power Company	0.53	MidAmerican Energy Company
Portland General Electric Company	0.51	Nevada Power Company	0.54	Entergy Louisiana, Inc.
Nevada Power Company	0.53	Virginia Electric and Power (Dominion)	0.54	Northern States Power Company
Interstate Power and Light Company	0.54	MidAmerican Energy Company	0.56	Interstate Power and Light Company
MidAmerican Energy Company	0.56	Interstate Power and Light Company	0.56	Virginia Electric and Power (Dominion)
Oklahoma Gas and Electric Company	0.57	Oklahoma Gas and Electric Company	0.59	Oklahoma Gas and Electric Company
Arizona Public Service Company	0.59	Duke Energy Corporation	0.61	Duke Energy Corporation
Duke Energy Corporation	0.60	Arizona Public Service Company	0.61	Arizona Public Service Company
South Carolina Electric & Gas Co	0.60	South Carolina Electric & Gas Co	0.62	South Carolina Electric & Gas Co
Public Service Company of Colorado	0.63	PSI Energy, Inc.	0.67	PSI Energy, Inc.
Carolina Power & Light Company	0.64	Wisconsin Electric Power Company	0.67	Wisconsin Electric Power Company
Wisconsin Electric Power Company	0.65	Public Service Company of Colorado	0.68	Public Service Company of Colorado
Indiana Michigan Power Company	0.68	Carolina Power & Light Company	0.70	Union Electric Company
PSI Energy, Inc.	0.68	Union Electric Company	0.72	Carolina Power & Light Company
Union Electric Company	0.71	Indiana Michigan Power Company	0.74	Indiana Michigan Power Company
Cincinnati Gas & Electric Company	0.77	Cincinnati Gas & Electric Company	0.86	Cincinnati Gas & Electric Company
Florida Power Corporation	0.79	Entergy Arkansas, Inc.	1.20	Entergy Arkansas, Inc.
Entergy Arkansas, Inc.	0.86	Florida Power Corporation	1.23	Detroit Edison Company
Detroit Edison Company	1.34	Detroit Edison Company	1.54	Florida Power Corporation
AEP Texas Central Company		AEP Texas Central Company		AEP Texas Central Company
Consumers Energy Company		Consumers Energy Company		Consumers Energy Company
Dayton Power and Light Company		Dayton Power and Light Company		Dayton Power and Light Company

Note: 2005 is estimated using 2004 and 2006 projections

Forecast Non-Fuel Nuclear Production O&M Expense per kWh (2004-2006)

Docket Nos. 050045-El & 050188-El Office of Public Counsel Exhibit No. <u>1</u> Witness: David Dismukes Schedule DED-8 Page 1 of 1

	2004	
Portland General Electric Company	0.03	Portland General Electric Company
Florida Power Corporation	0.18	Florida Power Corporation
Georgia Power Company	0.19	Georgia Power Company
MidAmerican Energy Company	0.23	MidAmerican Energy Company
Detroit Edison Company	0.26	Detroit Edison Company
Alabama Power Company	0.27	Alabama Power Company
Entergy Gulf States, Inc.	0.30	Interstate Power and Light Company
South Carolina Electric & Gas Co	0.31	Entergy Gulf States, Inc.
FPL (proposed)	0.31	FPL (proposed)
Virginia Electric and Power (Dominion)	0.31	FPL (trend)
Interstate Power and Light Company	0.31	Virginia Electric and Power (Dominion)
FPL (trend)	0.31	South Carolina Electric & Gas Co
Union Electric Company	0.33	Union Electric Company
Entergy Louisiana, Inc.	0.36	Entergy Louisiana, Inc.
Wisconsin Electric Power Company	0.46	Wisconsin Electric Power Company
Arizona Public Service Company	0.46	Arizona Public Service Company
Carolina Power & Light Company	0.51	Carolina Power & Light Company
Duke Energy Corporation	0.54	Duke Energy Corporation
Northern States Power Company	0.67	Entergy Arkansas, Inc.
Entergy Arkansas, Inc.	0.73	Northern States Power Company
Indiana Michigan Power Company	1.57	Indiana Michigan Power Company
Consumers Energy Company		Consumers Energy Company
AEP Texas Central Company		AEP Texas Central Company
Appalachian Power Company		Appalachian Power Company
Cincinnati Gas & Electric Company		Cincinnati Gas & Electric Company
Columbus Southern Power Company		Columbus Southern Power Company
Dayton Power and Light Company		Dayton Power and Light Company
Kentucky Utilities Company		Kentucky Utilities Company
Nevada Power Company		Nevada Power Company
Ohio Power Company		Ohio Power Company
Oklahoma Gas and Electric Company		Oklahoma Gas and Electric Company
PSI Energy, Inc.		PSI Energy, Inc.
Public Service Company of Colorado		Public Service Company of Colorado
Public Service Company of Oklahoma		Public Service Company of Oklahoma
Puget Sound Energy, Inc.		Puget Sound Energy, Inc.
Tampa Electric Company		Tampa Electric Company

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2005		2006
0.03	Portland General Electric Company	0.03
0.17	Florida Power Corporation	0.15
0.18	Georgia Power Company	0.18
0.22	MidAmerican Energy Company	0.21
0.26	Alabama Power Company	0.25
0.26	Detroit Edison Company	0.25
0.29	Interstate Power and Light Company	0.28
0.31	Entergy Gulf States, Inc.	0.32
0.31	FPL (trend)	0.32
0.32	Virginia Electric and Power (Dominion)	0.33
0.32	South Carolina Electric & Gas Co	0.34
0.32	Entergy Louisiana, Inc.	0.35
0.34	Union Electric Company	0.36
0.36	FPL (proposed)	0.36
0.45	Wisconsin Electric Power Company	0.43
0.45	Arizona Public Service Company	0.44
0.50	Carolina Power & Light Company	0.50
0.54	Duke Energy Corporation	0.53
0.72	Entergy Arkansas, Inc.	0.71
0.72	Northern States Power Company	0.77
1.76	Indiana Michigan Power Company	1.97
	AEP Texas Central Company	
	Appalachian Power Company	
	Cincinnati Gas & Electric Company	
	Columbus Southern Power Company	
	Dayton Power and Light Company	
	Kentucky Utilities Company	
	Nevada Power Company	
	Ohio Power Company	
	Oklahoma Gas and Electric Company	
	PSI Energy, Inc.	
	Public Service Company of Colorado	
	Public Service Company of Oklahoma	
	Puget Sound Energy, Inc.	
	Tampa Electric Company	
	Consumers Energy Company	

Note: 2005 is estimated using 2004 and 2006 projections

Forecast Transmission O&M Expense per kWh (2004-2006)

Docket Nos. 050045-El & 050188-El Office of Public Counsel Exhibit No. <u>1</u> Witness: David Dismukes Schedule DED-9 Page 1 of 1

> 2006 (0.16) 0.03 0.04 0.05 0.06 0.07 0.07 0.07 0.07 0.07 0.08 0.09 0.10 0.10

> > 0.10 0.11 0.11 0.11 0.12 0.13 0.16 0.16 0.21 0.24 0.24 0.26 0.34 0.34 0.52 0.56 0.75 1.90 1.93

	2004		2005	
ndiana Michigan Power Company	(0.15)	Indiana Michigan Power Company	(0.15)	Indiana Michigan Power Company
/irginia Electric and Power (Dominion)	0.03	Virginia Electric and Power (Dominion)	0.03	Virginia Electric and Power (Dominion)
Tampa Electric Company	0.04	Tampa Electric Company	0.04	Tampa Electric Company
AidAmerican Energy Company	0.04	MidAmerican Energy Company	0.04	MidAmerican Energy Company
PL (trend)	0.05	FPL (trend)	 0.05	FPL (trend)
South Carolina Electric & Gas Co	0.05	FPL (proposed)	0.06	South Carolina Electric & Gas Co
FPL (proposed)	0.06	South Carolina Electric & Gas Co	0.06	Oklahoma Gas and Electric Company
Oklahoma Gas and Electric Company	0.06	Oklahoma Gas and Electric Company	0.06	Duke Energy Corporation
Entergy Louisiana, Inc.	0.06	Entergy Louisiana, Inc.	0.07	PSI Energy, Inc.
Duke Energy Corporation	0.07	Duke Energy Corporation	0.07	Entergy Louisiana, Inc.
Nevada Power Company	0.07	PSI Energy, Inc.	0.08	Florida Power Corporation
Iorida Power Corporation	0.08	Florida Power Corporation	0.08	Nevada Power Company
PSI Energy, Inc.	0.08	Nevada Power Company	0.08	Alabama Power Company
Appalachian Power Company	0.09	Alabama Power Company	0.10	Georgia Power Company
Georgia Power Company	0.09	Georgia Power Company	0.10	Entergy Arkansas, Inc.
Entergy Arkansas, Inc.	0.09	Entergy Arkansas, Inc.	0.10	Ohio Power Company
Alabama Power Company	0.09	Appalachian Power Company	0.10	FPL (proposed)
Arizona Public Service Company	0.11	Arizona Public Service Company	0.11	Arizona Public Service Company
Dhio Power Company	0.11	Ohio Power Company	0.11	Entergy Gulf States, Inc.
Entergy Gulf States, Inc.	0.12	Entergy Gulf States, Inc.	0.12	Appalachian Power Company
Kentucky Utilities Company	0.12	Kentucky Utilities Company	0.14	Kentucky Utilities Company
Carolina Power & Light Company	0.14	Carolina Power & Light Company	0.15	Carolina Power & Light Company
Cincinnati Gas & Electric Company	0.14	Interstate Power and Light Company	0.19	Interstate Power and Light Company
Jnion Electric Company	0.14	Union Electric Company	0.19	Columbus Southern Power Company
nterstate Power and Light Company	0.17	Puget Sound Energy, Inc.	0.24	Puget Sound Energy, Inc.
Public Service Company of Colorado	0.21	Columbus Southern Power Company	0.25	Union Electric Company
Puget Sound Energy, Inc.	0.23	Public Service Company of Colorado	0.26	Public Service Company of Colorado
Public Service Company of Oklahoma	0.24	Cincinnati Gas & Electric Company	0.28	Northern States Power Company
Columbus Southern Power Company	0.25	Northern States Power Company	0.32	Portland General Electric Company
Northern States Power Company	0.31	Portland General Electric Company	0.46	Cincinnati Gas & Electric Company
Detroit Edison Company	0.33	Detroit Edison Company	0.50	Detroit Edison Company
Portland General Electric Company	0.41	Public Service Company of Oklahoma	0.68	Wisconsin Electric Power Company
Visconsin Electric Power Company	0.66	Wisconsin Electric Power Company	1.12	Public Service Company of Oklahoma
AEP Texas Central Company		AEP Texas Central Company		AEP Texas Central Company
Consumers Energy Company		Consumers Energy Company		Consumers Energy Company
Dayton Power and Light Company		Dayton Power and Light Company		Dayton Power and Light Company

Forecast Non-Fuel Steam and Other Production O&M Expense per kWh (2004-2006)

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	2004		2005		2006
FPL (trend)	0.16	FPL (trend)	0.15	FPL (trend)	0.14
FPL (proposed)	0.16	Portland General Electric Company	0.20	Portland General Electric Company	0.19
Entergy Gulf States, Inc.	0.19	Entergy Gulf States, Inc.	0.20	Entergy Gulf States, Inc.	0.20
Portland General Electric Company	0.21	Puget Sound Energy, Inc.	0.24	Puget Sound Energy, Inc.	0.27
Puget Sound Energy, Inc.	0.22	Entergy Arkansas, Inc.	0.26	Kentucky Utilities Company	0.28
Entergy Arkansas, Inc.	0.23	Duke Energy Corporation	0.26	Duke Energy Corporation	0.28
Entergy Louisiana, Inc.	0.23	Entergy Louisiana, Inc.	0.27	Entergy Arkansas, Inc.	0.29
Duke Energy Corporation	0.25	Kentucky Utilities Company	0.29	Public Service Company of Oklahoma	0.30
Public Service Company of Oklahoma	0.27	Public Service Company of Oklahoma	0.29	Florida Power Corporation	0.30
Kentucky Utilities Company	0.29	Florida Power Corporation	0.31	Entergy Louisiana, Inc.	0.31
Oklahoma Gas and Electric Company	0.31	Northern States Power Company	0.32	Northern States Power Company	0.31
Florida Power Corporation	0.31	Carolina Power & Light Company	0.32	Carolina Power & Light Company	0.34
Carolina Power & Light Company	0.31	Oklahoma Gas and Electric Company	0.32	Appalachian Power Company	0.34
Virginia Electric and Power (Dominion)	0.32	Appalachian Power Company	0.34	Oklahoma Gas and Electric Company	0.34
Northern States Power Company	0.32	Nevada Power Company	0.35	Nevada Power Company	0.35
Interstate Power and Light Company	0.34	Virginia Electric and Power (Dominion)	0.36	Virginia Electric and Power (Dominion)	0.40
Appalachian Power Company	0.34	Georgia Power Company	0.40	Georgia Power Company	0.41
Nevada Power Company	0.35	South Carolina Electric & Gas Co	0.41	South Carolina Electric & Gas Co	0.44
South Carolina Electric & Gas Co	0.38	Interstate Power and Light Company	0.41	Columbus Southern Power Company	0.44
Georgia Power Company	0.39	Public Service Company of Colorado	0.42	Public Service Company of Colorado	0.44
Public Service Company of Colorado	0.40	Union Electric Company	0.44	Union Electric Company	0.45
Wisconsin Electric Power Company	0.43	Columbus Southern Power Company	0.45	Wisconsin Electric Power Company	0.46
Union Electric Company	0.43	Wisconsin Electric Power Company	0.45	Interstate Power and Light Company	0.49
Arizona Public Service Company	0.44	Arizona Public Service Company	0.47	PSI Energy, Inc.	0.49
Columbus Southern Power Company	0.45	Alabama Power Company	0.48	Arizona Public Service Company	0.50
Alabama Power Company	0.45	PSI Energy, Inc.	0.50	Alabama Power Company	0.51
PSI Energy, Inc.	0.51	MidAmerican Energy Company	0.62	Indiana Michigan Power Company	0.64
MidAmerican Energy Company	0.56	Indiana Michigan Power Company	0.65	Tampa Electric Company	0.66
Detroit Edison Company	0.61	Tampa Electric Company	0.65	MidAmerican Energy Company	0.68
Tampa Electric Company	0.64	Detroit Edison Company	0.65	Detroit Edison Company	0.70
Indiana Michigan Power Company	0.65	Cincinnati Gas & Electric Company	0.87	Cincinnati Gas & Electric Company	0.94
Cincinnati Gas & Electric Company	0.81	FPL (proposed)	1.13	Ohio Power Company	1.38
Ohio Power Company	1.19	Ohio Power Company	1.28	FPL (proposed)	1.69
AEP Texas Central Company		AEP Texas Central Company		AEP Texas Central Company	
Consumers Energy Company		Consumers Energy Company		Consumers Energy Company	
Dayton Power and Light Company		Davton Power and Light Company		Dayton Power and Light Company	

Note: 2005 is estimated using 2004 and 2006 projections