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TYNDALL AIR FORCE BASE, FLORIDA

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June 24, 2005

Director  
Division of the Commission Clerk  
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Tallahassee, Fl 32399-0850

Dear Sir or Madam,

The Federal Executive Agencies, by and through the undersigned counsel of the Air Force Utility Litigation Team, encloses herewith the original and 25 copies for filing of the pre-filed testimony of Dennis Goins in the FP&L rate increase case, **DOCKET NO. 050045-EL.**

Sincerely



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**STATE OF FLORIDA  
BEFORE THE  
PUBLIC SERVICE COMMISSION**

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**DOCKET NO. 050045-EI**

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**RE: PETITIONS FOR RATE INCREASE BY  
FLORIDA POWER & LIGHT COMPANY**

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**DIRECT TESTIMONY OF  
DR. DENNIS W. GOINS  
ON BEHALF OF THE  
FEDERAL EXECUTIVE AGENCIES**

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**June 27, 2005**

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FPSC-COMMISSION OF F&M

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**RE: PETITION FOR RATE INCREASE BY  
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DR. DENNIS W. GOINS  
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**INTRODUCTION AND QUALIFICATIONS**

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**Q. PLEASE STATE YOUR NAME, OCCUPATION, AND BUSINESS ADDRESS.**

**A.** My name is Dennis W. Goins. I operate Potomac Management Group, an economics and management consulting firm. My business address is 5801 Westchester Street, Alexandria, Virginia 22310.

**Q. PLEASE DESCRIBE YOUR EDUCATIONAL AND PROFESSIONAL BACKGROUND.**

**A.** I received a Ph.D. degree in economics and a Master of Economics degree from North Carolina State University. I also earned a B.A. degree with honors in economics from Wake Forest University. From 1974 through 1977 I worked as a staff economist at the North Carolina Utilities Commission. During my tenure at the Commission, I testified in numerous cases involving electric, gas, and telephone utilities on such issues as cost of service, rate design, intercorporate transactions, and load

1 forecasting. While at the Commission, I also served as a member of the  
2 Ratemaking Task Force in the national Electric Utility Rate Design Study  
3 sponsored by the Electric Power Research Institute (EPRI) and the  
4 National Association of Regulatory Utility Commissioners (NARUC).

5 Since 1978, I have worked as an economic and management consultant  
6 to firms and organizations in the private and public sectors. My  
7 assignments focus primarily on market structure, planning, pricing, and  
8 policy issues involving firms that operate in energy markets. For example,  
9 I have conducted detailed analyses of product pricing, cost of service, rate  
10 design, and interutility planning, operations, and pricing; prepared  
11 analyses related to utility mergers, transmission access and pricing, and the  
12 emergence of competitive markets; evaluated and developed regulatory  
13 incentive mechanisms applicable to utility operations; and assisted clients  
14 in analyzing and negotiating interchange agreements and power and fuel  
15 supply contracts. I have also assisted clients on electric power market  
16 restructuring issues in Arkansas, New Jersey, New York, South Carolina,  
17 Texas, and Virginia.

18 I have participated in more than 100 proceedings before state and  
19 federal agencies as an expert in cost of service, rate design, utility planning  
20 and operating practices, regulatory policy, and competitive market issues.  
21 These agencies include the Federal Energy Regulatory Commission  
22 (FERC), the General Accounting Office, the Circuit Court of Kanawha  
23 County, West Virginia, the First Judicial District Court of Montana, and  
24 regulatory agencies in Arkansas, Arizona, Colorado, Georgia, Illinois,  
25 Kentucky, Louisiana, Maine, Massachusetts, Minnesota, Mississippi, New  
26 Jersey, New York, North Carolina, Ohio, Oklahoma, South Carolina,  
27 Texas, Utah, Vermont, Virginia, and the District of Columbia. A  
28 summary of my professional qualifications and case participation is shown  
29 in Exhibit No. \_\_\_(DWG-2).

1 **Q. ON WHOSE BEHALF ARE YOU APPEARING IN THIS**  
2 **PROCEEDING?**

3 **A.** I am appearing on behalf of the Federal Executive Agencies (FEA), which  
4 is comprised of all Federal facilities served by Florida Power & Light  
5 Company (FPL). Some of the largest FEA facilities include Patrick Air  
6 Force Base, Cape Canaveral Air Station, and the Kennedy Space Center.  
7 FPL currently serves these facilities under different commercial and  
8 industrial rate schedules.

9 **Q. WHAT ASSIGNMENT WERE YOU GIVEN WHEN YOU WERE**  
10 **RETAINED?**

11 **A.** I was asked to undertake two primary tasks:

- 12 1. Review FPL's proposed cost-of-service analyses and related rates.
- 13 2. Identify any major deficiencies in the cost analyses and proposed  
14 rates and suggest recommended changes.

15 **Q. WHAT SPECIFIC INFORMATION DID YOU REVIEW IN**  
16 **CONDUCTING YOUR EVALUATION?**

17 **A.** I reviewed FPL's application, testimony, exhibits, and responses to  
18 requests for information and production of documents. I also reviewed  
19 documents and information found on web sites operated by the  
20 Commission and FPL.

21 **CONCLUSIONS**

22 **Q. WHAT CONCLUSIONS HAVE YOU REACHED?**

23 **A.** On the basis of my review and evaluation, I have concluded the following  
24 regarding FPL's cost-of-service analyses and proposed interruptible  
25 service options:

- 1           1. Classification and allocation of demand-related generation and  
2           transmission costs. In this case, FPL has proposed classifying all  
3           generation and transmission plant costs (except for transmission  
4           pull-offs required to connect transmission customers to the grid)  
5           using the 12 CP and 1/13<sup>th</sup> methodology. Under this methodology,  
6           FPL classifies approximately 92 percent (12/13) of these costs as  
7           demand-related costs and the remaining 8 percent (1/13) as energy-  
8           related costs. FPL allocates the demand-related costs to customer  
9           classes using the 12 CP methodology—that is, the contribution of  
10          each class to FPL’s 12 monthly coincident system peaks during the  
11          test year. FPL allocates the energy-related costs to customer  
12          classes using kWh sales adjusted for losses. The Florida  
13          Commission has approved the 12 CP and 1/13<sup>th</sup> methodology in  
14          prior FPL rate cases, and even requires utilities to use the  
15          methodology in filing a rate increase application under the  
16          Commission’s Minimum Filing Requirements (MFRs).
- 17          2. Revenue Spread. FPL notes that in past cases the Commission has  
18          adopted a rule-of-thumb for revenue spread that limits a customer  
19          class’ base rate increase to no more than 150 percent of the system  
20          average increase and restricts any class from receiving a rate  
21          decrease. In this case, FPL has abandoned this rule-of-thumb and  
22          instead proposed moving each class’s rate of return to within 10  
23          percent of the system average rate of return (that is, to a rate of  
24          return index between 90 and 110), but to ensure that the base rate  
25          increase to no class exceeds 25 percent. As a result of FPL’s  
26          revenue spread decision, customers served under several of FPL’s  
27          proposed rate schedules will receive base rate increases exceeding

1 the Commission's rule-of-thumb limiting increases to 150 percent  
2 of the system average increase.

3 3. Commercial/Industrial Load Control (CILC) Rate. Under FPL's  
4 CILC program, customers can buy interruptible<sup>1</sup> (nonfirm) service  
5 if they are willing to curtail (through active load reductions) or  
6 displace (through on-site generation) at least 200 kW of load  
7 during peak periods when requested by FPL. In exchange for  
8 agreeing to interrupt load during peak periods, customers pay a  
9 discounted price for their nonfirm (that is, Load Control) loads.  
10 Part of this price discount reflects FPL's demand-related unit cost  
11 of gas turbine production capacity assigned to each customer class.  
12 However, the price discount does not reflect the energy-related unit  
13 cost of gas turbine production capacity assigned to each customer  
14 class. In this case, FPL has proposed major increases in the Load  
15 Control On-Peak Demand charge in its CILC rates ranging from 52  
16 percent to 58 percent.<sup>2</sup> At the same time, FPL has proposed  
17 reducing the energy charges for secondary and primary distribution  
18 CILC customers, while increasing the energy charge for CILC  
19 customers served at transmission.

20 **RECOMMENDATIONS**

21 **Q. WHAT DO YOU RECOMMEND ON THE BASIS OF THESE**  
22 **CONCLUSIONS?**

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

24 1. Approve FPL's 12CP and 1/13<sup>th</sup> allocation methodology. As FPL  
25 notes, the Commission has approved the 12CP and 1/13<sup>th</sup>

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<sup>1</sup> In my testimony I use *interruptible* and *curtailable* interchangeably in discussing nonfirm service.

<sup>2</sup> See MFR Schedule A-3, page 7.



1 methodology in previous rate cases for FPL and other utilities in  
2 Florida. I prefer an allocation methodology that reflects only the  
3 principal factors—coincident peak demands—driving the need for  
4 generation and transmission capacity. However, in this case I find  
5 no compelling reason to reject FPL’s recommended 12CP and  
6 1/13<sup>th</sup> methodology, particularly given the Commission’s past  
7 support.

8 2. Reject FPL’s proposed revenue spread. Instead, the Commission  
9 should require FPL to spread its proposed revenue increase such  
10 that no rate receives an increase greater than 150 percent of the  
11 average system increase. This so-called rule-of-thumb revenue  
12 spread moves each class closer to cost of service without the  
13 unacceptably high base rate increases imposed on some classes  
14 under FPL’s proposed spread.

15 3. Reject the proposed energy charges in FPL’s proposed CILC rates.  
16 Instead, as shown later in my testimony, the proposed energy  
17 charges should be reduced by the appropriate energy-related unit  
18 cost of gas turbine production capacity assigned to CILC-1G,  
19 CILC-1D, and CILC-1T customers. This adjustment is necessary  
20 to:

- 21 ■ Reflect the role of the CILC program in reducing capacity  
22 requirements during peak periods.
- 23 ■ Be consistent with excluding demand-related unit costs of gas  
24 turbine production capacity in the CILC Load Control On-  
25 Peak demand charges.

1 **COST OF SERVICE**

2 **Q. DID FPL CONDUCT A RETAIL CLASS COST-OF-SERVICE**  
3 **STUDY IN DEVELOPING ITS PROPOSED RATES?**

4 **A.** Yes. In developing its proposed retail rates for this case, FPL first  
5 conducted a detailed cost-of-service study using data (adjusted in many  
6 cases) for the test year ending December 31, 2006. In this cost analysis,  
7 FPL allocated and/or directly assigned its retail jurisdictional costs to  
8 functional segments of its retail electric business, and then allocated and/or  
9 directly assigned these costs to its major customer classes. FPL then used  
10 these class costs to develop its proposed rates.

11 **Q. IS THE COST-OF-SERVICE STUDY THAT FPL CONDUCTED**  
12 **REASONABLE?**

13 **A.** Yes. The cost study generally follows guidelines in the NARUC *Electric*  
14 *Utility Cost Allocation Manual*.<sup>3</sup>

15 **Q. WHY IS THE REASONABLENESS OF A COST-OF-SERVICE**  
16 **METHODOLOGY IMPORTANT?**

17 **A.** Cost of service identifies and assigns cost responsibility to customer  
18 classes. Specific rates can then be developed to recover each class' cost-  
19 based revenue requirement, resulting in prices that recover the utility's  
20 cost of service in an equitable and efficient manner. If the cost-of-service  
21 methodology does not allocate and assign cost responsibility in a  
22 reasonable manner, then interclass revenue subsidies are created and  
23 specific class rates are either over- or under-priced—thereby causing  
24 customers to make inefficient electricity investment and consumption  
25 decisions. In my opinion, FPL has employed a reasonable cost-of-service

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<sup>3</sup> National Association of Regulatory Utility Commissioners, *Electric Utility Cost Allocation*

1 methodology in this case to allocate and assign its production and  
2 transmission plant costs to customer classes.

3 **Q. HOW DID FPL CLASSIFY ITS PRODUCTION AND**  
4 **TRANSMISSION CAPACITY COSTS AND ALLOCATE THEM**  
5 **TO CUSTOMER CLASSES?**

6 **A.** In this case, FPL classified its production and transmission plant costs  
7 (except for transmission pull-offs required to connect transmission  
8 customers to the grid) using the 12 CP and 1/13<sup>th</sup> methodology. Under  
9 this capital substitution methodology, most (approximately 92 percent or  
10 12/13) of these costs was first classified as demand-related costs, while the  
11 remainder (8 percent or 1/13) was classified as energy-related costs. FPL  
12 then allocated the demand-related costs to customer classes using the 12  
13 CP methodology, which reflects each class' contribution to FPL's 12  
14 monthly coincident system peaks during the test year. FPL next allocated  
15 the energy-related costs to customer classes using kWh sales adjusted for  
16 losses.

17 **Q. IS THE 12CP AND 1/13<sup>TH</sup> METHODOLOGY DISCUSSED IN THE**  
18 **NARUC COST MANUAL?**

19 **A.** Yes. The method FPL chose to classify and allocate production and  
20 transmission capacity costs is one of several capital substitution  
21 methodologies discussed in the NARUC cost manual.<sup>4</sup>

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*Manual*, Washington, DC, January 1992.

<sup>4</sup> For the specific discussion of the 12CP and 1/13<sup>th</sup> methodology, see the NARUC cost manual at pages 58-59.

1 **Q. DO YOU SUPPORT FPL'S CHOICE OF THIS CLASSIFICATION**  
2 **AND ALLOCATION METHODOLOGY?**

3 **A.** I do not support capital substitution classification and allocation  
4 methodologies—including FPL's 12CP and 1/13<sup>th</sup> methodology. I  
5 generally prefer a fixed/variable approach to classify production and  
6 transmission plant costs, and an allocation methodology that emphasizes  
7 coincident peak demands as the principal factors driving the need for  
8 generation and transmission capacity. However, the 12CP and 1/13<sup>th</sup>  
9 methodology is probably one of the least objectionable of the capital  
10 substitution methodologies, and it is recognized as an acceptable costing  
11 approach in the NARUC cost manual. In addition, according to FPL, the  
12 Commission has approved the 12CP and 1/13<sup>th</sup> methodology in past rate  
13 cases involving FPL and other utilities in Florida. As a result, replacing  
14 the 12CP and 1/13<sup>th</sup> methodology should be considered only if another  
15 costing approach clearly provides a more compelling linkage between  
16 customer demands and FPL's bulk power system costs.

17 **Q. SHOULD THE COMMISSION ADOPT FPL'S 12CP AND 1/13<sup>TH</sup>**  
18 **METHODOLOGY?**

19 **A.** Yes. In my opinion, FPL's recommended 12CP and 1/13<sup>th</sup> methodology  
20 provides a reasonable compromise for classifying and allocating demand-  
21 related generation and transmission costs. As I noted earlier, I prefer  
22 methodologies that focus on class contributions to system peak demands.  
23 However, FPL's 12CP and 1/13<sup>th</sup> methodology represents a middle ground  
24 between methodologies that emphasize peak demand (which I prefer) and  
25 those that rely primarily on energy measures to develop demand allocation  
26 factors. Because it recognizes both demand and energy factors, FPL's  
27 12CP and 1/13<sup>th</sup> methodology can be seen as a reasonable compromise

1 between peak demand costing advocates and energy-only costing  
2 advocates.

3 **REVENUE SPREAD**

4 **Q. HOW DID FPL SPREAD ITS PROPOSED RATE INCREASE?**

5 **A.** In this case, FPL has used a 2-step approach to spread its proposed rate  
6 increase:

- 7 ■ Move each class' rate of return to within 10 percent of the  
8 system average rate of return (that is, to a rate of return index  
9 between 90 and 110),
- 10 ■ Limit any class' maximum base rate increase to 25 percent.

11 **Q. IS FPL'S PROPOSED REVENUE SPREAD CONSISTENT WITH**  
12 **PAST COMMISSION PRACTICE?**

13 **A.** No. FPL notes that in past cases the Commission has adopted a rule-of-  
14 thumb for revenue spread that limits a customer class' base rate increase to  
15 no more than 150 percent of the system average increase and restricts any  
16 class from receiving a rate decrease.

17 **Q. DOES FPL'S PROPOSED REVENUE SPREAD PRODUCE**  
18 **UNACCEPTABLE RATE INCREASES FOR SELECTED**  
19 **CUSTOMERS?**

20 **A.** Yes. As a result of FPL's revenue spread decision, customers served  
21 under several of FPL's proposed rate schedules will receive base rate  
22 increases exceeding the Commission's rule-of-thumb limiting increases to  
23 150 percent of the system average increase. More specifically, under

1 FPL's proposed revenue spread, seven rates are increased more than 20  
2 percent, while three rates get the maximum 25-percent increase.<sup>5</sup>

3 **Q. IS FPL'S PROPOSED REVENUE SPREAD NECESSARY TO**  
4 **MOVE RATES SIGNIFICANTLY CLOSER TO COST OF**  
5 **SERVICE?**

6 **A.** No. FPL's witness Rosemary Morley's testimony demonstrates that rates  
7 for all classes can be moved significantly closer to cost of service simply  
8 by using the Commission's 150 percent rule-of-thumb revenue spread.<sup>6</sup> In  
9 my opinion, moving rates closer to cost of service without resorting to 25-  
10 percent rate increases for some classes limits the chance of rate shock and  
11 is consistent with the generally accepted ratemaking principle of  
12 gradualism.

13 **Q. SHOULD THE COMMISSION REJECT FPL'S PROPOSED**  
14 **REVENUE SPREAD?**

15 **A.** Yes. FPL's proposed revenue spread reflects a good faith effort to move  
16 rates closer to cost of service. However, FPL's revenue spread produces  
17 unacceptably high rate increases for selected customers. I recommend a  
18 more gradual—but significant—movement toward this cost-of-service  
19 goal using the Commission's 150 percent rule-of-thumb revenue spread.

20 **INTERRUPTIBLE SERVICE**

21 **Q. WHAT IS INTERRUPTIBLE OR NONFIRM SERVICE?**

22 **A.** Interruptible service is a separately identifiable utility product that allows a  
23 supplier to interrupt or curtail customer loads when reliability is impaired.  
24 Interruptible load enables a supplier to maximize the value of its existing

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<sup>5</sup> See MFR Schedule E-8.

<sup>6</sup> Rosemary Morley, direct testimony, Document No. RM-6, page 1.

1 reserve capacity and to avoid installing new capacity. The available  
2 supply of interruptible service depends on the relationship between  
3 available capacity and firm service demands. That is, if firm demands  
4 command all available generating capacity, the supply of interruptible  
5 service falls to zero. When firm demands are significantly less than  
6 available capacity, the supply of interruptible service is significantly  
7 greater. Interruptible service can only be produced and sold by the utility  
8 supplier. End-use customers are the buyers of interruptible service—not  
9 the suppliers.

10 **Q. DOES FPL OFFER INTERRUPTIBLE SERVICE TO**  
11 **COMMERCIAL AND INDUSTRIAL CUSTOMERS UNDER ITS**  
12 **CURRENT RATES?**

13 **A.** Yes. FPL currently offers interruptible service to customers that can  
14 interrupt at least 200 kW of load when requested by FPL. FPL's  
15 interruptible service options include Rate Schedules CS-1, CST-1, CS-2,  
16 CST-2, CS-3, CST-3, and CILC-1, plus Rider CDR. These rates and rider  
17 incorporate either explicit billing demand discounts (the CS, CST, and  
18 CDR options) or implicit discounts reflected in a reduced price for  
19 interruptible demand (the CILC option).

20 **Q. DOES FPL DERIVE BENEFITS FROM INTERRUPTIBLE**  
21 **CUSTOMERS?**

22 **A.** Yes. By excluding interruptible load from its peak-load capacity  
23 requirements, FPL achieves capacity-cost savings by not having to build  
24 capacity to serve the interruptible load. The avoided capacity includes not  
25 only capacity required to serve the interruptible load, but also reserve  
26 capacity that would have been built to provide reliability if interruptible

1 customers had chosen firm service.<sup>7</sup> Capacity-cost savings attributable to  
2 interruptible load break down into two major categories associated with  
3 the avoided capacity:

4 ■ Avoided fixed costs. These include capital costs (including  
5 return), insurance, interest, taxes, and fixed nonfuel operation  
6 and maintenance (O&M) expense.

7 ■ Avoided variable costs. These include fuel and variable O&M  
8 expense.

9 **Q. DOES INTERRUPTIBLE LOAD OFFER BENEFITS RELATIVE**  
10 **TO COMBUSTION TURBINE CAPACITY?**

11 **A.** Yes. First, environmental impacts of constructing and operating  
12 combustion turbines are avoided if interruptible load displaces the need for  
13 such capacity. Second, selling interruptible service reduces a utility's  
14 short- and long-term financial investment risk relative to building capacity  
15 to serve an equivalent amount of firm service. For example, remaining  
16 customers may be forced to absorb stranded generation investment costs  
17 associated with the loss of a large firm-service load. Such costs cannot  
18 occur if an interruptible customer leaves the system.

19 **Q. SHOULD AN INTERRUPTIBLE RATE RECOVER ANY**  
20 **EMBEDDED OR FIXED PRODUCTION AND TRANSMISSION**  
21 **COSTS?**

22 **A.** No. Fundamental economic theory demonstrates that interruptible  
23 customers do not cause the utility to incur embedded production and bulk  
24 transmission costs. For example, Professor James C. Bonbright, a

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<sup>7</sup>Under certain conditions, a utility can use interruptible load to meet not only part of its installed reserve requirement, but also part of its operating reserve requirement.



1 recognized pricing authority, advocated pricing interruptible service to  
2 reflect no capacity-related cost of service:

3 Interruptible service has been used by both gas and electric  
4 companies for peak shaving. The costs cannot be accurately  
5 determined because it is a byproduct resulting from generating  
6 and bulk transmission facilities built and operated for firm  
7 service (see Nissel, 1983). As a result, only the customer cost  
8 (e.g., customer-connected spur lines and substations) and energy  
9 costs (e.g., fuel and incremental maintenance cost) actually  
10 incurred and *no capacity pricing cost should be included in*  
11 *pricing interruptible service.*

12 While some feel that it is an impropriety to treat interruptible  
13 customers as if they were firm customers, they still opine that it  
14 would be fair and reasonable to obtain a small contribution from  
15 them for capacity costs. This is debatable.<sup>8</sup> (Emphasis added.)

16 **Q. ARE INTERRUPTIBLE CUSTOMERS “FREE RIDERS” IF THEY**  
17 **PAY NO DEMAND-RELATED PRODUCTION COSTS?**

18 **A.** No. As noted by Professor Bonbright, eliminating all or most embedded  
19 fixed-cost recovery may raise fallacious but politically attractive “free  
20 rider” arguments. As a result, most electric rates for interruptible service  
21 are designed to recover a portion of the utility’s fixed production and bulk  
22 transmission costs. However, under an efficient pricing scheme,  
23 customers should only pay for costs attributable to their demands. Since a  
24 utility is not required to build or acquire generating or transmission  
25 capacity to serve interruptible load, only firm service customers should pay

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<sup>8</sup> James C. Bonbright, Albert L. Danielsen, and David R. Kamerschen, *Principles of Public Utility Rates*, Arlington, Virginia: Public Utilities Reports, Inc., 1988, page 502.

1 for the demand-related costs of this capacity. If interruptible rates recover  
2 part of the fixed costs of capacity built to serve only firm loads, then  
3 interruptible customers cannot be “free riders.”

4 **Q. DOES FPL PRICE ITS INTERRUPTIBLE SERVICE ON THE**  
5 **BASIS OF EMBEDDED OR MARGINAL COST OF SERVICE?**

6 **A.** Prices reflected in FPL’s current rates are based on embedded costs used  
7 in its cost-of-service analyses, and reflect either explicit billing demand  
8 discounts or implicit discounts reflected in a reduced price relative to firm  
9 service. Because the discounts are below stated billing demand charges  
10 for firm service, FPL ensures that interruptible customers make a major  
11 contribution to recovery of its fixed production and/or transmission costs.

12 **Q. IS THE VALUE OF INTERRUPTIBLE LOAD REDUCED IF FPL**  
13 **DOES NOT INTERRUPT ALL INTERRUPTIBLE CUSTOMERS**  
14 **DURING SYSTEM PEAKS?**

15 **A.** No. Interruptible load has both long- and short-term value. As I noted  
16 earlier, its long-term value is reflected in the capacity-cost savings  
17 (including the cost of planning reserves) that a utility avoids. Its short-  
18 term value is reflected in the operating reserve and system reliability  
19 benefits, fuel cost savings, variable O&M savings, and system losses that a  
20 utility avoids. The relevant issue is FPL’s right to interrupt load—not  
21 whether the load is actually interrupted.

22 **Q. ARE ANY FEA CUSTOMERS SERVED UNDER FPL’S**  
23 **INTERRUPTIBLE SERVICE OPTIONS?**

24 **A.** Yes. At least one account for each of the major FEA customers I noted  
25 earlier is served at transmission voltage under Rate CILC-1T. These FEA

1 customers began taking service under Rate CILC-1T before FPL closed  
2 the rate to new customers in 2000.

3 **Q. UNDER WHAT CONDITIONS CAN FPL INTERRUPT CILC**  
4 **CUSTOMERS?**

5 **A.** Under Rate CILC, FPL can interrupt load whenever an interruption is  
6 necessary to:

- 7 ■ Alleviate a power supply or transmission emergency condition  
8 or capacity shortage.
- 9 ■ Keep FPL from operating its generators above their continuous  
10 rated output.

11 **Q. HAS FPL PROPOSED A MAJOR INCREASE IN THE CILC**  
12 **RATES?**

13 **A.** Yes. In this case, FPL has proposed major increases for Rates CILC-1D  
14 and CILC-1T. These increases are due primarily to FPL's proposed  
15 increases—ranging from 52 percent to 58 percent—in the Load Control  
16 On-Peak Demand charge in its CILC rates.<sup>9</sup> At the same time, FPL has  
17 proposed reducing the energy charges for secondary and primary  
18 distribution CILC customers, while increasing the energy charge for CILC  
19 customers served at transmission.

20 **Q. DO YOU AGREE WITH HOW FPL HAS PRICED CILC**  
21 **INTERRUPTIBLE SERVICE?**

22 **A.** In general, I do agree. In particular, FPL's decision to exclude demand-  
23 related unit production costs from Rate CILC's Load Control On-Peak  
24 demand charge is consistent with Professor Bonbright's recommended  
25 interruptible pricing strategy. However, under FPL's 12CP and 1/13<sup>th</sup>

1 methodology, part of the capacity costs of gas turbine production capacity  
2 is classified as energy and reflected in the unit energy costs for the CILC  
3 rates. As a result, CILC customers avoid paying demand-related gas  
4 turbine production costs incurred to meet peak loads, but are required to  
5 pay the energy-related gas turbine production costs through the CILC  
6 energy charges.

7 **Q. SHOULD THE ENERGY-RELATED COMPONENT OF GAS**  
8 **TURBINE PRODUCTION COSTS BE EXCLUDED FROM THE**  
9 **CILC ENERGY CHARGES?**

10 **A.** Yes. FPL's CILC interruptible service option is primarily used to reduce  
11 peaking (that is, gas turbine) capacity requirements. Requiring CILC  
12 customers to pay energy-related nonfuel gas turbine production costs is  
13 inconsistent with excluding demand-related gas turbine production costs  
14 from the CILC Load Control On-Peak demand charges.

15 **Q. WHAT CILC ENERGY CHARGES WOULD RESULT IF YOUR**  
16 **RECOMMENDATION WERE ADOPTED?**

17 **A.** The CILC energy charge applicable to a customer's firm load would  
18 remain unchanged from FPL's proposed energy charge.<sup>10</sup> However, the  
19 energy charge applicable to CILC nonfirm loads would be reduced by the  
20 estimated energy-related gas turbine production costs included in FPL's  
21 proposed energy charge. The resulting energy charges following this  
22 adjustment to Rates CILC-1G, CILC-1D, and CILC-1T are shown in  
23 Exhibit No. \_\_ (DWG-1).

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<sup>9</sup> See MFR Schedule A-3, page 7.

<sup>10</sup> This statement assumes that the Commission approves FPL's requested revenue level and cost allocation to CILC customers.

1    **Q.    HOW WOULD FPL IMPLEMENT YOUR RECOMMENDED**  
2    **ENERGY CHARGE MODIFICATION IN BILLING CILC**  
3    **CUSTOMERS?**

4    **A.**    If a CILC customer's total load is interruptible, the CILC energy charge  
5    would simply be the applicable adjusted energy charge shown in Exhibit  
6    No.\_\_(DWG-1). If a CILC customer has a specified firm load, the firm  
7    component of a customer's monthly kWh usage would equal the firm  
8    demand at a 100 percent load factor. This firm kWh component would be  
9    billed at FPL's proposed CILC energy charge. All remaining kWh would  
10   be considered Load Control (nonfirm) kWh and billed at the applicable  
11   adjusted energy charge.

12   **Q.    WHAT WOULD BE THE MAXIMUM REVENUE IMPACT OF**  
13   **YOUR RECOMMENDED ENERGY CHARGE MODIFICATION?**

14   **A.**    As shown in Exhibit No.\_\_(DWG-1), the maximum revenue impact  
15   would be approximately \$2 million. However, this impact would be  
16   significantly less since the recommended energy charge modification  
17   would only be applicable to the nonfirm component of a CILC customer's  
18   monthly kWh usage.

19   **Q.    SHOULD THE COMMISSION APPROVE RATE SCHEDULE**  
20   **CILC AS FILED?**

21   **A.**    No. The Commission should require FPL to implement my recommended  
22   adjustment to the CILC energy charge applicable to a customer's nonfirm  
23   load.

1 Q. **SHOULD THE SAME ENERGY CHARGE MODIFICATION BE**  
2 **MADE IN FPL'S OTHER INTERRUPTIBLE RATE OPTIONS?**

3 A. I am not sure that such a modification is necessary. Unlike Rate CILC,  
4 FPL's CS and CST rates and CDR rider incorporate explicit demand  
5 charge discounts to applicable firm service rates. FPL's filing contains no  
6 information showing how these explicit demand charge discounts were  
7 derived. As a result, at this time I am not recommending modifications to  
8 energy charges in the CS, CST, and CDR options similar to the energy  
9 charge modification I have recommended for the CILC option.

10 Q. **DOES THIS COMPLETE YOUR DIRECT TESTIMONY?**

11 A. Yes.

**Remove Energy-Related Gas Turbine Production Costs**

		Rate Schedule		
		CILC-1G	CILC-1D	CILC-1T
<b>Proposed</b>	Peak-kWh	\$ 0.007760	\$ 0.006300	\$ 0.005400
	Off-kWh	\$ 0.007760	\$ 0.006300	\$ 0.005400
<b>GT Unit Cost</b>	Peak-kWh	\$ (0.000435)	\$ (0.000431)	\$ (0.000417)
	Off-kWh	\$ (0.000435)	\$ (0.000431)	\$ (0.000417)
<b>Adjusted Energy Chrg</b>	Peak-kWh	\$ 0.007325	\$ 0.005869	\$ 0.004983
	Off-kWh	\$ 0.007325	\$ 0.005869	\$ 0.004983
<b>kWh</b>	Peak-kWh	62,066,865	808,142,709	374,002,543
	Off-kWh	167,578,073	2,236,311,862	1,099,026,134
<b>Base Rev Adj</b>	Peak-kWh	\$ (26,999)	\$ (348,310)	\$ (155,959)
	Off-kWh	\$ (72,896)	\$ (963,850)	\$ (458,294)
	<b>Total</b>	\$ (99,896)	\$ (1,312,160)	\$ (614,253)
	<b>Total Adj</b>	<u>\$ (2,026,308)</u>		

Sources:  
 MFR E-6b  
 MFR E-13c

Docket No. 050045-EI  
Witness: Dennis W. Goins  
Exhibit No. \_\_\_\_\_ (DWG-2)

**QUALIFICATIONS OF**

**DENNIS W. GOINS**



## DENNIS W. GOINS

### PRESENT POSITION

Economic Consultant, Potomac Management Group, Alexandria, Virginia.

### AREAS OF QUALIFICATION

- Competitive Market Analysis
- Costing and Pricing Energy-Related Goods and Services
- Utility Planning and Operations
- Litigation Analysis, Strategy Development, Expert Testimony

### PREVIOUS POSITIONS

- Vice President, Hagler, Bailly & Company, Washington, DC.
- Principal, Resource Consulting Group, Inc., Cambridge, Massachusetts.
- Senior Associate, Resource Planning Associates, Inc., Cambridge, Massachusetts.
- Economist, North Carolina Utilities Commission, Raleigh, North Carolina.

### EDUCATION

College	Major	Degree
Wake Forest University	Economics	BA
North Carolina State University	Economics	ME
North Carolina State University	Economics	PhD

### RELEVANT EXPERIENCE

Dr. Goins specializes in pricing, planning, and market structure issues affecting firms that buy and sell products in electricity and natural gas markets. He has extensive experience in evaluating competitive market conditions, analyzing power and fuel market operations and transactions, developing product pricing strategies, setting rates for energy-related products and services, negotiating power supply and natural gas contracts for private and public entities, and forecasting power requirements and fuel prices. He has participated in more than 100 cases as an expert on competitive market issues, utility restructuring, power market planning and operations, utility mergers, rate design, cost of service, and management prudence before the Federal Energy Regulatory Commission, the General Accounting Office, the First Judicial District Court of Montana, the Circuit Court of Kanawha County, West Virginia, and regulatory commissions in Arkansas, Arizona, Colorado, Georgia, Illinois, Kentucky, Louisiana, Maine,

Massachusetts, Minnesota, Mississippi, New Jersey, New York, North Carolina, Ohio, Oklahoma, South Carolina, Texas, Utah, Vermont, Virginia, and the District of Columbia. He has also prepared an expert report on behalf of the United States regarding pricing and contract issues in a case before the United States Court of Federal Claims.

### **PARTICIPATION IN REGULATORY, ADMINISTRATIVE, AND COURT PROCEEDINGS**

1. Arkansas Electric Cooperative Corporation, before the Arkansas Public Service Commission, Docket No. 04-141-U (2005), on behalf of Nucor Steel and Nucor-Yamato Steel, re cost-of-service and rate design issues.
2. Dominion North Carolina Power, before the North Carolina Utilities Commission, Docket No. E-22, Sub 412 (2005), on behalf of Nucor Steel-Hertford, re cost-of-service and rate design issues.
3. Public Service Company of Colorado, before the Colorado Public Utilities Commission, Docket No. 04S-164E (2004), on behalf of the U.S. Air Force (United States Executive Agencies), re cost-of-service and rate design issues.
4. PacifiCorp, before the Utah Public Service Commission, Docket No. 04-035-42 (2004), on behalf of the U.S. Air Force (United States Executive Agencies), re cost-of-service and rate design issues.
5. CenterPoint Energy Houston Electric, LLC, *et al.*, before the Public Utility Commission of Texas, PUC Docket No. 29526 (2004), on behalf of the Coalition of Commercial Ratepayers, re stranded cost true-up balances.
6. Idaho Power Company, before the Idaho Public Utilities Commission, Case No. IPC-E-03-13 (2004), on behalf of the United States Department of Energy (Federal Executive Agencies), re retail cost allocation and rate design issues.
7. PacifiCorp, before the Utah Public Service Commission, Docket No. 04-035-11 (2004), on behalf of the U.S. Air Force (United States Executive Agencies), re time-of-day rate design issues.
8. Arizona Public Service Company, before the Arizona Corporation Commission, Docket No. E-01345A-03-0347 (2004), on behalf of the U.S. Air Force (Federal Executive Agencies), re retail cost allocation and rate design issues.
9. PacifiCorp, before the Utah Public Service Commission, Docket No. 03-2035-02 (2004), on behalf of the U.S. Air Force (United States Executive Agencies), re retail cost allocation and rate design issues.

10. Dominion Virginia Power, before the Virginia State Corporation Commission, Case No. PUE-2000-00285 (2003), on behalf of Chaparral (Virginia) Inc., re recovery of fuel costs.
11. Jersey Central Power & Light Company, before the New Jersey Board of Public Utilities, BPU Docket No. ER02080506, OAL Docket No. PUC-7894-02 (2002-2003), on behalf of New Jersey Commercial Users, re retail cost allocation and rate design issues.
12. Public Service Electric and Gas Company, before the New Jersey Board of Public Utilities, BPU Docket No. ER02050303, OAL Docket No. PUC-5744-02 (2002-2003), on behalf of New Jersey Commercial Users, re retail cost allocation and rate design issues.
13. South Carolina Electric & Gas Company, before the South Carolina Public Service Commission, Docket No. 2002-223-E (2002), on behalf of SMI Steel-SC, re retail cost allocation and rate design issues.
14. Montana Power Company, before the First Judicial District Court of Montana, *Great Falls Tribune et al. v. the Montana Public Service Commission*, Cause No. CDV2001-208 (2002), on behalf of a media consortium (*Great Falls Tribune, Billings Gazette, Montana Standard, Helena Independent Record, Missoulian, Big Sky Publishing, Inc. dba Bozeman Daily Chronicle*, the Montana Newspaper Association, *Miles City Star, Livingston Enterprise, Yellowstone Public Radio, the Associated Press, Inc.*, and the Montana Broadcasters Association), re public disclosure of allegedly proprietary contract information.
15. Louisville Gas & Electric, *et al.*, before the Kentucky Public Service Commission, Administrative Case No. 387 (2001), on behalf of Gallatin Steel Company, re adequacy of generation and transmission capacity in Kentucky.
16. PacifiCorp, before the Utah Public Service Commission, Docket No. 01-035-01 (2001), on behalf of Nucor Steel, re retail cost allocation and rate design issues.
17. TXU Electric Company, before the Public Utility Commission of Texas, PUC Docket No. 23640/ SOAH Docket No. 473-01-1922 (2001), on behalf of Nucor Steel, re fuel cost recovery.
18. FPL Group *et al.*, before the Federal Energy Regulatory Commission, Docket No. EC01-33-000 (2001), on behalf of Arkansas Electric Cooperative Corporation, Inc., re merger-related market power issues.
19. Entergy Mississippi, Inc., *et al.*, before the Mississippi Public Service Commission, Docket No. 2000-UA-925 (2001), on behalf of Birmingham Steel-Mississippi, re appropriate regulatory conditions for merger approval.

20. TXU Electric Company, before the Public Utility Commission of Texas, PUC Docket No. 22350/ SOAH Docket No. 473-00-1015 (2000), on behalf of Nucor Steel, re unbundled cost of service and rates.
21. PacifiCorp, before the Utah Public Service Commission, Docket No. 99-035-10 (2000), on behalf of Nucor Steel, re using system benefit charges to fund demand-side resource investments.
22. Entergy Arkansas, Inc. *et al.*, before the Arkansas Public Service Commission, Docket No. 00-190-U (2000), on behalf of Nucor-Yamato Steel and Nucor Steel-Arkansas, re the development of competitive electric power markets in Arkansas.
23. Entergy Arkansas, Inc. *et al.*, before the Arkansas Public Service Commission, Docket No. 00-048-R (2000), on behalf of Nucor-Yamato Steel and Nucor Steel-Arkansas, re generic filing requirements and guidelines for market power analyses.
24. ScottishPower and PacifiCorp, before the Utah Public Service Commission, Docket No. 98-2035-04 (1999), on behalf of Nucor Steel, re merger conditions to protect the public interest.
25. Dominion Resources, Inc. and Consolidated Natural Gas Company, before the Virginia State Corporation Commission, Case No. PUA990020 (1999), on behalf of the City of Richmond, re market power and merger conditions to protect the public interest.
26. Houston Lighting & Power Company, before the Public Utility Commission of Texas, Docket No. 18465 (1998) on behalf of the Texas Commercial Customers, re excess earnings and stranded-cost recovery and mitigation.
27. PJM Interconnection, LLC, before the Federal Energy Regulatory Commission, Docket No. ER98-1384 (1998) on behalf of Wellsboro Electric Company, re pricing low-voltage distribution services.
28. DQE, Inc. and Allegheny Power System, Inc., before the Federal Energy Regulatory Commission, Docket Nos. ER97-4050-000, ER97-4051-000, and EC97-46-000 (1997) on behalf of the Borough of Chambersburg, re market power in relevant markets.
29. GPU Energy, before the New Jersey Board of Public Utilities, Docket No. EO97070458 (1997) on behalf of the New Jersey Commercial Users Group, re unbundled retail rates.
30. GPU Energy, before the New Jersey Board of Public Utilities, Docket No. EO97070459 (1997) on behalf of the New Jersey Commercial Users Group, re stranded costs.
31. Public Service Electric and Gas Company, before the New Jersey Board of Public Utilities, Docket No. EO97070461 (1997) on behalf of the New Jersey Commercial Users Group, re unbundled retail rates.

32. Public Service Electric and Gas Company, before the New Jersey Board of Public Utilities, Docket No. EO97070462 (1997) on behalf of the New Jersey Commercial Users Group, re stranded costs.
33. DQE, Inc. and Allegheny Power System, Inc., before the Federal Energy Regulatory Commission, Docket Nos. ER97-4050-000, ER97-4051-000, and EC97-46-000 (1997) on behalf of the Borough of Chambersburg, Allegheny Electric Cooperative, Inc., and Selected Municipalities, re market power in relevant markets.
34. CSW Power Marketing, Inc., before the Federal Energy Regulatory Commission, Docket No. ER97-1238-000 (1997) on behalf of the Transmission Dependent Utility Systems, re market power in relevant markets.
35. Central Hudson Gas & Electric Corporation *et al.*, before the New York Public Service Commission, Case Nos. 96-E-0891, 96-E-0897, 96-E-0898, 96-E-0900, 96-E-0909 (1997), on behalf of the Retail Council of New York, re stranded-cost recovery.
36. Central Hudson Gas & Electric Corporation, supplemental testimony, before the New York Public Service Commission, Case No. 96-E-0909 (1997) on behalf of the Retail Council of New York, re stranded-cost recovery.
37. Consolidated Edison Company of New York, Inc., supplemental testimony, before the New York Public Service Commission, Case No. 96-E-0897 (1997) on behalf of the Retail Council of New York, re stranded-cost recovery.
38. New York State Electric & Gas Corporation, supplemental testimony, before the New York Public Service Commission, Case No. 96-E-0891 (1997) on behalf of the Retail Council of New York, re stranded-cost recovery.
39. Rochester Gas and Electric Corporation, supplemental testimony, before the New York Public Service Commission, Case No. 96-E-0898 (1997) on behalf of the Retail Council of New York, re stranded-cost recovery.
40. Texas Utilities Electric Company, before the Public Utility Commission of Texas, Docket No. 15015 (1996), on behalf of Nucor Steel-Texas, re real-time electricity pricing.
41. Central Power and Light Company, before the Public Utility Commission of Texas, Docket No. 14965 (1996), on behalf of the Texas Retailers Association, re cost of service and rate design.
42. Carolina Power & Light Company, before the South Carolina Public Service Commission, Docket No. 95-1076-E (1996), on behalf of Nucor Steel-Darlington, re integrated resource planning.

43. Texas Utilities Electric Company, before the Public Utility Commission of Texas, Docket No. 13575 (1995), on behalf of Nucor Steel-Texas, re integrated resource planning, DSM options, and real-time pricing.
44. Arkansas Power & Light Company, *et al.*, Notice of Inquiry to Consider Section 111 of the Energy Policy Act of 1992, before the Arkansas Public Service Commission, Docket No. 94-342-4 (1995), Initial Comments on behalf of Nucor-Yamato Steel Company, re integrated resource planning standards.
45. Arkansas Power & Light Company, *et al.*, Notice of Inquiry to Consider Section 111 of the Energy Policy Act of 1992, before the Arkansas Public Service Commission, Docket No. 94-342-4 (1995), Reply Comments on behalf of Nucor-Yamato Steel Company, re integrated resource planning standards.
46. Arkansas Power & Light Company, *et al.*, Notice of Inquiry to Consider Section 111 of the Energy Policy Act of 1992, before the Arkansas Public Service Commission, Docket No. 94-342-4 (1995), Final Comments on behalf of Nucor-Yamato Steel Company, re integrated resource planning standards.
47. South Carolina Pipeline Corporation, before the South Carolina Public Service Commission, Docket No. 94-202-G (1995), on behalf of Nucor Steel, re integrated resource planning and rate caps.
48. Gulf States Utilities Company, before the United States Court of Federal Claims, *Gulf States Utilities Company v. the United States*, Docket No. 91-1118C (1994, 1995), on behalf of the United States, re electricity rate and contract dispute litigation.
49. American Electric Power Corporation, before the Federal Energy Regulatory Commission, Docket No. ER93-540-000 (1994), on behalf of DC Tie, Inc., re costing and pricing electricity transmission services.
50. Texas Utilities Electric Company, before the Public Utility Commission of Texas, Docket No. 13100 (1994), on behalf of Nucor Steel-Texas, re real-time electricity pricing.
51. Carolina Power & Light Company, *et al.*, Proposed Regulation Governing the Recovery of Fuel Costs by Electric Utilities, before the South Carolina Public Service Commission, Docket No. 93-238-E (1994), on behalf of Nucor Steel-Darlington, re fuel-cost recovery.
52. Southern Natural Gas Company, before the Federal Energy Regulatory Commission, Docket No. RP93-15-000 (1993-1995), on behalf of Nucor Steel-Darlington, re costing and pricing natural gas transportation services.

53. West Penn Power Company, *et al.*, v. State Tax Department of West Virginia, *et al.*, Civil Action No. 89-C-3056 (1993), before the Circuit Court of Kanawha County, West Virginia, on behalf of the West Virginia Department of Tax and Revenue, re electricity generation tax.
54. Carolina Power & Light Company, *et al.*, Proceeding Regarding Consideration of Certain Standards Pertaining to Wholesale Power Purchases Pursuant to Section 712 of the 1992 Energy Policy Act, before the South Carolina Public Service Commission, Docket No. 92-231-E (1993), on behalf of Nucor Steel-Darlington, re Section 712 regulations.
55. Mountain Fuel Supply Company, before the Public Service Commission of Utah, Docket No. 93-057-01 (1993), on behalf of Nucor Steel-Utah, re costing and pricing retail natural gas firm, interruptible, and transportation services.
56. Texas Utilities Electric Company, before the Public Utility Commission of Texas, Docket No. 11735 (1993), on behalf of the Texas Retailers Association, re retail cost-of-service and rate design.
57. Virginia Electric and Power Company, before the Virginia State Corporation Commission, Case No. PUE920041 (1993), on behalf of Philip Morris USA, re cost of service and retail rate design.
58. Carolina Power & Light Company, before the South Carolina Public Service Commission, Docket No. 92-209-E (1992), on behalf of Nucor Steel-Darlington.
59. Gulf States Utilities Company, before the Louisiana Public Service Commission, Docket No. U-17282, Rate Design (1992), on behalf of the Department of Energy, Strategic Petroleum Reserve.
60. Georgia Power Company, before the Georgia Public Service Commission, Docket Nos. 4091-U and 4146-U (1992), on behalf of Amicalola Electric Membership Corporation.
61. PacifiCorp, Inc., before the Federal Energy Regulatory Commission, Docket No. EC88-2-007 (1992), on behalf of Nucor Steel-Utah.
62. South Carolina Pipeline Corporation, before the South Carolina Public Service Commission, Docket No. 90-452-G (1991), on behalf of Nucor Steel-Darlington.
63. Carolina Power & Light Company, before the South Carolina Public Service Commission, Docket No. 91-4-E, 1991 Fall Hearing, on behalf of Nucor Steel-Darlington.
64. Sonat, Inc., and North Carolina Natural Gas Corporation, before the North Carolina Utilities Commission, Docket No. G-21, Sub 291 (1991), on behalf of Nucor Corporation, Inc.



65. Northern States Power Company, before the Minnesota Public Utilities Commission, Docket No. E002/GR-91-001 (1991), on behalf of North Star Steel-Minnesota.
66. Gulf States Utilities Company, before the Louisiana Public Service Commission, Docket No. U-17282, Phase IV-Rate Design (1991), on behalf of the Department of Energy, Strategic Petroleum Reserve.
67. Houston Lighting & Power Company, before the Public Utility Commission of Texas, Docket No. 9850 (1990), on behalf of the Department of Energy, Strategic Petroleum Reserve.
68. General Services Administration, before the United States General Accounting Office, Contract Award Protest (1990), Solicitation No. GS-00P-AC87-91, Contract No. GS-00D-89-B5D-0032, on behalf of Satilla Rural Electric Membership Corporation, re cost of service and rate design.
69. Carolina Power & Light Company, before the South Carolina Public Service Commission, Docket No. 90-4-E (1990 Fall Hearing), on behalf of Nucor Steel-Darlington, re fuel-cost recovery.
70. Gulf States Utilities Company, before the Louisiana Public Service Commission, Docket No. U-17282, Phase III-Rate Design (1990), on behalf of the Department of Energy, Strategic Petroleum Reserve, re cost of service and rate design.
71. Atlanta Gas Light Company, before the Georgia Public Service Commission, Docket No. 3923-U (1990), on behalf of Herbert G. Burris and Oglethorpe Power Corporation, re anticompetitive pricing schemes.
72. Ohio Edison Company, before the Public Utilities Commission, Case No. 89-1001-EL-AIR (1990), on behalf of North Star Steel-Ohio, re cost of service and rate design.
73. Gulf States Utilities Company, before the Louisiana Public Service Commission, Docket No. U-17282, Phase III-Cost of Service/Revenue Spread (1989), on behalf of the Department of Energy, Strategic Petroleum Reserve.
74. Northern States Power Company, before the Minnesota Public Utilities Commission, Docket No. E002/GR-89-865 (1989), on behalf of North Star Steel-Minnesota.
75. Gulf States Utilities Company, before the Louisiana Public Service Commission, Docket No. U-17282, Phase III-Rate Design (1989), on behalf of the Department of Energy, Strategic Petroleum Reserve.
76. Utah Power & Light Company, before the Utah Public Service Commission, Case No. 89-039-10 (1989), on behalf of Nucor Steel-Utah and Vulcraft, a division of Nucor Steel.



77. Soyland Power Cooperative, Inc. v. Central Illinois Public Service Company, Docket No. EL89-30-000 (1989), before the Federal Energy Regulatory Commission, on behalf of Soyland Power Cooperative, Inc., re wholesale contract pricing provisions
78. Gulf States Utilities Company, before the Public Utility Commission of Texas, Docket No. 8702 (1989), on behalf of the Department of Energy, Strategic Petroleum Reserve.
79. Houston Lighting and Power Company, before the Public Utility Commission of Texas, Docket No. 8425 (1989), on behalf of the Department of Energy, Strategic Petroleum Reserve.
80. Northern Illinois Gas Company, before the Illinois Commerce Commission, Docket No. 88-0277 (1989), on behalf of the Coalition for Fair and Equitable Transportation, re retail gas transportation rates.
81. Carolina Power & Light Company, before the South Carolina Public Service Commission, Docket No. 79-7-E, 1988 Fall Hearing, on behalf of Nucor Steel-Darlington, re fuel-cost recovery.
82. Potomac Electric Power Company, before the District of Columbia Public Service Commission, Formal Case No. 869 (1988), on behalf of Peoples Drug Stores, Inc., re cost of service and rate design.
83. Carolina Power & Light Company, before the South Carolina Public Service Commission, Docket No. 88-11-E (1988), on behalf of Nucor Steel-Darlington.
84. Northern States Power Company, before the Minnesota Public Utilities Commission, Docket No. E-002/GR-87-670 (1988), on behalf of the Metalcasters of Minnesota.
85. Ohio Edison Company, before the Public Utilities Commission, Case No. 87-689-EL-AIR (1987), on behalf of North Star Steel-Ohio.
86. Carolina Power & Light Company, before the South Carolina Public Service Commission, Docket No. 87-7-E (1987), on behalf of Nucor Steel-Darlington.
87. Gulf States Utilities Company, before the Louisiana Public Service Commission, Docket No. U-17282, Phase I (1987), on behalf of the Strategic Petroleum Reserve.
88. Gulf States Utilities Company, before the Public Utility Commission of Texas, Docket No. 7195 (1987), on behalf of the Strategic Petroleum Reserve.
89. Gulf States Utilities Company, before the Federal Energy Regulatory Commission, Docket No. ER86-558-006 (1987), on behalf of Sam Rayburn G&T Cooperative.

90. Utah Power & Light Company, before the Utah Public Service Commission, Case No. 85-035-06 (1986), on behalf of the U.S. Air Force.
91. Houston Lighting & Power Company, before the Public Utility Commission of Texas, Docket No. 6765 (1986), on behalf of the Strategic Petroleum Reserve.
92. Central Maine Power Company, before the Maine Public Utilities Commission, Docket No. 85-212 (1986), on behalf of the U.S. Air Force.
93. Gulf States Utilities Company, before the Public Utility Commission of Texas, Docket Nos. 6477 and 6525 (1985), on behalf of North Star Steel-Texas.
94. Ohio Edison Company, before the Ohio Public Utilities Commission, Docket No. 84-1359-EL-AIR (1985), on behalf of North Star Steel-Ohio.
95. Utah Power & Light Company, before the Utah Public Service Commission, Case No. 84-035-01 (1985), on behalf of the U.S. Air Force.
96. Central Vermont Public Service Corporation, before the Vermont Public Service Board, Docket No. 4782 (1984), on behalf of Central Vermont Public Service Corporation.
97. Gulf States Utilities Company, before the Louisiana Public Service Commission, Docket No. U-15641 (1983), on behalf of the Strategic Petroleum Reserve.
98. Southwestern Power Administration, before the Federal Energy Regulatory Commission, Rate Order SWPA-9 (1982), on behalf of the Department of Defense.
99. Public Service Company of Oklahoma, before the Federal Energy Regulatory Commission, Docket Nos. ER82-80-000 and ER82-389-000 (1982), on behalf of the Department of Defense.
100. Central Maine Power Company, before the Maine Public Utilities Commission, Docket No. 80-66 (1981), on behalf of the Commission Staff.
101. Bangor Hydro-Electric Company, before the Maine Public Utilities Commission, Docket No. 80-108 (1981), on behalf of the Commission Staff.
102. Oklahoma Gas & Electric, before the Oklahoma Corporation Commission, Docket No. 27275 (1981), on behalf of the Commission Staff.
103. Green Mountain Power, before the Vermont Public Service Board, Docket No. 4418 (1980), on behalf of the PSB Staff.
104. Williams Pipe Line, before the Federal Energy Regulatory Commission, Docket No. OR79-1 (1979), on behalf of Mapco, Inc.

105. Boston Edison Company, before the Massachusetts Department of Public Utilities, Docket No. 19494 (1978), on behalf of Boston Edison Company.
106. Duke Power Company, before the North Carolina Utilities Commission, Docket No. E-7, Sub 173, on behalf of the Commission Staff.
107. Duke Power Company, before the North Carolina Utilities Commission, Docket No. E-100, Sub 32, on behalf of the Commission Staff.
108. Virginia Electric & Power Company, before the North Carolina Utilities Commission, Docket No. E-22, Sub 203, on behalf of the Commission Staff.
109. Virginia Electric & Power Company, before the North Carolina Utilities Commission, Docket No. E-22, Sub 170, on behalf of the Commission Staff.
110. Southern Bell Telephone Company, before the North Carolina Utilities Commission, Docket No. P-5, Sub 48, on behalf of the Commission Staff.
111. Western Carolina Telephone Company, before the North Carolina Utilities Commission, Docket No. P-58, Sub 93, on behalf of the Commission Staff.
112. Natural Gas Ratemaking, before the North Carolina Utilities Commission, Docket No. G-100, Sub 29, on behalf of the Commission Staff.
113. General Telephone Company of the Southeast, before the North Carolina Utilities Commission, Docket No. P-19, Sub 163, on behalf of the Commission Staff.
114. Carolina Power and Light Company, before the North Carolina Utilities Commission, Docket No. E-2, Sub 264, on behalf of the Commission Staff.
115. Carolina Power and Light Company, before the North Carolina Utilities Commission, Docket No. E-2, Sub 297, on behalf of the Commission Staff.
116. Duke Power Company, *et al.*, Investigation of Peak-Load Pricing, before the North Carolina Utilities Commission, Docket No. E-100, Sub 21, on behalf of the Commission Staff.
117. Investigation of Intrastate Long Distance Rates, before the North Carolina Utilities Commission, Docket No. P-100, Sub 45, on behalf of the Commission Staff.