

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

**DIRECT TESTIMONY
OF
CHARLES J. CICCHETTI, Ph.D.**

PACIFIC ECONOMICS GROUP

DOCKET NO.

**ON BEHALF OF
FLORIDA POWER CORPORATION**

1 **SECTION I: INTRODUCTION**

2
3 **Q. PLEASE STATE YOUR NAME, BUSINESS AND ADDRESS.**

4 A. My name is Charles J. Cicchetti. My address is Pacific Economics Group,
5 L.L.C. (PEG) 201 South Lake Street, Suite 400, Pasadena, California 91101.

6 **Q. WHAT IS YOUR POSITION WITH PACIFIC ECONOMICS GROUP?**

7 A. I am a Co-Founding Member of PEG.

8 **Q. WHAT ARE YOUR DUTIES AS A MEMBER OF PEG?**

9 A. I actively consult with clients on price, costs, environmental, natural gas and
10 electricity market issues and antitrust policies, particularly as those policies
11 relate to regulated industries.

12 **Q. DO YOU HOLD ANY OTHER POSITIONS?**

13 A. I hold the Jeffrey J. Miller Chair in Government, Business and the Economy
14 at the University of Southern California.

15 **Q. WHAT IS YOUR EDUCATIONAL BACKGROUND?**

16 A. I attended the United States Air Force Academy and I received a B.A. degree
17 in Economics from Colorado College in 1965 and a Ph.D. degree in
18 Economics from Rutgers University in 1969. From 1969 to 1972, I engaged
19 in post-doctoral research on energy and environmental matters at Resources
20 for the Future.

21 **Q. PLEASE SUMMARIZE YOUR PROFESSIONAL EXPERIENCE.**

22 A. I served as chief economist for the Environmental Defense Fund from 1972
23 to 1975, and was a faculty member at the University of Wisconsin from 1972
24 to 1985, ultimately earning the title of Professor of Economics and

1 Environmental Studies. From 1975 through 1976, I served as the Director of
2 the Wisconsin Energy Office and as Special Energy Counselor for the
3 Governor. In 1977, I was appointed by the Governor as Chairman of the
4 Public Service Commission of Wisconsin and held that position until 1979,
5 and served as a Commissioner until 1980. In 1980, I co-founded the
6 Madison Consulting Group, which was sold to Marsh & McLennan
7 Companies in 1984. In 1984, I was named Senior Vice President of National
8 Economic Research Associates and held that position until 1987. From 1987
9 until 1990, I served as Deputy Director of the Energy and Environmental
10 Policy Center at the John F. Kennedy School of Government at Harvard
11 University, and from 1988 to 1992, I was a Managing Director and ultimately
12 Co-Chairman of the economic and management consulting firm, Putnam,
13 Hayes & Bartlett, Inc. In 1992, I formed Arthur Andersen Economic
14 Consulting, a division of Arthur Andersen, LLP. In late 1996, I left Arthur
15 Andersen to co-found Pacific Economics Group.

16 **Q. HAVE YOU PUBLISHED ANY PAPERS OR ARTICLES?**

17 A. Yes. I have published a number of articles on energy and environmental
18 issues, public utility regulation, competition and antitrust. A complete listing
19 of my publications is included in Exhibit (CJC-1).

20 **Q. HAVE YOU EVER GIVEN EXPERT TESTIMONY IN A COURT OR**
21 **ADMINISTRATIVE PROCEEDING?**

22 A. Yes. A list of the proceedings in which I have provided expert testimony
23 since 1980 is also included in Exhibit (CJC -1).

1 **Q. HAVE YOU BEEN INVOLVED IN UTILITY MERGERS BEFORE?**

2 A. Yes. I have been involved with electric utility mergers beginning at the time I
3 was at Putnam, Hayes & Bartlett, as well as with Arthur Andersen and
4 continuing at PEG. My involvement has included most financial and
5 economic aspects of utility mergers, including providing financial and
6 economic analysis and advice to Boards of Directors for investor-owned
7 utilities, cooperatives, and municipally owned utilities with respect to various
8 mergers and acquisitions that they were considering. I have helped
9 negotiate and structure the terms of the deal in several transactions. I have
10 also, on occasion, provided a fairness opinion on the transaction, assuming a
11 role typically played by investment bankers.

12 I have often been called upon to provide a neutral second opinion for
13 Boards of Directors and to consider other options, including stand alone
14 options, when various utilities considered investment banker's
15 recommendations. In so doing, I have considered and evaluated projected
16 acquisition prices and developed independent synergy savings analyses.

17 In several cases, I presented regulatory testimony on these merger
18 matters. I have also developed and proposed several regulatory plans
19 designed to fairly share net synergy savings between customers and
20 shareholders. I will describe these more fully in the next section.

21 **Q. DO YOU HAVE ANY EXPERIENCE IN UTILITY RATE CASES?**

22 A. Yes. I have substantial experience on most rate case matters from various
23 sides of the issue. As I mentioned earlier, I was the Chairman of the

1 Wisconsin Public Service Commission from 1977 until 1979 and served as a
2 commissioner through 1980. In that role, I chaired numerous rate cases filed
3 by the various utilities operating in Wisconsin. Prior to serving on the
4 Wisconsin Public Service Commission, I had testified in utility rate cases and
5 rate design proceedings in nearly all the lower 48 states and several
6 countries. I also testified before the Federal Power Commission and the
7 Federal Communication Commission.

8 Since leaving the Commission and working as an independent
9 consultant, I have testified numerous times in rate cases throughout the U.S.
10 and Canada. I have testified on capital structure, cost-of-capital issues,
11 electricity pricing and regulatory earnings sharing proposals in many states
12 and other countries.

13 **Q. WHO RETAINED YOU FOR THIS TESTIMONY?**

14 A. Florida Power Corporation (FPC) retained me.

15 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

16 A. I am appearing at the request of FPC to address several matters related
17 to FPC's recent acquisition by Progress Energy.

18 **Q. PLEASE SUMMARIZE YOUR TESTIMONY.**

19 A. In Section II, I present a regulatory sharing plan that I propose for FPC.
20 There are three cornerstones to this plan. They are: (1) guaranteed rate
21 relief and no downside risk to retail customers in Florida; (2) modifying the
22 regulatory band for Return on Equity (ROE) to stimulate greater FPC and
23 Progress Energy efforts at cost reduction and (3) progressive incentive-

1 based ratemaking to provide upside gains for retail customers for greater
2 cost cutting and synergy improvements. I propose an earnings sharing
3 mechanism (ESM) where the authorized ROE is set at 13.20%. This ROE is
4 based on the analysis of Professor Vander Weide. A 100 basis point dead
5 band will be established around either side of this ROE for general rate case
6 purposes. FPC's allocated portion of the costs to achieve the merger will be
7 recovered over 15 years from the gross synergy savings achieved by
8 reflecting an after-tax amount for ratemaking and surveillance purposes.
9 Customers will receive a guaranteed \$75 million rate credit over this same
10 time period. Additionally, under the ESM, customers will receive a portion of
11 any earnings over the 14.20% dead band. Between 14.21% and 14.70%,
12 customers will receive 80% of any excess earnings; between 14.71% and
13 15.20%, customers will receive 50% of any excess earnings; and customers
14 will receive 20% of any excess earnings over 15.20%.

15 In Section III, I discuss the two primary stakeholders in this merger:
16 the customers and shareholders. Here, I discuss why it is important for the
17 FPSC to adopt a regulatory plan that strikes a fair balance between customer
18 and shareholder interests. I explain that a fair, just and reasonable
19 regulatory plan is necessary to avoid harming stakeholders. I explain how
20 the plan FPC proposes strikes a reasonable balance between allowing
21 shareholders a reasonable opportunity to recover the transaction costs
22 associated with this merger if synergy savings can be achieved, while

1 guaranteeing customers an immediate rate credit, regardless of whether any
2 synergy savings are achieved.

3 In Section IV, I analyze the gross synergy savings estimated for the
4 Progress Energy transaction and demonstrate that they are statistically equal
5 to the synergy estimates for thirty-eight other electric utility industry mergers.

6 I show this through two separate analyses: through benchmarking with
7 industry data, and using statistical estimation. Thus, I conclude that the
8 projected synergy savings estimated by Progress Energy are reasonable.

9 In Section V, I discuss a statistical analysis of the price paid to acquire
10 Florida Progress. I demonstrate that the predicted “price paid” is effectively
11 statistically equal to the amount paid in the utility transactions contained in
12 my database of energy utility company mergers. Thus, I conclude that the
13 price paid to acquire Florida Progress was reasonable.

14 In Section VI, I present my overall conclusions and regulatory policy
15 recommendations.

16 **SECTION II: REGULATORY SHARING PLAN**

17 **Q. WHAT EXPERIENCE DO YOU HAVE IN DESIGNING AND PROPOSING**
18 **SYNERGY SAVINGS PLANS FOR UTILITIES?**

19 A. In various consulting assignments, I have been asked either to develop or to
20 evaluate regulatory plans designed to share between shareholders and
21 customers the savings related to utility mergers, industry restructuring, and
22 innovative utility cost cutting programs.

1 **Q. PLEASE DESCRIBE SOME EXAMPLES OF YOUR WORK ON SUCH**
2 **REGULATORY PLANS FOR UTILITIES THAT MERGE.**

3 A. I helped to develop and propose merger savings/sharing plans for the
4 Western Resources/Kansas City Power & Light merger. I also helped
5 develop and proposed the merger plan for the Western Resources/Public
6 Service Company of New Mexico merger. I also analyzed and advised
7 utilities on merger related synergy savings plans in Illinois, Iowa, Wisconsin,
8 Michigan, Ohio and Pennsylvania. Finally, I advised several customer-
9 owned and municipally-owned utility companies in Texas, Minnesota, Iowa
10 and Georgia about merger synergies and savings plans.

11 Along with my colleagues at PEG, I have also developed a synergy
12 database for merging utilities, which I will describe in detail later in this
13 Testimony. This database has been used to benchmark and to estimate
14 synergy savings in all of the above-mentioned states, as well as Indiana and
15 Colorado.

16 **Q. PLEASE DESCRIBE YOUR SYNERGY SAVINGS REGULATORY**
17 **EXPERIENCE IN STATES UNDERGOING EITHER RESTRUCTURING OR**
18 **SIGNIFICANT INNOVATIVE COST CUTTING.**

19 A. I have been very much involved in developing and proposing regulatory
20 sharing programs for Georgia Power Company's innovative approach to
21 potential restructuring and cost cutting. In addition, I developed similar plans
22 for Unicom and I have made similar proposals to other regulated businesses.

1 **Q. ARE THERE SOME OVER-RIDING PRINCIPLES THAT HELP TO FOCUS**
2 **THESE VARIOUS REGULATORY SHARING PROPOSALS?**

3 A. Yes. My basic approach relies on three principles. The first principle is that
4 the consumer benefits related to these various extraordinary utility efforts
5 need to be identified and articulated. Some benefits can and should be
6 quantified. For example, labor savings, and fuel and purchase power cost
7 reductions are examples of these types of savings. Other benefits are not so
8 readily quantified. These savings include achieving sufficient scale and
9 scope economies that will enable the utility to meet increasing consumer
10 needs and to survive as a viable entity in an increasingly more consolidated
11 industry. Regardless, it is very important that the utility's goals, strategies
12 and vision are clearly articulated to consumers and regulators.

13 The second principle is that few things, in economic terms, are "free."
14 In fact, it is necessary to quantify any and all incremental transaction costs
15 and transition costs. In effect, these represent the premium paid to achieve
16 the gross benefits and savings related to this merger. This is an essential
17 regulatory principle requiring that the costs of achieving or producing change
18 be subtracted from, or netted against, the gross benefits. The net savings, or
19 net synergy benefits, should be used as the basis for establishing a merger
20 or restructuring related regulatory plan.

21 The third regulatory principle is that utilities should be provided with
22 reasonable incentives to outperform or exceed their projections, plans and

1 regulatory expectations. Such incentive-based regulatory plans would and
2 should yield additional net benefits for both consumers and shareholders.

3 These three principles have been central to the regulatory policies and
4 programs that I have developed in various utility proceedings. In addition, I
5 have also been very cognizant of “timing” and have used this particular factor
6 to design regulatory sharing mechanisms. When I use the word “timing”, I
7 mean that sometimes it is advantageous for utilities to be granted significant
8 “front end” shares of the savings so as to reduce future regulated prices.
9 While I do not consider “timing”, *per se*, to be a fourth regulatory principle, I
10 recommend using approaches that front-load the savings and related cost
11 recovery for shareholders because this can often cause concomitant greater
12 retail consumer gains on the back end.

13 **Q. HAVE YOU DEVELOPED A REGULATORY PLAN FOR FPC THAT**
14 **REFLECTS THESE PRINCIPLES AND THEIR APPLICATION TO FLORIDA**
15 **PROGRESS’ RECENT ACQUISITION BY PROGRESS ENERGY?**

16 A. Yes.

17 **Q. WHAT DO YOU PROPOSE?**

18 A. I begin with an attribute that is fundamental to the plan I propose. FPC is not
19 asking that any transaction costs be put into rate base.¹ Rather, FPC is
20 simply asking the FPSC to recognize that there are indeed costs associated
21 with this merger, and that without those costs, the customer benefits that will
22 materialize as a result of the merger would never have been available. Thus,

¹ I define transaction costs as the difference between Florida Progress’ pre-merger price per share and the price paid by Progress Energy.

1 FPC is asking that the Commission net the costs to achieve the synergy
2 savings against the gross synergy savings, and then allocate the net synergy
3 savings between customers and shareholders. In fact, FPC is guaranteeing
4 that customers will be better off than had the merger not taken place
5 because, as I explain below, customers will receive an immediate rate credit
6 under FPC's proposed plan. And in the longer term, customers will have the
7 opportunity for additional savings once transaction costs have been
8 recovered from the synergy savings.²

9 The critical point to remember is that this regulatory plan presents a
10 way to split the net synergy savings between customers and shareholders in
11 a manner that increases the incentives for FPC to achieve more potential
12 savings for both customers and shareholders, a classic win-win situation.
13 This regulatory plan has an additional benefit to the FPSC in that it does not
14 require tracking merger savings, a task other jurisdictions find to be difficult,
15 at best. Instead, FPC has made its best estimate of the net synergies to be
16 gained and has guaranteed, through a rate credit, that customers will enjoy
17 50 percent of these net savings. The regulatory plan requires no further
18 tracking of net synergy savings, which are treated just like any other earnings
19 under the regulatory plan. I explain this in greater detail below.

² Thus, this plan conforms to the representations the companies made to FERC that customers would be held harmless from any negative effects should synergy savings not materialize as planned. To the contrary, FPC is guaranteeing that customers will be better off under the merger because it is offering customers rate credits regardless of its success in achieving synergy savings. This also satisfies the FERC criteria as set out in FERC's New Policy Statement (Inquiry Concerning the Commission's Merger Policy Under the Federal Power Act; Policy Statement, 61 FR 58595 (12/30/96)).

1 Q. PLEASE DESCRIBE THE OTHER FACTORS THAT YOU CONSIDERED
 2 WHEN YOU DESIGNED THIS REGULATORY PROPOSAL. WILL YOU
 3 FIRST EXPLAIN HOW YOU DETERMINED FPC'S SHARE OF GROSS
 4 SYNERGY SAVINGS?

5 A. Table 1 summarizes the process by which I ascertained the net synergy
 6 savings available to share with customers.

TABLE 1

ANNUAL ADJUSTMENT	MILLIONS
Total Estimated Savings	\$175.000
FPC share of savings	\$58.700
Less amortized (15 yrs) merger related transition expense	<u>(\$4.645)</u>
FPC share of savings	\$54.055
Less wholesale share (5.55%)	(\$3.000)
Less taxes at FPC's 38.575% tax rate	<u>(\$19.694)</u>
Retail After-Tax Synergies	\$31.361
Less transaction costs	<u>(\$25.310)</u>
Net after-tax synergies	\$6.051
Net pre-tax synergies	\$9.871

7
 8 I started with the total gross synergy savings estimated by the companies.
 9 The total merger related synergy savings have been estimated to be \$175
 10 million. The gross synergy savings associated with FPC are \$58.7 million
 11 per year. From this amount, the merger-related transition costs of \$4.645
 12 million per year need to be deducted, reducing the annual FPC gross
 13 synergy savings to \$54.055 million.³ A further allocation is then necessary
 14 between retail and wholesale customers in Florida. The FPC retail/wholesale
 15 customer split is about 94.45%/5.55%. Applying the retail jurisdictional split

1 reduces the retail portion for FPC's gross synergy savings from \$54.055
2 million per year to \$51.055⁴. These gross retail synergy savings are then
3 taxed at FPC's 38.575% tax rate, reducing the gross after-tax synergies to
4 \$31.361 million.

5 **Q. ARE ALL THESE SAVINGS AVAILABLE FOR CUSTOMERS?**

6 **A.** No. The cost necessary to accomplish these synergy savings first needs to
7 be identified. Then this cost is allocated between CP&L and FPC, and
8 between retail and wholesale customers using the cost allocation factors
9 developed from FPC's pro rata share of synergies⁵. Then, this amount is
10 netted against the gross savings.

11 Progress Energy paid an incremental amount equal to about \$924.038
12 million⁶ to purchase Florida Progress' equity. This is equal to the premium
13 paid for Florida Progress' shares above its then pre-merger market value.
14 Applying the 30.9% allocator I discussed above to these costs results in a
15 transaction cost of \$285.528 million being allocated to FPC. Applying the
16 same 94.5%/5.5% split between retail and wholesale customers that I used
17

³ \$69.676 million ÷ 15 = \$4.645 million per year. And, \$58.700 million - \$4.645 million = \$54.055 million.

⁴ \$54.055 *.9445 = \$51.055.

⁵ The allocator is derived by dividing FPC's share of the synergy savings by the total estimated synergies. \$54.055/\$175 = 30.9%.

⁶ \$9.37 * 98,616,658 shares.

1 to allocate the savings between retail and wholesale customers, \$269.824
2 needs to be recovered from the gross savings associated with FPC's retail
3 business. I propose to spread this cost over 15 years at an after-tax interest
4 rate of 4.607 percent based on Progress Energy's merger related debt, or a
5 pre-tax 7.5% interest rate. The annual cost to recover \$269.824 million over
6 15 years at 4.607 percent interest is \$25.310 million.

7 **Q. WHAT ARE THE ANNUAL "NET" UTILITY SYNERGY SAVINGS**
8 **AVAILABLE TO BE SHARED BETWEEN FPC'S RETAIL CUSTOMERS**
9 **AND SHAREHOLDERS?**

10 A. FPC's retail allocated portion of the total pre-tax gross synergy savings
11 estimate is \$51.055 million per year. On an after-tax basis, the gross
12 synergy equals \$31.361 million. The annual cost to pay for this merger,
13 allocated to FPC's retail customers over 15 years at a 4.607 percent after-tax
14 interest rate is \$25.310 million. The net utility synergy savings portion for
15 FPC is the difference, or about \$6.051 million after taxes, or \$9.871 million in
16 revenue requirements on a pre-tax basis. FPC proposes to grant customers
17 an immediate rate credit equal to 50 percent of the estimated net synergy
18 savings, rounded up to \$5 million.

19 **Q. WHAT IS YOUR SPECIFIC INCENTIVE BASED REGULATORY**
20 **PROPOSAL FOR FPC?**

21 A. I propose an earnings sharing mechanism (ESM) using the steps I outline
22 below. These are:

- 1 1. The authorized ROE will be set at 13.20%, based upon the ROE
2 recommended by Professor Vander Weide.
- 3 2. A 100 basis point dead band will be established around either side
4 of this authorized ROE for general rate case purposes, which is
5 consistent with the company's current rate order and consistent
6 with what the Commission has done with the other Florida electric
7 utilities.
- 8 3. The allocated Florida portion of the merger's transaction costs
9 shall be recovered over 15 years, at an after-tax interest rate of
10 4.607% interest, and this amount annually will be netted against
11 the "total" estimate of the allocated synergy savings to FPC's retail
12 customers. In that FPC will recover the transaction costs at a set
13 rate over 15 years, the company will bear the risk that the synergy
14 savings will be sufficient to amortize FPC's portion of the
15 transaction cost. The company is authorized to reflect an after-tax
16 amount for ratemaking and regulatory surveillance of \$25.310
17 million from the allocated gross portion of FPC's annual retail
18 utility synergy savings of \$31.361 million. This accounting is
19 necessary to ensure that only net synergy savings associated with
20 the merger are subject to the net earnings sharing mechanism
21 described below.
- 22 4. In other jurisdictions, shareholders are often given 100 percent of
23 the synergy savings for a set period (ranging from 3-7 years),

1 before customers share any of the net savings. In contrast, here
2 FPC has proposed that customers be granted an immediate pre-
3 tax rate credit totaling \$5 million per year. This, in effect,
4 guarantees that customers receive the first one half of the “net”
5 estimated quantifiable savings associated with this merger each
6 year, regardless of the company’s success in achieving these
7 savings. The company will provide this pre-tax rate credit whether
8 or not any synergies are actually achieved, thus guaranteeing that
9 customers receive a monetary benefit from this merger. This
10 amounts to a guaranteed \$75 million rate credit over the 15 years
11 of FPC’s proposed regulatory plan.

12 5. After achieving the savings required to pay down the transaction
13 costs and fund the retail rate credit guarantee each year, any
14 additional net savings would not be exempt from the surveillance
15 reporting and would apply to calculating the company’s ROE. This
16 means that, because earnings achieved through cost cutting from
17 the merger are treated like any other earnings, it is not necessary
18 for the FPSC to “track” merger savings. After the \$5 million
19 guaranteed rate credits for customers, there is no requirement
20 under FPC’s proposal to segregate or “color code” synergy
21 savings, a task that other jurisdictions have found next to
22 impossible to accomplish as time goes on. Here, FPC is
23 guaranteeing that customers receive an immediate 50 percent

1 share of the estimated synergy savings, whether or not FPC
2 actually achieves any synergy savings at all. Any eligible
3 earnings, from whatever source, above the 14.20% upper end of
4 the proposed rate case dead band shall be shared between
5 customers and shareholders in a way that maximizes the utility's
6 incentives to achieve savings. It is fairly evident that the first
7 savings are the easiest to achieve, hence, the advantage for
8 customers of the one time retail customer guarantee. It becomes
9 increasingly more difficult to squeeze more and more savings from
10 cost cutting and efficiency improvements. Therefore, the following
11 sharing mechanism is designed to encourage the company to
12 maximize its cost cutting and other efficiency improvements.

- 13 • Between the 12.20% and 14.20% dead band, base rates
14 will be frozen (after the \$5 million rate decrease described
15 above) and there will be no sharing of any net savings with
16 customers, but additional savings will work in the
17 consumers' favor by pushing up the ROE for surveillance
18 and sharing purposes.
- 19 • Between 14.21% and 14.70%: customers receive 80% of
20 the excess earnings and shareholders receive 20%;
- 21 • Between 14.71% and 15.20%: customers receive 50% of
22 the excess earnings and shareholders receive 50%;

- 1 • Above 15.20%: customers receive 20% of the excess
2 earnings and shareholders receive 80%.

3 **Q. IS THE PLAN YOU ARE PROPOSING SIMILAR TO OTHER**
4 **REGULATORY PLANS ADOPTED IN MERGER CASES?**

5 A. It is quite similar to plans that have been adopted and that I have
6 recommended for other utilities.

7 **Q. YOUR REGULATORY PLAN ALLOWS FOR RECOVERY OF THE**
8 **INCREMENTAL TRANSACTION COSTS OVER 15 YEARS. HOW DOES**
9 **THIS COMPARE WITH REGULATORY PLANS IN OTHER**
10 **JURISDICTIONS?**

11 A. As I mentioned briefly above, in other jurisdictions, it is somewhat common to
12 give shareholders 100 percent of the initial synergy savings for a shorter
13 period of time, rather than institute some form of sharing immediately. In
14 these fully front-end loaded regulatory plans, retail prices are often frozen for
15 a set period (typically 3-7 years) during which shareholders capture all the
16 synergy savings. When shorter terms (e.g., 3 years) are initially used,
17 regulators can revisit the issues and extend the plan for a similar three-year
18 time period. This full front-end loading is done to allow the companies an
19 opportunity to recover the transaction costs associated with the merger.⁷

20 This initial price freeze is often followed by a sharing of the net
21 synergy savings for some extended period of time on something like a 50/50
22 basis between shareholders and customers. See Exhibit CJC-2 for a

1 summary of recent merger orders that tend to follow this basic full front-end
2 loading design. In this way, Commissions are recognizing that the costs to
3 achieve the merger must be netted against the synergy benefits. Merging
4 companies are effectively permitted to recover their transaction costs to
5 encourage such beneficial mergers to continue occurring. In other words,
6 the benefits and costs are netted. Commissions are sometimes explicit in so
7 stating. More often, this intent to net gross benefits and costs is implicit in
8 these orders.

9 There are some regulatory plans where transaction costs are spread
10 out over as long a period as 40 years. Such a plan was approved by the
11 Kansas Corporation Commission in the KPL/KGE merger.⁸ In that case, an
12 acquisition premium was actually put into rate base. However, this is not
13 what FPC proposes here and such extended forty-year recovery periods are
14 an exception.

15 In the plan I propose here, I have incorporated the best portions of
16 various regulatory plans from around the country. Thus, the FPC plan
17 guarantees immediate customer rate credits, offers incentives that
18 encourage the company to achieve savings that would allow additional rate
19 credits, and allows a reasonable period for the company to recover its
20 transaction costs from synergy savings while not putting customers at risk.
21 Customers will not be charged any merger related costs in excess of merger
22 related synergies. Additionally, in the longer term, customers would enjoy

⁷ The 15-year term of FPC's regulatory plan is also consistent with the 1993 revisions in the Federal Tax Act for amortizing, over fifteen years, the premium paid over book to acquire assets.

1 the opportunity to obtain substantial rate credits when the transaction costs
2 have been fully recovered.

3 **Q. HOW HAS THE FPSC TREATED MERGERS?**

4 A. I have reviewed about 20 FPSC orders on mergers. The FPSC actively
5 encourages mergers that benefit consumers. To that end, the FPSC has
6 even allowed adjustments to rate base where it finds that “extraordinary
7 circumstances exist.”⁹ Similarly, the FPSC has generally refused to reduce
8 rate base when a troubled utility is acquired for less than book value. The
9 rationale for these actions is similar: to encourage mergers that provide net
10 benefits for consumers. This has long been the overarching goal behind the
11 FPSC’s actions.

12 The FPSC understands that to encourage mergers that offer net
13 consumer benefits, a utility must have some incentive to take the time, incur
14 the expense, and assume the risks inherent in putting together a merger or
15 acquisition. That is why the FPSC has permitted rate base to be adjusted in
16 extraordinary circumstances.

17 It is against this backdrop that the FPSC will undertake this rate case.

18 Although the merger is a done deal, the FPSC must take care to fashion a
19

⁸ 127 P.U.R. 4th 201 (1/15/91).

⁹ For example, when FPC acquired Sebring Utilities (Sebring) at a cost above Sebring’s book value the FPSC allowed a 15-year rider to Sebring’s customers’ rates to recover these above book costs. The FPSC noted this situation presented extraordinary circumstances and was not to be cited as precedent. However, my point is that the FPSC recognizes that it is important to encourage mergers that benefit consumers.

1 just and reasonable order in this rate case to fairly share net synergies
2 between shareholders and customers. To do otherwise would harm
3 shareholders immediately, and customers in the long run. In addition, such
4 an outcome would have a chilling effect on future mergers. This would deny
5 Florida consumers any potential benefits associated with such future
6 mergers. Thus, although this merger has been completed, the rationale
7 behind encouraging future mergers that will provide benefits to consumers
8 requires just and reasonable regulatory treatment for netting transaction
9 costs against merger savings. This is an extraordinary merger because
10 customers benefit from the operational and financial benefits discussed later
11 in my testimony and discussed in greater detail in Mr. Myers' testimony.

12 **Q. HOW DOES THE FPSC TRADITIONALLY TREAT ACQUISITION**
13 **ADJUSTMENTS?**

14 A. The FPSC traditionally defines an acquisition adjustment as the difference in
15 the price paid to acquire a company and the net book value of the company
16 based on the original investment cost less depreciation.¹⁰ This definition is
17 more akin to what others often define as goodwill. Adding to the confusion,
18 others often define an acquisition premium as the difference between the
19 pre-merger price per share and price per share paid in the merger for the
20 acquired utility. This is what I define as the transaction cost in this testimony
21 to avoid confusion. In this case, transaction costs are the difference

¹⁰ See, for example, South Waterfront Park Homeowners Assn., Docket No. 850460-WU; Order No. 15925, April 2, 1986.

1 between \$54 per share and \$44.67 per share, or \$9.37 per share, plus
2 incremental transition costs.

3 FPC is not seeking to recover “goodwill” through the net utility synergy
4 savings. The “goodwill” is recorded, as required, on the parent’s books, not
5 at the subsidiary level. The amount of goodwill is far greater than the
6 acquisition premium or transaction cost because goodwill includes the
7 difference between FPC’s pre-merger market value in excess of its book
8 value, plus the transaction costs.

9 FPC is seeking to recover only the transaction costs incurred to pay
10 for the future gross synergy benefits. These transaction costs equal the
11 difference between the price paid for Florida Progress stock and the market
12 price for that stock plus incremental transition costs. FPC proposes to
13 recover these costs netted against the gross synergy savings. Accordingly,
14 FPC proposes to give “net” utility synergy savings to retail customers in two
15 forms: (1) An immediate retail rate credit; (2) Use additional savings for
16 ratemaking and surveillance regulatory purposes through an ESM. In
17 addition, after 15 years, the use of all savings would be reevaluated along
18 with other factors to enable lower retail prices. Importantly, FPC is not
19 proposing an acquisition adjustment be included in rate base, even though
20 this merger falls under the parameters of the FPSC’s definition of
21 extraordinary circumstances.

22 **Q. PLEASE REVIEW WHAT FPC IS PROPOSING TO DO WITH THIS**
23 **TRANSACTION USING THESE VARIOUS REFERENCE TERMS.**

1 A. FPC first proposes to allocate a portion of the total estimate of gross synergy
2 savings (\$175 million per year) to the retail portion of its utility business. As I
3 showed in Table 1 above, this amounts to \$51.005 million of gross utility pre-
4 tax synergy savings per year after subtracting labor-related transition costs.

5 FPC recognizes that the base pre-merger market value portion of the
6 transaction to acquire Florida Progress is equal to about \$44.63 per share, or
7 Florida Progress' pre-merger announcement fair market value (one day prior
8 to the merger announcement). The difference between Florida Progress'
9 book value (about \$19 per share) and the pre-merger market price \$44.63
10 per share, or some \$25.63 per share times about 98,616,658 Florida
11 Progress shares would make up a disproportionate share of what is generally
12 called "goodwill" and what the FPSC traditionally defines as an acquisition
13 adjustment. It is very important to understand that none of this difference
14 between the pre-merger market value and Florida Progress' book value, or
15 some \$2.53 billion of the price paid to acquire Florida Progress is considered
16 in FPC's regulatory plan or in its retail rates now or in the future.

17 Instead, the \$9.37 per share difference between the pre-merger
18 market value of \$44.63 per share and the \$54 per share times 98,616,658
19 shares paid to acquire the entire business is treated as the principal
20 component (\$924.038 million) of the merger's transaction costs. FPC seeks
21 to recover its share of those transaction costs from its share of the gross
22 utility synergy savings. This is not an acquisition adjustment as the FPSC
23 has used that term. Instead, this is a principal component of a transaction

1 cost that it is necessary to pay to achieve the gross synergy savings benefits
2 shared by the two utility companies. Importantly, FPC does not seek to
3 change its rate base.

4 **Q. WHAT CONSTITUTES EXTRAORDINARY CIRCUMSTANCES SUCH THAT**
5 **THE FPSC WOULD INCLUDE THE ACQUISITION ADJUSTMENT IN RATE**
6 **BASE?**

7 A. The FPSC has allowed acquisition adjustments to be put in rate base in
8 “extraordinary” circumstances. This actually increases rate base by the
9 amount of the adjustment and raises the rates paid by customer. Again, this
10 is not what FPC is proposing here. Rather, the transaction costs will not go
11 into rate base and as I explained, retail rates will actually be credited
12 immediately by \$5 million per year even if FPC fails to achieve its synergy
13 target. However, it is illustrative to examine FPSC precedent with respect to
14 “extraordinary circumstances.”

15 Often, but not always, these circumstances occur where a larger utility
16 is taking over a financially troubled or inept utility. The FPSC has cited as
17 evidence of extraordinary circumstances increased service quality, lowered
18 operating costs, increased ability to attract capital for needed improvements,
19 lower overall cost of capital, and more professional and experienced
20 managerial, financial, technical and operational resources.¹¹

21 In the past, when the FPSC has permitted what it called an acquisition
22 adjustment, it rejected calls to reduce prices when the rate base of the utility

¹¹ See, for example, In Re Application of People’s Gas System Inc. for a Rate increase, Docket No. 891353-GU; Order No. 23858, December 11, 1990.

1 exceeded the purchase price paid for a troubled utility. Here, the acquisition
2 price was greater than FPC's rate base, and FPC is requesting only that the
3 FPSC recognize the amount that was paid to secure gross synergies and to
4 base its cost of service treatment on net utility synergy savings. To deny this
5 amount of recovery would harm the parent company that took these
6 beneficial steps. Furthermore, any regulatory consideration of more than the
7 net savings would signal investors that Florida's utility companies should
8 effectively be taken out of play. This result could increase the prices paid by
9 customers of Florida's utilities and adversely affect service for Florida's retail
10 customers for the reasons explained above in greater detail.

11 **Q. ARE YOU SUGGESTING THAT THIS MERGER IS EXTRAORDINARY**
12 **UNDER THE GUIDELINES SET FORTH BY THE FPSC?**

13 A. Yes, I am. As is further discussed in Mr. Mark Myers' testimony, the
14 Progress Energy merger offers extraordinary benefits and opportunities for
15 both shareholders and customers. In addition to the estimated synergy
16 savings, there are other benefits associated with the merger. The merger
17 takes two strong medium-sized companies and combines them into a larger
18 regional utility. The combined company will have an increased ability to offer
19 a wider variety of energy related services to a broader customer base than
20 was possible prior to the merger. This enhanced capability should improve
21 investor confidence in the combined company. In turn, the combined
22 company should be better able to attract and retain capital than was possible
23 with the two smaller companies that existed prior to the merger. This should

1 enhance the company's long-term financing capabilities and support the
2 growth objectives of Progress Energy.

3 Additionally, the combined company has a more balanced and diverse
4 generation portfolio and customer mix. This will enable it to more readily
5 manage and absorb the risk and volatility inherent in the increasingly
6 competitive energy markets.

7 These non-monetized synergies benefit customers by improving the
8 company's access to capital and could lead to lower overall financing costs,
9 which could eventually lead to reduced revenue requirements and lower
10 prices for customers. The generation diversity also reduces the company's
11 (and customers') exposure to fuel price fluctuations and availability.
12 Regardless, FPC is not requesting the same favorable treatment that the
13 FPSC has given in other such extraordinary transactions (i.e., including
14 goodwill or acquisition premium in rate base). All it asks for is a just and
15 reasonable regulatory treatment of net synergy savings (i.e., a regulatory
16 recognition of both benefits and costs).

17 **Q. THE FPSC HAS STATED THAT ACQUISITION ADJUSTMENTS SHOULD**
18 **NOT BE CONSIDERED IN STOCK TRANSFER CASES. DOES THIS**
19 **HAVE ANY EFFECT ON YOUR PROPOSED REGULATORY PLAN?**

20 A. No. The FPSC has indicated its position that acquisition adjustments are not
21 appropriate in stock transfer cases because stock has no regulatory
22 relationship to the established rate base.¹² Here, FPC is asking the FPSC

¹² See, for example, In Re Application of Rainbow Springs Utility, Docket No. 971195-WS; Order No. PSC-98-0593-FOF-WS; April 27, 1998.

1 to recognize that there are costs associated with achieving this merger and
2 its concomitant benefits for customers. FPC seeks to have the FPSC net
3 these transaction costs against the gross synergy savings before it allocates
4 net benefits between shareholders and customers. FPC is also not asking
5 for any increase in rate base. Therefore, my proposed rate plan is not
6 inconsistent with FPSC precedent.

7 **Q. AS A CONCEPTUAL MATTER, WHY DO YOU PROPOSE INCENTIVE**
8 **REGULATION?**

9 A. Incentive regulation is designed to emulate the behavior of competitive
10 markets in which success has some upside and failure reduces income.
11 This is sometimes called the “competitive market paradigm” for incentive
12 plan design. Many regulators now seem to share this view.

13 **Q. WHAT IS AN EARNINGS SHARING MECHANISM APPROACH TO**
14 **INCENTIVE REGULATION?**

15 A. Incentive regulatory plans can take many different forms. Earnings sharing
16 mechanisms (ESMs) are one of the performance-based approaches used in
17 the United States. Another common incentive method is price cap or rate
18 freeze regulation. This approach is popular in the telephone industry and
19 outside the United States.

20 **Q. WHAT CAN BE SAID ABOUT EARNINGS SHARING MECHANISMS AS A**
21 **FORM OF INCENTIVE REGULATION?**

22 A. ESMs can strengthen performance incentives since shareholders may enjoy
23 higher upside returns under this approach than under traditional regulation.

1 This focuses management's attention on cost cutting, efficiency, and other
2 goals set by regulators to benefit consumers in both the short and longer run.
3 ESMs also allow customers to share the benefits from this improved
4 performance. By aligning the customers' interests with shareholders'
5 interests, ESMs can contribute to regulatory stability and lengthen the time
6 between traditional rate cases. Longer regulatory lags, in turn, improve
7 incentives for superior performance.

8 It is useful to distinguish between ESMs and normal regulatory lag.
9 The reason for this is that under cost of service regulation, prices are
10 typically fixed between rate cases. Shareholders therefore retain all the
11 benefits from improved cost cutting or revenue enhancement performance
12 until the next rate case. This is commonly known as regulatory lag. Under
13 earnings sharing, shareholders receive a proportion of these benefits and
14 consumers also benefit. Typically, ESMs are established for a fixed time
15 period, while regulatory lag is often uncertain. Therefore, the sharing
16 concept is balanced against the fixed duration of the ESM.

17 Reasonable care must be taken in designing ESMs in order to
18 balance the utility's incentives and customer benefits. The plan that I
19 presented above has been crafted to fairly share savings between customers
20 and shareholders, while retaining the incentive necessary for the company to
21 maximize its savings. This plan is added to the rate case regulatory
22 approach that FPC is proposing to continue.

1 **Q. PLEASE SUMMARIZE THE CONCEPTS YOU USED TO DESIGN THE**
2 **INCENTIVE BASED REGULATORY PLAN YOU PROPOSE.**

3 A. I proposed a plan designed to closely mimic the incentives of a competitive
4 market. FPC proposes to assume the risk associated with recovering the
5 transaction costs associated with the merger at the parent level. At the same
6 time, as I describe below, FPC is proposing an immediate rate credit of \$5
7 million per year for retail consumers regardless of whether or not FPC
8 achieves any of its projected net utility synergy savings. This, in effect,
9 guarantees that customers receive the first, and easiest to achieve net utility
10 synergy savings from this merger. Further, I propose a progressive incentive
11 plan that will provide FPC with the incentive to aggressively pursue cost
12 cutting measures by allowing them to keep a higher percentage of the
13 earnings that result from these efforts. This will further benefit customers by
14 making future rate cuts larger than they would likely have been, while
15 increasing the likelihood of greater short-term rate relief.

16 **Q. HOW DOES FPC'S PROPOSAL COMPARE TO OTHER ESMS**
17 **CURRENTLY IN PLACE IN OTHER JURISDICTIONS?**

18 A. FPC is proposing an ROE of 13.20 percent in its rate case and an ESM band
19 of plus or minus 100 basis points (*i.e.*, 12.20 percent to 14.20 percent). This
20 approach is sometimes described as a neutral zone of 200 basis points,
21 which is well within the range of other similar ESM bands around the nation.
22 For example, Georgia Power's recent ESM uses a 250 basis point neutral
23 zone. PacifiCorp's PBR plan in Oregon includes a 250 basis point dead band

1 above its benchmark ROE and a 500 basis point neutral zone *in toto*. Some
2 neutral zones are substantially higher. For example, the ESM in Central
3 Maine Power’s plan has a 700 basis point neutral zone. The ESM for Boston
4 Gas includes an 800 basis point neutral zone.

5 I have previously prepared a summary of recently approved ESMs for
6 energy utilities. This survey is attached as Exhibit CJC–3, which shows that
7 among active PBR plans featuring ESMs with bounded neutral zones on
8 both sides of benchmark ROE, the average neutral zone was 379 basis
9 points at the time I prepared my summary.

10 **Q. HAS THE FPSC PREVIOUSLY AUTHORIZED REGULATORY PLANS**
11 **CONTAINING ESMs AND REVENUE SHARING PLANS?**

12 A. Yes. Southern Bell has an ESM. Southern Bell’s neutral band is 80 basis
13 points above and 70 basis points below its target ROE. Earnings that push
14 its ROE between 80 basis points and 350 basis points above its target ROE
15 are shared 60/40 between customers and shareholders. Earnings that push
16 the ROE beyond 350 basis points over authorized ROE goes to customers.

17 Gulf Power has what is known as a revenue sharing plan. It has an
18 authorized ROE of 11.5 percent with a 100 basis point neutral band above
19 and below this authorized ROE (i.e., 10.5 percent – 12.5 percent). Revenue
20 that results in an ROE between 12.5 percent and 14 percent is allocated
21 between three “pots.” One-third goes to customers, one-third goes to
22 shareholders, and one-third goes to increase Gulf Power’s insurance

1 reserve. The Commission has reserved jurisdiction to allocate revenue that
2 pushes the ROE beyond 14 percent.

3 Florida Power & Light (FP&L) also has a revenue sharing plan. Under
4 that plan, FP&L has an authorized ROE of 11 percent with a 100 basis point
5 neutral band above and below that point (i.e., 10 percent – 12 percent). The
6 order also establishes the sharing between customers and shareholders for
7 revenues above 12 percent. Any revenue that falls within the first
8 established tier will be shared one-third to shareholders and two-thirds to
9 customers. Any revenue that falls above this tier is refunded to customers.¹³

10 **Q. IN ADDITION TO BEING CONSISTENT WITH PRECEDENT, ARE THERE**
11 **OTHER REASONS TO FAVOR AN ESM APPROACH.**

12 A. The 200 basis point dead band that FPC proposes creates strong incentives
13 to push earnings into ranges where shareholders and consumers will both
14 benefit from greater cost cutting and other operating efficiencies. I propose
15 an additional incentive plan as an addendum to the ESM dead band that
16 would cause FPC to perform at a heightened performance level. Weaker
17

¹³ The order states “For the first 12 months beginning with the Implementation Date, FPL’s retail base rate revenues in excess of \$3.400 billion up to \$3.556 billion will be shared between FPL and its customers on a one-third/two-thirds basis, one third to be retained by FPL and two-thirds to be refunded to its customers. Retail base rate revenues above \$3.556 billion for the first 12-month period will be refunded to FPL’s customers.” The second and third periods of the rate order follow the same formula, changing only the amounts of the retail base rate revenues.

1 incentives could discourage FPC from undertaking actions that increase
2 earnings and benefit consumers now and in the future.

3 It takes great effort for well-managed utilities such as FPC and CP&L
4 to achieve additional cost cutting savings. A progressive regulatory plan that
5 rewards the company with a higher percentage of the hardest to achieve
6 savings would accomplish this additional incentive. I recommend such an
7 approach here because: (1) it encourages the utility to make the extra effort
8 necessary to achieve these savings and perhaps, to exceed its projections;
9 and, (2) it insures that customers enjoy a larger portion of the most easily
10 attained savings now and, to the extent the company can exceed projections,
11 allows consumers to enjoy additional current and higher future retail rate
12 reductions than they would otherwise.

13 Further, the incentive plan I propose is more likely to replicate the
14 disciplines and outcomes of competitive markets. Good service and
15 improved efficiency are central to best business practices. The plan I
16 propose for FPC is progressive (i.e., shareholders retain a higher percentage
17 of the harder to achieve cost savings and customers retain a larger
18 percentage of the easier to attain cost savings), so it is more consistent with
19 efficient and sound incentive regulation principles.

20 **SECTION III: THE STAKEHOLDERS**

21 **Q. WHO ARE THE STAKEHOLDERS IN THIS MERGER?**

1 A. There are two primary stakeholders: customers and shareholders. This
2 merger needs to be beneficial to both. This is a matter of both fairness and
3 reasonableness.

4 Fairness and reasonableness mean that regulators should seek to
5 capture some acceptable amount of net merger benefits for consumers,
6 while providing an opportunity, although not necessarily a guarantee, to
7 shareholders that they will be able to recover their incremental costs without
8 suffering undue dilution in market value.

9 **Q. HOW ARE RETAIL CUSTOMERS PROTECTED UNDER YOUR**
10 **PROPOSED REGULATORY PLAN?**

11 A. Under its proposed plan, FPC is not requesting that any of the debt incurred
12 to acquire Florida Progress stock and for other transaction costs associated
13 with the merger be included in retail rate base. Under the regulatory plan
14 FPC proposes, this parent-held debt does not appear in the utility's capital
15 structure. Instead, FPC asks only that its share of the costs incurred to
16 complete the merger be netted against gross synergy savings. Further, with
17 the guaranteed \$75 million rate credit over fifteen years, customers will be
18 better off than had FPC remained a stand-alone utility. Only the savings and
19 synergies that FPC and other affiliates are able to squeeze from their
20 operations as a result of the merger will be used to pay down this holding
21 company debt. The costs associated with the merger will be paid off only to
22 the extent that synergies are realized. Then, after costs have been netted
23 against the synergies, synergy savings will be shared between shareholders

1 and customers. And, recall that FPC is committing to provide a \$5 million
2 pre-tax rate credit immediately, in effect guaranteeing that customers receive
3 benefits from the merger. In fact, the proposed plan is one in which
4 customers will enjoy an immediate rate credit and will have a very real
5 opportunity to enjoy further rate credits under a progressive earnings sharing
6 mechanism.

7 **Q. IS IT IMPORTANT FOR FPC'S FINANCIAL WELL-BEING AND**
8 **SHAREHOLDER HEALTH TO HAVE THE FPSC APPROVE A**
9 **REGULATORY PLAN THAT BALANCES CUSTOMER AND**
10 **SHAREHOLDER INTERESTS AS YOU HAVE?**

11 A. Yes. Financial analysts will be watching closely the regulatory treatment that
12 FPC receives in this rate case. Typically, merging companies are required to
13 obtain state regulatory commission approval of the merger prior to
14 consummating the deal. In those situations, regulatory sharing mechanisms
15 are proposed and negotiated as part of the merger approval process. If a
16 state commission wants concessions that the companies think are too
17 expensive and will be dilutive to shareholders, they can back out of the deal.
18 Such events are not unheard of.¹⁴ In Florida, the FPSC has participated in
19 discussions with FPC, but has not yet had the opportunity to review fully the
20 merger, which has been consummated. Nevertheless, the company is not in
21 a position to undo the deal if it does not get reasonable regulatory treatment

¹⁴ For example, consider the recent proposed merger of PEPCO and BCE, where the Maryland Public Service Commission approved the merger but imposed conditions that were too onerous for the companies to live with and the deal died, despite having received regulatory approvals at the federal and several other state levels.

1 from the FPSC. Consequently, financial analysts will be watching this
2 proceeding very closely and the FPSC, by following some “just and
3 reasonable” principles, can craft a regulatory arrangement that is fair to all
4 stakeholders and provides incentives to beat, not just achieve, expectations.

5 **SECTION IV: SYNERGY SAVINGS**

6 **Q. WILL YOU REPEAT BRIEFLY WHY REGULATORS NEED TO**
7 **DETERMINE THE REASONABLENESS OF PROJECTED SYNERGY**
8 **SAVINGS?**

9 A. Yes. Synergy savings are simply gross merger benefit estimates. Regulators
10 need to establish that both the benefits and costs of a merger are reasonable
11 in order to determine that any proposed “net sharing of synergy” is just and
12 reasonable for rate making purposes.

13 **Q. HAVE YOU MADE ANY NATIONAL COMPARISONS WITH THE \$175**
14 **MILLION GROSS SYNERGY SAVINGS ESTIMATES MADE BY THE**
15 **COMPANIES?**

16 A. Yes. I have assembled a database for synergy savings and mergers. In
17 assessing whether synergy savings estimates are reasonable, I generally
18 rely on two methods. I typically use both a ratio method and a regression
19 method to predict synergy savings based on the characteristics of the
20 merging utilities. In the past, I have used this ratio method and regression
21 analyses to serve as a check on or benchmark for the more complex and
22 accurate synergy savings analyses, similar to the one performed by the
23 companies here, and that I have completed in other merger proceedings.

1 **Q. PLEASE DESCRIBE THE RATIO METHOD USED TO BENCHMARK**
2 **SYNERGY ESTIMATES IN UTILITY MERGERS.**

3 A. I first gather the synergy savings claimed in 38 previously announced electric
4 and combination electric and natural gas mergers. I then analyze these
5 claimed savings as percentages of various operating categories (kWh sales,
6 operating expenses, revenues, customers, market capitalization, book
7 capitalization and assets). For example, I calculate average annual claimed
8 savings on a per 1000 kWh sold, per customer basis, and as a percent of
9 total annual operating expenses and revenue. I also measure total claimed
10 savings over a ten-year period as a percent of the total assets of the
11 combined companies, and as a percent of total market and book
12 capitalization.

13 **Q. WHAT DO YOU DO WITH THESE RATIOS?**

14 A. I calculate the high, low and mean gross synergy estimates for the 38
15 mergers. Attached, as Exhibit CJC-4 is a table that shows the various ratios
16 I attained for benchmarking by applying various operational characteristics to
17 the claimed synergy savings. I utilize the key ratios to calculate the savings
18 the merged companies would need to attain to achieve the national mean.
19 Here, the ratio analysis shows that, to achieve the mean, merger savings
20 based on the previous mergers around the nation, the synergy savings would
21 need to total about \$1.682 billion over ten years, or about \$168 million per
22 year. It is very significant that the predicted savings levels for Progress
23 Energy in all seven categories are close to the mean of the 38 mergers

1 considered. Exhibit CJC-5 shows the results of the ratio analysis when
2 applied to the synergy savings estimated by the companies for this merger.
3 Exhibit CJC-5 also shows the savings predicted for this merger by the ratio
4 method. As can be readily seen by comparing Exhibits 4 and 5, the ratios for
5 this merger do not vary significantly from the mean of the previous 38
6 recently announced mergers.

7 **Q. PLEASE DESCRIBE THE SECOND BENCHMARKING METHOD --**
8 **YOUR REGRESSION ANALYSIS.**

9 A. The regression analysis is a statistical analysis that is driven by key factors
10 similar to the ones utilized in the ratio analysis. I prefer to think of this
11 analysis as another approach to the same data. This means that it is not a
12 second test. Instead, it is another methodology used to estimate synergy
13 savings. Utilizing the same database from 38 previous mergers, the
14 regression analysis predicts, using key explanatory variables for each of the
15 merger candidates, what the merger savings would be in each case. The
16 regression used has a high R-squared, suggesting that it is generally a
17 strong predictive tool. I used this model to “predict” the savings claimed in
18 recent mergers to demonstrate its accuracy. I have attached a table as
19 Exhibit CJC-6 to demonstrate the regression model’s high success level.
20 This schedule depicts how accurately the model predicts announced synergy
21 savings levels.

22 **Q. WHAT AMOUNT DOES THIS REGRESSION MODEL PREDICT FOR THE**
23 **MERGER SAVINGS IN THIS CASE?**

1 A. The predicted savings for this merger, using the regression analysis, are
2 \$1.54 billion over ten years, or \$154 million per year.

3 **Q. AFTER COMPLETING THESE ANALYSES, HAVE YOU REACHED ANY**
4 **CONCLUSIONS REGARDING THE SYNERGY SAVINGS PREDICTED BY**
5 **THE COMPANIES?**

6 A. Yes. Both analyses show that, based on similar utility merger transactions
7 across the nation, the companies' estimated synergy savings estimate is
8 relatively close to the synergy savings predicted by both the ratio and
9 regression methods. This should provide the FPSC with comfort that the
10 projected synergy savings projections are reasonable when compared with
11 synergy projections in other electric utility mergers.

12 **SECTION V: REGULATORY ANALYSIS OF THE PRICE PAID TO**
13 **ACQUIRE FLORIDA PROGRESS**

14 **Q. AGAIN, FOR COMPLETENESS OF THE RECORD, WILL YOU EXPLAIN**
15 **THE REGULATORY RELEVANCE OF THE PRICE PAID TO ACQUIRE**
16 **FPC?**

17 A. Yes. Sharing "net" synergy savings is about subtracting the cost, or price,
18 from the benefit. If too much is paid, the "net" value would decline.
19 Therefore, regulators often review the price paid to ascertain that the "net"
20 synergy sharing is just and reasonable for ratemaking purposes.

21 **Q. ARE YOU FAMILIAR WITH THE TERMS OF THE MERGER THAT**
22 **CREATED PROGRESS ENERGY?**

1 A. Progress Energy acquired all the outstanding shares of Florida Progress
2 common stock for a purchase price of approximately \$5.3 billion. Pursuant
3 to the Agreement and Plan of Exchange dated August 22, 1999 and revised
4 and amended on March 6, 2000 (the Revised And Amended Exchange
5 Agreement), Progress Energy acquired all of the issued and outstanding
6 common stock of Florida Progress for a combination of cash and shares of
7 Progress Energy common stock. Florida Progress shareholders could elect
8 to receive \$54 in cash for each outstanding share of Florida Progress
9 common stock or a number of shares of Progress Energy common stock
10 equal to the exchange ratio. This was subject to pro-ration in the event that
11 Florida Progress shareholders elected to receive more than 65% of the total
12 consideration for the exchange in cash or more than 35% of Progress
13 Energy in stock.¹⁵

14 After completing the transaction described above, Progress Energy
15 directly owned all the common stock of Florida Progress. FPC is a wholly
16 owned subsidiary of Florida Progress.

17 **Q. HAVE YOU ANALYZED THE AMOUNT PAID BY PROGRESS ENERGY TO**
18 **ACQUIRE FLORIDA PROGRESS?**

19 A. Yes. I find that the total transaction costs paid by Progress Energy for
20 Florida Progress are reasonable. Here, the transaction costs include all the
21 costs required to complete the merger, including the price paid to acquire

¹⁵ Florida Progress shareholders also received one contingent value obligation (CVO) for each share of Florida Progress common stock they owned, representing the right to receive contingent payment based upon the net after-tax cash flow to Progress Energy generated by four synthetic fuel plants purchased by Florida Progress in October 1999.

1 Florida Progress stock. Unless these costs were incurred, the merger would
2 not have been consummated, and the synergy savings and other benefits
3 would not be realized. Merger analyses often begin by quantifying synergy
4 or cost reductions. These savings are used to determine how much an
5 acquirer could pay to merge without experiencing dilution in its respective
6 market value. In addition to such cost-based synergies, there are other
7 factors that I discussed above, not easily converted to monetary value, that
8 would encourage firms to merge and could affect the acquisition premium the
9 acquiring firm pays to the target firm's shareholders.

10 **Q. WHAT ARE THE OTHER NON-MONETIZED FACTORS THAT**
11 **GENERALLY COULD AFFECT UTILITY MERGERS?**

12 A. These other factors include financial, corporate, and environmental matters.
13 The financial reasons include several subcategories, such as the potential for
14 different earnings growth potential, different dividend yields, and different risk
15 profiles (Beta). The corporate reasons include factors such as gaining
16 control of an entire company, not just existing shares representing partial
17 ownership, repairing a troubled company, and preventing a hostile takeover.
18 Environmental reasons include regulatory factors, strategic value, and
19 defensive rationales. These factors are especially important in today's
20 changing regulatory environment where states are moving towards a more
21 competitive market place and the industry is rapidly consolidating and
22 regulators, as well as management, seek to insure a viable utility service
23 provider. I discussed these matters above.

1 **Q. WHAT DATA DO YOU HAVE REGARDING THE PRICE PAID IN VARIOUS**
2 **RECENTLY ANNOUNCED MERGERS IN THE ELECTRIC INDUSTRY?**

3 A. Distinct from my synergy savings database, I have compiled a database for
4 fifty recently announced mergers of energy utilities in the United States,
5 where I compiled data from these mergers on the change in price of the
6 target utility's stock before the merger and after it had been converted into
7 stock of the acquiring utility. This change is the difference in the market price
8 of the acquired utility prior to the date the merger is announced and made
9 public and the price actually paid by the acquiring utility. These announced
10 mergers are shown in Exhibit CJC-7.

11 **Q. WHAT ADDITIONAL DATA DID YOU COLLECT REGARDING THESE**
12 **MERGERS?**

13 A. To test the significance on the prices paid to complete utility mergers, I also
14 compiled data on the various synergy and non-synergy reasons to support a
15 merger. These constitute 83 separate variables. These variables are shown
16 in Exhibit CJC-8. In my experience, I find that it is important both to
17 normalize transactions for size and other differences and to account for the
18 various factors that determine and affect economic value.

19 **Q. PLEASE EXPLAIN YOUR ANALYSES.**

20 A. I performed numerous econometric tests to determine the statistically
21 significant factors that explain variation in the price paid above the pre-
22 merger market price to acquire energy utility companies. In addition, I was
23 also interested in establishing econometric equations with relatively high

1 predictive power.

2 I often rely on day-ahead regression analyses to define the premium
3 paid in the merger over the target company's pre-merger market value one-
4 day prior. In this particular merger, a twenty-day average pre-merger market
5 value was used to determine Florida Progress' exchange value. However,
6 not all mergers use exactly the same terms. Therefore, I use a consistent
7 one-day difference in per share prices across all mergers in my regression
8 analysis. When I apply these regressions to Florida Progress and Progress
9 Energy, I find that the actual price paid for Florida Progress is essentially
10 statistically equal to the values that I would have forecasted from my
11 regression analyses.

12 These regressions are shown in computer printout form in Exhibit
13 CJC-9, along with the percent of prices paid over pre-merger per share
14 values for the one-day models. The four regressions I used are presented in
15 a more simplified form, with an explanation of the variables, in Exhibit CJC-
16 10.

17 **Q. HOW ACCURATE ARE THESE REGRESSIONS?**

18 A. In past assignments, I have found that these regressions are very accurate.
19 I have prepared four charts that show statistical plots of the actual premium
20 offered or paid for the merger targets used to estimate the four regression
21 models along with corresponding predictions from Equations 1 to 4, as
22 shown in Exhibit CJC-10 for the one day ahead model. These charts are
23 attached collectively as Exhibit CJC-11(a-d). I have found that these

1 regressions predict accurately the relative purchase prices paid in these
2 mergers.

3 **Q. DID YOU USE THESE REGRESSION EQUATIONS TO ESTIMATE THE**
4 **PURCHASE PRICE THAT WOULD BE LIKELY TO BE PAID FOR**
5 **FLORIDA PROGRESS?**

6 A. Yes. I used the four regression equations to estimate Florida Progress' likely
7 purchase price when Progress Energy was the acquiring company. These
8 predictions are shown in exhibit CJC-9, page 1. Using Florida Progress' one
9 day pre-merger per share market value of \$44.63 as a starting point, the
10 premium paid equals 20.99 percent. These four regressions predict a
11 premium of 20.7. I conclude that the predicted price paid by Progress
12 Energy, using other regulated utility mergers as a guide, is statistically
13 indistinguishable from the price actually paid by Progress Energy for Florida
14 Progress. No one who relies on market outcomes to produce competitive
15 results when a well-informed seller confronts a well-informed buyer should be
16 surprised by this outcome. In a competitive market, an acquirer or an
17 individual shareholder will pay more than the market price per share for all
18 the shares of virtually any investor-owned utility or any other company he/she
19 buys in its entirety.

20 **Q. WHAT DO THESE RESULTS DEMONSTRATE FOR REGULATORS?**

21 A. Florida Progress received a fair price based upon other utility mergers. The
22 price paid is used to determine transaction costs, which are subtracted from
23 gross synergy savings to determine the "net" savings available for retail rate

1 credits. The FPSC can reasonably conclude that both the gross synergy and
2 purchase prices have been established consistently with all other utility
3 mergers in the nation.

4 **SECTION VI: CONCLUSIONS**

5 **Q. PLEASE SUMMARIZE YOUR PRINCIPAL CONCLUSIONS.**

6 A. First, I strongly recommend a specific regulatory plan that reflects the net
7 benefits of the acquisition of Florida Progress by Progress Energy.
8 Specifically, I recommend a plan that does two things:

9 (1) Provides an immediate retail customer credit worth \$5 million
10 per year, for a total guaranteed customer benefit totaling
11 about \$75 million over the life of the regulatory plan; and

12 (2) Modifies FPC's proposed regulatory band above the
13 authorized ROE for additional sharing and incentives that
14 would benefit retail customers in Florida.

15 Second, net benefits are the basis for regulatory sharing plans in utility
16 mergers. In addition, there are non-monetized values in this merger, such as
17 being able to improve retail customer service, terms of service, diversity of
18 supply and demand, and attracting capital.

19 Third, the gross synergy savings projected from this merger are
20 statistically similar to synergy estimates in thirty-eight other electric utility
21 mergers.

1 Fourth, the price paid to acquire Florida Progress is essentially equal
2 to statistically forecasted prices based upon the prices paid for other energy
3 utilities in the United States.

4 **Q. WHAT DO YOU RECOMMEND?**

5 A. This is a good merger. It is important for the FPSC to adopt a regulatory
6 plan that strikes a fair balance between customer and shareholder interests.
7 The plan proposed by FPC does just this, striking a reasonable balance
8 between allowing shareholders a reasonable opportunity to recover the
9 transaction costs associated with this merger if synergy savings can be
10 achieved, while guaranteeing customers an immediate rate credit, regardless
11 of whether any synergy savings are achieved. I urge the FPSC to recognize
12 that costs were required to bring about these benefits, and to net these costs
13 against the estimated gross synergies. Accordingly, I recommend that the
14 FPSC approve FPC's regulatory plan.

15 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

16 A. Yes.

September 2001

CHARLES J. CICHETTI

PROFESSIONAL EXPERIENCE

1998-present Jeffrey J. Miller Professor in Government, Business, and the Economy, University of Southern California;
1996-present Co-Founder, Pacific Economics Group;
1990-1997 Adjunct Professor of Economics, University of Southern California;
1992-1996 Managing Director, Arthur Andersen Economic Consulting;
1991-1992 Co-Chairman, Putnam, Hayes & Bartlett, Inc.;
1988-1991 Managing Director, Putnam, Hayes & Bartlett, Inc.;
1987-1990 Deputy Director, Energy and Environmental Policy Center, John F. Kennedy School of Government, Harvard University;
1984-1987 Senior Vice President, National Economic Research Associates;
1980-1984 Co-Founder and Partner, Madison Consulting Group;
1979-1986 Professor of Economics and Environmental Studies, University of Wisconsin-Madison;
1977-1979 Chairman, Public Service Commission of Wisconsin, Appointed by Governor Patrick J. Lucey (member until 1980);
1975-1976 Director, Wisconsin Energy Office and Special Energy Counselor for Governor Patrick J. Lucey, State of Wisconsin;
1974-1979 Associate Professor, Economics and Environmental Studies, University of Wisconsin-Madison;
1972-1974 Visiting Associate Professor, Economics and Environmental Studies, University of Wisconsin-Madison;
1972 Associate Lecturer, School of Natural Resources of the University of Michigan;
1969-1972 Resources for the Future, Washington, D.C.;
1969 Ph.D., Economics, Rutgers University;
1968-1969 Instructor, Rutgers University;
1965 B.A., Economics, Colorado College;
1961-1964 Attended United States Air Force Academy.

EDITORIAL BOARDS

Journal of Environmental Economics and Management;
Energy Systems and Policy, Former Member;
Land Economics, Former Editor.

ADVISORY BOARDS

Alliance for Energy Security;
Association of Environmental and Resource Economics, Executive Committee,
Former Member;
Association of Environmental and Resource Economics, Contributing Members
Program Committee;
California ISO MAG, Appointed by Governor Gray Davis;
Center for Public Policy Advisory Committee, Former Member;
Department of Energy, Fuel Oil Marketing Advisory Committee, Former Member;
Graduate School of Public Policy at the University of California, Berkeley;
Institute for the Study of Regulation;
National Association of Regulatory Utility Commissioners, Executive Committee
and Chairman of the Ad Hoc Committee on the National Energy Act, Former
Member;
New Century Land Renewals;
Public Interest Economics Center, Board of Directors, Former Member;
Rutgers University, Energy Research Advisory Board;
U.S. Chamber of Commerce Energy and Natural Resources Committee.

PUBLICATIONS

Books and Monographs

Energy Deregulation: The Benefits of Competition Were Undermined by
Structural Flaws in the Market, Unsuccessful Oversight and Uncontrollable
Competitive Forces with Jeffrey A. Dubin, Jon Hockenyos, Colin M. Long and
J.A. Wright. California State Auditor, Bureau of State Audits, Sacramento,
California, March 2001.

Restructuring Electricity Markets: A World Perspective with Kristina M. Sepetys,
January 1996.

The Application of U.S. Regulatory Techniques to Spain's Electric Power
Industry, with Irwin M. Stelzer, prepared for Unidad Electrica, S.A.,
Cambridge: Energy and Environmental Policy Center, Harvard University,
March 1988.

The Economic Theory of Enhanced Natural Gas Service to the Industrial Sector:
An Applied Approach, Vol. II with L.D. Kirsch, for the Gas Research Institute,
Contract No. 5080-380-0349, February 1982.

The Economic Theory of Enhanced Natural Gas Service to the Industrial Sector:
An Applied Approach, Vol. I with L.D. Kirsch and R. Shaughnessy, for the
Gas Research Institute, Contract No. 5080-380-0349, May, 1981.

PUBLICATIONS (Cont.)

The Economic Effects of Deregulating Natural Gas, with R.H. Haveman, M. Lowry, M. Post and R. Schmidt, prepared for the Northeast Coalition for Energy Equity, Madison: MCG Monograph, 1981.

The Marginal Cost and Pricing of Electricity: An Applied Approach, with W. Gillen and P. Smolensky, Cambridge: Ballinger Publishing Company, 1977.

The Costs of Congestion: An Econometric Analysis of Wilderness Recreation, with V.K. Smith, Cambridge: Ballinger Publishing Company, 1976.

Energy System Forecasting, Planning and Pricing, ed. with W. Foell for the National Science Foundation, Madison: University of Wisconsin Monograph, 1975.

Studies in Electric Utility Regulation, ed. with J. Jurewitz for the Ford Foundation Energy Policy Project, Cambridge: Ballinger Publishing Company, 1975.

Perspective on Power: A Study of the Regulation and Pricing of Electric Power, with E. Berlin and W. Gillen for the Ford Foundation Energy Policy Project, Cambridge: Ballinger Publishing Company, 1974.

A Primer for Environmental Preservation: The Economics of Wild Rivers and Other Natural Wonders, New York: MSS Modular Publication, 1973.

Forecasting Recreation in the United States: An Economic Review of Methods and Applications to Plan for the Required Environmental Resources, Lexington: Lexington Books, June 1973.

Alaskan Oil: Alternative Routes and Markets, for Resources for the Future, Baltimore: Johns Hopkins University Press, December 1972.

The Demand and Supply of Outdoor Recreation: An Econometric Analysis, Ph.D. Thesis: Rutgers University, 1969. Also, with J.J. Seneca and P. Davidson, Washington, D.C.: U.S. Department of Interior, Bureau of Outdoor Recreation, Contract No. 7-14-07-4, 1969.

A Neo Keynesian Equilibrium Analysis For an Open Economy, A.B. Thesis, Colorado College, Colorado, Springs, Colorado, May, 1965.

September 2001

CHARLES J. CICHETTI

Journal Articles

"ISOs and Transcos: What's at Stake?" with Gary D. Bachman and Colin M. Long, The Electricity Journal, December 2000.

"Politics as Usual: A Roadmap to Backlash, Backtracking and Re-regulation," with Colin M. Long, Public Utilities Fortnightly, Vol. 138, No. 18. October 1, 2000.

"Transmission Products and Pricing: Hidden Agendas in the ISO/Transco Debate," with Colin M. Long, Public Utilities Fortnightly, Vol. 137, No. 12. June 15, 1999

"Mergers and the Convergence of the Electric and Natural Gas Industries," Natural Gas, March 1997.

"Been There, Done That: Sunk Costs, Access Charges and the Transmission Pricing Debate," Energy, Vol. XXI, No. 4. September, 1996.

"Regulating Competition: Transition or Travesty?" with Kristina M. Sepetys, The Electricity Journal, May 1996.

"California Model Sets the Standard for Other States," with Kristina M. Sepetys, World Power Yearbook 1996.

"Measuring the Effects of Natural Resource Damage and Environmental Stigma on Property Value," Environmental Law, September/October, 1995.

"The Route Not Taken: The Decision to Build the Trans-Alaska Pipeline and the Aftermath," The American Enterprise, Volume 4, Number 5, September/October 1993.

"A Micro-Econometric Analysis of Risk-Aversion and the Decision to Self-Insure," with Jeffrey Dubin, in Journal of Political Economy, Revised, July 1993. (Volume 102, No. 1, February 1994.)

"Energy Utilities, Conservation, Efficiency," with Vinayak Bhattacharjee and William Rankin, Contemporary Policy Issues, Volume XI, Number 1, January 1993.

"Uniqueness, Irreversibility, and the Theory of Nonuse Values," with Louis L. Wilde, American Agricultural Economics Association, December 1992.

- "Utility Energy Services," with Ellen K. Moran, Regulatory Incentives for Demand-Side Management, Chapter 9, American Council for an Energy-Efficient Economy, December 1992.
- "A Micro-Econometric Analysis of Risk Aversion and the Decision to Self-Insure," California Institute of Technology, with Jeffrey A. Dubin, January 1992.
- "The Use and Misuse of Surveys in Economic Analysis: Natural Resource Damage Assessment Under CERCLA," California Institute of Technology, with Jeffrey Dubin and Louis Wilde, July 1991.
- "The Federal Energy Regulatory Commission's Proposed Policy Statement on Gas Inventory Charges (PL-89-1-1000), Energy and Environmental Policy Center, Harvard University, Discussion Paper E-89-11, July 1989.
- "Incentive Regulation: Some Conceptual and Policy Thoughts," Energy and Environmental Policy Center, Harvard University, Discussion Paper E-89-09, June 1989.
- "Including Unbundled Demand-Side Options in Electricity Utility Bidding Programs," with William Hogan, Public Utilities Fortnightly, June 8, 1989. (Also a Discussion Paper E-88-07).
- "Assessing Natural Resource Damages Under Superfund: The Case Against the Use of Contingent Value Survey Methods," with Neil Peck, Natural Resources & Environment, Vol. 4, No. 1, Spring 1989.
- "Pareto Optimality Through Non-Collusive Bilateral Monopoly with Cost-of-Service Regulation (or: Economic Efficiency in Strange Places)," with Jeff D. Makhholm, Energy and Environmental Policy Center, Harvard University, Working Paper, 1988.
- "The FERC's Discounted Cash Flow: A Compromise in the Wrong Direction," with Jeff Makhholm, Public Utilities Fortnightly, July 9, 1987.
- "Conservation Subsidies: The Economist's Perspective," with Suellen Curkendall, Electric Potential, Vol. 2, No. 3, May/June 1986.
- "Our Nation's Gas and Electric Utilities: Time to Decide," with R. Shaughnessy, Public Utilities Fortnightly, December 3, 1981.
- "Is There a Free Lunch in the Northwest? (Utility-Sponsored Energy Conservation Programs)," with R. Shaughnessy, Public Utilities Fortnightly, December 18, 1980.

- "Opportunities for Canadian Energy Policy," with M. Reinbergs, Journal of Business Administration, Vol. 10, Fall 1978/Spring 1979.
- "Energy Regulation: When Federal and State Regulatory Commissions Meet," with J. Williams, American University Law Review, 1978.
- "The End-User Pricing of Natural Gas," with Don Wiener, Public Utilities Fortnightly, March 16, 1978.
- "An Econometric Evaluation of a Generalized Consumer Surplus Measure: The Mineral King Controversy," with V.K. Smith and A.C. Fisher, Econometrica, Vol. 44, No. 6, 1976.
- "Alternative Price Measures and the Residential Demand for Electricity: A Specification Analysis," with V.K. Smith, Regional Science and Urban Economics, 1975.
- "An Economic Analysis of Water Resource Investments and Regional Economic Growth," with V.K. Smith and J. Carston, Water Resources Research, Vol. 12, No. 1, 1975.
- "A Note on Fitting Log Linear Regressions with Some Zero Observations for the Regressand," with V.K. Smith, Metroeconomica, Vol. 26, 1975.
- "The Design of Electricity Tariffs," Public Utilities Fortnightly, August 28, 1975.
- "The Economics of Environmental Preservations: Further Discussion," with A.C. Fisher and J.V. Krutilla, American Economic Review, Vol. 64, No. 6, December 1974.
- "Electricity Price Regulation: Critical Crossroads or New Group Participation Sport," Public Utilities Fortnightly, August 29, 1974.
- "Interdependent Consumer Decisions: A Production Function Approach," with V.K. Smith, Australian Economic Papers, December 1973.
- "Economic Models and Planning Outdoor Recreation," with A.C. Fisher and V.K. Smith, Operations Research, Vol. 21, No. 5, September/October 1973.
- "Evaluating Federal Water Projects: A Critique of Proposed Standards," with R.K. Davis, S.H. Hanke and R.H. Haveman, Science, Vol. 181, August 1973.
- "The Mandatory Oil Import Quota Program: A Consideration of Economic Efficiency and Equity," with W. Gillen, Natural Resources Journal, Vol. 13, No. 3, July 1973.

- "Congestion, Quality Deterioration and Optimal Use: Wilderness Recreation in the Spanish Peaks Primitive Area," with V.K. Smith, Social Sciences Research, Vol. 2, 1, March 1973 (reprinted July 1973).
- "The Economics of Environmental Preservation: A Theoretical and Empirical Analysis," with A.C. Fisher and J.V. Krutilla, American Economic Review, Vol. 62, No. 4, September 1972.
- "Recreation Benefit Estimation and Forecasting: Implications of the Identification Problem," with V.K. Smith, J.L. Knetsch and R. Patton, Water Resources Research, Vol. 8, No. 4, August 1972.
- "Evaluating Benefits of Environmental Resources with Special Application to the Hells Canyon," with J.V. Krutilla, Natural Resources Journal, Vol. 12, No. 1, January 1972. (Also published in Benefit-Cost and Policy Analysis, 1972.)
- "On the Economics of Mass Demonstrations: A Case Study of the November 1969 March on Washington," with A.M. Freeman, R.H. Haveman and J.L. Knetsch, American Economic Review, Vol. 61, No. 4, September 1971.
- "Option Demand and Consumer Surplus: Further Comment," with A.M. Freeman III, Quarterly Journal of Economics, Vol. 85, August 1971.
- "Some Economic Issues Involved in Planning Urban Recreation Facilities," Land Economics, February 1971.
- "A Note on Jointly Supplied Mixed Goods," with V.K. Smith, Quarterly Review of Economics and Business, Vol. 10, No. 3, Autumn 1970.
- "A Gravity Model Analysis of the Demand for Public Communication," with J.J. Seneca, Journal of Regional Science, Vol. 9, No. 3, Winter 1969.

Articles Appearing in Other Volumes

- "Including Unbundled Demand-Side Options in Electric Utility Bidding Programs," in *Competition in Electricity: New Markets & New Structures*, with William Hogan and edited by James L. Plummer and Susan Troppmann, (Public Utilities Reports and QED Research Inc: Arlington, Virginia) March 1990.
- "Meeting the Nation's Future Electricity Needs: Cogeneration, Competition and Conservation," in 1989 Electricity Yearbook, New York: Executive Enterprises, 1989.
- "Environmental Litigation and Economic Efficiency: Two Case Studies," with R. Haveman in Environmental Resources and Applied Welfare Economics:

Essays in Honor of John F. Krutilla, V.K. Smith ed., Washington, DC: Resources for the Future, 1988.

"Electricity and Natural Gas Rate Issues," with M. Reinbergs, in The Annual Energy Review, Palo Alto: Annual Reviews Inc., Vol. 4, 1979.

"The Measurement of Individual Congestion Costs: An Econometric Application to Wilderness Recreation," with V.K. Smith, in Theory and Measurement of Economic Externalities, ed. S.A. Lin, New York: Academic Press, 1976.

"Implementing Diurnal Electricity Pricing in the U.S.: A Pragmatic Approach," in Energy System Forecasting, Planning and Pricing, ed. C.J. Cicchetti and W. Foell, Madison: University of Wisconsin Press, February 1975.

"Measuring the Price Elasticity of Demand for Electricity: The U.S. Experience," with V.K. Smith, in Energy System Forecasting, Planning and Pricing, ed. C.J. Cicchetti and W. Foell, Madison: University of Wisconsin Press, 1975.

"Public Utility Pricing: A Synthesis of Marginal Cost, Regulatory Constraints, Averch-Johnson Bias, Peak Load and Block Pricing," with J. Jurewitz, in Studies in Electric Utility Regulation, ed. C.J. Cicchetti and J. Jurewitz, Cambridge: Ballinger Publishing Company, 1975.

"Congestion, Optimal Use and Benefit Estimation: A Case Study of Wilderness Recreation," with V.K. Smith, in Social Experiments and Social Program Evaluation, ed. J.G. Albert and M. Kamrass, Cambridge: Ballinger Publishing Company, 1974.

"Electricity Growth: Economic Incentives and Environmental Quality," with W. Gillen, in Energy: Demand, Conservation and Institutional Problems, ed. M. Macrakis, Cambridge: MIT Press, 1974.

"Some Institutional and Conceptual Thoughts on the Measurement of Indirect and Intangible Benefits and Costs," with John Bishop, in Cost-Benefit Analysis and Water Pollution Policy, ed. H. Peskin and E. Seskin, Washington, D.C.: Urban Institute, 1974.

"The Trans-Alaska Pipeline: An Economic Analysis of Alternatives," with A.M. Freeman III, in Pollution, Resources and the Environment, ed. A.C. Enthoven and A.M. Freeman III, New York: W.W. Norton and Co., 1973.

"Alternative Uses of Natural Environments: The Economics of Environmental Modification," with A.C. Fisher and J.V. Krutilla, in Natural Environments: Studies in Theoretical and Applied Analysis, ed. J.V. Krutilla, Baltimore: Johns Hopkins University Press, 1972.

"A Multivariate Statistical Analysis of Wilderness Users in the United States," in Natural Environments: Studies in Theoretical and Applied Analysis, ed. J.V. Krutilla, Baltimore: Johns Hopkins University press, 1972.

"Benefits or Costs? An Assessment of the Water Resources Council's Proposed Principles in Standards," with R.K. Davis, S.H. Hanke, R.H. Haveman and L. Knetsch, in Benefit-Cost and Policy Analysis, ed. W. Nishkanen, *et al*, Chicago: Aldine Publishing Company, 1972.

"Observations on the Economics of Irreplaceable Assets: Theory and Method in the Social Sciences," with J.V. Krutilla, A.M. Freeman III and C. Russell, in Environmental Quality Analysis, ed. A Kneese and B.T. Bower, Baltimore: Johns Hopkins University Press, 1972.

"Outdoor Recreation and Congestion in the United States," in Population, Resources and the Environment, ed. R. Ridker, Washington, D.C.: U.S. Government Printing Office, 1972.

Less Technical Articles

"Still the Wrong Route," Environment, Vol. 19, No. 1, January/February, 1977.

"National Energy Policy Plans: A Critique," Transportation Journal, Winter 1976.

"The Mandatory Oil Import Program: A Consideration of Economic Efficiency and Equity," with W. Gillen, Joint Economic Committee of the U.S. Congress, 1974.

"The Political Economy of the Energy Crisis," with R. Haveman in Carroll Business Review, Winter 1974.

"The Wrong Route," Environment, Volume 15, No. 5, June 1973.

"Benefit-Cost Analysis and Technologically Induced Relative Price Changes: The Case of Environmental Irreversibilities," with J.V. Krutilla, Natural Resources Journal, 1972.

"A Review of the Empirical Analyses that Have Been Based Upon the National Recreation Surveys," Journal of Leisure Research, Vol. 4, Spring 1972.

"How the War in Indochina is Being Paid for by the American Public: An Economic Comparison of the Periods Before and After Escalation," Public Forum, July 1970, (reprinted in the Congressional Record, August 13, 1970).

"User Response in Outdoor Recreation: A Reply," with J.J. Seneca, Journal of Leisure Research, Vol. 2, No. 2, Spring 1970.

"User Response in Outdoor Recreation: A Production Analysis," with J.J. Seneca, Journal of Leisure Research, Vol. 1, No. 3, Summer 1969.

Miscellaneous Articles

"Competitive Battlefield: A View from the Trenches," Northeast Utilities 1987 Annual Report, Competition: A Matter of Choices, 1987.

September 2001

CHARLES J. CICHETTI

SELECTED ADMINISTRATIVE AND CIVIL LITIGATION TESTIMONY SINCE 1980

Before the State Corporation Commission of the State of Kansas, Rebuttal Testimony on behalf of Western Resources, Inc., Docket No. 01-WRSE-949-GIE, June 2001.

Before the State Corporation Commission of the State of Kansas, Direct Testimony on behalf of Western Resources, Inc., Docket No. 01-WRSE-949-GIE, June 2001.

Before the State Corporation Commission of the State of Kansas, Surrebuttal Testimony on behalf of Western Resources, Inc., Docket No. 01-WRSE-436-RTS, May 2001.

Before the State Corporation Commission of the State of Kansas, Rebuttal Testimony on behalf of Western Resources, Inc., Docket No. 01-WRSE-436-RTS, April 2001.

Before the United States District Court for the Western District of Wisconsin, Expert Affidavit on behalf of Alliant Energy Corporation and Wisconsin Power and Light Corporation, No. 00-C-0611-S, February 1, 2001.

*Trial testimony on behalf of KN Energy of KN Energy vs. Cities of Alliance, District Court of Lancaster County, Nebraska, Case Nos. CI 00:1309, CI 00:1310, CI 00:1311, CI 00:1312 (Consolidated), January 22, 2001.

Before the State Corporation Commission of the State of Kansas, Direct Testimony on behalf of Western Resources, Inc., Docket No. 01-WRSE-436-RTS, January 2001.

*Deposition testimony on behalf of Tosco Corporation of Tosco Corporation vs. The Los Angeles Water and Power, County of Los Angeles Superior Court Case No. BC 215396, January 17, 2001.

*Deposition testimony on behalf of KN Energy of KN Energy vs. Cities of Alliance, District Court of Lancaster County, Nebraska, Case Nos. CI 00:1309, CI 00:1310, CI 00:1311, CI 00:1312 (Consolidated), November 1, 2000.

*Before the United States District Court for the Central District of California, Affidavit in the Matter of United States of America v. Montrose Chemical Corporation of California, *et.al.*, Civil Action No. CV 90 3122-R, 21 August 2000.

Before the Federal Energy Regulatory Commission, Affidavit on behalf of Entergy Power Marketing Corp. and Koch Energy Trading, Inc., Docket No. EC00-_____, 20 June 2000.

Before the Federal Energy Regulatory Commission, Affidavit on behalf of Western Resources, Inc., Docket No. ER00-___000, 28 April 2000.

*Before the United States District Court for the Central District of California, Expert Report in the Matter of United States of America v. Montrose Chemical Corporation of California, *et.al.*, Civil Action No. CV 90 3122-AAH (JRx), 15 April 2000.

Before the Public Service Commission of Florida, Intervenor Testimony on behalf of Florida Power Corporation, Docket No. 991462, 7 March 2000.

Before the Public Service Commission of Wisconsin, Direct Testimony on behalf of ANR Pipeline Company, Docket No. 6650-CG-194, 6 March 2000.

Before the Federal Energy Regulatory Commission, Rebuttal Testimony on behalf of Duke Energy South Bay, LLC, Docket Nos. ER98-496-000 and ER98-2160-000, 1 March 2000.

Before the Federal Energy Regulatory Commission, Affidavit on behalf of ANR Pipeline Company, Docket Nos. CP00-36-000, CP00-37-000, and CP00-38-000, 28 December 1999.

Before the Federal Energy Regulatory Commission, Direct Testimony on behalf of Duke Energy South Bay, LLC, Docket Nos. ER98-496-000 and ER98-2160-000, 22 December 1999.

*Deposition testimony on behalf of Raybestos-Manhattan of Whiteley vs. Raybestos-Manhattan, County of San Francisco Superior Court Case No. 303184, November 30, 1999.

Before the Public Service Commission of Wisconsin, Rebuttal Testimony on behalf of Alliant Energy Corporation, Docket Nos. 9403-YI-100 and 6680-UM-100, 23 September 1999.

* Civil litigation testimony.

*Deposition testimony on behalf of F&M Trust of In Re: The Conservatorship of Leroy and Estelle Strader, Los Angeles County Superior Court. September 8 and 9, 1999.

Before the Public Service Commission of Wisconsin, Direct Testimony on behalf of Alliant Energy Corporation, Docket Nos. 9403-YI-100 and 6680-UM-100, 1 July 1999.

Before the Public Service Commission of the State of Missouri, Surrebuttal Testimony on behalf of Western Resources, Inc. and Kansas City Power & Light, Case No. EM-97-515, 10 June 1999.

Before the State Corporation Commission of the State of Kansas, Rebuttal Testimony on behalf of Western Resources, Inc., Docket No. 97-WSRE-676-MER, 18 March 1999.

Before the Federal Energy Regulatory Commission, Affidavit on behalf of Duke Energy South Bay LLC, Docket No. ER99-____-000, February 1999.

Before the Georgia Public Service Commission, Rebuttal Testimony on behalf of Georgia Power Company, GPSC Docket No. 9355-U, 27 October 1998.

Before the Public Service Commission of the State of Missouri, Direct Testimony on behalf of Western Resources, Inc. and Kansas City Power & Light Company, Case No. EM-97-515, Volume III, June 1998.

Before the State Corporation Commission of the State of Kansas, Direct Testimony on behalf of Western Resources, Inc., Docket No. 97-WSRE-676-MER, 17 June 1998.

Before the Georgia Public Service Commission, Direct Testimony on behalf of Georgia Power Company, GPSC Docket No. 9355-U, 3 June 1998.

Before the Federal Energy Regulatory Commission, Direct Testimony on behalf of Duke Energy, Docket No. ER98-____-000, 24 April 1998.

Before the Public Service Commission of Wisconsin, Surrebuttal Testimony on behalf of Wisconsin Electric Power Company, Docket No. 05-BE-100, __ March 1998.

Before the Public Service Commission of Wisconsin, Rebuttal Testimony on behalf of Wisconsin Electric Power Company, Docket No. 05-BE-100, 23 March 1998.

Before the Public Service Commission of Wisconsin, Testimony on behalf of Wisconsin Electric Power Company, Docket No. 05-BE-100, 9 March 1998.

Before the Pennsylvania Public Utilities Commission, Rebuttal Testimony on behalf of Pennsylvania Power Company, Docket No. R-00974149, 19 February 1998.

Before the State Corporation Commission of Kansas, Prepared Statement on behalf of Western Resources, Inc., 28 October 1997

Before the Federal Energy Regulatory Commission, Testimony on behalf of Wisconsin Energy Corporation and ESELCO, Inc., Docket No. EC98-____-000, 22 October 1997.

Before the Pennsylvania Public Utilities Commission, Direct Testimony on behalf of Pennsylvania Power Company, Docket No. R-00974149, 26 September 1997.

Before the Public Utilities Commission of the State of California, Testimony on behalf of Southern California Edison Company, Docket No. U-338-E, September 15, 1997.

*Expert Report in the Matter of Atlantic Richfield Company v. Darwin Smallwood, *et.al.*, Civil Action No. 95-Z-1767, June 16, 1997.

Before the Federal Energy Regulatory Commission, Affidavit on behalf of The Power Company of America, L.P., Docket No. ER95-111-000, November 1, 1996.

Before the Public Service Commission of Wisconsin, Rebuttal Testimony on behalf of Wisconsin Energy Corporation, Wisconsin Electric Power Company, *et.al.* (Applicants), Docket Nos. 6630-UM-100, 4220-UM-101, October 23, 1996.

Before the Public Utilities Commission of the State of California, Rebuttal Testimony on behalf of Pacific Telesis Group, No. 96-04-038, October 15, 1996.

Before the Commonwealth of Massachusetts Department of Public Utilities, Rebuttal Testimony on behalf of Boston Gas Company, Docket No. D.P.U. 96-50, Exhibit BGC-117, August 16, 1996.

Before the State Corporation Commission of the State of Kansas, Supplemental Direct Testimony on behalf of Western Resources, Inc. and Kansas Gas and Electric, Docket Nos. 193,306-U and 193,307-U, July 11, 1996.

Before the Federal Energy Regulatory Commission, Prepared Rebuttal Testimony on behalf of Koch Gateway, Docket No. RP95-362-000, June 18, 1996.

Before the Federal Energy Regulatory Commission, Rebuttal Testimony on behalf of Wisconsin Electric Power Company, Northern States Power Company (Minnesota and Wisconsin), and Cenerprise, Docket Nos. EC95-16-000, ER95-1357-000, and ER95-1358-000, May 28, 1996.

*Before the United States District Court for the Western District of Missouri, Western Division, Expert Rebuttal Affidavit on behalf of Western Resources, Inc., No. 94-0509-CV-W-1, March 8, 1996.

Before the New Mexico Public Utility Commission, Direct Testimony on behalf of Southwestern Public Service Company, Case No. _____, November 1995.

Before the State Corporation Commission of the State of Kansas, Direct Testimony on behalf of Kansas Gas and Electric Company, August 11, 1995.

Before the Federal Energy Regulatory Commission, Direct Testimony on behalf of Koch Gateway Pipeline Company, Docket No. RP-95- -000, June 28, 1995.

*Before the United States District Court for the Western District of Missouri, Western Division, Expert Affidavit on behalf of Western Resources, Inc., No. 94-0509-CV-W-1, June 15, 1995.

*Before the United States District Court for the Central District of California, Affidavit on behalf of Montrose Chemical Corporation of California, *et.al.*, No. CV90-3122-AAH (JRx), March 1, 1995.

Before the National Energy Board of Canada, Evidence in the Matter of Fort St. John and Grizzly Valley Expansion Projects, British Columbia Gas, January 1995.

Before the Federal Energy Regulatory Commission, Rebuttal Comments in the Matter of Pricing Policy for New and Existing Facilities Constructed by Interstate Natural Gas Pipelines on behalf of Cascade Natural Gas Corporation, *et.al.*, Docket No. PL94-4-000, December 5, 1994.

Before the Federal Energy Regulatory Commission, Comments Related to Pricing Policy for New and Existing Facilities Constructed by Interstate Natural Gas Pipelines on behalf of Cascade Natural Gas Corporation, LFC Gas Company, Northwest Natural Gas Company, and Washington Natural Gas Company, Docket No. PL94-4-000, November 4, 1994.

Affidavit on behalf of Barr Devlin, October 1994.

Before the Federal Energy Regulatory Commission, Comments and Responses Related to Pricing Policy for New and Existing Facilities Constructed by Interstate Natural Gas Pipelines on behalf of Cascade Natural Gas Corporation, LFC Gas Company, Northwest Natural Gas Company, and Washington Natural Gas Company, Docket No. PL94-4-000, September 26, 1994

Before the Federal Energy Regulatory Commission, Statement on behalf of Buckeye Pipe Line Company, L.P., Docket Nos. OR94-6-000 and IS87-14-000, February 22, 1994.

Before the Federal Energy Regulatory Commission, Surrebuttal Testimony on behalf of Koch Gateway Pipeline Company, Docket No. RP93-205-000, November 29, 1993

Before the Federal Energy Regulatory Commission, Direct Testimony on behalf of Koch Gateway Pipeline Company, Docket No. RP93-___-000, September 30, 1993.

Before the Indiana Utility Regulatory Commission, Direct Testimony on behalf of PSI Energy, Inc., Cause Nos. 39646, 39584-S1, June 23, 1993.

Before the Minnesota Public Utilities Commission, Rebuttal Testimony on behalf of Northern States Power Company, Docket Nos. E002/GR-92-1185, G002/GR-92-1186, March 23, 1993.

Before the State of Maine Public Utilities Commission, Direct Testimony on behalf of Central Maine Power, Docket No. 90-085-A, January 7, 1993.

Before the Pennsylvania Public Utility Commission, Rebuttal Testimony on behalf of Pennsylvania Gas and Water Company, Docket No. R-22482, March 9, 1993.

Before the Federal Energy Regulatory Commission, Affidavit regarding Order 636-A Compliance Filing Proposed Restructuring on behalf of United Gas Pipe Line Company, Docket No. RS92-26-000, October 29, 1992.

Before the National Oceanic and Atmospheric Administration, Comments on the Advance Notice of Proposed Rulemaking (57 Federal Register 8964) of Natural Resource Damage Assessment Regulations (Oil Pollution Act, Section 1006), October 1, 1992.

Before the Federal Energy Regulatory Commission, Rebuttal and Cross Answering Testimony on behalf of Exxon Pipeline Company, Docket Nos. IS92-3-000, *et.al.*, August 10, 1992.

*Before The United States District Court for the District of Utah. Testimony on behalf of Kennecott Corporation, Docket No. 86-C-902C, March 26, 1992.

Before the Arizona Corporation Commission Task Force on Externalities, Comments in Response to Shortcomings and Pitfalls in Attempts to Incorporate Environmental Externalities into Electric Utility Least-cost Planning, Docket No. U-000-92-035, March 20, 1992.

Before the Federal Energy Regulatory Commission, Rebuttal Testimony on behalf of Texas Eastern Transmission Corporation, Docket Nos. CP90-2154-000, RP85-177-008, RP88-67-039, *et.al.*, RP90--119-001, *et.al.*, RP91-4-000, RP91-119, and RP90-15-000, January 30, 1992.

*Before the American Arbitration Association, Testimony on behalf of Hard Rock Cafe International, January 22, 1992.

Before the Federal Energy Regulatory Commission, Rebuttal Testimony on behalf of Washington Gas Light Company, Docket Nos. RP90-108-000, *et.al.*, RP90-107-000, January 17, 1992.

Before the Federal Energy Regulatory Commission, Comments in Response to Notice of Proposed Rulemaking on behalf of United Gas Pipe Line Company, Docket No. RM92-11-000, October 15, 1991.

Before the Federal Energy Regulatory Commission, Direct Testimony on behalf of Washington Gas Light Company, Docket Nos. RP91-82-000, *et.al.*, August 27, 1991.

*Before the Department of Interior, Comments on Notice of Proposed Rulemaking for Natural Resource Damage Assessment Regulations, Type B Rule (43 CFR Part 11), July 12, 1991.

Before the Arizona Corporation Commission, Rejoinder Testimony on behalf of Arizona Public Service Company, Docket Nos. U-1345-90-007 and U-1345-89-162, June 18, 1991.

Before the Federal Energy Regulatory Commission, Comments submitted in Response to Notice of Public Conference and Request for Comments on Electricity Issues, Docket No. PL91-1-000, June 10, 1991.

Before the Arizona Corporation Commission, Rebuttal Testimony on behalf of Arizona Public Service Company, Phase II, Docket Nos. U-1345-90-007 and U-1345-89-162, May 3, 1991.

Before the Federal Energy Regulatory Commission, Direct Testimony on behalf of United Gas Pipe Line Company, Docket Nos. RP91-126-000, CP91-1669-000, CP91-1670-000, CP91-1671-000, CP91-1672-000, and CP91-1673-000, April 15, 1991.

*Before the Massachusetts Appellate Tax Board, Analysis of the Fair Market Value of Boston Edison's Mystic Generating Station, Prepared for Boston Edison Company, December 10, 1990.

Before the Arizona Corporation Commission, Rebuttal Testimony on behalf of Arizona Public Service Company, Docket No. U-0000-90-088, November 26, 1990.

Before the State of Maine Public Utilities Commission, Rebuttal Testimony and Exhibits on behalf of Central Maine Power, Docket No. 90-076, November 16, 1990.

Before the State Corporation Commission of Virginia, Direct Testimony on behalf of Historic Manassas, Inc., SCC Case No. PUE 890057, VEPCO Application 154, November 2, 1990.

Before the Iowa Utilities Board, Comments Prepared at the Request of Iowa Electric Light and Power Company on Iowa's Proposed Rulemaking Related to Utility Energy Efficiency Programs, Docket No. RMU90-27, October 15, 1990.

Before the Arkansas Public Service Commission, Testimony on behalf of Arkla, Inc., Docket no. 90-036-U, August 31, 1990.

Before the Federal Energy Regulatory Commission, Rebuttal Testimony on behalf of Northeast Utilities Service Company, Docket Nos. EC90-10-000, ER90-143-000, ER90-144-000, ER90-145-000 and EL90-9-000, July 20, 1990.

Before the Illinois Commerce Commission, Testimony on behalf of Commonwealth Edison, Docket No. 90-0169, July 17, 1990.

Before the Federal Energy Regulatory Commission, Rebuttal Testimony on behalf of New York State Customer Group (Niagara Mohawk Power Corporation; Rochester Gas & Electric Corporation; New York State Electric & Gas Corporation), Docket Nos. RP88-211-000, RP88-10-000, RP90-27-000, June 1, 1990.

Before the Federal Energy Regulatory Commission, Statement on behalf of Public Service Company of Indiana, Docket Nos. ER89-672-000, February 15, 1990.

Before the Federal Energy Regulatory Commission, Prepared Direct Testimony submitted on behalf of The New York State Customer Group, which includes Niagara Mohawk Power Corporation, Rochester Gas and Electric Corporation and New York State Electric & Gas Corporation, Docket Nos. RP88-211-000, RP88-10-000, RP88-215-000 and RP90-27-000, January 23, 1990.

Before the Arkansas Public Service Commission, Rebuttal Testimony on behalf of Arkansas Power & Light Company, Docket No. 89-128-U, January 12, 1990.

Before the Federal Energy Regulatory Commission, Prepared Answering Testimony Sponsored by Texas Eastern Transmission Corporation, Docket Nos. RP88-67-000 and RP88-81-000, January 10, 1990.

*Before the U.S. Department of Interior, Comments on the U.S. Department of Interior's Advanced Notice of Proposed Rulemaking re: Natural Resource Damage Assessments (43 CFR Part 11), November 13, 1989.

Before the Senate Committee on Energy and Natural Resources, Prepared Statement related to the Demand-Side Provisions of the Public Utility Regulatory Policies Act of 1978 (PURPA) Contained in Subtitle B of Title III of S-324, The National Energy Policy Act of 1989, November 7, 1989.

Before the Federal Energy Regulatory Commission, Comments on the Federal Energy Regulatory Commission's Proposed Policy Statement on Gas Inventory Charges, Docket No. PL89-10999, July 1989.

Before the Public Utilities Commission of Texas, Direct Testimony on behalf of Enron-Dominion Cogen Corporation, Docket No. 8636, June 12, 1989.

Before the Maine Public Utilities Commission, Direct Testimony on behalf of Central Maine Power Company, Docket No. 88-310, March 1, 1989.

Before the Public Utilities Commission of Ohio, Comments Submitted on behalf of Dayton Power and Light Company, In the Matter of the Revision and Promulgation of Rules for Long Term Forecast reports and Integrated Resource Plans of Electric Light Companies, Case no. 88-816-EL-OR, November 21, 1988.

Before the Federal Energy Regulatory Commission, Comments of the Energy and Environmental Policy Center, RE: Regulations Governing Independent Power Producers, Docket No. RM88-4-000, July 18, 1988.

Before the Federal Energy Regulatory Commission, Comments of the Energy and Environmental Policy Center, RE: Regulations Governing Bidding Programs, Docket No. RM88-5-000, July 18, 1988.

Before the Federal Energy Regulatory Commission, Comments of the Energy and Environmental Policy Center, Re: Administrative Determination of Full Avoided Costs, Sales of Power to Qualifying Facilities, and Interconnection Facilities, Docket No. RM88-66-000, July 18, 1988.

Before the Maine Public Utilities Commission, Testimony on behalf of Central Maine Power Company, Docket No. 88-111, June 22, 1988.

Before the Federal Energy Regulatory Commission, Comments of the Energy and Environmental Policy Center, Re: Brokering of Interstate Natural Gas Pipeline Capacity, Docket No. RM88-13-000, June 17, 1988.

Before the Federal Energy Regulatory Commission, Comments of the Energy and Environmental Policy Center, Re: Administrative Determination of Full Avoided Costs, Sales of Power to Qualifying Facilities, and Interconnection Facilities, Docket No. RM88-6-000, June 16, 1988.

Before the Federal Energy Regulatory Commission, Rebuttal Testimony on behalf of Public Service Company of New Mexico, April 12, 1988.

Before the Federal Energy Regulatory Commission, Oral Comments, Re: Order No. 500, Docket No. RM87-34-000 *et.al.*, March, 1988.

Before the Federal Energy Regulatory Commission, Statement on behalf of Transwestern Pipeline Company, Docket No. CP88-143-000, March, 1988.

Before the Ontario Energy Board, Testimony on behalf of ICG Utilities (Ontario) LTD, The 1987 Amended Gas Pricing Agreement, E.B.R.O. 411-III *et.al.*, November, 1987.

Before the New Hampshire Public Utility Commission, Technical Statement on behalf of Public Service Company of New Hampshire, Filing of special Contract No. NHPUC-54 Between Nashua Corporation and Public Service Company of New Hampshire, October 30, 1987.

Before the Federal Energy Regulatory Commission, Statement on behalf of Arkla, Inc., included as an exhibit in Arkla, Inc.'s Comments on Notice of Proposed Rulemaking, Docket No. RM87-34-000, October 13, 1987.

Before the Pennsylvania Public Utility Commission, Rebuttal Testimony on behalf of West Penn Power Company, Docket No. R-850220, September 28, 1987.

Before the Public Service Commission of New York, Prepared Rebuttal Testimony on behalf of National Fuel Gas Distribution Company, September 14, 1987.

Before the New Hampshire Public Utilities Commission, Prefiled Direct Testimony on behalf of Public Service Company of New Hampshire, Docket No. DR87-151, August 28, 1987.

Before the Pennsylvania Public Utility Commission, Direct Testimony on behalf of West Penn Power Company, Docket No. R-850220, Reconsideration, July 27, 1987.

Before the Commonwealth of Massachusetts Department of Public Utilities, Statement on behalf of Boston Edison Company, Docket Nos. 86-36, June 12, 1987.

Before the State of Illinois Commerce Commission, Rebuttal Testimony on behalf of Commonwealth Edison Company, Docket Nos. 87-0043, 87-0044, 8700096, May 4, 1987.

Before the Federal Energy Regulatory Commission, Comments on behalf of Tennessee Gas Pipeline Company, In the Matter of Iroquois Gas Transmission System, Docket No. CP86-523-001, March 9, 1987.

Before the New Hampshire Public Utility Commission, Direct Testimony on behalf of Public Service Company of New Hampshire, NHPUC Docket No. DR86-122, March 3, 1987.

Before the Federal Energy Regulatory Commission, Comments on behalf of Transwestern Pipeline Company, In the Matter of Notice of Inquiry into alleged anticompetitive Practices Related to Marketing Affiliates of Interstate Pipelines, Docket No. RM87-5-000, December 29, 1986.

Before the Maine Public Utilities Commission, Testimony on behalf of Central Maine Power Company, Docket No. 86-215, Re: Proposed Amendments to Chapter 36, December 18, 1986.

Before the Utah Public Service Commission, Surrebuttal Testimony on behalf of NUCOR Steel Corporation, In the Matter of the Investigation of Cost of Service Issues for Utah Power & Light Company, Case No. 85-035-06, December 5, 1986.

Before the Public Service Commission of New York, Prepared Direct Testimony on behalf of National Fuel Gas Distribution Corporation, Case Nos. 38947 and 28954, November 21, 1986.

Before the Federal Energy Regulatory Commission, Prepared Rebuttal Testimony on behalf of Transwestern Pipeline Company, Docket No. RP86-126, November 13, 1986.

Before the Federal Energy Regulatory Commission, Prepared Cross-Answering Testimony on behalf of Members of the New England Customer Group, Docket No. RP86-119, October 28, 1986.

Before the Federal Energy Regulatory Commission, Prepared Testimony on behalf of Members of the New England Customer Group, Docket No. RP86-119, October 14, 1986.

Before the Utah Public Service Commission, Rebuttal Testimony on behalf of NUCOR Steel Corporation, Docket No. 85-035-04, September 30, 1986.

Before the State of New Jersey Department of Energy, Board of Public Utilities, Rebuttal Testimony on behalf of Elizabethtown Gas Company, September, 1986.

Before the State of Illinois Commerce Commission, Testimony on behalf of Commonwealth Edison Company, Docket No. 86-0249, August 25, 1986.

Before the Public Utilities Commission of Ohio, Rebuttal Testimony on behalf of Ohio Power Company, Case No. 85-726-EL-AIR, April, 1986.

Before the State of New Jersey Department on Energy, Board of Public Utilities, Testimony on behalf of Elizabethtown Gas Company, Docket No. 8112-1039, March, 1986.

Before the Maine Public Utilities Commission, Rebuttal Testimony on behalf of Central Maine Power Company, Docket No. 85-132, March, 1986.

Before the Federal Energy Regulatory Commission, Comments on behalf of National Economic Research Associates, Inc., Notice of Inquiry Re: Regulation of Electricity Sales-for-Resale and Transmission Service, 18 C.F.R. Parts 35 and 290, Issued June 28, 1985, Docket No. RM85-17-000 (Phase II), January 23, 1986.

Before the Alaska Public Utilities Commission, Rebuttal Testimony on behalf of Seagull, Enstar Corporation, and Enstar Natural Gas Company, U-84-67, December, 1985.

Before the Virginia State Corporation Commission, Rebuttal Testimony on behalf of Dominion Resources, Inc. and Virginia Electric and Power Company, Case No. PUE 830060, November 26, 1985.

Before the Federal Energy Regulatory Commission, Comments on behalf of National Economic Research Associates, Inc., Notice Requesting Supplemental Comments Re: Regulation of Natural Gas Pipeline After Partial Wellhead Decontrol, Docket No. RM85-1-000 (Part D), November 18, 1985.

Before the Public Service Commission of Wisconsin, Rebuttal Testimony on behalf of Eastern Wisconsin Utilities, Docket No. 05-EP-4, November, 1985.

Before the Federal Energy Regulatory Commission, Oral Comments on behalf of National Economic Research Associates, Inc., Notice of Inquiry Re: Regulation of Electricity Sales-for-Resale and Transmission Services (Phase I), Docket No. RM85-17-000, August 9, 1985.

Before the Maine Public Utilities Commission, Direct Testimony on behalf of Central Maine Power Company, Docket No. 85-132, August, 1985.

Before the Public Utilities Commission of Ohio, Direct Testimony on behalf of Ohio Power Company, Docket No. 85-726-EL-AIR, July, 1985.

Before the House Subcommittee on Energy Conservation and Power of the Committee on Energy and Commerce, Comments on Hydroelectric Relicensing, June 5, 1985.

Before the Public Service Commission of Wisconsin, Direct Testimony on behalf of Wisconsin Gas Company, Docket Nos. 05-UI-18 and 6650-DR-2, June, 1985.

Before the Ontario Energy Board, Testimony on behalf of Unicorp of Canada Corporation, In the Matter of Union Enterprises Ltd. and Unicorp of Canada Utilities Corporation, E.B.R.L.G. 28, Exhibit 10.4, April, 1985.

Before the Utah Public Utilities Commission, Testimony on behalf of NUCOR Steel, Docket No. 84-035-01 (Rate Spread Phase), January, 1985.

Before the Nuclear Regulatory Commission, Affidavit of Charles J. Cicchetti on behalf of Alabama Power Company, October, 1984.

Before the Federal Energy Regulatory Commission, Prepared Direct Testimony on behalf of Consolidated Gas Supply Corporation, Application of

Consolidated Gas Supply Corporation for Rate Relief, Docket No. RP82-115,
April, 1984.

Before the Public Utilities Commission of Ohio, Rebuttal Testimony on behalf of East Ohio Gas Company, *et.al.*, In the Matter of the Investigation into Long Term Solutions Concerning Disconnection of Gas and Electric Service During Winter Emergencies, Case No. 83-303-GE-COI, March, 1984.

Before the Federal Energy Regulatory Commission, Testimony on behalf of Florida Power and Light Company, Docket Nos. ER82-793 and EL83-24, February, 1984.

Before the Public Utilities Commission of Ohio, Direct Testimony on behalf of East Ohio Gas Company, *et.al.*, In the Matter of the Investigation into Long Term Solutions Concerning Disconnection of Gas and Electric Service During Winter Emergencies, Case No. 83-303-COI, January, 1984.

Before the Federal Energy Regulatory Commission, Supplemental Direct Testimony on behalf of Consolidated Gas Supply Corporation, Docket No. RP81-80, September, 1983.

Before the Arkansas Public Service Commission, Direct Testimony on behalf of Arkansas Louisiana Gas Company, Docket No. 83-161-U, August, 1983.

Before the New Mexico Public Service Commission, Testimony on behalf of Public Service Company of New Mexico, Case No. 1811, July 17, 1983.

Before the Federal Communications Commission, Rebuttal Case Testimony on behalf of Interstate Mobile Phone Company, in American Mobile Commission of Washington and Oregon, CC Docket No. 83-445, June, 1983.

Before the Public Service Commission of Indiana, Prepared Rebuttal Testimony on behalf of Northern Indiana Public Service Company, Case No. 37023, May, 1983.

Before the Public Service Commission of New York, Testimony on behalf of the Industrial Energy Users Association, in Procedure to Inquire into the Benefits to Ratepayers and Utilities from Implementation of Conservation Programs that will Reduce Electric Use, Case No. 28223, May, 1983.

Before the Public Utilities Commission of Maryland, Testimony on behalf of the Mid-Atlantic Petroleum Distributors Association, the Oil Heat Association of Washington, and Steuart Petroleum Company, Case No. 7649, May, 1983.

Before the Connecticut Department of Public Utility Control, Testimony on behalf of the Independent Petroleum Association, Docket No. 83-01-01, April, 1983.

Before the State Corporation Commission of Virginia, Testimony on behalf of the Mid-Atlantic Petroleum Distributors Association, the Oil Heat Association of

Washington, and Steuart Petroleum Company, Case No. PUE 830008, March, 1983.

Before the Federal Energy Regulatory Commission, Rebuttal Testimony on behalf of Arkansas Louisiana Gas Company, Docket Nos. RP82-75-000 *et.al.*, February 1983.

Before the Federal Communications Commission, Rebuttal Case Testimony on behalf of Interstate Mobile Phone Company, in American Mobile Communications of Washington and Oregon, CC Docket No. 83-3, February, 1983.

*Before the Department of Health and Social Services, Testimony on behalf of Madison General Hospital, In Application for Certificate of Need for Open Heart Surgery, CON 82-026, November, 1982.

Before the Federal Energy Regulatory Commission, Prepared Testimony on behalf of Consolidated Gas Supply Corporation, in Application of Consolidated Gas Supply Corporation for Rate Relief, Docket No. RP82-115, July, 1982.

Before the Federal Energy Regulatory Commission, Rebuttal Testimony on behalf of Consolidated Gas Supply Corporation, Docket No. RP81-80, April, 1982.

Before the Florida Public Service Commission, Testimony on behalf of Florida Power & Light Company, Docket No. 820097-EU, April, 1982.

Before the Massachusetts Department of Public Utilities, Direct Testimony on behalf of Boston Edison Company, Docket No. 906, January, 1982.

Before the New Mexico Public Service Commission, Testimony on behalf of Public Service Company of New Mexico, In the Matter of New Mexico Public Service Commission Authorization for Southern Union Company to Transfer Certain Property to Western Gas Company, NMPSC Case 1689, January, 1982.

Before the Senate Committee on Energy and Natural Resources, Prepared Statement related to the Implementation of Title I of the Natural Gas Policy Act of 1978, November 5 and 6, 1981.

Before the Connecticut Department of Public Utility Control Authority, Testimony on behalf of Southern Connecticut Gas Works, DPUC Investigation Into Utility Financing of Conservation and Efficiency Improvements, Docket No. 810707, August, 1981.

Before the Connecticut Public Utility Control Authority, Prepared Testimony on behalf of Connecticut Natural Gas Corporation, July, 1981.

Before the Philadelphia Gas Commission, Testimony on behalf of Philadelphia Gas Works, in PGW Rate Investigations, July, 1981.

Before the California Public Utility Commission, Prepared Testimony on behalf of Pacific Gas and Electric Company, In Application of Pacific Gas and Electric Company for Rate Relief, Application No. 68153, June, 1981.

Before the Federal Energy Regulatory Commission, Prepared Testimony on behalf of Consolidated Gas Supply Corporation, Docket No. RP81-80, June, 1981.

Before the Tennessee Valley Authority Board, Comments on Tennessee Valley Authority Proposed Determinations on Ratemaking Standards, Contract TV-53565A, October, 1980.

*Before the Postal Rate Commission, Testimony on behalf of the National Association of Greeting Card Publishers, Docket No. R80-1, August 13, 1980.

Before the Federal Energy Regulatory Commission, Testimony on behalf of Pennsylvania Power and Light Company, Split-Savings and Emergency Tariffs, August, 1980.

Final Report of Consultants' Activities Submitted to Tennessee Valley Authority Division of Energy Conservation and Rates, in Consideration of Ratemaking Standards Pursuant to the Public Utility Regulatory Policy Act of 1978 (P.L. 95-617) and One Additional Standard, Contract No. TV-53575A, May, 1980.

Before the Utah Public Service Commission, Direct Testimony on behalf of NUCOR Steel, PSCU Case No. 83-035-06, 1980.

Examples of Regulatory Plans

Jurisdiction	Rate Freeze/Cap	Sharing of Net Savings Shareholder/Customer	Costs	Merging Companies
Arkansas	5 years	New rate case in Year 6	50% of non-recovered A.P. included in rate base over 35 years	Utilicorp Empire
California	5 years	N/A	Amortized over 5 years	Sierra Pacific Washington Water
Colorado	30 month	Rate case after 2 years extend ESM to 2006	---	PS Colorado NSP
Connecticut	3 years	50/50 on earnings exceeding authorized ROE	---	Consolidated Edison Northeast Utilities
D.C.	4 years	25/75	---	Baltimore Gas & Electric Potomac Energy
Idaho	5 years	50/50 over authorized ROE	\$47 million amortized over 5 years	Washington Water Sierra Pacific
Indiana	Base rates set for 8 years based on estimated synergies	45/55 of estimated synergies	Amortized over 8 years	AEP CSW
Kansas	4 years	---	\$179.5 million straight line over 35 years	Western Resources KCP&L
Kentucky	New rate case in 5 years	50/50	\$77 million amortized over 5 years	LGE KU

Jurisdiction	Rate Freeze/Cap	Sharing of Net Savings Shareholder/Customer	Costs	Merging Companies
Louisiana	5 years	60/40 on O&M savings		Entergy Gulf States
Michigan	4 years (after initial 2% rate reduction)	Company keeps all	---	Wisconsin Electric NSP
Nevada	3 years	New rate case after 3 years	Can recoup over 3 year rate freeze	Nevada Power Sierra Pacific
New Hampshire	33 month followed by \$75 million rate decrease over 7 years	25/75	Subject to prudence review	PSNH ConEd
New Mexico	54 months	50/50	N/A	NCE NSP
North Carolina	5 years	\$2 million rate reduction over 2 years	\$495 million out of utility accounts	SCANA Public Service Company of North Carolina
Pennsylvania	6-1/2 years (3 year extension of current rate freeze)	N/A	\$1 billion amortized over 6-1/2 years	GPU First Energy
Pennsylvania	Cap extended for total of 7-1/2 years	50/50 over authorized ROE	\$160 million amortized over 7-1/2 years	Allegheny Duquesne
Washington	Gas rates frozen for 5 years, electric rates increased 4-6% over 4 years after 5.7% initial decrease	---	---	Puget Sound Washington Natural Gas

Summary of Earnings Sharing Mechanisms in Approved PBR Plans

Jurisdiction	Company	Neutral Band			Customer Share up to Basis Points Above Target ROE ²																
		Above Target	Below Target	Spread	25	50	75	100	125	150	175	200	225	250	275	300	350	400	450	500	500 +
Plans with ESMS																					
Energy																					
CA	San Diego Gas & Electric	100	150	250	0%	0%	0%	0%	75%	75%	75%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%
CA	Southern California Edison	50	50	100	0%	0%	75%	75%	75%	50%	50%	25%	25%	25%	25%	0%	0%	0%	0%	0%	0%
CO	Public Service of Colorado	0	infinite	infinite	65%	65%	65%	65%	50%	50%	50%	50%	50%	50%	50%	50%	35%	35%	35%	100%	100%
CT	United Illuminating ¹	0	150	infinite	33%	33%	33%	33%	33%	33%	33%	33%	33%	33%	33%	33%	33%	33%	33%	33%	33%
FL	Tampa Electric	25	infinite	infinite	0%	60%	60%	60%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
GA	Georgia Power	125	125	250	0%	0%	0%	0%	0%	66%	66%	66%	66%	66%	66%	66%	66%	66%	66%	66%	66%
ME	Central Maine Power	350	350	700	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	50%	50%	50%	50%
MO	Union Electric ³	130	130	260	0%	0%	0%	0%	0%	50%	50%	50%	50%	50%	10%	10%	10%	10%	10%	100%	100%
OR	Pacificorp	250	250	500	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	25%	25%	25%	50%	50%	50%
VA	Appalachian Power	0	infinite	infinite	66%	66%	66%	66%	66%	66%	66%	66%	66%	66%	66%	66%	66%	66%	66%	66%	66%
VA	Virginia Electric & Power ¹	0	infinite	infinite	66%	66%	66%	66%	66%	66%	66%	66%	66%	66%	66%	100%	100%	100%	100%	100%	100%
CA	Southern California Gas	25	175	infinite	0%	75%	65%	55%	45%	35%	25%	25%	15%	15%	5%	5%	0%	0%	0%	0%	0%
MA	Boston Gas	400	400	800	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	75%	75%
LA	Central Louisiana Electric	0	infinite	infinite	50%	50%	50%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
MI	SEMPCO Energy Gas	200	infinite	infinite	0%	0%	0%	0%	0%	0%	0%	0%	50%	50%	50%	50%	50%	50%	50%	50%	50%
MI	Michigan Consolidated Gas	200	infinite	infinite	0%	0%	0%	0%	0%	0%	0%	0%	50%	50%	50%	50%	50%	50%	50%	50%	50%
ME	Bangor Gas Company	335	infinite	infinite	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	50%	50%	50%	50%	50%
LA	Entex	42	42	84	0%	50%	50%	50%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Telecommunications																					
KY	Cincinnati Bell	50	infinite	infinite	0%	0%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%
FL	Southern Bell	80	70	150	0%	0%	0%	60%	60%	60%	60%	60%	60%	60%	60%	60%	100%	100%	100%	100%	100%
NJ	Bell Atlantic	100	100	200	0%	0%	0%	0%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%
	Average of Active Plans with Known or Estimatable Target ROE	117	na	na	13%	22%	28%	32%	41%	45%	45%	42%	47%	47%	47%	46%	49%	53%	53%	64%	64%
	Average of 5 Active Plans with Bounded Neutral Zone	163	167	329	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na
Kansas Proposals																					
	Commission Staff	75	75	150	0%	0%	0%	40%	40%	40%	40%	60%	60%	60%	60%	60%	80%	80%	80%	80%	80%
	Joint Applicants - Grid 1	125	125	250	0%	0%	0%	0%	0%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%
	Joint Applicants - Grid 2	125	125	250	0%	0%	0%	0%	0%	50%	50%	40%	40%	40%	40%	40%	40%	40%	40%	40%	40%
	Joint Applicants - Grid 3	125	125	250	0%	0%	0%	0%	0%	50%	50%	40%	40%	40%	30%	30%	30%	30%	30%	30%	30%
	Joint Applicants - Grid 4	125	125	250	0%	0%	0%	0%	0%	50%	50%	40%	40%	30%	30%	20%	20%	20%	20%	20%	20%

¹ Each of these plans has some amount of extra earnings going toward a writedown of regulatory assets or stranded cost.

² Italics indicates that the endpoints of the sharing region were known but the intermediate points were imputed.

³ The target ROE was assumed to be at the middle of the sharing region

**Merger Benefits Analysis
Comparison of Claimed or Estimated
Savings to Combined Operating Statistics**

Exhibit CJC-4

Merger	Annual Savings as Percent of:					Ten Year Savings as Percent of:		
	Average Annual Savings (Thousands)	Per 1000kWh Sold	Annual Operating Expenses	Annual Revenue	Per Customer	Total Assets	Market Capitalization	Book Capitalization
Cleveland Illuminating Toledo Edison	\$79,100	\$2.19	2.8%	2.4%	\$46.53	8.7%	21.7%	46.5%
Southern Savannah	\$75,000	\$0.60	1.2%	1.0%	\$24.19	3.6%	11.9%	10.6%
PacifiCorp Utah P&L	\$101,000	\$2.35	2.3%	3.4%	\$74.14	11.2%	31.6%	33.7%
SDG&E SCE	\$170,000	\$1.58	2.7%	2.3%	\$30.91	9.1%	19.8%	22.7%
KGE KCP&L	\$17,000	\$0.89	1.9%	1.4%	\$26.15	3.3%	11.4%	11.7%
Iowa RES Midwest	\$50,000	\$4.76	6.3%	5.0%	\$66.67	21.7%	55.6%	76.9%
NEU PSNH	\$90,000	\$3.13	6.7%	5.0%	\$90.00	11.5%	38.3%	32.1%
KP&L KG&E	\$28,000	\$1.56	2.0%	1.8%	\$18.06	6.4%	17.5%	20.0%
Iowa Southern Iowa Electric	\$16,000	\$2.13	3.2%	3.3%	\$29.09	12.3%	25.0%	33.7%
Gulf States Entergy	\$169,500	\$1.84	3.9%	3.0%	\$70.63	8.1%	24.6%	24.2%
CG&E PSI	\$150,000	\$3.13	6.8%	5.8%	\$93.75	22.4%	48.4%	68.2%
PSI IPALCO	\$150,000	\$3.85	1.1%	0.8%	\$150.00	37.5%	55.6%	107.1%
Central Southwest El Paso Electric	\$38,500	\$0.64	1.2%	1.0%	\$21.39	3.4%	6.2%	14.3%
Washington Water Sierra Pacific	\$45,000	\$2.81	5.0%	4.1%	\$56.25	13.20%	34.6%	40.9%
Iowa Illinois G&E Midwest Resources	\$16,000	\$2.13	3.2%	3.3%	\$29.09	12.30%	25.0%	33.7%

Merger	Annual Savings as Percent of:					Ten Year Savings as Percent of:		
	Average Annual Savings (Thousands)	Per 1000kWh Sold	Annual Operating Expenses	Annual Revenue	Per Customer	Total Assets	Market Capitalization	Book Capitalization
Union Electric CIPSCO	\$57,000	\$1.43	2.5%	2.0%	\$35.63	6.8%	12.4%	19.7%
WPL IES Interstate	\$75,000	\$2.78	4.4%	4.0%	\$62.50	17.9%	41.7%	53.6%
Northern States Power Wisconsin Energy	\$200,000	\$3.45	5.4%	4.8%	\$64.51	20.0%	33.3%	55.6%
Baltimore Gas Potomac Electric	\$130,000	\$2.20	3.4%	2.8%	\$54.17	8.6%	20.0%	29.6%
PECO PPL	\$200,000	\$2.33	4.0%	2.9%	\$64.52	8.3%	22.0%	29.4%
SPS PSCo	\$77,000	\$1.75	3.1%	2.8%	\$32.08	12.8%	24.1%	40.5%
KCP&L Utilicorp	\$63,600	\$2.36	0.7%	0.7%	\$37.41	7.6%	20.5%	30.3%
Western Resources KCP&L	\$95,000	\$2.38	3.7%	3.3%	\$95.00	8.7%	21.6%	33.9%
Centerior Ohio Edison	\$100,000	\$1.54	2.6%	2.0%	\$47.62	5.3%	22.7%	22.2%
Atlantic Energy Delmarva	\$50,000	\$2.36	2.9%	2.4%	\$50.00	8.8%	22.7%	28.9%
DQE Allegheny	\$100,000	\$1.32	3.3%	2.9%	\$50.00	9.0%	17.2%	27.8%
LG&E KU	\$76,000	\$2.33	1.9%	1.8%	\$71.02	16.2%	27.1%	52.2%
AEP CSW	\$200,000	\$0.98	2.2%	1.8%	\$43.48	6.9%	13.3%	24.4%
Boston Edison Commonwealth Energy	\$50,000	\$2.06	2.2%	1.8%	\$39.78	9.8%	27.7%	35.3%
Nevada Power Sierra Pacific	\$50,000	\$2.34	4.2%	3.3%	\$55.56	11.9%	22.7%	33.3%
ConEd Orange & Rockland	\$46,800	\$0.87	0.7%	0.6%	\$10.64	3.0%	3.9%	7.3%

Merger	Annual Savings as Percent of:					Ten Year Savings as Percent of:		
	Average Annual Savings (Thousands)	Per 1000kWh Sold	Annual Operating Expenses	Annual Revenue	Per Customer	Total Assets	Market Capitalization	Book Capitalization
ConEd NEU	\$150,000	\$1.64	1.6%	1.3%	\$26.32	6.1%	11.5%	18.8%
Sierra Pacific Portland Gen	\$42,000	\$1.56	3.0%	2.4%	\$38.18	7.8%	18.3%	26.3%
PECO Unicom	\$111,000	\$0.64	1.0%	0.9%	\$20.56	2.9%	7.6%	13.9%
NCE NSP	\$110,000	\$1.17	2.0%	1.7%	\$23.91	7.3%	11.3%	21.6%
FPL Entergy	\$150,000	\$0.78	1.1%	1.0%	\$23.81	4.1%	9.4%	12.5%
First Energy GPU	\$150,000	\$1.25	1.7%	1.4%	\$37.50	3.8%	13.6%	16.7%
RGS Energy East	\$50,000	\$1.52	1.7%	1.4%	\$42.55	7.9%	13.9%	25.0%
High	\$200,000	\$4.76	6.8%	5.8%	\$150.00	37.5%	55.6%	107.1%
Low	\$16,000	\$0.60	0.7%	0.6%	\$10.64	2.9%	3.9%	7.3%
Mean	\$92,855	\$1.96	2.9%	2.5%	\$48.78	10.2%	22.8%	32.5%

CPL / FLA Progress

	kWh	Operating Expenses	Revenue	Customers
CPL	55,000,000	2,500,000,000	3,100,000,000	1,200,000
FLA Progress	37,000,000	3,100,000,000	3,600,000,000	1,300,000
Total	92,000,000	5,600,000,000	6,700,000,000	2,500,000

	Assets	Market Capitalization	Book Capitalization
CPL	8,300,000,000	6,700,000,000	2,900,000,000
FLA Progress	6,100,000,000	4,100,000,000	1,900,000,000
Total	14,400,000,000	10,800,000,000	4,800,000,000

1) kWh:	175,000,000	/	92,000,000	=	\$ 1.90
2) Exp:	175,000,000	/	5,600,000,000	=	3.13%
3) Rev:	175,000,000	/	6,700,000,000	=	2.61%
4) Cust:	175,000,000	/	2,500,000	=	\$ 70.00
5) Assets:	1,750,000,000	/	14,400,000,000	=	12.15%
6) Mkt:	1,750,000,000	/	10,800,000,000	=	16.20%
7) Book:	1,750,000,000	/	4,800,000,000	=	36.46%
1) kWh:	180,320,000	/	92,000,000	=	\$ 1.96
2) Exp:	162,400,000	/	5,600,000,000	=	2.90%
3) Rev:	167,500,000	/	6,700,000,000	=	2.50%
4) Cust:	121,950,000	/	2,500,000	=	\$ 48.78
5) Assets:	142,800,000	/	14,000,000,000	=	10.20%
6) Mkt:	246,240,000	/	10,800,000,000	=	22.80%
7) Book:	156,000,000	/	4,800,000,000	=	32.50%

Average Annual: \$ 168,172,857

Total Ten Years: \$ 1,681,728,571

Exhibit CJC-6

MERGER	KWH	ANNEXP	TSVNGS	YEAR	Forecasted Savings Over 10 Years
1 TOLEDO/CLEVE	2480000	135000000	90000000	85	\$837,986,903.00
2 SOUTHERN/SAV	12500000	610000000	75000000	87	\$2,459,969,280.00
3 UTAH/PACIFCORP	4300000	240000000	101000000	87	\$1,080,693,650.00
4 SDGE/SCE	7800000	610000000	170000000	88	\$1,571,329,110.00
5 KGE/KCP&L	1920000	90000000	17000000	90	\$610,675,962.00
6 IOWA/MIDWEST	1050000	80000000	50000000	90	\$454,660,645.00
7 NEU/PSNH	3600000	280000000	79100000	90	\$855,485,000.00
8 KP&L/KGE	1800000	140000000	28000000	90	\$572,161,000.00
9 IOWA SOUTH/IOWA ELECT	690000	54000000	16000000	91	\$369,405,571.00
10 GULF STATES/ENTERGY	9140000	440000000	169500000	92	\$1,761,242,434.00
11 PSI/CGE	4800000	230000000	150000000	92	\$1,035,923,070.00
12 PSI/IPALCO	3800000	140000000	150000000	93	\$854,635,100.00
13 CSW/ELPASO	6000000	320000000	38500000	93	\$1,197,979,660.00
14 SIERRA PAC/WASH WATER	1600000	90000000	45000000	94	\$440,359,530.00
15 IOWA ILL/MIDWEST RES	1870000	150000000	50000000	94	\$469,957,437.00
16 CIPSCO/UNION ELECTRIC	4000000	230000000	57000000	95	\$805,632,890.00
17 WPL/IES/INTERSTATE	2640000	170000000	75000000	95	\$576,423,174.00
18 NSP/WEC	6700000	370000000	200000000	95	\$1,253,773,980.00
19 BALT GAS/POTOMAC	5900000	380000000	130000000	95	\$1,103,962,030.00
20 PECO/PPL	8600000	500000000	200000000	95	\$1,558,718,860.00
21 SPS/PSCO	4400000	250000000	77000000	95	\$872,269,190.00
22 KCPL/UTILICORP	2700000	330000000	63600000	96	\$506,556,360.00
23 WESTERN/KCPL	4000000	260000000	95000000	96	\$767,780,580.00
24 CENTERIOR/OHIO ED	6200000	380000000	100000000	96	\$1,130,972,360.00
25 ATLANTIC/DELMARVA	2040000	160000000	50000000	96	\$441,924,284.00
26 DQE/ALLEGHENY	7570000	300000000	100000000	97	\$1,380,394,857.00
27 LGE/KU	3260000	400000000	76000000	97	\$558,025,426.00
28 AEP/CSW	19500000	920000000	200000000	97	\$3,360,049,010.00
29 BOSTON ED/COMMONWEAL	2600000	250000000	50000000	98	\$458,848,910.00
30 NEV PWR/SIERRA PAC	2230000	120000000	50000000	98	\$434,093,083.00
31 CON ED/ORANGE & ROCK	5400000	660000000	46800000	98	\$835,990,520.00
32 CON ED/NEU	9100000	950000000	150000000	98	\$1,417,643,660.00
33 SIERRA PAC/PORTLAND	2700000	140000000	42000000	99	\$485,619,790.00
34 PECO/UNICOM	17300000	1030000000	111000000	99	\$2,864,918,820.00
35 NCE/NSP	9400000	550000000	110000000	99	\$1,576,968,790.00
36 FPL/ENTERGY	19300000	1400000000	150000000	99	\$3,108,787,830.00
37 FIRST ENERGY/GPU	12000000	900000000	150000000	0	\$1,909,402,900.00
38 ENERGY EAST/RGS	3300000	300000000	50000000	1	\$486,714,530.00
A CPL/FLORIDA PROG	9200000	560000000	100000000	99	\$1,537,034,900.00

Model Specification: $TSVNGS = \beta_0 + \beta_1 KWH + \beta_2 ANNEXP + \beta_3 YEAR$ (model excludes KWH outliers)

<u>Order</u>	<u>Target / Acquirer</u>	<u>Announcement Date</u>
1	Toledo Edison / Cleveland Electric	6/25/1985
2	Savannah / Southern	11/2/1987
3	Utah Power and Light / PacifiCorp	8/13/1987
4	San Diego Gas & Electric / Southern California Edison	7/26/1988
5	Iowa Resources / Midwest Energy	3/16/1990
6	Kansas Gas & Electric / Kansas City Power and Light	7/23/1990
7	Kansas Gas & Electric / Kansas Power & Light	10/29/1990
8	Iowa Southern / IE Industries	2/28/1991
9	Gulf States / Entergy	6/8/1992
10	PSI / Cincinnati Gas & Electric	12/14/1992
11	EI Paso Electric / Central Southwest	5/5/1993
12	PSI / IPALCO	3/15/1993
13	Iowa-Illinois Gas & Electric / Midwest Resources	7/27/1994
14	Sierra Pacific / Washington Water Power	6/29/1994
15	CIPSCO / Union Electric	8/14/1995
16	IES / WPL	1/1/1995
17	Interstate / WPL	1/1/1995
18	Northern States Power / Wisconsin Energy	5/1/1995
19	Potomac / Baltimore Gas & Electric	9/25/1995
20	PP&L Resources / PECO	8/14/1995
21	Southwestern Public Service / PS of Colorado	8/23/1995
22	Washington Energy / Puget Sound Power & Light	10/18/1995
23	Centerior Energy / Ohio Edison	5/31/1996
24	Enserch / Texas Utilities	4/15/1996
25	Kansas City Power and Light / Utilicorp	1/22/1996
26	Pacific Enterprises / Enova	10/15/1996
27	Sierra Pacific / Nevada Power Co.	4/30/1998
28	Commonwealth Energy / Boston Edison	12/7/1998
29	DQE / Allegheny	4/7/1997
30	KU / LG&E	5/21/1997
31	Central Southwest / American Electric Power	12/22/1997
32	Atlantic Energy / Delmarva Power & Light	8/12/1996
33	Consolidated Natural Gas / Dominion Resources	2/22/1999
34	ESELCO / WEC	3/25/1997
35	Upper Peninsula Power Co.(UPPCO) / WPS	7/7/1997
36	Kansas City Power and Light / Western Resources	4/13/1996
37	Orange & Rockland / Consolidated Edison	5/11/1998
38	Northern States Power / New Century Energies	3/25/1999
39	Columbia Energy Group / Nisource	6/7/1999
40	Indiana Energy / SIGCORP	6/14/1999
41	Illinova / Dynegy*	6/14/1999
42	Yankee Energy System / Northeast Utilities	6/15/1999
43	WICOR / Wisconsin Energy Corp	6/28/1999
44	Florida Progress Corp / Carolina P&L	8/23/1999
45	PECO / Unicom	9/23/1999
46	MCN Energy Grp / DTE Energy Co	10/5/1999
47	Northeast Utilities / Consolidated Edison	10/13/1999
48	Entergy / FPL	7/31/2000
49	GPU / First Energy	8/8/2000
50	RGS Energy Grp / Energy East	2/20/2001

* Not used in the regression analysis.

List of Variables

Variable	Variable
Symbol	Definition
AASSCUST	Acquiror Assets per Customer
AASSETS	Acquiror Assets
ABETA	Acquiror Beta Statistic
ABOOK	Acquiror Book Value
ACQ_PREM	Acquisition Premium, Day Ahead
ACQPREMM	Acquisition Premium, Thirty Days Ahead
ACUST	Acquiror Number of Customers
ADIVPO	Acquiror Dividend Payout Ratio for the
ADIVYLD	Acquiror Dividend Yield
AEPS	Acquiror Earnings per Share
AEPSGR	Acquiror EPS Growth (1+%)
AEPSP	Acquiror Earnings per Share - Prev. yr
AEXP	Acquiror Total Operating Expenses
AEXPKWH	Acquiror Expenses per kWh
AKCOST	Acquiror Cost of Capital
AKWH	Acquiror kWh Sales
AMARBK	Acquiror Market to Book Ratio
AMARKET	Acquiror Market Value
APE	Acquiror PE Ratio
APR	Acquiror Stock Price
AREV	Acquiror Revenue
AREVKWH	Acquiror Revenue per kWh
CASSETS	Combined Company Assets
CBOOK	Combined Company Book Value
CCOST	Total Cost of the Merger
CCUST	Combined Number of Customers
CEXP	Combined Total Operating Expenses
CKWH	Combined kWh Sales
CMARKBK	Combined Market to Book Ratio
CMARKET	Combined Market Value
CONTROL	Control Premium Paid to Target
CREV	Combined Revenue
CSAVING	Predicted Savings for the Merger
DIVRATIO	Ratio of Targ Div Yield to Acq Div Yld
DJIA	Dow Jones Industrial Average
DJUI	Dow Jones Utilities Index
EPS_EXCH	Ratio of T & A EPS*EPS Growth
FIN_EXCH	EPS_EXCH over Stock Price Ratio
GAS	Target is a Gas Company
HOSTILE	Merger is a Hostile Takeover
NOTRBLE	0=Troubled, 1=Not Troubled
NOTRBLE2	1=Troubled, 2=Not Troubled
ORDER	Observation Number
RATES	Ratio of Targ Rev/kWh to Acq Rev/kWh
RSKFREE	Risk Free Rate - 30 Year Government Bond
RSKMKT	Market Risk - NYSE Composite Index
SAVASS	Ratio of Combined Sav to Comb. Assets
SAVBOOK	Ratio of Comb. Sav to Comb. Book Val
SAVCUST	Annual Savings over Comb. Customers
SAVEXP	Annual Savings over Comb. Expenses

List of Variables (cont...)

SAVKWH	Annual Savings over Comb. kWh
SAVMKT	Ratio of Comb. Sav to Comb. Mkt Val
SAVREV	Annual Savings over Comb. Revenue
SIZASSET	Ratio of Targ Assets to Acq Assets
SIZECUST	Ratio of Target Cust to Acquiror Cust
SIZEKWH	Ratio of Target kWh to Acquiror kWh
SIZEREV	Ratio of Target Rev to Acquiror Rev
TASSCUST	Target Assets per Customer
TASSETS	Target Company Assets
TBETA	Target Beta Statistic
TBOOK	Target Book Value
TCUST	Target Number of Customers
TDIVPO	Target Dividend Payout Ratio
TDIVYLD	Target Dividend Yield
TEPS	Target Earnings per Share
TEPSGR	Target EPS Growth (1+%)
TEPSP	Target Earnings per Share -Prev. yr.
TEXP	Target Total Operating Expenses
TEXPKWH	Target Expenses per kWh
TKCOST	Target Cost of Capital
TKWH	Target kWh Sales
TMARKBK	Target Market to Book Ratio
TMARKET	Target Market Value
TPE	Target PE Ratio
TPR	Target Stock Price
TREV	Target Revenue
TREVKWH	Target Revenue per kWh
TROUBLE	0=Not Troubled Merger, 1=Trouble
TROUBLE2	1=Not Troubled Merger, 2=Trouble
TSMRBK	Comb. Mkt/Book*NOTRBLE2
VAL_EXCH	Exchange Ratio from EPS, EPSgr, Kcost
YEAR	Year
YEARSAV	Combined Savings Divided by 10
YEARTEST	YEAR-85

Summary Sheet

One Day Ahead

Percent Per Share Premium Over Pre Merger Market Value	
Model 1	20.9%
Model 2	20.8%
Model 3	20.5%
Model 4	20.7%
Average	20.7%

REGRESSION #1	Estimated Coefficients	Merger Data
Intercept	0.30628	1.000
DIVRATIO	-0.18946	1.136
(VALEXCHS/(TPR/APR))	7.36041E-003	1.135
SAVMKT	0.09105	0.098
HOSTILE	5.78267E-002	0.000
(TROUBLE*SIZEKWH)	0.18829	0.000
(CONTROL*DIVRATIO)	0.10894	1.136
(CONTROL*SAVMKT)	-0.23751	0.098
ACQ_PREM		20.9%

REGRESSION #2	Estimated Coefficients	Merger Data
Intercept	0.30178	1.000
DIVRATIO	-0.17767	1.136
VALEXCHS	2.53151E-003	1.299
SAVMKT	0.08272	0.098
HOSTILE	5.93313E-002	0.000
(TROUBLE*SIZEKWH)	0.18499	0.000
(CONTROL*DIVRATIO)	0.10139	1.136
(CONTROL*SAVMKT)	-0.18871	0.098
ACQ_PREM		20.8%

REGRESSION #3

	Estimated Coefficients	Merger Data
Intercept	0.17085	1.000
DIVRATIO	-0.20076	1.136
FIN_EXCH	2.72970E-002	0.957
(TBETA/ABETA)	0.09018	0.750
SAVMKT	0.15661	0.098
HOSTILE	1.87043E-002	0.000
RATES	6.05023E-005	1.237
(TROUBLE*SIZEKWH)	0.20576	0.000
(CONTROL*DIVRATIO)	0.16430	1.136
(CONTROL*SAVMKT)	-0.33871	0.098
ACQ_PREM		20.5%

REGRESSION #4

	Estimated Coefficients	Merger Data
Intercept	0.18824	1.000
DIVRATIO	-0.17432	1.136
EPS_EXCH	7.94969E-003	1.095
(TBETA/ABETA)	0.06472	0.750
SAVMKT	0.15157	0.098
HOSTILE	3.11429E-002	0.000
RATES	6.52033E-005	1.237
(TROUBLE*SIZEKWH)	0.19289	0.000
(CONTROL*DIVRATIO)	0.14408	1.136
(CONTROL*SAVMKT)	-0.19163	0.098
ACQ_PREM		20.7%

Variable Inputs for Forecasting		Data for 8/20/99	
	Florida Progress	CPL	
DIVRATIO			1.136
Div Yield	5		4.4
VAL_EXCH/(TPR/APR)			1.135
VAL_EXCH			1.299
EPS	2.9		2.75
EPS Growth	0.09		0.05
BETA	0.45		0.6
30 yr bond	0.0599		0.0599
S&P 500	0.2283		0.2283
FIN_EXCH			0.957
EPS	2.9		2.75
EPS Growth	0.09		0.05
Prices	44.63		39
EPS_EXCH			1.095
EPS	2.9		2.75
EPS Growth	0.09		0.05
TBETA/ABETA			0.750
BETA	0.45		0.6
SAVMKT			0.0976
SAVINGS	-		1,000,000,000
Market Value	4,344,142,544		5,902,162,617
Shares	97,336,826		151,337,503
Book Value/Share	\$ 19.13	\$	19.49
RATES			1.237
Electric Revenue	2,648,200,000		3,130,045,000
KWh	37,251,100,000		54,476,000,000
Dummies			
TROUBLE		0	
CONTROL		1	
HOSTILE		0	
GAS		0	
SizeKWh	0.683807548		
(TROUBLE*SIZEKWH)		0	
(CONTROL*DIVRATIO)		1.136363636	
(CONTROL*SAVMKT)		0.10	

The Four Least Square Regressions

Equation 1

Acquisition Premium depends upon:

$$(1) \frac{\text{Target Dividend Yield}}{\text{Acquirer Dividend Yield}}$$

This variable has a negative sign, which means that when the target has a lower dividend yield relative to the acquirer, the purchase price is relatively higher, and vice versa.

$$(2) \frac{\frac{\text{Earnings Per Share of Target (1 + Growth Target)}}{\text{Price per Share}}}{\frac{\text{Return on Equity of Target}}{\frac{\text{Earnings Per Share of Acquirer (1 + Growth Acquirer)}}{\text{Price Per Share}}}}{\text{Return on Equity of Acquirer}}$$

This variable has a positive sign, which means that when the target's growth in earnings per share, adjusted by share price and return on equity, is stronger than the acquirer's, the relative purchase prices and exchange value are higher.

$$(3) \frac{\text{Merger Synergy Savings}}{\text{Combined Market Value}}$$

This sign is positive, which means that higher synergy savings relative to the market value of the combined equity causes higher purchase prices.

$$(4) \text{Hostile Bid}$$

This sign is positive, which means that mergers that represent special opportunities for the acquirer (e.g., to prevent some third utility from

gaining control) equate to higher acquisition premium. (This variable is probably a good indicator of strategic value.)

$$(5) \text{ Trouble times } \frac{\text{Size of Target (kWh)}}{\text{Size of Acquirer(kWh)}}$$

This sign is positive, which means that turning around a troubled utility of some reasonable size relative to the acquirer would increase the acquisition premium.

$$(6) \text{ Control times } \frac{\text{Target's Dividend Yield}}{\text{Acquirer's Dividend Yield}}$$

This sign is positive, which means that the acquiring utility pays a higher price for utilities with high dividend yield.

$$(7) \text{ Control times } \frac{\text{Merger Synergy Savings}}{\text{Combined Market Value}}$$

This sign is negative, which means that when an acquirer will control a target, synergy savings are less important.

Equation 2

This equation is identical to Equation 1 with one exception. The sole exception is Variable (2), which is:

$$(2) \frac{\frac{\text{Earnings Per Share of Target (1 + Growth Target)}}{\text{Return on Equity of Target}}}{\frac{\text{Earnings per Share of Acquirer (1 + Growth Acquirer)}}{\text{Return on Equity of Acquirer}}}$$

This sign is again positive, suggesting higher stock purchase price and greater exchange values when the target is financially relatively healthy.

Equation 3

This equation is also similar to Equation 1. However, there are three differences. First, Variable (2) is different. The replacement variable is:

$$(2) \frac{\frac{\text{Earnings per Share of Targets (1 + Growth Target)}}{\text{Price per Share of Target}}}{\frac{\text{Earnings per Share of Acquirer (1 + Growth Acquirer)}}{\text{Price per Share of Acquirer}}}$$

This sign is positive and works just like the alternative specifications in Equations (1) and (2) for this variable. Specifically, when the target is relatively financially strong, the acquisition premium is higher.

There are two additional explanatory variables in Equation 3 that are not statistically significant or present in Equations (1) and (2). These are:

$$(8) \frac{\text{Target's Beta Statistic}}{\text{Acquirer's Beta Statistic}}$$

This sign is positive, which suggests that when the Beta estimated in a CAPM is higher for the Target than the Acquirer, the expected return on equity for the target is higher and the price paid to the target is also higher.

$$(9) \frac{\text{Target's Average kWh Price}}{\text{Acquirer's Average kWh Price}}$$

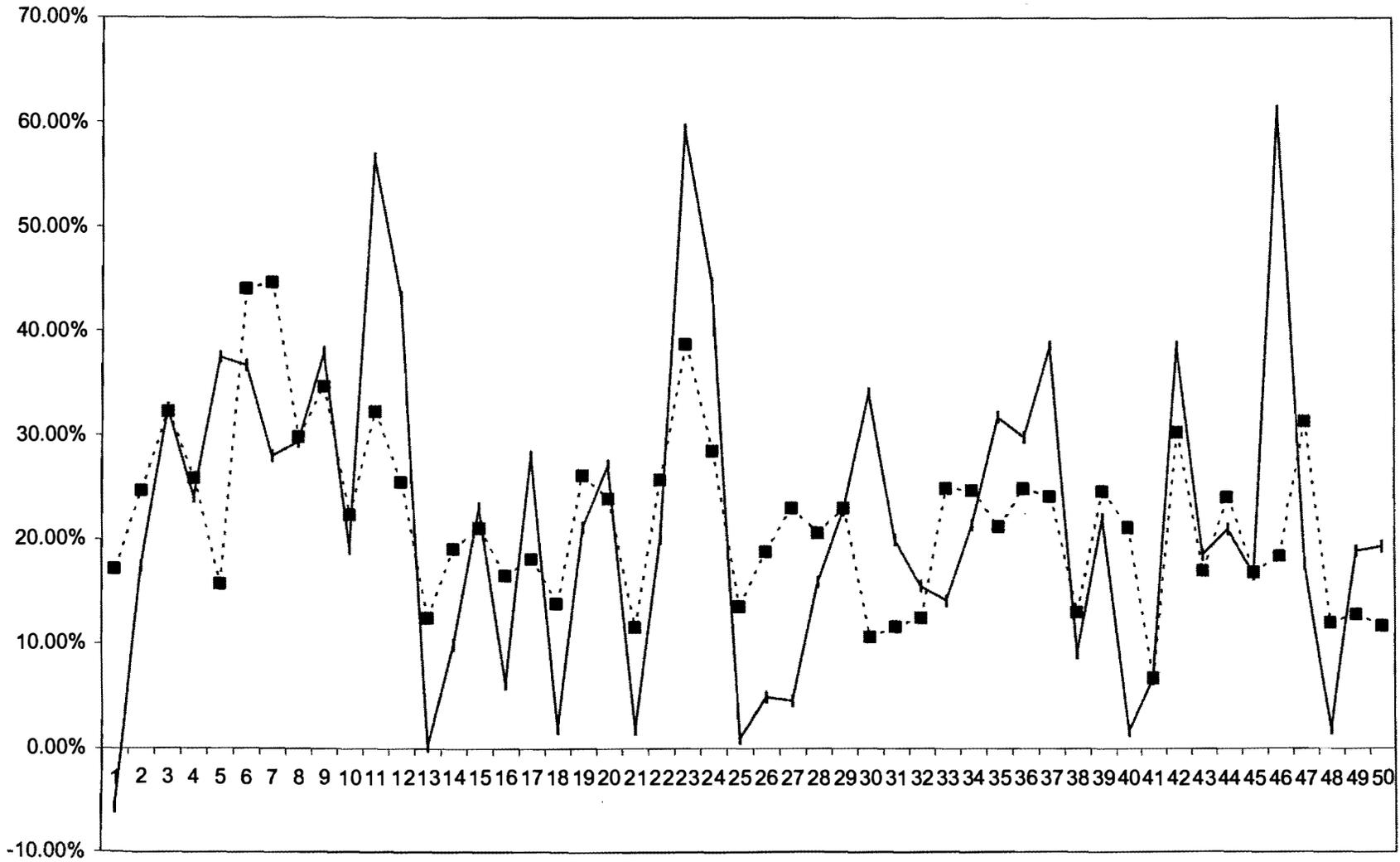
The sign is positive, which means that very efficient target utilities with relatively low prices will generally receive low acquisition premiums. This result is somewhat counter intuitive unless we relate the purchase price to the acquiring utility's prospects for cutting the target's costs and prices.

Equation 4

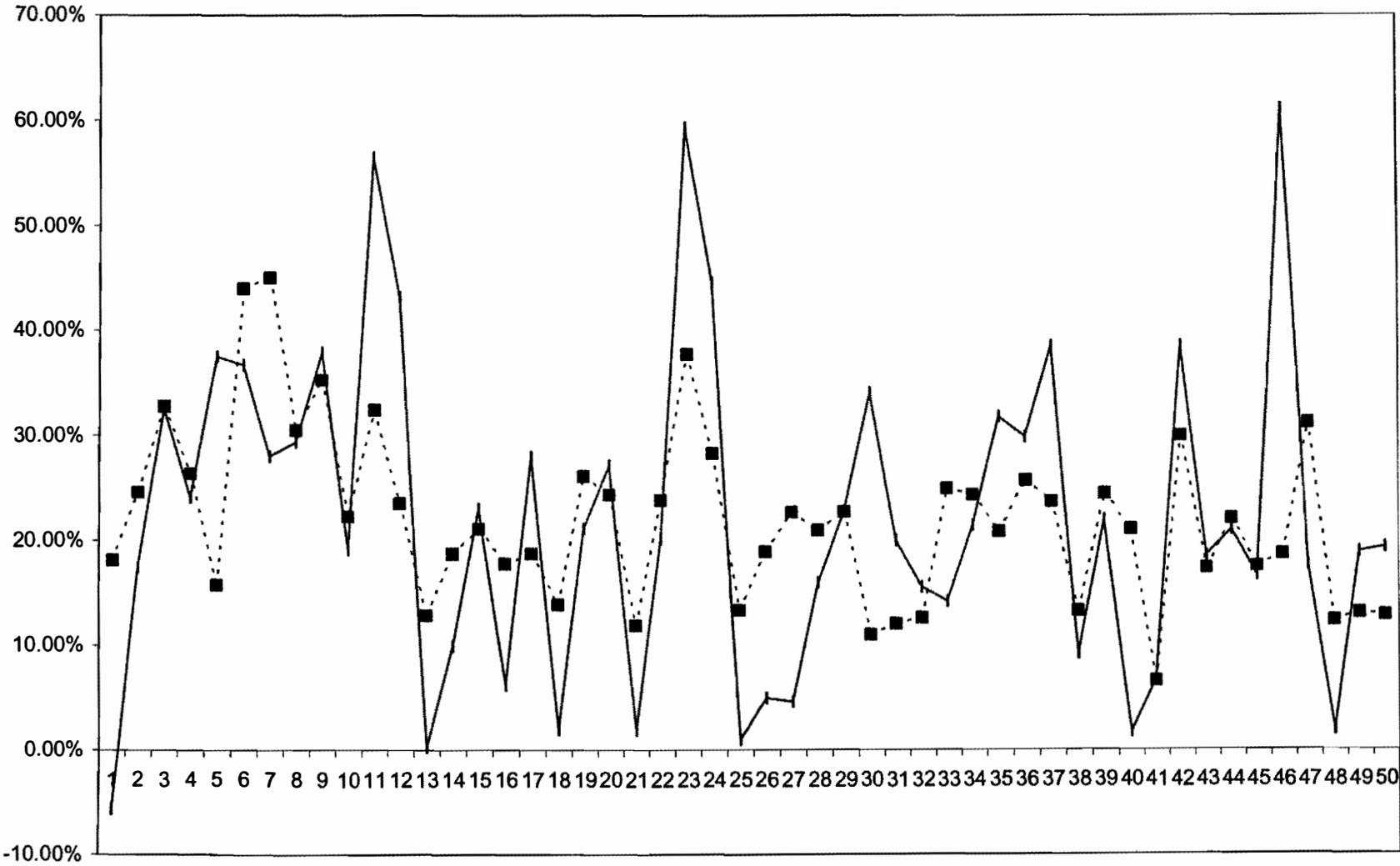
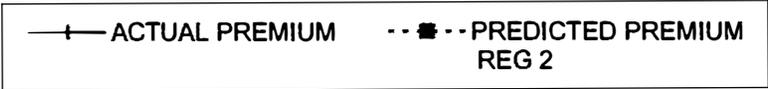
This equation is identical to Equation 3, with a sole exception, which is:

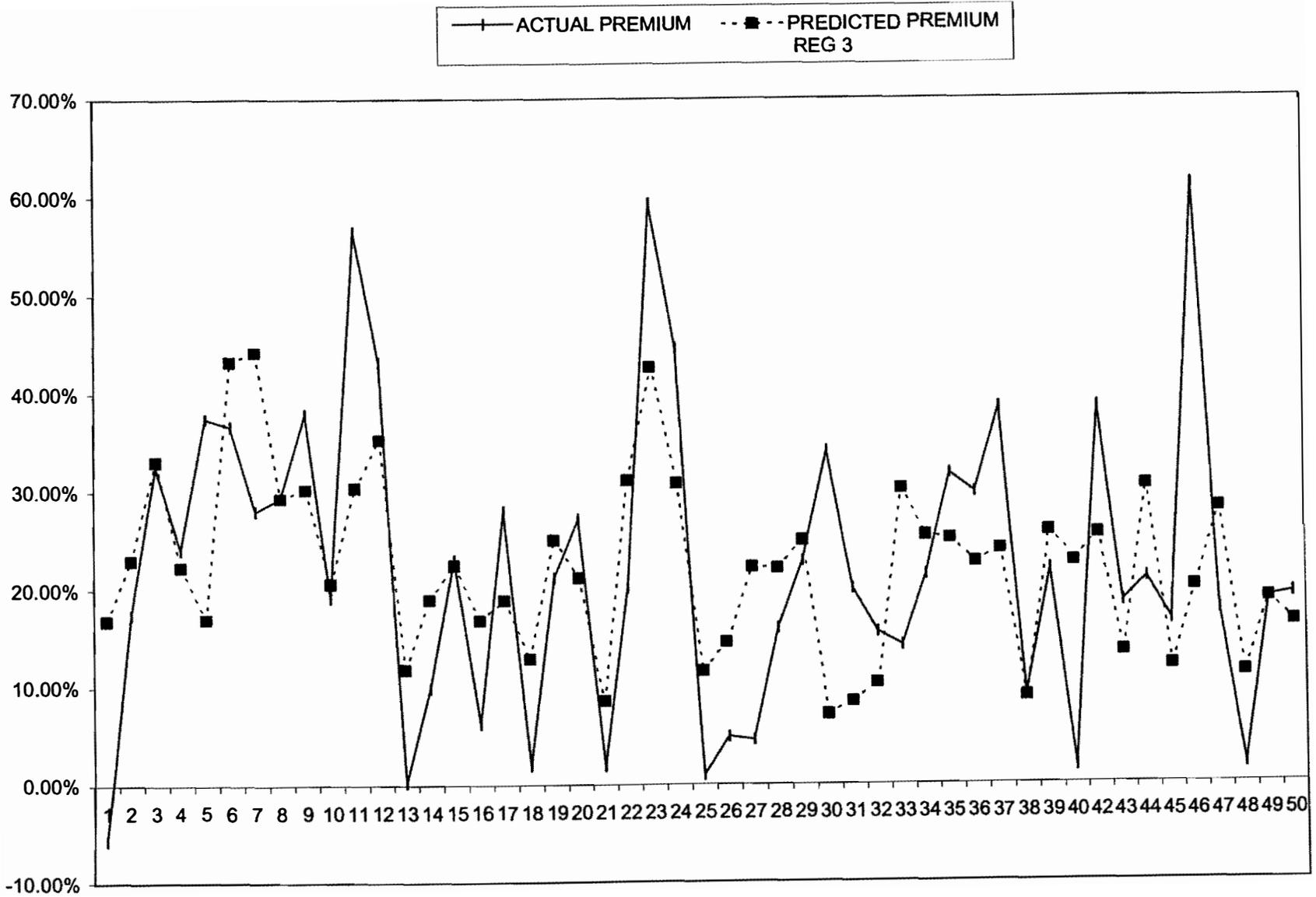
$$(2) \frac{\text{Earnings per Share of Target (1 + Growth Target)}}{\text{Earnings per Share of Acquirer (1 + Growth Acquirer)}}$$

This sign is positive, indicating, just as in the other three specifications, a financially strong target would command a higher acquisition premium.

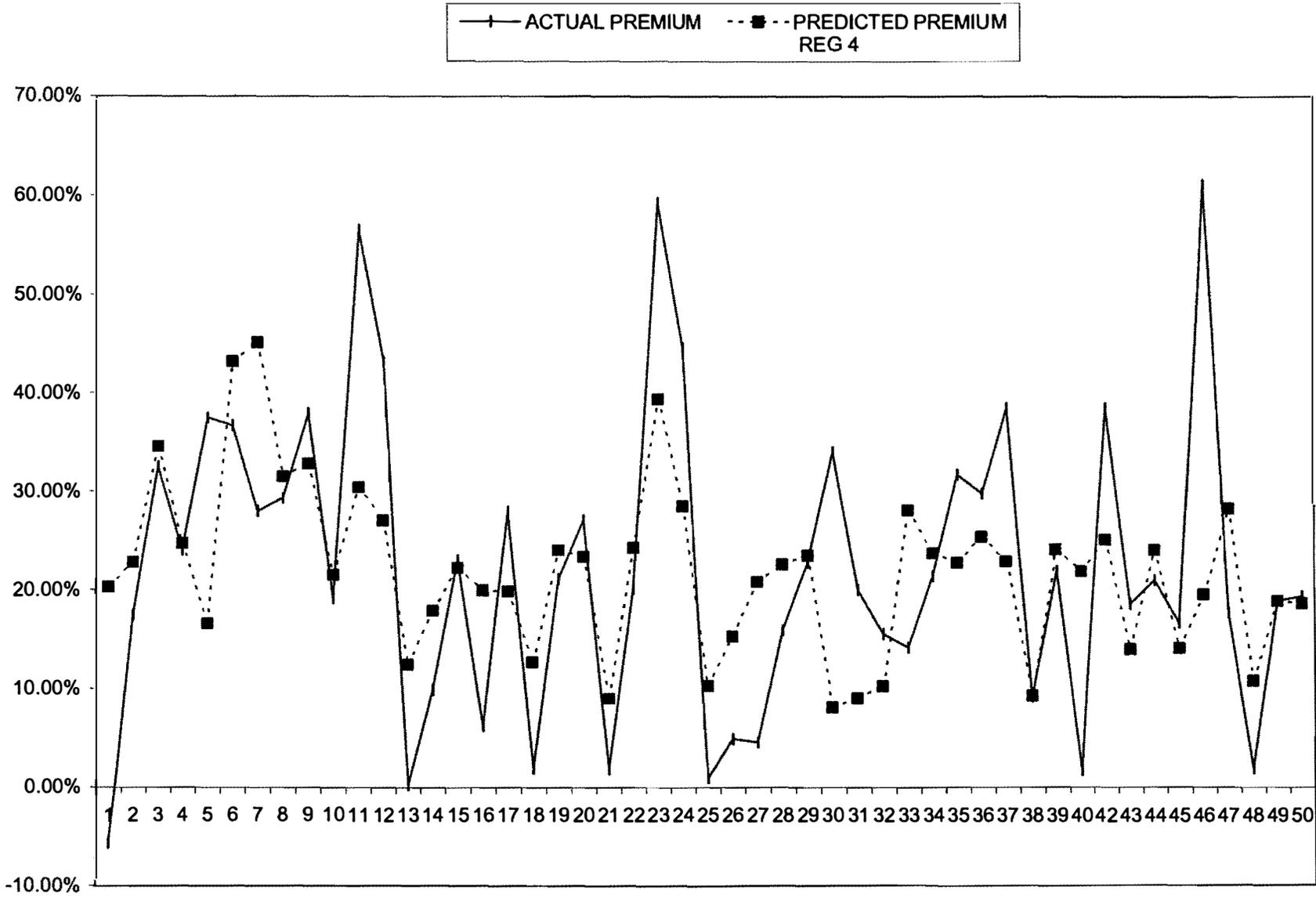


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