

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Prudence Review to Determine)
Regulatory Treatment of Tampa Electric)
Company's Polk Unit.)
_____)

DOCKET NO. 960409-EI

FILED: August 5, 1996

**TAMPA ELECTRIC COMPANY'S BRIEF
AND POST-HEARING STATEMENT**

LEE L. WILLIS
JAMES D. BEASLEY
KENNETH R. HART
Ausley & McMullen
Post Office Box 391
Tallahassee, FL 32302
(904) 224-9115

HARRY W. LONG, JR.
TECO Energy, Inc.
Post Office Box 111
Tampa, FL 33601-011
(813) 228-1702

ATTORNEYS FOR TAMPA ELECTRIC COMPANY

DOCUMENT NUMBER-DATE

08192 AUG-5 1996

FPSC-RECORDS/REPORTING

SUMMARY OF CONTENTS

INTRODUCTION 1

I. TAMPA ELECTRIC HAS CONSTRUCTED THE PROJECT PREVIOUSLY APPROVED BY THIS COMMISSION IN A PRUDENT AND COST-EFFECTIVE MANNER. 2

A. The Commission's Approval of the Polk IGCC Project was Unambiguous and Addressed Many of the Issues Raised in the Proceeding. 2

B. Tampa Electric Put in Place a Stringent Cost Control and Project Management System which Insured that Project Costs would be Prudently Incurred. 5

C. Project Land Acquisition Costs were Reasonably and Prudently Incurred. 7

D. No Party has Challenged the Reasonableness of Tampa Electric's Polk Project Costs. 9

II. TAMPA ELECTRIC HAS CONTINUALLY MONITORED AND CONFIRMED THE COST-EFFECTIVENESS OF THE POLK IGCC PROJECT SINCE THE NEED HEARING USING REASONABLE ASSUMPTIONS. 10

A. The Company Confirmed the Cost-Effectiveness of the IGCC Project Annually Using a Methodology Accepted by Both the Staff and the Commission for Planning Purposes. . . 10

B. The Fuel Price Forecasts Used by Tampa Electric in its Cost-Effectiveness Studies between 1992 and 1996 were Reasonable and Consistent with the Market Trends Acknowledged by Every Knowledgeable Fuel Price Forecaster. 11

C. No Party to the Proceeding has Presented a Valid Alternative to the Fuel Price Forecasts Used by Tampa Electric in its Cost-Effectiveness Studies Between 1992 and 1996. 14

D. The Price Linkage Between Coal and Gas Prices on which the Staff's "Acid Test" Analysis Depends Does Not Exist. 16

E. Staff's Adherence to its "Acid Test" as a Means of Assessing the Reasonableness of Tampa Electric's Fuel Price Assumptions is Based on a Misunderstanding of Historical Data and the Use of a Seriously Flawed Statistical Methodology. 16

F.	The Assumed Use of Petroleum Coke in Tampa Electric's 1993 and 1996 Cost-Effectiveness Studies as a Feedstock for the Gasifier was Based on a Reasonable Assessment of the Fuel's Commercial Availability, Expected Lower Prices and Operational Suitability.	19
G.	Tampa Electric's Assumption of the Availability of Section 29 Tax Credits in its 1994 and 1995 Cost-Effectiveness Studies was Based on a Reasonable Expectation that the Company would Qualify for the Credits.	22
H.	The Company's Planned Use of a Seven Year Tax Life for the Polk Plant is Consistent with the IRS Code, Will Result in Lower Revenue Requirements and is Consistent with the April 30, 1996 Stipulation	24
I.	Tampa Electric's Assumption of "As-Available" Gas and Oil as the Fuels for the Combined Cycle Alternative in its Cost-Effectiveness Analysis is Reasonable, Given the Company's Generation Resource Mix and System Economics.	24
J.	Tampa Electric's Inclusion of "Sunk" Costs in its Cost-Effectiveness Studies was Reasonable and Yields the Same Results as the Incremental Cost Analysis Advocated by Staff and Intervenors.	26
III.	CONSIDERATION OF ALTERNATIVE RATEMAKING IS UNWARRANTED, GIVEN THE WEIGHT OF EVIDENCE IN THIS PROCEEDING AND UNNECESSARY IN LIGHT OF THE EXISTING RATE STIPULATION.	27
IV.	REVIEW OF THE GENERATION EXPANSION DECISIONS OF OTHER UTILITIES PROVIDES NO USEFUL INFORMATION WITH REGARD TO THE PRUDENCE OF TAMPA ELECTRIC'S POLK PROJECT INVESTMENT	29
V.	THERE IS NO EVIDENTIARY BASIS FOR CHANGING THE EXISTING RATE BASE TREATMENT OF THE PORT MANATEE POWER PLANT SITE	31
VI.	TAMPA ELECTRIC'S POLK-RELATED DECISIONS SHOULD BE EVALUATED ON THE BASIS OF WHAT A REASONABLE PERSON WOULD HAVE DONE, GIVEN WHAT WAS KNOWN OR SHOULD HAVE BEEN KNOWN AT THE TIME THOSE DECISIONS WERE MADE.	31
VII.	CONCLUSION	35
	STATEMENT OF ISSUES AND POSITIONS	36

INTRODUCTION

Tampa Electric Company ("Tampa Electric" or the "company") hereby submits its Brief and Post-Hearing Statement which shows that there is substantial competent evidence establishing the reasonableness and prudence of its investment in the Polk IGCC Project.

Significantly, no party has testified that the project construction cost or the cost of any project component was unreasonable. No party has offered evidence that the company's project construction management was unreasonable or imprudent in any way. Finally, no party has offered evidence as to any specific set of circumstances in the coal and gas markets which should have, as a matter of prudence, required the company to abandon the IGCC project already approved by this Commission in favor of the natural gas-fired, combined cycle project already rejected by the Commission in the Certification of Need proceeding (see Order No. PSC-92-0002-FOF-EI, issued on March 2, 1992 in Docket No. 910883-EI, the "Need Order"). If, as Tampa Electric strongly urges, this Commission bases its assessment of the reasonableness and prudence of the company's Polk Project-related decisions on what Tampa Electric knew or should have known at the time that those decisions were made, then the overwhelming weight of evidence in this proceeding will require a finding of prudence.

The plant approved by this Commission in the Need Hearing has been built. Project costs have been stringently controlled, and the estimated completion cost is essentially the same as the pre-

engineering capital cost estimate considered at the Need Hearing. The cost-effectiveness of the project has been monitored and confirmed repeatedly since the Need Hearing. Indeed, the project remains cost-effective today under any set of reasonable forecasting assumptions. All of these facts are borne out by the preponderance of the evidence in this proceeding. Therefore, Tampa Electric respectfully submits that its full investment in the Polk IGCC project, along with associated operating costs, merit this Commission's full and unqualified approval, without disallowance or resort to alternative ratemaking mechanisms.

I.

TAMPA ELECTRIC HAS CONSTRUCTED THE PROJECT PREVIOUSLY APPROVED BY THIS COMMISSION IN A PRUDENT AND COST-EFFECTIVE MANNER.

I.A. The Commission's Approval of the Polk IGCC Project was Unambiguous and Addressed Many of the Issues Raised in the Proceeding. (This section addresses Issue 1, identified in the prehearing order.)

On March 2, 1992, this Commission approved Tampa Electric's Petition for a Determination of Need in connection with an Integrated Gasification Combined Cycle ("IGCC") Unit to be built in Polk County in a manner which was neither tentative nor interim¹. This final approval was conditioned only on the receipt of \$120 million in funding from the Department of Energy ("DOE") to help defray the cost of the project. In that proceeding, the Commission carefully weighed the cost-effectiveness of incurring the higher

¹ Following the issuance of the Need Order, this Commission stood shoulder to shoulder with Tampa Electric vigorously defending the need for the proposed IGCC Unit in the Florida Supreme Court. The Court upheld the Commission's Need Order in an Opinion issued July 1, 1993. (See Floridians For Responsible Utility Growth v. Beard, 621 So.2d 410 (Fla. 1993))

capital costs of an IGCC unit to enable the use of a lower cost fuel and held that the Polk IGCC Unit was Tampa Electric's most cost-effective alternative, saying, "TECO's IGCC Unit with DOE funding is more cost-effective than the Combined Cycle Unit in Docket No. 910004-EU." (Need Order, p. 15)

In the Need Hearing, the Commission systematically tested the cost-effectiveness of the project under a wide range of assumptions and specifically found that Tampa Electric's fuel forecast was reasonably adequate for planning purposes. (Need Order, p. 6) The Commission also found that Tampa Electric had provided sufficient information on the site, design and engineering characteristics of the project to enable the Commission to adequately evaluate the proposal. (Need Order, p. 8)

The Need Order recites a projected savings of approximately \$195 million which was calculated based on an installed cost of \$413 million provided by Tampa Electric in its testimony in the need proceeding. (Tr. 406; Ex. 37, p. 58) This estimate did not include land and site development costs since these costs could not be determined until such time as the environmental permitting process had been completed, which occurred some 18 months after the need determination. Since all of the alternative technologies were suitable for the selected Polk Site, and the selection of any of the alternatives would not have affected the location or the amount of land purchased or the related site development and land improvement costs, these costs were considered to be the same for all resource plan alternatives. Nevertheless, Tampa Electric did

advise the Commission at the time of the Need Hearing that the company had arranged to purchase 3,572 acres in Polk county for a cash price of \$12,504,093 or \$3,500 per acre and was negotiating for the purchase of the remaining 775 acres needed for the project. (see Exhibit 26)

The Need Order states that Tampa Electric provided sufficient information on the site, design and engineering characteristics of the proposed IGCC unit "to enable us to adequately evaluate its proposal." (Need Order pp. 8 and 9) The total estimated cost of the project is now expected to be \$506 million including \$66 million of land and site development costs and \$388 million of construction and \$52 million in AFUDC costs. (Tr. 620; Ex. 3, p. 68) The \$388 million is only 4.3% different from the pre-engineering construction estimate of \$372 million presented in 1991 at the Need Hearing. (Tr. 346-347; Ex. 3, p. 68) This is a remarkable performance in light of the new technology being employed at Polk Unit One.

This Commission has already decided that the IGCC unit, given the DOE funding, was the appropriate generation addition for Tampa Electric's system. It made that assessment based on a full understanding of the fuel cost/capital cost trade-off inherent in any comparison of a natural gas-fired, combined cycle unit with a coal-fired unit. (Need Order, p. 6) The Commission approved the project with the understanding that the unit would be constructed in Polk County and that the total acreage required for the project would be approximately 4,300 acres and that much of the property

would have to be reclaimed from its mined-out state. (Tr. 499; Ex. 25 and 26) These matters have been considered by the Commission and resolved. Tampa Electric respectfully suggests that these matters should not be re-litigated in this proceeding.

I.B. Tampa Electric Put in Place a Stringent Cost Control and Project Management System which Insured that Project Costs would be Prudently Incurred. (This section addresses Issue 9, identified in the prehearing order.)

The primary objective of the Polk Project Management Team, headed by Mr. Charles R. Black, has been at all times to manage project costs aggressively to their lowest possible levels. (Tr. 350) This objective was reached in a number of different ways (see Ex. 14, pp. 351-354). For instance, competitive bidding to identify the lowest evaluated bidder was used in virtually all procurement transactions. (Tr. 377) Any change in project cost of \$25,000 or more was identified and had to be reviewed and approved by the Project Manager, Mr. Black, as being the most cost-effective alternative under the circumstances. AFUDC was minimized by paying vendors either through progress payments or 100% at the time of delivery, depending on whether the vendor's "cost of money" was more or less than the calculated project AFUDC rate. And, as a general rule, the project, whenever possible, deferred expenditures to the latest possible date if the result would be to reduce overall project costs. (Tr. 376-377)

As one would expect with any project of this magnitude, successful completion required great flexibility in responding to changing circumstances. As the Polk project proceeded through the detailed engineering and environmental permitting phase subsequent

to the Need Hearing, the project management team had to modify their original plans to meet the project objectives in the most cost-effective manner. For example, the project construction schedule was altered to eliminate construction of the combustion turbine in 1995, a year prior to completion of the total project. This schedule change resulted in both a deferral of the revenue requirements associated with the combustion turbine and a significant cost savings in the total project costs. (See Ex. 48, pp. 64-65) The change was made possible by a determination in 1993 that additional capacity for reliability purposes would not be needed in 1995 as assumed at the time of the Need Hearing and by an eight month delay in the environmental permitting process. (Tr. 394)

The Office Of Public Counsel's ("OPC") witness Larkin testified that Tampa Electric's decision not to construct the combustion turbine in 1995, as anticipated at the time of the Need Hearing, represented a material deviation from the Need Order. Based on this faulty premise, OPC further asserts that the decision not to bring the combustion turbine on line in 1995 deprived the company of a last clear chance to switch to a gas-fired, combined cycle unit without incurring any gasifier-related sunk costs. No evidentiary support was provided for this assertion. The simple truth is that these assertions have no basis in fact. The key point which OPC has missed is that the timing of Tampa Electric's financial commitments with regard to the gasifier portion of the plant would have been precisely the same whether or not the

combustion turbine had been placed into service in 1995. (Tr. 395)
The "opportunity" to change generation technology without incurring
gasifier-related sunk costs never existed. (Tr. 395-396)

In another instance of cost reduction, the company worked
closely with DOE to scale back the hot gas clean-up system to keep
the total project costs within budget while assuring DOE that all
of the anticipated test data and associated benefits from the hot
gas cleanup system demonstration would be obtained. (Tr. 400)
This adjustment had no impact on the Commission's prior project
cost-effectiveness analysis since the potential benefits of the hot
gas clean up system had not been previously assumed. (Tr. 400)

In its review of Tampa Electric's project management practices
and project-related expenditures, the DOE concluded that all
aspects of the project had been managed very well and that the
project would be completed successfully on time and within budget
limits. (Tr. 519) The company has received to date all of the
originally expected \$100 million in DOE funding for the project
construction costs. The company has received \$10 million in
additional construction related funds and an additional \$20 million
has been appropriated and is available for the operation and
maintenance costs of the unit. (Tr. 337, 495, 530)

**I.C. Project Land Acquisition Costs were Reasonably and Prudently
Incurred.** (This section addresses Issue 9, identified in the
prehearing order.)

As Tampa Electric advised the Commission at the time of the
Need Hearing, approximately 4,300 acres were required for the Polk
IGCC project. (See Ex. 25 and 26) The number of acres needed was

a function of the anticipated environmental permit requirements and the technical requirements of the IGCC facility. (Tr. 359) The Department of Environmental Protection requirements for the site called for reclamation of nearly 800 acres of wetlands. In addition, the company was required to maintain two acres of supporting upland drainage area for each acre of wetland created to ensure the viability of the wetlands. The balance of the acreage was required for the power block, gasification plant, fuel handling and storage facilities, transmission and switching station facilities, the cooling reservoir, buffer areas, space for future plant additions, and other plant related facilities for Polk Unit One. (Tr. 268-269)

As noted in Exhibit 26, the company purchased 3,572 acres from Freeport McMoran for a total of \$12,504,093 or about \$3,500 per acre. The price paid was a function of several factors including the seller's own development plans for the property following the completion of mining operations (Tr. 357), the need to gain control of the site expeditiously to ensure that the DOE grant, on which the Commission had conditioned its approval, would not be lost due to delay (Tr. 357), and the public nature of the award-winning site selection process by an innovative Citizen's Siting Task Force. The Siting Task Force process played a large role in simplifying the complicated environmental permitting process by creating a consensus on the desirability of the Polk site. (Tr. 19-20) The balance of the required project acreage, 775 acres, was purchased from American Cyanamid at about \$4,700 per acre. This property was

needed for transmission access, buffer area and fill material. (Tr. 358, 501) The price paid for this parcel was more than justified by the resulting savings on fill material alone. Had Tampa Electric not been able to obtain fill material from the American Cyanamid parcel it would have incurred a cost of \$11.2 million for alternative fill material. Purchasing the American Cyanamid parcel, therefore, saved approximately \$8.5 million in project cost. (Tr. 501)

Under these and other circumstances which prevailed at the time of purchase, the price paid by the company for the Polk acreage was reasonable. The land acquisition and site development costs incurred by Tampa Electric and its Polk Unit One compare very favorably with Florida Power Corporation's estimated expenditures for land acquisition and site development of its Polk site on a cost per megawatt of installed capacity basis. (Tr. 408)

I.D. No Party has Challenged the Reasonableness of Tampa Electric's Polk Project Costs. (This section addresses Issue 9, identified in the prehearing order.)

No party to this proceeding has directly or indirectly (with the possible exception of the land costs previously addressed) challenged the prudence of Tampa Electric's project-related costs. Instead, the parties contend that the company should have abandoned the IGCC project altogether in 1993 or 1994 in favor of a natural gas-fired, combined cycle plant on the same site. Therefore, there is no evidentiary basis for a disallowance of these costs if, as the record in this proceeding demonstrates, the company had a reasonable basis for its conviction that the IGCC project, as

approved, remained its most cost-effective generation alternative.

II.

TAMPA ELECTRIC HAS CONTINUALLY MONITORED AND CONFIRMED THE COST-EFFECTIVENESS OF THE POLK IGCC PROJECT SINCE THE NEED HEARING USING REASONABLE ASSUMPTIONS.

II.A. The Company Confirmed the Cost-Effectiveness of the IGCC Project Annually Using a Methodology Accepted by Both the Staff and the Commission for Planning Purposes. (This section addresses Issue 1, identified in the prehearing order.)

Tampa Electric continued to evaluate the cost-effectiveness of Polk Unit One each year subsequent to the Need Hearing. Each annual evaluation was based on an update of all assumptions including demand and energy requirements, fuel availability and prices, as well as the latest Polk Unit One construction cost estimates. Using the best available information at the time of each evaluation, Tampa Electric concluded in each review that the IGCC Unit remained the most cost-effective generation alternative by a significant margin. (See Ex. 3, pp. 69-87)

There have been numerous Commission proceedings and Staff reviews since the Need Hearing, including the review of Tampa Electric's Ten-Year Site Plan filings and the Conservation Goals proceeding, in which the Commission found that Tampa Electric's planning assumptions and methodology and the resulting expansion plans, which included the Polk IGCC unit, were reasonable and suitable. (Tr. 199-200; 930; 931-934; Ex. 48, pp. 9-60)

No party to this proceeding has prepared or introduced into evidence a cost-effectiveness analysis which demonstrates that the company's IGCC project has not been consistently cost-effective

since the Need Hearing². Indeed, the only other cost-effectiveness analysis offered in this proceeding, prepared by FIPUG witness Falkenberg, supports the cost-effectiveness of the project, albeit based on a methodology Tampa Electric does not endorse. (Tr. 674-675)

The only evidence in this proceeding criticizing the company's cost-effectiveness studies consists of assertions that the company should have used different assumptions in its analyses. However, the fact that the company could have used other assumptions in its cost-effectiveness analysis is not evidence of imprudence so long as the assumptions that were used were reasonable, given what was known at the time those assumptions were used. There is no compelling evidence in the record to support the notion that the company's assumptions were unreasonable. Quite the contrary, there is substantial, unrefuted evidence that the company's cost-effectiveness assumptions were reasonable. In particular, Staff witness Ballinger's criticism of the company's assumptions regarding fuel prices, as-available gas transportation, Section 29 tax credits, petroleum coke, and sunk costs are not warranted given the evidence discussed below.

II.B. The Fuel Price Forecasts Used by Tampa Electric in its Cost-Effectiveness Studies between 1992 and 1996 were Reasonable and Consistent with the Market Trends Acknowledged by Every Knowledgeable Fuel Price Forecaster. (This section addresses Issue 6, identified in the prehearing order.)

²Exhibit 49, offered by OPC, was by no means a cost-effectiveness analysis. It was merely a sensitivity test which did not include any sunk costs related to the gasifier, the already acquired IGCC combined cycle power block and any other sunk costs common to technology alternatives.

The question to be addressed in this proceeding is not whether the long-term fuel price forecasts used by Tampa Electric in its 1992-1996 cost-effectiveness studies were accurate when judged on the basis of a hindsight comparison to actual prices. Instead, the question is whether the long-term forecasts used by the company were reasonable, given what was known at the time that the forecasts were made. The answer, which is without credible contradiction, is that the company's fuel forecasts were indeed reasonable and consistent with current market realities at the time they were made and, in fact, were lower than today's market price of natural gas.

Between 1992 and the present, every knowledgeable forecaster of long-term fuel prices has projected a long-term, upward trend in natural gas prices and a growing divergence between the price of natural gas and coal. (Tr. 846; 857; 884; and 776) Both the Commission and Staff contemporaneously subscribed to this view of the market. (Tr. 889-892) In this regard, the fuel price forecasts used by the company between 1992 and 1996 were consistent with and comparable to the long-term forecasts produced by the other Florida utilities and fuel price forecast experts. (Ex. 47, pp. 4-13) The Polk IGCC unit continued to be cost-effective, even utilizing Florida Power Corporations natural gas forecasts for 1993 and 1994. (Tr. 943, Ex. 48 at pp. 6 and 8) A similar analysis using Florida Power & Light's natural gas forecast showed even greater savings. (Tr. 943; Ex. 48 at pp. 5 and 7)

The Staff and other parties attempt to make much of the fact that Tampa Electric has forecasted rising gas prices for the long term when, over the short term (the last several years) actual gas prices were lower than expected. However, their concern is misplaced. Since the mid-1980's and until recently, there has been a huge oversupply of natural gas resulting in a downward trend in gas prices. This resulted in a dramatic decrease in drilling and exploration activity by producers who realized that the low gas prices would not permit them to recover the large costs of that activity. Given these circumstances, knowledgeable forecasters projected that it would be only a matter of time before the oversupply situation abated due to increased demand and the lack of replenishing drilling activity. (Tr. 844)

Tampa Electric's projected prices were based, in effect, on a forecast that natural gas oversupply and excess deliverability would decrease in the very early 1990's, resulting in higher gas prices. (Tr. 884-885) However, a number of unforeseeable events postponed this event, including warmer than normal weather, and a tax incentive which created drilling incentives prior to 1992 that artificially boosted supply on a temporary basis. Consequently, in the 1992-1995 time frame, there was widespread disagreement among fuel price forecasters as to when, but not whether, the oversupply would end. (Tr. 843)

Tampa Electric was reasonable in predicting the upward trend in gas prices that we see today. In fact, although Staff asserts that Tampa Electric's long-term gas price forecasts were higher

than Staff's analyses, the company's 1992, 1993, 1994, and 1995 forecast of 1996 gas prices were all significantly less than today's actual gas prices. (Tr. 881) Mr. Breman, in fact, agreed that if Polk Unit One were going into operation as of the date of his cross examination Tampa Electric customers would be receiving more fuel savings than Tampa Electric ever forecasted they would receive. (Tr. 812-813)

II.C. No Party to the Proceeding has Presented a Valid Alternative to the Fuel Price Forecasts Used by Tampa Electric in its Cost-Effectiveness Studies Between 1992 and 1996. (This section addresses Issue 6, identified in the prehearing order.)

Neither the Staff nor the intervenors have offered into evidence a fuel price forecast which, in their view, Tampa Electric should have used to evaluate the continued cost-effectiveness of its IGCC project between 1992 and the present. Nor has any party taken issue with Tampa Electric's coal and petroleum coke price forecasts during this period. Instead, although Staff took no position on the reasonableness of the company's gas price forecasts (Tr. 751), Staff argued that the company's long-term gas price forecasts in 1993 and 1994 were "flawed" because they did not accurately predict actual gas prices. (Tr. 794-795) The Staff further testified that the company should have abandoned its IGCC project in favor of a natural gas-fired, combined cycle unit in the 1993 through 1994 time frame, in part, on the basis of a discredited fuel price sensitivity analysis, referred to as the "acid test." (Tr. 740; 750-751; 762-763)

This "acid test" is based on the assumption that coal and gas prices are linked and will maintain a constant differential over

the long term. (Tr. 734) However, there is no competent substantial evidence in this proceeding which supports the Staff position and there is competent substantial evidence to the contrary. In its recommendation to the Commission in the need proceeding staff referred to a constant price differential between coal and natural gas prices and stated that "No industry expert expects this to occur." (Tr. 891) Mr. Ballinger was not aware of any fuel forecaster in the country who in 1993 and 1994 was projecting a constant differential between the price of gas and coal (Tr. 754-755) and he agreed that there was a consensus among natural gas forecasters that we could expect ever widening coal and gas prices. (Tr. 754-755)

The Commission has already made it quite clear that this "acid test" is not a forecast nor a means to determine cost-effectiveness. (Tr. 927)

In December 1992 the Commission stated:

"We certainly do not believe that gas prices and coal prices will maintain a constant differential..." (Tr. 889)

Moreover, the nature of the test significantly changed during this proceeding. Staff requested Tampa Electric to analyze three different "acid test" calculations, each of which dictated a successively lower coal/gas differential. (Tr. 894) In spite of Tampa Electric's serious reservations with regard to the usefulness of this test, the company complied with Staff's request. Each test confirmed the cost-effectiveness of the IGCC Unit. (Tr. 213-215)

II.D. The Price Linkage Between Coal and Gas Prices on which the Staff's "Acid Test" Analysis Depends Does Not Exist. (This section addresses Issues 1 and 6, identified in the prehearing order.)

Staff's assertion that gas and coal prices are linked (Tr. 785) is simply wrong. (Tr. 848) There are significant differences in the nature of demand for and supply of natural gas and coal which cause the prices for these fuels to move independently and diverge over time as was explained in some detail by witness Thumb. (Tr. 839-841) These significant differences between the coal and natural gas industries include differences in customer types, weather effects, interchangeability with other fuels, basic costs in developing reserves, and exploration practices.

The combination of these market factors as described by Mr. Thumb results in very different price determinants for natural gas and coal and is a major reason why all industry analysts foresee a continued divergence in the price of these two fuels and why their price trends are simply not linked. (Tr. 841)

II.E. Staff's Adherence to its "Acid Test" as a Means of Assessing the Reasonableness of Tampa Electric's Fuel Price Assumptions is Based on a Misunderstanding of Historical Data and the Use of a Seriously Flawed Statistical Methodology. (This section addresses Issues 1 and 6, identified in the prehearing order.)

The basis for the Staff's belief in the linkage between coal and gas prices and, therefore, the usefulness of the acid test is set forth in Mr. Breman's Exhibit 38, JEB-2. What this exhibit purports to show is the market level of coal and gas prices between 1986 and 1995 and the trend line of the differential between these fuel prices. What the exhibit actually shows are "as burned" gas prices which overwhelmingly reflect Florida Power & Light's gas

purchase practices. (Tr. 800-801) In addition, the coal prices are much greater than the coal prices which would be applicable to the Polk IGCC project. (Tr. 805-806) The result is a relatively useless calculation that certainly has no relationship to projected fuel prices for Polk Unit One. Mr. Breman then constructs a trend line showing a relatively constant differential between these prices through the use of a smoothing method which will yield a nearly constant differential between any two unrelated data sets such as coal prices and cattle prices. (Tr. 849-850)

The flaws in this analysis are obvious. The gas prices used in JEB-2 are much lower than the prices that Tampa Electric could have hoped to obtain. (Tr. 863; 896-897) The Staff's own analysis confirmed that the City of Gainesville's gas purchases were \$1.09 above the FP&L dominated as burned prices used in Exhibit 38, JEB-2. (Tr. 804-805) Mr. Breman's assumed natural gas prices include understated transportation costs resulting from contracts signed many years ago under Florida Gas Transmission Phase II (Rate Schedule FTS-1) tariffs which are no longer available to buyers seeking to deliver gas in the future. (Tr. 896) As noted above, the coal prices used in JEB-2 do not reflect Polk specific coal prices. As a result, the data is irrelevant and the constant differential between these prices noted in JEB-2 is nothing more than an aberration of a flawed methodology. The coal prices used in JEB-2 are much higher than the prices available to Tampa Electric. (Tr. 895-896) In fact, if one looks at Tampa Electric's actual coal prices and FGT's actual gas prices since 1991, an

increasing price differential is apparent. (Tr. 897; Ex. 47, p. 18)

The Staff compounds the errors of their analysis by comparing in Exhibit 38, JEB-1 the "actual" as burned gas prices in JEB-2, with Tampa Electric's gas price forecasts for the years 1992-1995. (Tr. 802) However, the Staff admits that the comparison made in JEB-1 is meaningless if, as the evidence established, the FP&L as-burned gas prices and the market gas prices available to Tampa Electric or any other purchasers are significantly different. (Tr. 802-804)

In summary, the Staff criticizes the gas price forecasts used by Tampa Electric on the basis that they were not accurate in hindsight, while acknowledging, at the same time, that they know of no other forecast which they would regard as being any more accurate. (Tr. 797-798) Further, the Staff is critical of Tampa Electric's failure to use a fuel price sensitivity test that is based entirely on the assumption of a non-existent constant differential between coal and gas prices. Finally, Staff is critical of Tampa Electric's long-term gas price forecasts on the basis that they vary from short term "actual" gas prices which were not available to Tampa Electric during the period in question. These assertions provide no basis for a finding of imprudence. Moreover, Tampa Electric's 1992, 1993, 1994, and 1995 forecasts of gas prices were, in fact, lower than today's market price of natural gas. (Tr. 883)

II.F. The Assumed Use of Petroleum Coke in Tampa Electric's 1993 and 1996 Cost-Effectiveness Studies as a Feedstock for the Gasifier was Based on a Reasonable Assessment of the Fuel's Commercial Availability, Expected Lower Prices and Operational Suitability.
(This section addresses Issue 7, identified in the prehearing order.)

The Staff has criticized Tampa Electric's use of a petroleum coke/coal blend feedstock assumption in its 1993 and 1996 cost-effectiveness studies because, in Staff's view, the company lacked "documentation" on the feasibility of using petroleum coke in an IGCC facility (Tr. 756) and had not included in its analysis "hidden" costs associated with the transportation of petroleum coke. (Tr. 791) However, the Staff has not produced a single shred of evidence suggesting that petroleum coke is an unsuitable feedstock for the Polk IGCC unit or the existence of any "hidden costs" associated with petroleum coke transportation. In contrast, all of the relevant evidence in this proceeding supports the reasonableness of Tampa Electric's use of the petroleum coke/coal blend assumption.

Texaco, the designer of the coal gasification system used in Polk Unit One, advised Tampa Electric from the inception of the project that the Polk Unit One IGCC would be capable of using a wide range of coals as well as petroleum coke/coal blends. (Tr. 413) In fact, Tampa Electric's technology license with Texaco is for the use of "solid carbonaceous fuel". This specific wording was selected to include the use of petroleum coke. (Tr. 413)

Tampa Electric was also aware that petroleum coke/coal blends had been used as a feedstock in another Texaco gasification system, the Ube Ammonia Plant in Japan, since 1986, with favorable results.

(Tr. 413) Based on its early discussions with Texaco and the operators of the Ube Ammonia Plant, Tampa Electric concluded that petroleum coke was a usable gasifier feedstock. (Tr. 760)

The reasonableness of this conclusion has been reinforced by significant amounts of additional information. The Ube Ammonia plant continues to obtain good results from the use of petroleum coke in its Texaco gasifier in blends of up to 90%/10% petroleum coke/coal. (Tr. 413) In 1994, Eastman Chemical company began testing petroleum coke/coal blends in its Kingsport, Tennessee Texaco coal gasification process plant with good results. (Ex. 15, pp. 63-64) A significant number of other petroleum coke feedstock projects or petroleum coke/coal blend feedstock projects are either in operation or under development. (Ex. 15, p. 64) All of these projects are expected to be in full operation by 1999, using petroleum coke as a feedstock. (Ex. 15, p. 64).

The operational feasibility of using petroleum coke as a feedstock for the Polk IGCC gasifier was not speculative in 1993 and is not speculative now. Petroleum coke has chemical, physical and handling properties similar to those of the coal that will be used in Polk Unit One. (Tr. 253) Texaco gasifier units have operated quite successfully for a number of years on petroleum coke/coal feedstock blends. Texaco has definitively stated that the Polk IGCC unit is fully capable of operating on blends of coal and petroleum coke. (Ex. 15, p. 64) Tampa Electric witness Black has introduced into evidence his expert opinion that there is no reason to believe that petroleum coke will not work well as a

feedstock. (Tr. 496)

The Staff's assertion that the use of petroleum coke as a feedstock was not a reasonable assumption because petroleum coke had not yet been test burned in the Polk IGCC is without merit. Indeed, in 1993-1994, no feedstock had been test burned in the Polk IGCC because the plant was not yet constructed. The company based its conclusion on information from Texaco, the successful experiences at the Ube plant, and its own use of petroleum coke in pulverized coal units.

In addition, the "hidden costs" of petroleum coke transportation alleged by the Staff simply do not exist. All necessary permits for the transportation and gasification of petroleum coke at the Polk site have been obtained. (Tr. 327) Tampa Electric's project-related barging and trucking contracts already include provisions for trucking petroleum coke to the Polk site. (Tr. 327) There is no cost difference for transporting the same quantities of coal and petroleum coke. A reduction in total land and water transportation costs, however, is likely since petroleum coke has a higher heating value than coal and, therefore, requires fewer tons to be transported. (Tr. 900)

Petroleum coke is a commonly handled fuel and has been used for years without difficulty. The company's experience in buying, transporting, storing, and handling petroleum coke supports its conclusions. For example, petroleum coke has been delivered to the company's Big Bend Station without creating problems or unexpected expenses. (Tr. 900)

All of the above mentioned facts are in the record of this proceeding without contradiction. Under these circumstances, Staff's criticism of Tampa Electric's use of the petroleum coke feedstock assumption in its 1993 and 1996 cost-effectiveness studies is unjustified.

II.G. Tampa Electric's Assumption of the Availability of Section 29 Tax Credits in its 1994 and 1995 Cost-Effectiveness Studies was Based on a Reasonable Expectation that the Company would Qualify for the Credits. (This section addresses Issue 4, identified in the prehearing order.)

The Section 29 tax credit provision was originally intended to expire in 1990, rendering it irrelevant to the Polk IGCC project. (Ex. 24, pp. 8, 14-15) However, in 1992, the availability of the credit was extended to December 31, 1996, for qualifying plants in operation by that date. (Ex. 24, p. 8) Because the only impediment to obtaining the credit for the Polk facility was the self-dealing language in the provision, Tampa Electric commenced serious efforts in late 1992 and early 1993 to amend the Internal Revenue Code. Significant potential savings in Polk-related revenue requirements to customers would be produced by the use of such a credit. (Ex. 24, p. 11).

Mr. Gibbons, the Congressman from Tampa who was then the number two ranking Democrat on the House Ways and Means Committee, agreed to support the company's effort to amend Section 29. (Ex. 24, p. 16) Although Tampa Electric felt that it had a reasonable chance of getting the law amended at some point, the company was not sufficiently confident in 1993 of obtaining the required amendment to warrant the use of this assumption in its 1993 cost-

effectiveness study. (Ex. 24, pp. 23-24).

The company's assessment of the probability of amending the law changed dramatically in 1994, the first year in which the Section 29 tax credit assumption was used in the company's cost-effectiveness analysis. In May of 1994, Congressman Gibbons became acting Chairman of the House Ways and Means Committee, a position of even stronger leadership. Congressman Gibbons gave the company his assurance that amending Section 29 in a manner that would allow the company to claim the tax credit for the Polk plant would be his number one legislative priority and that the amendment would occur in due time. (Ex. 24, p. 25)

When the leadership in the House changed from the Democrats to the Republicans in January, 1995, Mr. Gibbons became the ranking minority member of the Ways and Means Committee. Tampa Electric, still believed, however, that there was a good chance that the amendment would be passed. (Ex. 24, p. 36) As the year wore on, the battle over the budget became the primary focus of the Ways and Means Committee. By October of 1995, the company became convinced that the chances of effecting an amendment to Section 29 had declined significantly, resulting in the removal of the Section 29 tax credit assumption in the company's 1996 cost-effectiveness analysis. (Ex. 24, p. 32)

Tampa Electric's use of the Section 29 tax credit assumption was based on the reasonable belief at the time, that the necessary amendment to the tax code would be obtained. However, as part of the company's ongoing effort to evaluate and test the assumptions

used in its cost-effectiveness studies, when it became clear that the chances of obtaining the amendment were no longer good, the company reverted to the use of the petroleum coke assumption in its cost-effectiveness analysis. The petroleum coke assumption remained viable and yielded almost as much savings as the Section 29 tax credits.

II.H. The Company's Planned Use of a Seven Year Tax Life for the Polk Plant is Consistent with the IRS Code, Will Result in Lower Revenue Requirements and is Consistent with the April 30, 1996 Stipulation.

The company's assumption of a seven year tax life for Polk Unit One is reasonable and appropriate. The Polk IGCC is not a type of asset explicitly identified in the code and, therefore, it should be included in the "all other" category for which a seven year tax life is applicable. (Tr. 600-601) Although it recognizes that the IRS has not made any official determination of the appropriate tax life of the Polk IGCC assets, and such determination will not be made until three to five years after the 1996 tax return is filed, Tampa Electric firmly believes the seven year tax life is reasonable and appropriate. (Tr. 601; Ex. 24, pp. 60-62) Finally, the use of a seven year tax life is beneficial to retail ratepayers since it reduces the revenue requirements of the company and it is supported by the parties in the April 30, 1996 stipulation approved by the Commission. (Tr. 601-602)

II.I. Tampa Electric's Assumption of "As-Available" Gas and Oil as the Fuels for the Combined Cycle Alternative in its Cost-Effectiveness Analysis is Reasonable, Given the Company's Generation Resource Mix and System Economics. (This section addresses Issue 8, identified in the prehearing order.)

A natural gas-fired, combined cycle unit on Tampa Electric's

system would operate at very low capacity factors since it would not displace the company's more economical coal-fired generation. (Tr. 906) Other utilities, such as FPC and FP&L, rely on significant amounts of oil-fired generation. As a result, when they model the use of a natural gas-fired combined cycle on their system for dispatch purposes, the unit competes favorably with their oil-fired generating resources and would operate at high capacity factors. (Tr. 906-907)

Tampa Electric witness Hernandez prepared a number of sensitivity analyses comparing the cost-effectiveness of firm versus as-available gas combined with light oil for a combined cycle unit on Tampa Electric's system. (Ex. 48, pp. 2-8). These analyses resulted in a projected savings of \$50-\$75 million (CPW\$96 million) as the result of assuming the use of as-available gas instead of firm gas. (Tr. 898) This significant difference reflects the combined cycle's low capacity factor and the impact of high take-or-pay charges for firm natural gas.

The above mentioned facts are uncontradicted in the record. The only attempt at rebuttal is to assert that the take-or-pay charges associated with the use of firm gas could have been mitigated through the sale of unneeded capacity to others. (Tr. 789-790) However, there is no evidence in the record to suggest that a viable market for unneeded firm gas exists now or will exist in the future. It is not reasonable for any utility to make long-term commitments for the purchase of firm natural gas for use in low capacity factor units on the expectation that the utility may

be able to market the excess gas transportation into the secondary market. In many cases, firm natural gas purchasers are required to absorb the cost of unused transportation capacity or, if a sale is possible, to sell below cost. (Tr. 899)

II.J. Tampa Electric's Inclusion of "Sunk" Costs in its Cost-Effectiveness Studies was Reasonable and Yields the Same Results as the Incremental Cost Analysis Advocated by Staff and Intervenors.
(This section addresses Issue 2, identified in the prehearing order.)

Based on the Commission's determination of need for the Polk IGCC unit, Tampa Electric began to seek the permitting, perform the engineering, acquire and prepare the site and put the necessary organization together in order to implement the construction plan on time and in a cost-effective manner. (Tr. 24) As the resulting project-related expenses were incurred, the company factored these "sunk costs" into its ongoing analysis of the economics of switching from the planned IGCC unit to another generation technology. (Tr. 11, 25) The imputation of these costs to both the IGCC unit and the alternative combined cycle unit considered in the cost-effectiveness studies was reasonable since these costs, prudently incurred in reliance on the Need Order, would have been recoverable from ratepayers. (Tr. 24) The Commission previously has allowed prudently incurred costs associated with cancelled projects to be included in rate base and amortized over a period of years.³

³In re: Petition of Florida Power & Light Company for an increase in its rates and charges, Order No. 10306, Docket No. 810002-EU (CR), September 23, 1981; In re: Petition of Gulf Power Company for an increase in its rates and charges, Order No. 9628, Docket No. 800001-EU (CR), November 10, 1980.

The parties to this proceeding criticize the inclusion of sunk costs in the company's cost-effectiveness studies and argue that an incremental cost analysis which ignores sunk costs should have been used. (Tr. 190; 229-230) The inclusion of the same amount of sunk costs for all alternatives considered, however, effectively results in an incremental cost analysis. (Tr. 948) Thus, the use of an incremental cost analysis would yield precisely the same savings as Tampa Electric's studies demonstrate (Ex.hibit 7).

**III.
CONSIDERATION OF ALTERNATIVE RATEMAKING IS UNWARRANTED, GIVEN THE
WEIGHT OF EVIDENCE IN THIS PROCEEDING AND UNNECESSARY IN LIGHT OF
THE EXISTING RATE STIPULATION.**
(This section addresses Issues 9, 10, 11, 13, and 14 identified in
the prehearing order.)

This is a case about prudence in the construction of Tampa Electric's Polk IGCC Unit. It is not a rate case. There is no proposal to increase rates in this proceeding. Issues related to alternative cost recovery for the Polk unit, the capital structure to be imputed to the company's Polk Unit investment and retail/wholesale jurisdictional separation of Polk-related cost are rate case matters which have no reasonable nexus to the evaluation of the company's prudence in the construction of Polk Unit One.

Tampa Electric, OPC and FIPUG have entered into a stipulation which provides for a base rate freeze through 1998 as well as for refunds totaling \$25 million starting in 1996 and the possibility of additional refunds in 1999. All of this will occur at the same time that the company is putting into service a major new plant addition. Under these circumstances, it would be difficult to imagine a more innovative alternative to conventional ratemaking

for a major plant addition than the stipulation which this Commission approved without qualification at its Agenda Conference on April 16, 1996.

The stipulation reached by the parties preempts issues relating to rate design and cost recovery through December 31, 1998. (Tr. 986; 992) The stipulation contemplates that all of the company's prudently incurred Polk investment will be included in rate base. (Tr. 986-987) Mr. Ballinger's proposal to shift the risk of fuel forecast error to the company, Mr. Falkenberg's plan to phase the company's Polk investment into rate base, and Mr. Larkin's proposal to exclude the gasifier portion of the IGCC unit from rate base are all obviated by the stipulation and the overwhelming evidence of the prudence of the company's Polk investment. The appropriate jurisdictional separation methodology, moreover, was determined in the company's last rate case and should continue to be used during the period that base rates are frozen. (Tr. 586-588)

Issues relating to debt, equity and other components of capital structure associated with the Polk IGCC unit are rate case issues. There have not been (and none are planned) any specific separate financings for the Polk IGCC unit or any other specific asset. Tampa Electric's capital structure was approved by the Commission in its last rate case.

As determined in the Need Order, all DOE funding, including DOE funding for O&M expenses will be treated as a reduction base rate revenue requirements. (Need Order, p. 9).

IV.

REVIEW OF THE GENERATION EXPANSION DECISIONS OF OTHER UTILITIES PROVIDES NO USEFUL INFORMATION WITH REGARD TO THE PRUDENCE OF TAMPA ELECTRIC'S POLK PROJECT INVESTMENT.

(This section addresses Issue 1, identified in the prehearing order.)

Both Staff and intervenor witnesses have suggested that comparisons between Tampa Electric's IGCC unit and various non-IGCC generating units of others are appropriate. (Tr. 709, 711, 745, and 819) In addition, OPC Witness Larkin attempts to draw an analytical link between decisions by some utilities not to construct IGCC units on their system with Tampa Electric's decision to build such a unit on its system. (Tr. 705-706) These comparisons are meaningless and irrelevant to the question of the prudence of Tampa Electric's investment in the Polk Power Station. (Tr. 946-947)

Staff has made much, both in this proceeding and in the media, about the difference in the initial cost of the Polk IGCC unit and the FP&L and FPC gas-fired, combined cycle units. (Tr. 734) This attempted comparison is misleading in at least two respects.

First, as discussed above, a natural gas-fired combined cycle unit would dispatch very differently on Tampa Electric's system than it would on the FPC and FP&L systems. (Ex. 43, p. 91; Ex. 44, p. 192) This difference in system economics and generation mix renders the comparison which Staff wishes to make meaningless for purposes of ascertaining the cost-effectiveness of an IGCC unit on Tampa Electric's system. (Tr. 947)

In addition, if one wished to make a comparison between the two technologies, then the comparison between the two technologies,

then it should be done correctly on a life-cycle cost basis rather than a first year basis as done by the Staff. (Tr. 941) Staff's selection of the initial year of operation as the basis for its comparison ignores the long-term fuel savings associated with the IGCC unit and long-term higher fuel costs associated with the natural gas-fired, combined cycle units. (Tr. 941) A full-life levelized cost comparison would capture the declining fixed costs and the increasing operating costs over time, on a cents-per-kwh basis over the life of the unit, or on a dollar-per-kwh-per-year basis at varying capacity factors over the life of the unit. (Tr. 941) When this appropriate method of comparison is applied, the IGCC remains the lower cost unit on Tampa Electric's system with a levelized life cycle cost of 6.19 cents-per-kwh versus that of a combined cycle unit on Tampa Electric's system costing 8.59 cents-per-kwh. (Ex. 3, pp. 103 and 107)

In suggesting that the FPC and FP&L decisions to postpone plans for IGCC units on their respective systems provides a basis for testing the prudence of Tampa Electric's decision to build an IGCC unit on its system, OPC witness Larkin also failed to recognize another significant difference between the Tampa Electric and FPC systems which render the comparison meaningless. The large amounts of firm contracted cogeneration capacity on FPC's system (which is purchased at a high capacity factor and high fixed capacity payments) are comparable to adding two 600 MW base-load coal units on a system that already consists of several base-load coal units and one nuclear unit. This type of system would not

easily support the addition of IGCC technology on an economic basis without the benefit of the DOE funding which Tampa Electric has obtained and FPC and FP&L have not. (Tr. 942)

V.

THERE IS NO EVIDENTIARY BASIS FOR CHANGING THE EXISTING RATE BASE TREATMENT OF THE PORT MANATEE POWER PLANT SITE.

(This section addresses Issue 12, identified in the prehearing order.)

There has been no significant change in circumstances since the 1992 rate case which would warrant reconsideration of the Commission's decision to include Port Manatee in rate base.

An electric utility with the obligation to serve should have multiple options for the placement of new generating facilities. Consistent with this principle, utilities such as FP&L have a wide variety of future plant sites in rate base, including partially developed and undeveloped sites. (Tr. 577, 11-17; Ex. 43, pp. 102-103) In fact, FP&L has included two undeveloped 13,000 acre sites in rate base since 1972 and 1974. (Ex. 43, Late filed exhibit 5, p. 1) The Port Manatee site provides a valuable option for a future power plant site or other utility-related use. While the site may not be suited for a large coal or IGCC plant, it may be well suited for other kinds of technologies. (Tr. 574)

VI.

TAMPA ELECTRIC'S POLK-RELATED DECISIONS SHOULD BE EVALUATED ON THE BASIS OF WHAT A REASONABLE PERSON WOULD HAVE DONE, GIVEN WHAT WAS KNOWN OR SHOULD HAVE BEEN KNOWN AT THE TIME THOSE DECISIONS WERE MADE.

(This section addresses Issue 15, identified in the prehearing order.)

The principal question before the Commission in this proceeding is the prudence of Tampa Electric's Polk Power Station

related investment. Prudence has been defined as follows:

Prudence is that standard of care which a reasonable person would be expected to exercise under the same circumstances encountered by utility management. At the time decisions had to be made in determining whether a judgment was prudently made, only those facts available at the time judgment was exercised can be considered. Hindsight view is impermissible.

Illinois Power Co. v. Illinois Commerce Commission, 612 NE 2nd 925 (Ill. App. 3rd 1993).

The Pennsylvania Public Service Commission approved the following interpretation of construction prudence:

Prudence is that standard of care which a reasonable person would be expected to exercise under the same circumstances encountered by utility management at the time decisions had to be made. In determining whether a judgment was prudently made, only those facts available at the time judgment was exercised can be considered. Hindsight review is impermissible.

Imprudence cannot be sustained by substituting one's judgment for that of another. The prudence standard recognizes that reasonable persons can have honest differences of opinion without one or the other necessarily being imprudent.⁴

The Massachusetts Department of Public Utilities has embraced a similar standard of review for prudence:

A prudence review must determine whether the utility's actions, based on all that it knew or should have known at the time, were reasonable and prudent in light of the circumstances which then existed. Such a

⁴In re: Salem Nuclear Generating Station, 70 P.U.R. 4th 568, 574, (Pa P.U.C. 1985); see also Pennsylvania Public Utility Commission v. Pennsylvania Power Company, 93 P.U.R. 4th 189, 201 (Pa P.U.C. 1988) (applying the same definition 74 Pa P.U.C. 1985).

determination may not properly be made on the basis of hindsight judgments, nor is it appropriate for the Department merely to substitute its best judgment for the judgments made by the management of the utility.⁵

It is not for a regulatory body to determine prudence by reference to what it would have done if it had been exercising power of management.⁶ This Commission has recognized the inappropriateness of substituting its judgment in place of that of utility management.⁷

Thus, the question before the Commission in this proceeding is whether there was a reasonable basis for the decisions made by Tampa Electric Company in carrying out the Commission's Polk Unit One Need Determination Order. The issue is not whether another person confronted with the same facts would have made a different decision. Imprudence cannot be sustained by substituting one's judgment for that of another. Reasonable persons can have honest

⁵In re: Massachusetts Electric Company, 164 P.U.R. 4th 393 (Mass. D.P.U. 1995); see also In re: Boston Gas Company, 1993 WL 560277 (Mass. D.P.U. 1993).

⁶Pennsylvania Public Utility Commission v. Pennsylvania Power Company, supra, at 93 P.U.R. 4th 201.

⁷See, e.g., Order No. 19042, issued in Docket No. 880001-EI on March 25, 1988, In re: Fuel and Purchased Power Cost Recovery Clause and Generating Performance Incentive Factor (92 P.U.R. 4th 412, 417) where the Commission, in refusing to apply hindsight to a management decision, said:

In short, we will not here substitute our judgment for that of FPC's management in conducting negotiations with the utility's gas supplier nor in evaluating the risks inherent in choosing the fuel supply for the Suwannee plant.

See, also, Gulf Power v. FPSC, 453 So.2d at 804, citing Order No. 11498, issued January 4, 1983.

differences of opinion without one or the other being imprudent.⁸

In appraising whether there is a reasonable basis for a utility's actions, the Commission's role is to review a utility's decision solely in light of the facts known or which should have been known at the time the decision was made, and not through an application of the twenty-twenty vision of hindsight.⁹

Although Tampa Electric has presented a preponderance of evidence demonstrating the prudence of the company's implementation of the need determination order, other legal points also support its position in this proceeding. First, under Florida law, Tampa Electric is obligated to have reasonably sufficient, adequate and reliable facilities, including generating facilities, with which to carry out its statutory obligation to serve under Section 366.03, Florida Statutes.

Under Section 403.519, Florida Statutes, the Polk Unit One need determination order constituted final agency action on the Commission's determination of need for Tampa Electric to construct an IGCC unit (Polk Unit One) at the company's Polk County Power

⁸In re: Salem Nuclear Generating Station, supra.

⁹In re: Investigation of Fuel Adjustment of Electric Utilities, Order No. 12645 issued November 3, 1983 in Docket No. 830001-EU, at page 9, where the Commission stated:

. . . We fully intend to review a utility's procurement decisions based solely in light of the facts known or knowable at the time a decision was made.

See also, Florida Power Corporation v. Public Service Commission, 456 So.2d 451 (Fla. 1984), where the court refused to condone an application of the twenty-twenty vision of hindsight to support a determination that management acted unreasonably at the time of the Florida Power Corporation dropped test weight accident.

Plant site. Under the express language of Section 403.519, Florida Statutes, the Need Order created a presumption of public need and necessity for the Polk Unit One IGCC at the company's Polk County site.

The statutory presumption set forth in Section 403.519, Florida Statutes, was clearly established to implement public policy. Thus, under pertinent provisions of the Florida Evidence Code the statutory presumption of need and necessity for the Polk Unit One IGCC at the company's Polk County site imposes upon any party taking issue with such need and necessity the burden of proof concerning the non-existence of such need and necessity. In other portions of the company's Brief and Post-Hearing Statement we have demonstrated that no such burden of proof has been met by Staff or the parties and, moreover, that Tampa Electric presented a preponderance of evidence which clearly shows that its decision making regarding Polk Unit One was, indeed, prudent.

VII. CONCLUSION

Tampa Electric has constructed the Polk IGCC project, which this Commission approved, in a prudent manner. The company has monitored the cost-effectiveness of the project, both prior to and during the construction phase. The company has constantly reviewed and tested its assumptions, including fuel price forecast methodology and other economic assumptions to insure a high confidence level in its cost-effectiveness analyses. The company has carefully monitored and controlled project-related costs. In short, Tampa Electric has done everything necessary to warrant

Commission approval of its full investment in the Polk IGCC project.

STATEMENT OF ISSUES AND POSITIONS

PLANNING ISSUES

ISSUE 1: Was the continued construction of the Polk IGCC Unit by Tampa Electric Company reasonable and prudent?

TECO: * Yes. There were no changed circumstances subsequent to the issuance of the Need Order which required a different course. The company repeatedly evaluated the cost-effectiveness of the IGCC Unit and confirmed its continuing cost-effectiveness each time based on reasonable assumptions and accepted methodology.*

ISSUE 2: Were Tampa Electric Company's assumptions regarding sunk costs in each of its annual cost-benefit analysis reasonable?

TECO: * Yes. Sunk costs were prudently incurred and would have been recovered from Tampa Electric's customers in the event of project cancellation or modification. If sunk costs are consistently imputed to all alternatives or to none of the alternatives the resulting savings are the same as those calculated by Tampa Electric.*

ISSUE 3: Were Tampa Electric Company's assumptions regarding variable operations and maintenance expense in each of its annual cost-benefit analysis reasonable?

TECO: * Yes. Tampa Electric's cost-effectiveness analyses were based on comparing total system revenue requirements for various generating alternatives

and included the impact of total system O&M expenses, fuel expense, and capital costs for Tampa Electric's existing and planned generating units.*

ISSUE 4: Were Tampa Electric Company's assumptions regarding tax credits in its 1994 and 1995 Polk IGCC cost-benefit analysis reasonable?

TECO: * Yes. At the time the tax credit assumption was used in the company's cost-effectiveness analyses, Congressman Samuel Gibbons, the acting Chairman of the House ways and means Committee, assured the company that the tax code would be amended as necessary to permit the company to claim the credit.*

ISSUE 5: Did Tampa Electric Company adequately address its declining demand and energy forecasts in each of its annual cost-benefit analysis?

TECO: * Yes. The impact of each demand and energy forecast on system reliability and production costs and generation expansion plans was included in each cost-effectiveness analysis. The deferral of the advanced combustion turbine from July 1995 to July 1996 was reported in Tampa Electric's 1994 Ten Year Site Plan filing.*

FUEL ISSUES

ISSUE 6: Has Tampa Electric Company demonstrated that its 1992, 1993, 1994, and 1995 fuel price forecasts were reasonable and prudent?

TECO: * Yes. Tampa Electric's 1992-1995 forecasts of natural prices were in a zone of reasonableness

when they were made. In fact, the company's 1992-1995 forecasts of 1996 gas prices are below today's market price of gas. Tampa Electric correctly forecast the upturn in natural gas prices which we see today.*

ISSUE 7: Has Tampa Electric Company demonstrated that petcoke is a reliable and viable fuel for the Polk IGCC Unit?

TECO: * Yes. Texaco's proven gasification technology, on which the Polk IGCC Unit is based, has been fueled by a wide range of coal and petroleum coke/coal blends of up to 90% petroleum coke. Petroleum coke has been demonstrated to be commercially available, transportable, technically viable and competitively priced*.

ISSUE 8: Were Tampa Electric Company's assumptions regarding the combined use of as-available natural gas and light oil as the primary fuels for a combined cycle alternative in its 1992, 1993, 1994, 1995, and 1996 Polk IGCC cost-benefit analysis reasonable?

TECO: * Yes. Using as-available gas when there would be relatively little demand for gas, and oil during those periods of high demand for gas, was the most realistic and reasonable assumption for Tampa Electric's system, given the low expected capacity factor of a combined cycle unit on the Company's system.*

RATE BASE TREATMENT

ISSUE 9: What is Tampa Electric's appropriate amount of the Polk IGCC Unit's cost to be included in rate base?

TECO: * The thirteen month average of the first full year

of operation of the Polk Unit, estimated to be \$506,185,000, should be included in rate base. The amount shown includes the \$506,165,000 capital investment, accumulated depreciation of (13,009,000), and working capital in the amount of \$13,029,000.*

ISSUE 10: What is the appropriate amount of the Polk IGCC Unit's cost to be included in the calculation of net operating income?

TECO: * The full annual operating expense, currently estimated to be \$20,582,000, should be included in the calculation of net operating income. This amount consists of a net O&M component of \$3,816,000, (net of \$10,000,000 DOE credit) depreciation expense of \$22,301,000 and net taxes of \$(5,535,000).*

ISSUE 11: What are the appropriate capital structure components associated with the Polk IGCC Unit?

TECO: * The Polk Unit should be treated like any other investment which is supported on a pro rata basis by the company's total capital structure.*

ISSUE 12: What is the appropriate regulatory treatment for the Port Manatee site:

TECO: * Tampa Electric's entire investment in the Port Manatee site (\$4,879,076 as of March 21, 1996) should continue to be classified as property held for future use and included in rate base as the Commission determined in 1992 in order No 93-0165 in Docket No. 920324-EI.*

ISSUE 13: How should the capital, fuel, and operating and maintenance costs associated with wholesale sales made

from the Polk IGCC Unit be separated from the retail jurisdiction?

TECO: * The separation procedure to be used to separate capital and O & M was approved in the company's last rate case, Docket No. 920324-EI and should continue to be followed until Tampa Electric's next Rate case.*

ALTERNATIVE RATEMAKING TREATMENTS

ISSUE 14: Should the Commission consider an alternative method of cost recovery for TECO's Polk County IGCC Unit?

TECO: * No. This is not a rate case. The Joint Stipulation itself is an innovative, creative alternative to conventional ratemaking already addresses this issue. It provides for the commercial operation of a major plant addition without any increase in base rates through 1998 and fuel savings which will begin in 1996.*

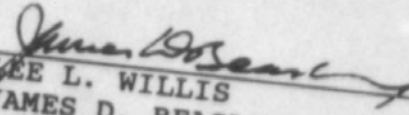
LEGAL ISSUE

ISSUE 15: What is the appropriate legal standard to be used in deciding the issues in this docket?

TECO: * The test for prudence is one of reasonableness. A determination of prudence calls for an inquiry into the reasonableness of management's project-related decisions, given what was known or should have been known at the time those decisions were made. Hindsight review is impermissible.*

DATED this 5th day of August, 1996.

Respectfully submitted,



LEE L. WILLIS
JAMES D. BEASLEY
KENNETH R. HART
Ausley & McMullen
Post Office Box 391
Tallahassee, Florida 32302

HARRY W. LONG, JR.
TECO Energy, Inc.
P.O. Box 111
Tampa, Florida 33601-0111

ATTORNEYS FOR TAMPA ELECTRIC COMPANY