BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 050078-EI

In the Matter of

PETITION FOR RATE INCREASE BY
PROGRESS ENERGY FLORIDA, INC.
_____/

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VOLUME 7

Page 948 through 1152

PROCEEDINGS:	TECHNICAL HEARING
BEFORE:	CHAIRMAN BRAULIO L. BAEZ COMMISSIONER J. TERRY DEASON COMMISSIONER RUDOLPH "RUDY" BRADLEY COMMISSIONER LISA POLAK EDGAR
DATE:	Wednesday, September 7, 2005
TIME:	Commenced at 9:30 a.m.
PLACE:	Betty Easley Conference Center Room 148 4075 Esplanade Way Tallahassee, Florida
REPORTED BY:	JANE FAUROT, RPR Official FPSC Hearings Reporter (850) 413-6732
APPEARANCES:	(As heretofore noted.)

I N D E X

WITNESSES

P R O C E E D I N G S

(Transcript follows in sequence from Volume 6.)

REBUTTAL TESTIMONY OF ROBERT H. BAZEMORE, JR.

ON BEHALF OF PROGRESS ENERGY FLORIDA, INC.

I. Introduction.

Q. Please state your name.

A. Robert H. Bazemore, Jr.

Q. Did you submit Direct Testimony in this case on April 29, 2005?

A. Yes, I did.

Q. Can you summarize the purpose of your Direct Testimony in this case?

A. Yes. The purpose of my direct testimony was to support the reasonableness of the Administrative and General ("A&G") portion of the Company's Operation and Maintenance ("O&M") expenses and asset retirement obligations in this proceeding and to sponsor and support the Company's depreciation study.

Q. Have you reviewed the intervenor testimony filed in this proceeding by witnesses Donna Deronne, Jacob Pous, Helmuth Schultz, and Hugh Larkin, Jr. on behalf of the Office of Public Counsel ("OPC"), and Michael Gorman on behalf of White Springs Agricultural Chemicals, Inc. d/b/a PCS Phosphate – White Springs ("White Springs")?

A. Yes, I have.

Q. What do these witnesses address in their intervenor testimony?

A. Ms. Deronne and Mr. Schultz take issue with certain A&G O&M expenses. Mr. Pous, Mr. Larkin, and Mr. Gorman challenge certain aspects of the Company's depreciation study and proposed level of depreciation expense.

Q. Do Ms. Deronne and Mr. Schultz challenge the reasonableness of all of the Company's A&G O&M expenses?

A. No they do not.

Q. Do Mr. Pous, Mr. Larkin, and Mr. Gorman challenge the reasonableness of all aspects of the Company's depreciation study in their testimony?

A. No, they do not. They take issue with the calculation of net salvage for some but not all of the transmission and distribution ("T&D") FERC accounts. They contend that the calculation of the theoretical depreciation reserve demonstrates a real surplus that should be returned to customers, but they disagree on what the Florida Public Service Commission ("FPSC" or "Commission") should do. They do not take issue with any of the calculations of net salvage for the generation FERC accounts.

Q. Do you agree with the testimony of Ms. Deronne and Mr. Schultz concerning the A&G O&M issues they raise?

A. No, not all of them. There are two items where we noted adjustments may be necessary based on information available after or right around the time the

Company filed its Minimum Filing Requirements ("MFRs") and direct testimony. This information was provided by the Company to the intervenors. These adjustments reflect the rate of increase in the Company's health care costs and the expected Company distributions from the Nuclear Electric Insurance Limited ("NEIL"). These adjustments are based on information available after or right around the time the Company filed its Minimum Filing Requirements ("MFRs") and direct testimony that the Company provided the intervenors. If the Commission agrees that the Company should incorporate this updated information in its request in this proceeding, then the Company agrees with these two adjustments, as I explain below. I do not agree, however, that their other proposed adjustments are reasonable.

Q. Do you agree with the testimony of Mr. Pous, Mr. Larkin, and Mr. Gorman concerning the depreciation issues they raise?

A. No, I do not. I will generally address the issues they raise from the Company's perspective. Mr. Portuondo and Mr. Robinson, the outside consultant retained by the Company to prepare a depreciation study on the Company's behalf, will also file testimony in rebuttal to the testimony of Mr. Pous, Mr. Larkin, and Mr. Gorman. I also understand that other Company witnesses will file rebuttal testimony to address some of the issues raised by these witnesses in their testimony.

Q. Are you sponsoring any exhibits to your rebuttal testimony?

A. Yes, I am. I have supervised the preparation of the following exhibits to my rebuttal testimony:

- Exhibit No. ____ (RHB-8), the Company's revised response to OPC interrogatory number 26.
- Exhibit No. ___ (RHB-9), the Company's revised response to the Florida Retail Federation interrogatory number 17.
- Exhibit No. ___ (RHB-10), the Company's health care cost adjustment schedule.

All of these exhibits are true and accurate.

II. Depreciation Issues.

Q. Did you file a depreciation study as an exhibit to your pre-filed direct testimony in this case?

A. Yes. Both Mr. Portuondo and I sponsor the Company's depreciation study.

Q. Did you prepare that depreciation study?

A. No. The depreciation study filed with my direct testimony as Exhibit No. ___ (RHB-7) was prepared by Earl Robinson of AUS Consultants. Mr. Robinson prepared that depreciation study at PEF's direction, and my staff provided oversight and input as needed on the project. Specifically, Mr. Andrew Krebs of my staff was Mr. Robinson's contact with the Company and communications between Mr. Robinson and the Company went through Mr. Krebs. Mr. Krebs was the Manager of Property and Materials Accounting. The Manager of

Property and Materials Accounting is responsible for depreciation matters within the Company.

Q. Do you agree with Mr. Pous' suggestion that the Company was unaware of the work being performed by Mr. Robinson in preparing the depreciation study?

A. No, I do not. As I said above, Mr. Krebs was the Company's point person on the depreciation study and regularly met with and discussed the work with Mr. Robinson. Mr. Krebs further kept me informed of the status of the work and the study. I do want to be clear, however, that the Company retained Mr. Robinson for his independent assessment of the Company's depreciable plant. At no time did the Company direct Mr. Robinson on what recommendations to make in the depreciation study. I understand that even Mr. Pous agrees that the depreciation study should be the independent work of the consultant and that was true in the case of the study that Mr. Robinson prepared on behalf of the Company.

Q. Do you agree with Mr. Pous, Mr. Larkin, and Mr. Gorman that the Company has a variance in its depreciation reserve that should be refunded to customers?

A. No. Mr. Robinson and Mr. Portuondo will also address this issue in their rebuttal testimony, however, as a general matter, the variance is the difference between the theoretical reserve, which uses proposed depreciation parameters, and the book reserve, which reflects historical reserve transactions, including all previous

Commission approved depreciation parameters. This calculation is required by Commission rule as one means for the Commission to evaluate the depreciation study submitted by the Company. I understand the Commission rule does not prescribe that any action be taken based on the calculation and comparison of the theoretical and book reserves. In fact, it would be unusual for the theoretical reserve to equal the book reserve so there will always be some variance when this calculation is performed and the comparison of the theoretical to book reserve is made.

Also, any variance that results between the theoretical and book reserve is a non-cash item that should not be "refunded" to PEF's ratepayers. In other words, PEF does not have an actual cash surplus in an account for its depreciation reserve. The depreciation reserve is an accounting function that reduces rate base to reflect the cumulative wear and tear experienced by this investment that has been dedicated to providing customer electrical service. The money received from customers, which includes the recognition of the consumption of investments, is used by the Company to replace or repair consumed Electric Plant in Service, build new power plants, build new substations and lines, pay employees, and all other expenses that are necessary for the Company to provide service. There is no bucket of money to be refunded to ratepayers.

Finally, there is a reason it is called the "theoretical" reserve. The calculation of the theoretical reserve is a point in time calculation based upon the Commission's requirement to perform a theoretical reserve calculation. In simple terms, a theoretical depreciation calculation is a depreciation reserve calculation

that assumes the proposed depreciation parameters were in existence since day one of the surviving investment in each account. For example and as outlined in the Company's depreciation study, the Company is assuming a 20-year life extension for its Crystal River 3 nuclear plant ("CR3"). The theoretical reserve calculation assumes that the life extension assumption was known and factored into the depreciation rates the day the CR3 plant became operational. This assumption is, of course, simply not true but it is a necessary assumption to perform the theoretical reserve calculation. There will always be changes to the Company's depreciation rates over time as the Company incorporates the on-going experience with, and knowledge of, its plant and how it is performing into its depreciation analysis. That is the reason the Commission requires the investor owned electric utilities to file new depreciation studies at least every four years. One should not assume from the calculation of the theoretical reserve that the Company's current rates unreasonably required current customers to pay more (or less) than their fair share of the use of the Company's plant, as the intervenors do. The Company's existing rates were approved by the Commission as fair and reasonable rates. The Company's new depreciation study simply accounts for changes in prospective life and net salvage values to reflect the Company's current experience with its depreciable plant and the Company's best estimate of what the future rates should be.

Q. Do you agree with the intervenors that the Company's current variance between the theoretical and book depreciation reserve is so significant that

the Commission should take action to eliminate it by refunding the amount to customers?

A. No, again, the principles underlying the existence of the theoretical variance created by the theoretical reserve that I explained in my prior answer do not change because of the amount of the variance. They still hold true despite the amount of the theoretical variance between the theoretical and book depreciation reserves, which at about $504 million in the Company's depreciation study, is approximately 12% of the Company's total reserve. An understanding of the primary drivers behind the variance between the theoretical and book depreciation reserve in the Company's depreciation study helps put these principles into perspective.

Well over 80% of the $504 million variance between the theoretical and book depreciation reserves arises in the Company's production plant accounts (i.e., the Company's power plants) and the significant drivers there are the extension of production plant service lives. As noted above, the Company has requested a 20-year life extension on CR3 and the Company has determined, based on experience with its combined cycle plants since its last depreciation study, that the Hines Unit 1 life will turn out to be 30 rather than 20 years. This new information suggests different, *lower* depreciation rates for this production plant in the future because the Company will have a longer period of time to recover its investment in this plant. It does not mean that the Company's current rates, based on the information available at the time which, for example, did not include the decision to seek an extension of the service of life of CR3 from the

appropriate regulatory authority, were unreasonable. Indeed, if, for example, the Company's request for a 20-year extension on the service life of CR3 was denied or the Company subsequently learned that the additional investment necessary to really obtain an additional 20 years of service from CR3 was not economical, the theoretical variance between the theoretical and book depreciation reserves resulting from that service life extension would disappear.

Q. What is the appropriate regulatory treatment of the theoretical variance between the theoretical and the book depreciation reserves in the Company's current depreciation study?

A. The appropriate and reasonable regulatory treatment is to adjust the Company's depreciation rates prospectively over the remaining service lives of the depreciable plant, just as the Company proposes in its depreciation study. This is not "doing nothing" or simply "ignoring" the theoretical variance between the theoretical and book depreciation reserves as Mr. Pous suggests. Indeed, generally accepted accounting principles (GAAP) require prospective treatment of the changes in plant estimates contained in the Company's proposed depreciation parameters. The remaining life technique accomplishes this purpose consistent with these accounting principles and those of the Florida Public Service Commission memorialized in past orders as discussed in the rebuttal testimony of Mr. Portuondo.

Mr. Pous and Mr. Gorman, in fact, agree that the prospective treatment of these changes in estimates under the remaining life technique is appropriate. Mr.

Pous proposes to "return" the full $504 million imbalance between the theoretical and book depreciation reserves in the Company's study to customers using the remaining life technique – consistent with the Company's proposal – by lowering depreciation rates prospectively over the remaining service lives of the depreciable plant. Mr. Gorman similarly proposes to use the remaining life technique to "return" to customers half of the $504 million imbalance between the theoretical and book depreciation reserves. The intervenors themselves demonstrate the propriety and reasonableness of the Company's depreciation study in this regard.

The Company also believes this approach is in the best long-term interest of ratepayers in that it provides a gradual, levelized, and systematic approach to factoring into depreciation the proposed changes in estimates in the Company's Study. Perhaps the best way to demonstrate the wisdom of such an approach is to consider whether the intevenors would demand that customer rates be increased if the $504 million was a deficiency imbalance between the theoretical and the book depreciation reserves. In such an event I doubt that they would be before this Commission arguing that ratepayers should be required to pay an additional $125 million a year for four years back to PEF to address any theoretical reserve deficiency.

III. PEF Charging Practices.

Q. Are you familiar with arguments made by Mr. Schultz regarding certain of PEF's charging practices?

A. Yes. As I explained in my direct testimony, PEF reviewed its capitalization policies for its Energy Delivery business units, and that review indicated that in the areas of outage and emergency ("O&E") work not associated with major storms and the allocation of indirect costs, PEF should revise the way that it estimates the amount of capital costs associated with such work. The Company has implemented such changes effective January 1, 2005, that include more detailed classification of outage and emergency work. As a result of the changes in accounting estimates for the outage and emergency work and indirect costs, a lower proportion of PEF's costs will be capitalized on a prospective basis.

Mr. Schultz does not take issue with the substance of PEF's proposed accounting change. In fact, he agrees that the "Company's proposed accounting change for outage and emergency and indirect costs appears to have merit." (Schultz at page 25, lines 13-14). Rather, he contends that "quantitatively the Company has not supported the claimed impact on the test year; nor has it addressed possible carry-over impacts from years past." Based on his arguments, Mr. Schultz suggests that PEF should reduce its operating expense $10,356,000 on a jurisdictional basis and increase rate base $25,673,000 on a jurisdictional basis.

Q. Do you agree with Mr. Schultz's suggestions?

A. Absolutely not. As can be seen from Mr. Schultz's testimony, he summarily assumes that there are "carry-over" impacts in past years based on PEF's prior accounting treatment for O&E work and he arbitrarily recommends a

50% adjustment to operating income and rate base. However, Mr. Schultz's proposed adjustments are incorrect and improper. First, Mr. Schultz implies there are unresolved issues around the accounting treatment of the change in estimate, when there are not. The change in estimate was independently verified by an outside consultant retained to review the issue and make its own recommendations. PEF's outside, independent accounting firm also reviewed the issues and concurred with the treatment as a change in estimate and, further, the Florida Public Service Commission and the Securities and Exchange Commission (SEC) have been notified of the change. While Mr. Schultz has all of this information, including the report of the Company's outside consultant, all he refers to is an SEC notification filing (Form 8K dated December 16, 2004) in his testimony. In that filing, the SEC requires the Company to outline scenarios related to the accounting treatment. Mr. Schultz, therefore, relies on nothing more than a reference to a hypothetical scenario and, accordingly, his suggestions are mere speculation at this point. There is no open question or issue concerning the prospective treatment of the change made effective January 1, 2005.

I also take issue with Mr. Schultz's implication that the Company has been "vague and/or evasive" in its discovery responses. The Company has provided background and detail on the charging practices change through several interrogatories and production of document requests. Upon review of these documents, Mr. Schultz himself states that the change "appears to have merit," as noted above. As Mr. Schultz knows from the Company's discovery responses, the Company identified an area for further study; engaged a qualified independent

firm to review the issue; implemented that firm's recommendations; notified the regulators of the issue; and reviewed the accounting treatment with its independent accounting firm. At this point, the accounting treatment is clear and Mr. Schultz's concerns with a potential "prior year impact" are unwarranted.

Q. Did Mr. Schultz raise any other arguments regarding this issue?

A. Yes. First, Mr. Schultz appears to take issue with how PEF described the outside consulting firm that PEF hired to evaluate its proposed change in its accounting practices and make best practices recommendations to PEF. Next, Mr. Schultz appears to take issue with how PEF has notified various regulatory bodies of its change in accounting policy. Neither of these arguments have any merit.

Q. What issue does Mr. Schultz raise regarding how the Company described the outside consulting firm that evaluated PEF's proposed change in accounting practices?

A. The consulting firm hired to evaluate PEF's proposed change in accounting practices was erroneously identified as an independent accounting firm in Javier Portuondo's testimony. It should have been referred to as an independent consulting firm. As Mr. Schultz can see from the documents provided in discovery, the Company went through a rigorous proposal process to select the consulting firm in question. The consulting firm that was retained was selected based on their experience in both utility operational and financial areas. The engagement team consisted of individuals with T&D experience, as well as the appropriate utility accounting background. In addition, the firm's price was

competitive with others in the bid process. The Company implemented the consultant's recommendations (which Mr. Schultz agrees with) and our independent accounting firm reviewed the recommendations, results, and related accounting treatment.

IV. Incentive Programs.

Q. Are you familiar with the proposed adjustments that Mr. Schultz and Ms. Deronne recommend regarding PEF's incentive compensation programs?

A. Yes. Mr. Schultz contends that PEF's incentive compensation plans are not "customer oriented." He also contends that goals under PEF's incentive plans are not challenging enough. Based on his opinions, Mr. Schultz recommends that the Commission exclude all expenses for PEF's Management Incentive Compensation Plan and its Long Term Incentive Plan, and he further recommends a 50% reduction of PEF's Employee Cash Incentive Plan.

In addition to the adjustments recommended by Mr. Schultz, Ms. Deronne adopts Mr. Schultz's arguments regarding PEF's incentive compensation plans and suggests that the Commission also exclude the incentive compensation expense projected to be allocated from Progress Energy Service Company to PEF in the projected test year. Ms. Deronne's only justification for her proposed adjustment, other than the arguments made by Mr. Schultz in his testimony, is her incorrect claim that Service Company incentives should be disallowed in this proceeding because, according to her, they were not included in PEF's 2002 rate case.

Q. Do you agree with the proposed adjustments that Mr. Schultz and Ms. Deronne recommend?

A. No, I do not. As an initial matter, Mr. Schultz, and Ms. Deronne through her adoption of Mr. Schultz's arguments, are simply incorrect in their assertion that PEF's incentive compensation plans are not "customer oriented." Logically, PEF's ability to attract, retain, and motivate a quality workforce has a direct correlation to PEF's ability to effectively and efficiently serve its customers. Simply stated, a highly motivated, quality workforce provides better service to PEF's customers. In order to attract, retain, and motivate quality employees, managers, and executives, PEF's compensation must be competitive. To be competitive in attracting and retaining high quality, highly motivated Company personnel, the Company must provide them with incentive compensation. Indeed, that was one factor that allowed PEF to provide superior performance, to the benefit of its customers, since the merger.

In addition, PEF's incentive compensation goals are customer focused. In an attempt to justify disallowing 50% of PEF's employee incentives and 100% of management incentives, Mr. Schultz refers to PEF's incentive compensation legal plan documents and states that these documents make no mention of PEF's customers in the purpose of the plans. However, the Company's incentive goal structure demonstrates a clear focus on PEF's customers. For example, PEF's incentive goals are created in four broad categories (customer, operations, financial, and employee). PEF's customers indirectly benefit from all of these

goals and directly benefit from success in the "customer" and "operations" categories. Examples of customer and operational goals include: customer centered gauge results, customer transaction study results, customer call metrics, transmission and power quality measures, environmental and safety goals, capacity factor, commercial availability, INPO performance index, and other similar initiatives. Success in these areas enable PEF to provide safe, responsive, and reliable service to the customers and locations it serves. Thus, PEF's goal structure itself demonstrates PEF's focus on its customers, and Mr. Schultz's arguments to the contrary are simply wrong.

Additionally, this Commission, in PEF's last litigated rate case in 1992, recognized that PEF's Management Incentive Compensation Plan provides a benefit to PEF's customers. Specifically, the Commission stated:

> The company has placed a portion of the total compensation of specific key employees at risk by requiring the achievement of goals and objectives. Placing part of executives' pay at risk has proven to be a substantial performance motivator....FPC's incentive plans are similar to plans adopted by other electric utilities in Florida....Incentive plans that are tied to the achievement of corporate goals are appropriate and provide an incentive to control costs.

In Re: Petition for a Rate Increase by Florida Power Corporation, Docket No. 910890-EI, Order No. PSC-92-1197-FOF-EI at *117-18.

Q. Do you have any other points that you would like to make with respect to this issue?

A. Yes. With respect to Mr. Schultz's and Ms. Deronne's contention that PEF's incentive compensation goals are not challenging enough, Mr. Schultz cites to

PEF's earnings per share ("EPS") goal; its environmental index goal; and its energy supply customer care goal. I address each of these goals below:

- EPS - The Company evaluates the EPS goal each year during the budget process, considering the many variables in place that impact this goal. This goal will naturally vary between years and can, in some situations, decrease between years. Just because this goal is less, however, does not make it less challenging. If the number of shares outstanding increases from one year to the next, such a change will lower the EPS goal. Changes in the underlying business operations, such as divestitures of business lines, can also impact EPS. Based on the many variables that impact an annual EPS goal, it is not reasonable to compare it between years unless the underlying businesses and the number of shares outstanding are static – which is clearly not the case.

- Environmental Index – As the name implies, this is an index that is established and approved annually by the Company's Environmental Health and Safety Performance Council. While the index remains static, the underlying metrics do change.

- Energy Supply Customer Care – While Supply may use the same goal each year, that does not mean that the goal is de minimus or becomes so over time. The Supply goal is set based on the expected superior performance. Meeting this goal each year means Supply is providing superior service to the Company.

My overall point is that PEF's incentive goals are evaluated and updated annually to ensure that they are current and that they reflect the Company's objectives with respect to customer service, operations, financial goals, and employee performance. The examples cited by Mr. Schultz in his testimony do not reflect diminishing goals, but instead reflect goals that are updated from year to year based on PEF's most updated sets of data and objectives.

I would also note that Mr. Schultz seems to imply in his testimony that there is no oversight in the incentive compensation area. This is not accurate. For the Management Incentive Plan ("MICP"), the Compensation Committee of the Board ("Committee") has been assigned responsibility to (a) approve the applicable threshold, target, and outstanding levels of performance for a Performance Measure

for the year; (b) approve the performance criteria and awards for all participants who are members of the Senior Management Committee; and (c) determine the total payout under the Plan up to a maximum of four percent (4%) of the Sponsor's after-tax income for a relevant year. Additionally, the Committee is authorized to change Target Award Opportunity for the Chief Executive Officer of the Sponsor from year to year, or to award an amount of compensation based on other considerations. The Committee also reviews the employee incentive goal structure before each year and approves adjustments to the EPS goal for unusual items (i.e. the impact of storms and the like). Therefore, Mr. Schultz is incorrect in his assertion that there is no oversight of the incentive compensation program.

Q. Did Mr. Schultz and Ms. Deronne express any other concerns regarding PEF's incentive compensation programs?

A. Yes. Apparently they contend that the expense amounts for incentive compensation programs have increased too rapidly since 2002. They also contend that incentive compensation necessarily cannot be warranted when a utility has a need to increase its rates.

Q. Are Mr. Schultz's and Ms. Deronne's concerns in this regard warranted?

A. No, they are not. Mr. Schultz makes the point that PEF's incentive compensation has increased since 2002 and is normally over budget. However, 2002 was a year which proves PEF's point that its incentive compensation plans are not easy to meet. Incentives were paid at the lowest of three levels in that year. For budget

purposes, the Company uses a target level assumption for incentives (the middle achievement level). Actual payouts in 2003 and 2004 averaged between the target and outstanding levels. The years 2003 and 2004 were a time of increasingly improved performance due largely to PEF's Commitment to Excellence program, so an increase in incentives is not unusual for those years.

As an additional argument, Mr. Schultz implies that the corporate success driving incentive payouts is contradictory to PEF's need to increase rates. In other words, Mr. Schultz contends that if a utility seeks a rate increase, there cannot, by definition, be any circumstances that would warrant incentive compensation payments. Such an argument, however, is illogical on its face. Excellent corporate performance and the need to increase rates are not directly related. PEF's need for a rate increase based on continued customer growth and new generation units has nothing to do with how PEF and its employees have performed or will perform. It is apparent that a utility can provide excellent performance that warrants incentive compensation to its employees, but nonetheless need a rate increase to account for factors (such as customer growth) that are beyond the utility's control.

Q. Is Ms. Deronne correct in her assertion that Service Company Incentives were not included in PEF's 2002 rate case?

A. No. Ms. DeRonne's belief that Service Company incentives should be disallowed in this proceeding because they were not in the 2002 rate case is incorrect. Service Company incentives were included in PEF's 2002 rate case. PEF's

product code structure was changed between 2002 and 2006 to add a separate product code for incentives. In 2002, incentives were charged to PEF by each Service Company department separately. This may be why Ms. Deronne believes that Service Company incentives were not included. The incentives charged and budgeted to PEF are as follows:

Year	Amount
2002 Actual	$3,207,000
2003 Actual	$4,762,000
2004 Actual	$5,850,000
2005 Budget	$5,549,939
2006 Budget	$5,671,471

V. Payroll Issues.

Q. Are you familiar with the proposed adjustments that Mr. Schultz recommends regarding PEF's payroll and payroll tax expenses?

A. Yes. While Mr. Schultz makes clear that he does not question PEF's payroll dollars in total, he nonetheless contends that PEF's projected expense for base pay and overtime is excessive. Specifically, Mr. Schultz states that the company has improperly increased the expense factor for its payroll from 54% to 57% without providing any justification for the increase. Additionally, Mr. Schultz opines that PEF may not have captured the full impact of PEF's recent employee reduction programs in its payroll expenses. With respect to payroll tax expenses, Mr. Schultz states that those expenses should be reduced commensurately with payroll expenses because payroll taxes are based on payroll.

Q. Do you agree with the proposed adjustments that Mr. Schultz recommends regarding PEF's payroll and payroll tax expenses?

A. No. Upon reviewing the intervenor testimony, we discovered an error made in the interrogatory responses related to this area. One component of base payroll is labor charged to clearing accounts. In the data supporting the initial responses to OPC interrogatory number 26 and FRF interrogatory number 17, the total labor in clearing accounts was treated as capital in calculating the percentages Mr. Schultz cites. However, a significant amount of these dollars are correctly cleared out to expense accounts. Examples of the types of costs include stores, fleet, and exceptional hours (loading of vacation, holidays, etc. on productive labor). Therefore, we revised both interrogatories to correctly reflect where the clearing labor is ultimately charged. You can see the results in Exhibit No. ___ (RHB-8) and Exhibit No. ___ (RHB-9). A summary of the expense percentages from the revised answers to these interrogatories is outlined below:

	Base Payroll	Payroll Taxes
2006 budget	68%	67%
2005 budget	67%	67%
2004 actual	66%	65%
2003 actual	65%	63%
2002 actual	66%	64%

I believe the results are reasonable. The percentage expensed will vary between years based on the nature and type of projects (O&M vs. capital mix) in any given year.

I would also point out that the payroll expense percentage is much more in line with the payroll tax expense percentage in the revised interrogatory responses and is consistent with our actual experience. Based on the new information outlined above, I do not believe any adjustment to either payroll or payroll tax is warranted.

VI. D&O Insurance.

Q. Do any of the intervenor witnesses take issue with PEF's expense for D&O Liability Insurance?

A. Yes. Ms. Deronne agrees with me that premiums for D&O Liability Insurance have steadily increased in the past few years largely due to corporate scandals such as Enron. However, Ms. Deronne, without challenging the validity of the actual expense numbers that PEF has offered, makes the argument that all expenses for D&O Liability Insurance should be removed because, in her opinion, D&O insurance only benefits PEF's shareholders and not PEF's ratepayers.

Q. Do you find Ms. Deronne's proposed adjustments to be logically persuasive?

A. No, I do not. D&O insurance is a legitimate, reasonable cost of doing business. All companies, investor owned regulated electric utilities included, must have officers and directors to manage their operations. D&O insurance is a required component of the compensation for officers and directors because no officer or director can reasonably be expected to be retained without D&O insurance coverage. To compete for quality management, the Company must provide such

coverage and, accordingly, it is a reasonable and prudent business expense of the Company.

VII. Healthcare Costs.

Q. Are you familiar with the proposed adjustments that Mr. Schultz recommends regarding PEF's healthcare expenses?

A. Yes. Mr. Schultz contends that PEF has overestimated its healthcare costs based on inflation trends that are too high; by failing to assume proper levels of refunds/rebates; and by using an expense factor that is too high.

Q. Do you agree with any of Mr. Schultz's adjustments?

A. Yes. Mr. Shultz does note that the actual trend of increase in health care costs has not been as significant as we estimated in the initial MFR filing. Based on more recent information and analysis, available following the filing of the Company's MFRs and my Direct Testimony, we agree the trend warrants adjustment to the amount as noted in my Exhibit No. ___ (RHB-10). I also agree that the rebate/refund amount should be forecasted into the Test Year. However, I disagree with the amount Mr. Shultz recommends. In my Exhibit No.____ (RHB-10), you can see the results of a four-year average of experience in this area. Based on that analysis, I concur with a $448,500 decrease in health care costs, not $757,000 as Mr. Shultz contends (2004 actual).

I do not agree with one component of his adjustments in the health insurance area. As discussed above, the percentage of payroll that is expensed in

the case is appropriate. Therefore, Mr. Shultz's adjustment to health care costs based related to that issue is not valid.

VIII. NEIL Issues.

Q. Are you familiar with the proposed adjustments that Ms. Deronne recommends regarding PEF's insurance through the Nuclear Electric Insurance Limited ("NEIL")?

A. Yes, Ms. Deronne states that PEF's projections for NEIL nuclear distributions in the test year is too low based on 2005 data schedules.

Q. Do you agree with Ms. Deronne on this point?

A. Yes. Based on new information available to the Company around the time of its initial filings in this proceeding and produced to the intervenors, the Test Year distribution estimate should be $2,834,700, which results in a $639,000 reduction to insurance expenses. If the Commission agrees that the Company should rely upon this updated information, the adjustment should be made.

IX. Conclusion.

Q. Does this conclude your rebuttal testimony?

A. Yes, it does.

REBUTTAL TESTIMONY OF

EARL M. ROBINSON

I. Introduction and purpose.

Q. Please state your name and business address.

A. My name is Earl M. Robinson and my business address is Weber Fick & Wilson Division of AUS Consultants – Utility Services, 275 Grandview Avenue, Camp Hill, Pennsylvania.

Q. Are you the same Earl M. Robinson that prepared the Depreciation Study on behalf of Progress Energy Florida, Inc. ("PEF" or the "Company") that was filed in this proceeding and sponsored by Mr. Bazemore?

A. Yes.

Q. What is the purpose of your rebuttal testimony?

A. The purpose of my rebuttal testimony is to address the positions taken and statements made by the Office of Public Counsel ("OPC") and Florida Industrial Power Users Group's ("FIPUG") witness, Jacob Pous. In addition I will address comments and positions taken by Mr. Hugh Larkin and Mr. Michael Gorman.

Q. Do you have any exhibits to your rebuttal testimony?

A. Yes. I have prepared or supervised the preparation of the following exhibits:

- Exhibit No. ___ (EMR-1), a chart of the relationship between the Company's cost of removal and average age of retirement for FERC account 364.

- Exhibit No. ___ (EMR-2), a schedule of the Company's depreciation analyses for 1997, 2002, and 2005.
- Exhibit No. ___ (EMR-3), a schedule of Florida Power & Light Company ("FPL"), Gulf Power Company ("Gulf"), and PEF net salvage parameters.
- Exhibit No. ___ (EMR-4), excerpts of the Public Utility Depreciation Practices, Staff Subcommittee on Depreciation of the National Association of Regulatory Utility Commissioners ("NARUC") Finance and Technology Committee of the NARUC, August 1996.

These exhibits are true and correct.

II. Rebuttal testimony to witness Jacob Pous.

Q. What is the order of your rebuttal testimony with regard to Mr. Pous?

A. For ease of reference, my rebuttal to Mr. Pous' testimony generally follows the manner in which Mr. Pous' testimony was organized.

Q. What do you understand are the criticisms of Mr. Pous with regard to your depreciation study?

A. I understand Mr. Pous' criticisms of my study are as follows:

1. That the study does not contain sufficient detail and documentation in support of the study recommendations.
2. That the variance between the Company's book depreciation reserve and theoretical depreciation reserve is being addressed within the study via the use of an Average Remaining Life depreciation approach as opposed to an

amortization of the variance over four (4) years.

3. Mr. Pous disputes the net salvage factors proposed for eleven (11) transmission and distribution ("T&D") accounts.

Q. Do you agree with Mr. Pous' criticisms?

A. No, I do not.

Q. Are the depreciation proposals set forth in your comprehensive depreciation study relative to PEF's plant in service reasonable and appropriate?

A. Yes. The Company's proposed depreciation rates resulting from an analysis of the Company's property investments as of 12-31-2003 and 12-31-2005 are well founded and fully supported by a detailed analysis of the history of the Company's plant in service and the factors anticipated to impact the Company's property over the remaining lives of the asset groups. In contrast, while the Company's remaining asset categories comprise the majority of the Company's extensive investment in Production, Transmission, Distribution, and General Plant accounts, Mr. Pous chose to address only his claimed resulting book depreciation reserve excess adjustment plus the net salvage parameters relative to eleven (11) property categories within the Company's T&D functions. It appears that Mr. Pous addressed only portions of those eleven (11) property categories because these are areas where he could most easily affect the greatest impact on the Company's depreciation proposal.

Q. Mr. Pous provides an overview of his testimony. What comments do you have in response to his statements?

A. Mr. Pous states that the Company has understated as well as failed to address the treatment of the excess variance in the Company's accumulated provision depreciation ("reserve"). Mr. Pous further states that he identified an additional reserve excess and subsequently proposed an amortization of that depreciation reserve variance over a period of four (4) years.

Mr. Pous not only misinterpreted the Company's level of future net salvage (that can be anticipated relative to the Company's property) in developing his extensive level of book versus theoretical depreciation reserve, but likewise seems to imply that the Company did something imprudent or improper in not proposing an amortization period consistent with the additional reserve variance he sets forth in his proposal. That is, while Mr. Pous initially accepted the Company's proposed recovery of its unrecovered property investments over their average remaining life, he is proposing to amortize his calculated additional book versus theoretical depreciation reserve variance over an extremely short four (4) year period. There simply is no rational support for his calculated depreciation reserve variance or his amortization proposal.

The Florida Public Service Commission ("FPSC" or the "Commission") requires that a theoretical depreciation reserve study be prepared and provided as part of the Company's depreciation study. In the process of preparing the theoretical depreciation study the currently estimated depreciation parameters (average service lives, Iowa Curves, and future net salvage factors) are utilized

with the current surviving vintage investment to identify the accrued depreciation that theoretically should be on the Company's accounting books as of December 31, 2005. The proposed depreciation parameters reflect the current best estimates of the present and anticipated usage, and the related recovery of the cost of the Company's property. While the information is interesting as a general reference, the fallacy of the theoretical reserve is that the calculation assumes that the current depreciation parameters have been utilized since day one of the current plant in service. Clearly this has not been the case and this underlying assumption therefore contributes to the difference between the book and theoretical depreciation reserve. As a result, it would be pure coincidence if the book and theoretical depreciation reserve were ever equal. While there will always be a book versus theoretical depreciation reserve variance, the FPSC has no mandate for companies under their jurisdiction to provide any special treatment of the variance. The standard and normal treatment of the depreciation reserve variance is to recover the amount over the average remaining life of the company's property.

In fact, the Company's filed depreciation study does address what Mr. Pous claims is a large book versus theoretical depreciation reserve variance. That is, the Company is addressing the existing depreciation reserve variance (as it has done in all prior depreciation studies) through the continued use of the Average Remaining Life (ARL) depreciation rates, which has been the historical basis of the Company's depreciation rates for many years and has been indirectly used to remedy past reserve variances resulting from prior studies. In the discipline of

depreciation the use of the ARL depreciation technique is widely recognized as an excellent and appropriate approach to recover a company's unrecovered investment over the remaining useful life of a company's plant in service. Likewise, the FPSC has supported the use of ARL depreciation rates for the recovery of utility property for essentially most, if not all, companies under its jurisdiction.

Next, the book versus theoretical depreciation reserve variance as set forth on Table 5-F of Section 2 of the depreciation study totals approximately $504 million, and is approximately twelve (12) percent of the Company's book depreciation reserve as of the proforma December 31, 2005 test year book depreciation reserve of $4,122 million. Almost ninety (90) percent of the variance is attributable to the Company's production plants. For example, the Company's depreciation study includes a first time assumption for a life extension at the Company's Crystal River Unit No. 3 nuclear plant ("CR3"), thus, the theoretical depreciation reserve variance reflects this assumption and further assumes that this CR3 life extension assumption was in place from day one (1) of the plant's operations. While the Company anticipates receiving approval for the life extension, no formal action has yet been taken by the Nuclear Regulatory Commission ("NRC") nor is it a certainty that the approval will be received. To the extent that approval is not received a sizable portion of the reserve variance will instantaneously disappear. To illustrate this impact, excluding the reserve variance related to CR3 reduces the book versus theoretical depreciation reserve variance from twelve (12) percent to eight (8) percent; hardly a large or

significant book versus theoretical depreciation reserve variance. Even if the CR3 license extension is granted by the NRC there is no assurance that the plant will operate the full additional period of years. It may simply become uneconomical to make additional required investment nearer to the anticipated end of life. Similarly, if the plant does not operate the full life extension portions of the perceived reserve variance will disappear.

Furthermore, to attain the full life extension of CR3, the Company will need to add a considerable level of investment that ultimately will need to be recovered over a very short time period compared to the original life span of the generating facilities. Accordingly, it would be imprudent to rapidly adjust the Company's book depreciation reserve downward through Mr. Pous' accelerated amortization proposal, only to then need to increase the level of depreciation expense for the significant level of new investments. This demonstrates that the nature of the theoretical reserve variance is fluid and should not be the basis of Commission's policy affecting the Company's capital recovery, particularly without a full and clear understanding of the reasons for all the the parameter changes within the study. For these reasons, the Company's ARL proposal is the most logical approach to addressing the point in time theoretical to book variance caused by the changes in the Company's depreciation parameters.

Q. Please comment on Mr. Pous' claim that your statement in the study that you considered the Company's experience and expectations are "meaningless generalizations." (Pous testimony, page 9).

A. I did consider the Company's experience and future expectations in the course of my analysis of the Company's detailed historical analysis and preparation of the future net salvage forecast. Mr. Pous simply fails to acknowledge the fact that the Company will experience additional levels of end of life negative net salvage relative to the property currently in service.

For example, in Account 364- Poles, the Company's historical net salvage data identifies that the average net salvage was only approximately negative six (6) percent. In addition, the historical analysis further identified that historical gross salvage averaged approximately fifty-two (52) percent and historical cost of removal averaged fifty eight (58) percent. In further analyzing the underlying detailed data, the Company's historical gross salvage data did experience periods of high levels of gross salvage that simply are not anticipated with regard to the entire population of the Company's poles because poles routinely generate little or no salvage value at the end of their lives. Based on this future expectation, these historic levels of gross salvage were discounted in the estimation of future net salvage. Conversely, in the review of the historical data, the recent years' cost of removal notably was far higher than the overall historical experience due to ongoing historical cost increases. Recognizing that the cost of removal is essentially labor driven, and will continue to increase in future years until the end of the property's future life, this increasing level of recent removal costs was given greater weight in determining the future net salvage. All of this Company experience, and the anticipated future expectations, were considered in arriving at my estimation of a negative ninety percent (90%) future net salvage for this

property account. There are various other illustrations of factors considered in the net salvage analysis that were provided during my deposition but this is an example of how I considered both the Company's experience and future expectations in estimating future net salvage.

Q. What comments do you have regarding Mr. Pous' criticism of the future net salvage forecast model included with the company's net salvage analysis? (Pous Testimony, Page 9 and Pages 40 to 42).

A. Mr. Pous' criticisms regarding the inclusion of the net salvage forecast analysis model within the depreciation study are unfounded and unsupported. Mr. Pous criticizes the use of linear analysis in the process of preparing my future gross salvage analysis and the inclusion of the inflation factor in determining the end of life removal costs. The use of the future forecasting approach is appropriate because it is a tool that enables a depreciation professional to identify and understand the drivers behind the future end of life property costs. It is very important to understand that the tools are not applied blindly through a simple mathematical formula, but professional judgment must be exercised based on the depreciation professional's experience and the Company's experience with and knowledge about the properties.

In more recent years, within the preparation of depreciation studies, increased focus has been placed on the full recognition of the recovery of all applicable plant costs (both the beginning and end of life costs) for each property group being depreciated. Therefore, in recent studies, forecasts of future net salvage have been calculated and included with the depreciation study analysis.

These forecasts assist in determining a reasonable estimate of the level of future net salvage that is anticipated to occur at the end of the life of the existing plant in service. This information is simply an additional analytical tool and source of information to be considered in arriving at the future net salvage estimate.

Furthermore, the results of the forecast analysis serve to reinforce the fact that the current level of experienced net salvage should routinely be the floor or minimum level for the estimated future net salvage percent. Future net salvage is a required component in the development of ARL-based depreciation rates. Accordingly, the development of the future net salvage is a forward looking analysis that must identify the level of end of life cost that will be incurred for the property being studied. Because the average age of the property that produced the historical net salvage is routinely far less than average service life, the remaining future retirement at an older age can be anticipated to generate lower levels of gross salvage and higher levels of cost of removal, hence lower levels of positive net salvage or higher levels of negative net salvage than historically experienced. Also, because cost of removal is affected principally by labor costs, and labor costs routinely increase over time, future removal costs by their very nature will be higher than that incurred in prior years.

Additionally, selecting a more conservative net salvage amount than that generated by the forecast analysis does not mean the forecast analysis was flawed. It simply means that it is prudent not to move all at once to the results indicated by the analysis and is simply a reflection of how conservative the estimate used in developing the proposed depreciation rate for each of the applicable plant

accounts is. Gradualism, such as this, is a concept specifically endorsed by Mr. Pous in his testimony.

Q. Mr. Pous further claims that many factors beside inflation impact the historical level of net salvage and must be taken into account. How do you respond? (Pous Testimony, page 41).

A. Mr. Pous never identifies the "many" factors besides inflation that he claims must be considered. As a result, it is hard for me to specifically respond to his claim. However, other factors that may affect the historical cost generally do not impact the future net salvage because the historical cost of removal is an accumulation of a diverse range of factors within the property groups that can be expected to be reflected in the future costs. The one factor that will increase and impact future costs is inflation.

Mr. Pous does claim that future economics of scale will drive down future costs of removal. Mr. Pous would have us believe that the Company's property retirement process is similar to a production line, with the employees gaining significant efficiencies through improved knowledge, experience, and workflows. Such productivity benefits simply will not occur, in that retirements will continue to occur in a random fashion throughout the Company's large distribution area. Furthermore, work crews will continue to change and there are regularly circumstances encountered that complicate the retirement process, such as soil conditions and other utility infrastructure in the affected area.

Mr. Pous' argument that my approach still produces a "mismatch that

results when one requires cost of removal expressed in future dollars to be collected from current customers in current dollars," (Pous Testimony, page 39), is a mischaracterization of real world events. The relationship of cost of removal (retirement) always has been, and always will be, end of life cost as it relates to beginning of life cost. Recovery of invested capital through depreciation rates must appropriately reflect the recovery of the total life cost of the assets that are being consumed by the Company's customers in the process of receiving Company services. Depreciation expense is, in fact, the mechanism designed to collect anticipated future costs of retirement from current customers. Net present value concepts, proposed by Mr. Pous and Mr. Gorman, therefore, have no application to depreciation principles.

Finally, with respect to his criticism of the linear trend analysis of the historical gross salvage, the analysis is performed for 5, 10, 15, and 20 year periods and is the product of actual company experience for those periods. The analysis is simply prepared to identify trends that have occurred over the period of years. Under certain circumstances, based upon the gross salvage trends that the Company has experienced, the mathematical results yield negative results, although I recognize that future gross salvage cannot be less than zero (0) percent. In such situations, a correction of an anomaly in the historical data reasonably may have caused the linear analysis to yield a negative result. Mr. Pous agreed that such an occurrence is a plausible explanation. Accordingly, such occurrences are appropriately considered when future net salvage estimates are made. Mr. Pous, however, has repeatedly implied in his testimony that the estimation process

deviated from the calculation model. This is totally false because the specific future net salvage factor is not simply extracted from a mathematical model. The group of analysis tools, of which the future net salvage is one component, are all utilized together in the professional analysis and data assessment in arriving at the recommended net salvage factor for each property group. This is no different than the basis of Mr. Pous' estimates, except that Mr. Pous routinely fails to recognize the factors that will impact the level of net salvage that the Company can be anticipated to experience in future years. That is, he gives no consideration to the future end of life cost of the property in his future net salvage estimates.

Q. Mr. Pous finds fault with the manner in which the Company chose to file the prepared Depreciation Study in its current proceeding. What are your comments? (Pous testimony, page 11-12)

A. Mr. Pous expounds at length about the manner in which the Company chose to file its depreciation study, going so far as to imply that the Company did something inappropriate in not having me initially file testimony in support of the study. The Company simply chose to have its accounting witness initially sponsor the study with full knowledge that if intervenors desired to further investigate the study that the author of the study would be available to support the study results. The actual comprehensive depreciation study was prepared and filed with full acknowledgment that I performed the depreciation study for the Company. Mr. Pous claims that the study contained inadequate documentation

and presentation notwithstanding the three volumes of information that comprised the study. The depreciation study contained an extensive complement of depreciation summaries along with a narrative of depreciation methods, procedures, study results, graphical charts, and underlying supporting depreciation calculations. The depreciation study is fully consistent, both in quality and quantity, with not only prior depreciation studies filed by the Company before the FPSC, but also with studies that I have prepared and filed for an extensive number of clients in various regulatory jurisdictions throughout the United States.

Q. Does Mr. Pous correctly define net salvage? (Pous Testimony, Page 14)

A. Yes. Mr. Pous quotes the NARUC definition that, "Net salvage value means the salvage value of property retired less the cost of removal. The cost of removal results whether the retirement reflects demolition of the item of plant or only the accounting transaction for retiring an item of property abandoned in place."

However, Mr. Pous fails to properly recognize the true cost to retire assets at the ultimate end of their life in his proposed future negative net salvage factors for the eleven T&D accounts for which he provides alternative estimates. That is, Mr. Pous' recommendations are based upon the Company's historical experience with no consideration of the anticipated future costs incorporated into his future net salvage estimates.

Q. Mr. Pous implies that the information provided by the Company is inadequate to support the Company's proposed negative net salvage factors. Do you agree? (Pous testimony page 16).

A. No. The Company's net salvage data, provided in response to Mr. Pous' data request, was a full and complete database of all of the Company's available historical net salvage data for the period 1976-2003. Furthermore, the depreciation study contains the detailed historical analysis plus the forecasted net salvage calculations for all categories of the Company's depreciable property. Mr. Pous is incorrect in his assertion that the historical and forecast analysis of net salvage trends does not provide adequate support for the proposed net salvage factors.

In addition, my recommended net salvage factors are based on Company specific data, with specific consideration given to the anticipated level of future net salvage, and are comparable to the analysis results produced in the Company's internally completed 2002 depreciation study summarized in Exhibit No. ___ (EMR-2). Exhibit No. ___ (EMR-2) is a summary schedule comparing the 1997 FPSC-approved net salvage factors, the 1997 depreciation study analysis results, and the 2005 proposed net salvage parameters in the PEF 2003/2005 study, OPC's proposed net salvage parameters, the net salvage parameters proposed in the PEF 2002 depreciation study, and the normal net salvage parameters from the 2002 depreciation analysis, as well as the total net salvage parameters. The normal net salvage parameters reflect true net salvage (exclusive of abnormal events) and appear to have been used by the FPSC when developing the 1997

approved net salvage parameters.

Not only are my recommended net salvage parameters conservative when compared to the forecasted net salvage in the current depreciation study, but in reviewing Exhibit No. ___ (EMR-2), one can quickly see that my proposed net salvage parameters are consistent with the analysis in the Company's study performed during 2002. For example, my proposed 2005 net salvage factor is negative ninety (90) percent net salvage for Account 364-Poles and, using the 2002 normal net salvage analysis in the 2002 study, there is a negative net salvage of one hundred eleven (111) percent for the 5 year average and negative ninety-eight (98) percent for the 10 year average net salvage for Account 364-Poles. Even more compelling is a comparison of my proposed negative twenty-five (25) percent net salvage for Account 365-Overhead Conductors and Devices to the negative one hundred two (102) percent for the 5 year average and negative one hundred twenty four (124) percent for the 10 year average net salvage derived for the same account from the Company's 2002 depreciation analysis. This demonstrates that my proposed net salvage for this account is conservative based on the Company's most recent depreciation analysis. A further review of the Exhibit will demonstrate that, in all other property accounts, my proposed net salvage parameters are similar to or more conservative than the Company's 2002 depreciation analysis. The Company's net salvage recommendations in 2002 varied somewhat from its analysis but the indisputable fact is that my proposed net salvage parameters are consistent with or more conservative than the Company's expected future net salvage analysis in 2002.

Q. Do you have a general comment regarding Mr. Pous' net salvage recommendations?

A. It appears that Mr. Pous is most concerned with the level of the change in the depreciation expense rather than what level of net salvage is appropriate. That is, Mr. Pous made a point to identify how much of a reduction to depreciation expense his proposed net salvage adjustments produce as opposed to spending more time to investigate and understand the underlying data.

Q. Do you have any comments on Mr. Pous' question concerning whether the recovery of capital through depreciation is a precise process? (Pous testimony, page 17).

A. In response to his own question he indicates that it is not an exact science –as all depreciation professionals acknowledge. But following that acknowledgement, Mr. Pous discusses the development of a theoretical depreciation reserve and somehow reaches the conclusion that the theoretical reserve calculation is exact enough to recommend that a calculated excess variance of the book reserve versus the theoretical depreciation reserve should be flowed back to ratepayers over a very short time period of four (4) years. This is in contrast to the Company's proposal to use ARL-based depreciation rates to correct any ultimate reserve variance relative to the plant in service over its remaining useful life. It must be recognized that much, if not most of the book versus theoretical depreciation reserve variances are routinely caused by changes in the estimates of useful

service life and net salvage factors. The fallacy of the calculation of theoretical depreciation reserve is that the calculation is prepared on a prospective basis and makes the assumption that the currently estimated depreciation parameters have been in place since the inception of the property investment -- that is clearly not the real world situation. To the extent that depreciation parameters (average service lives and net salvage factors) change in future studies, the variances will continue to fluctuate. In the meantime, the use of ARL-based depreciation rates will serve to mitigate any such variances on a rational basis. The use of the ARL-based depreciation rates recover both the applicable portion of the undepreciated plant in service investment which may include a reserve variance over the average remaining life. The result is that by the end of the property life, the depreciation reserve variance will have been eliminated and the customers will have paid their fair share of the costs in each period.

Q. What comments do you have regarding Mr. Pous' recommendation for his theorized calculated reserve variance? (Pous Testimony, Pages 20-21)

A. First, Mr. Pous reaches his level of a reserve variance by inappropriate estimates of future net salvage. Second, the calculated book versus theoretical reserve variance developed in the Company's depreciation study is twelve (12) percent of the total reserve, and only eight (8) percent if the significant portion of the variance generated by the Company's decision to seek a license extension for CR3 is considered. The drastic action Mr. Pous proposes is totally inappropriate and inconsistent with the long standing use of ARL-based depreciation rates both

by the Company and the FPSC. In addition, such action will do unjustified financial harm to the Company and ultimately to the Company's customers through higher future customer rates. That is, it causes higher customer rates due to the retention of a higher rate base which results in both higher future depreciation expense and a higher return on rate base.

Q. Mr. Pous cites various prior Commission orders in his attempt to find support for his recommendation to amortize his additional reserve variance over a short period of 4 years. Are the orders cited by Mr. Pous consistent with his amortization position? (Pous Testimony, Pages 21-22)

A. No. Essentially, all of the orders cited are simply related to reserve transfers between plant functions and/or plant accounts or recovery schedules for items such as PCB contaminated equipment. The only order in which a five year amortization schedule was referenced was the General Telephone Company of Florida case (Docket No. 840049-TL; Order No. 14929). In that order, the Commission ordered a five (5) year amortization of unrecovered costs relative to obsolete telecommunications equipment. None of the circumstances in these orders are applicable to Mr. Pous' recommendation to inappropriately amortize a calculated book versus theoretical reserve variance (part or all of which simply could go away in future studies), over a short period of four (4) years.

Reserve transfers have absolutely no relevance to the current case because they are simply the movement of dollars from one account balance to another account. Equally irrelevant are adjustments for the recovery of obsolete

equipment. Neither situation is in any way comparable to a normal book versus theoretical depreciation reserve variance. Obsolete equipment, for example, is subject to current or rapid retirement because the property no longer provides any service to the Company's customer. With regard to the Company's reserve variance, the property will continue to provide customer service for many years.

Q. Is the book versus theoretical reserve variance the product of improper depreciation rates being used or other improper action taken by the Company?

A. No. The level of annual depreciation rates utilized by the Company to record depreciation in prior years has been investigated and approved by the FPSC. Furthermore, the useful average service lives and net salvage percentages vary over time and, therefore, require modifications from one depreciation study to the next to reflect updates for current experience. As previously noted, to the extent that such changes in depreciation parameters occur over time, the resulting level of the theoretical depreciation reserve variance increases or decreases with each change. This is exactly why the Commission requires that depreciation studies be performed on a regular basis. The required depreciation studies and resulting recommendations are reviewed and approved by the Commission.

Q. On page 28 of his testimony Mr. Pous states that he is aware of one jurisdiction that has quantified a 5% difference between the theoretical and book reserve as the point at which a correction process will be implemented.

Do you have any comments regarding Mr. Pous' statement?

A. Yes. Mr. Pous is wrong. The jurisdiction that Mr. Pous is referring to is Alberta, Canada, although he did not identify it in his testimony. (Pous deposition, page 148, line 8). Mr. Pous claims that this jurisdiction uses 5% percent as a test of the appropriateness of a company's book depreciation reserve and then takes appropriate action. This is simply not true.

The fact is that utility depreciation within Alberta is calculated using EGL/Whole Life based depreciation rates. In addition, each company also calculates a theoretical depreciation reserve using ELG/Whole Life procedure and technique. Then after preparing the theoretical reserve calculation, to the extent that the variance between the book and theoretical reserve exceeds five (5) percent, the company amortizes the variance over a Broad Group procedure based on Average Remaining Life. Furthermore, irrespective of the length of the remaining life, the minimum remaining life for the amortization period for the reserve variance is five years for short lived assets. This is clearly not a test of the company's book depreciation reserve -- it is simply a regulatory modification of the Average Remaining Life depreciation technique. Also it needs to be noted that Alberta uses ELG based depreciation rates which routinely produce higher depreciation rates than the Broad Group/ARL-based depreciation upon which PEF rates are calculated. Mr. Pous' statement and implied support for his reserve adjustment proposal is incorrect and misleading.

Q. **On page 31 of his testimony, Mr. Pous raises the question whether the use of**

ARL-based depreciation rates adequately address the intergenerational inequity that exists for current customers. What is your response?

A. First and foremost there is no intergenerational inequity. The level of depreciation recovery is the product of the Company's application of Commission-approved depreciation parameters to the applicable plant in service investments. The reserve variance that exists is simply the product of depreciation parameters that change over time. For example, the estimate of the life of the CR3 unit was extended from forty (40) to sixty (60) years. The continued use of the long approved and utilized ARL-based depreciation rates will provide full recovery of the Company's total plant in service investment cost over the average remaining useful life. To simply propose a drastic amortization of Mr. Pous' perceived reserve variance over an unsupported very short amortization period is unwarranted and potentially harmful to both the Company and its customers. Doing so, would result in increased customer rates due to the retention of a higher rate base and depreciation expense.

Q. What comments do you have regarding Mr. Pous' statement on pages 31 and 32 of his testimony that the current reserve variance could not turn around?

A. In his testimony Mr. Pous discusses his perceived $1.2 billion reserve variance as if it is fact, when in reality it is not. Seven hundred million dollars of Mr. Pous' $1.2 billion is simply the product of Mr. Pous' misinterpretation and incorrect net salvage estimates for the Company's future net salvage recoveries. Mr. Pous' $1.2 billion variance even includes a further proposal to refund a portion of the

Company's legally required external nuclear decommissioning fund that cannot be distributed for any purpose other than for nuclear decommissioning.

As noted by Mr. Pous on page 17 of his direct testimony, he acknowledges that capital recovery is not a precise process. As such estimates routinely change over time and variances between the book and theoretical reserve increase and decrease. In fact, approximately ninety (90) percent of the Company's calculated $504 million reserve variance is related to the Company's Production Plant accounts, which Mr. Pous admitted in deposition (page 111, lines 4 and 5) that he did not review. Various Production Plant reserve variances are the product of current estimates using the same process used for the T&D account estimates that he challenges. Of course, the reserve variance will fluctuate in future years for not only the production plant accounts but also for the remaining T&D and General Plant accounts where changes occur. The use of the ARL depreciation technique is a longstanding and appropriate approach to address any such ongoing variances.

Q. **On page 37 of his testimony, Mr. Pous states that under the Company's position, "PEF contends it must collect $1.4 billion, or 16%, more than its original investment in plant to recoup its capital investment". What comment do you have regarding Mr. Pous' statement?**

A. In reading Mr. Pous' statement, as written, it could be interpreted that Mr. Pous is implying that the Company is estimating that future net salvage is equal to one hundred sixteen (116) percent of the Company's original cost investment. If that

conclusion is drawn from Mr. Pous' statement, that conclusion is clearly not true. The Company's depreciable original cost investment is $8.671 billion and the estimated future negative net salvage is $1.419 billion or 16.4 percent of original cost. This level of future negative net salvage is not at all unusual. For example, electric industry depreciation studies completed in recent years in various jurisdictions including South Carolina, Kentucky, Indiana, and North Dakota have included net salvage factors in the range of negative 18 to negative 29 percent. Conversely, the AGA/EEI depreciation statistics survey that Mr. Pous relies on cannot support his statement. The problem with the AGA/EEI depreciation survey (which was completed as of 1998), is that much of the information within that document is very outdated in that it is relative to depreciation studies that were completed many years earlier, some of which date back to the early to mid 1980's. Therefore, one cannot reliably rely on the AGA/EEI depreciation survey for current net salvage factors.

Q. Is Mr. Pous' data plotting of the forecast analysis, as discussed on pages 41 and 42 of his direct testimony and shown on Exhibit No. ___ (JP-7), correct?

A. Absolutely not. Mr. Pous states, "if [my] overall model had any validity it would be easy to plot the historical cost of removal in relation to its age of retirement and see a constantly upward sloping relationship." (Pous Testimony, page 41). His first error is his use of net salvage in lieu of cost of removal in developing the property retirement age to cost of removal relationship. The use of net salvage (including gross salvage) does not represent the cost of removal and incorrectly

skews the relationship by understating the cost of removal. Secondly, and equally important, is the fact that the Company's cost of removal data does not permit identification of age specific cost of removal data. However, this is not unique to PEF. The manner in which the Company's net salvage data is recorded is consistent with that used by all types of utilities. Utility records, therefore, do not provide a direct link between the specific age and dollar amount of a retirement to the corresponding cost of removal amount. The information within the salvage data is simply the accumulation of the yearly cost of removal transaction data. That data is then compared to the year's aged retirements. It is apparent that the data is an accumulation of retirements of different ages and costs of removal of differing levels. That is, the cost of removal experience within the Company's data is related to average retirements (for example with an average age of 20 years), but the specific cost of removal may be applicable to underlying retirements that occur at 10 and 30 years (which result in a 20 year average age). Since the cost of removal is not identified by specific age, therefore, specific age analysis cannot be performed.

Nevertheless, correctly capturing the relationship of the Company's cost of removal data and the average age of retirements with a linear regression analysis does produce a line sloping upward as age increases, as shown in Exhibit No. ___ (EMR-1). Thus, the linear forecast of cost of removal is, in fact, valid. Mr. Pous simply used incorrect data to complete his analysis.

Q. On pages 43 to 44 of his testimony, Mr. Pous claims you failed to explain

differences between your study and PEF's internal depreciation study prepared in 2002? What are your comments?

A. I was engaged by the Company to perform an independent depreciation study relative to PEF's plant in service as of 12-31-2003, with an update to 12-31-2005. In preparing the study my focus was simply that, to prepare an independent study. In the normal process of preparing such a study, a depreciation professional starts with an analysis of the Company's historical data to develop initial assessments of the Company's property and the experience that has been achieved to date. Subsequent to the completion of the historical analysis, on site meetings are held with Company management to gain an understanding of current and anticipated future events that will impact the useful life and future net salvage parameters that can be anticipated for each of the Company's property groups.

In completing the study, a general review was completed of the Company's 1997 Depreciation Study because the Company's current depreciation rates were based on that study. The present depreciation rates and underlying depreciation parameters from the 1997 study were included with the current depreciation study. During the course of completing the current study, references were made to a depreciation study prepared as of 12-31-2002 but the rates proposed in that study were not the basis of the presently-approved depreciation rates. Accordingly, no specific comparisons were made to the recommendations within the Company's 12-31-2002 study. In finalizing the current study, discussions were held with Company personnel to discuss the reasonableness of the proposed depreciation rates set forth in the current depreciation study relative

to the Company's December 31, 2003 plant in service.

Subsequently, I have compared the Company's 12-31-2002 study analysis and the proposed parameters under the current depreciation study. In the 2002 study, there is a significant variance in various accounts between the net salvage analysis and the net salvage parameters ultimately proposed in that study. The actual normal net salvage analysis set forth in the 2002 depreciation study is very consistent with the net salvage parameters proposed in the current depreciation study. In fact, in several cases, the level of experienced negative net salvage exceeds even the levels that I have proposed in the current depreciation study. Apparently the Company chose at the time not to incorporate the higher levels of negative net salvage into its 2002 recommendations. However, it is indisputable that the net salvage experience in the 2002 study supports my recommended net salvage parameters. Mr. Pous simply chooses to ignore this analysis in the 2002 study.

Q. What are your comments regarding Mr. Pous' discussion on pages 44 and 45 of his testimony regarding your alleged failure to check the reasonableness of the study results with industry data?

A. While industry data is a gauge to determine applicable levels of depreciation parameters if sufficient specific Company data is not available, it should not supplant specific Company data where such data is available. The industry data, while a useful tool, has limitations. That is, the industry data is simply an average of many companies and in no way specifically relates to the Company's operating

plant. Equally, if not far more important, is that fact that the latest available statistics were prepared in 1998 and they include various studies that are significantly more dated -- some information is from studies completed in the earlier to mid 1980's.

Q. What are your comments regarding Mr. Pous' discussion regarding anomalous data? (Pous Testimony, page 45)

A. While there appear to be some inconsistencies within the net salvage data, one must recognize that the underlying net salvage data is comprised of extensive cost data that occurred over a wide range of years. The anomalous data is minor, involving several negative transactions that generally occurred during earlier vintages in some of the T&D accounts. Because the entries are generally of early vintage years, specific, detailed records are not available. However, understanding the way transactions are booked and various accounting corrections are made, the negative amounts are very likely the result of corrections of prior year activity. In any event, these anomalous entries are few in number and they do not have a material impact upon a reasonable assessment of the net salvage results in the study. Mr. Pous is simply overreacting to items within the salvage analysis that are not material.

Q. How do you respond to Mr. Pous' assertion that there are inconsistencies in your net salvage analysis? (Pous Testimony, pages 45 to 47)

A. Mr. Pous states that my salvage analysis is inconsistent. That statement is totally false. The process utilized is consistent across the study of net

salvage for the Company's entire range of accounts. Mr. Pous simply does not like the results of the estimates made relative to estimated future net salvage in certain of the T&D accounts.

In completing the analysis, consideration is given to the range and level of historical activity (gross salvage and cost of removal), the content of the account, and the likely and/or potential for generating gross salvage at the end of the property's useful life. Such factors must be considered in estimating future net salvage otherwise an improper level of net salvage will be estimated if only the raw historical data is analyzed and an estimate made from an arithmetic calculation. My analysis process is totally consistent with the process used by the Company in prior depreciation studies in making a professional assessment regarding the make up of the historically experienced gross salvage. Likewise this type of assessment was recognized and acknowledged by the FPSC in its consideration and approval of prior net salvage parameters.

Q. Conversely, what comment do you have regarding Mr. Pous' inconsistent analysis results and recommendations?

A. While Mr. Pous severely criticizes the presentation of the net salvage forecast analysis and the supposed inconsistency in the development of the future net salvage estimates in the Company's depreciation study for selected accounts for which he proposes alternative net salvage factors, he readily accepts the results of the net salvage study analysis for all the remaining accounts. It is clearly obvious

that there is an inconsistency in his actions.

Q. Please provide your responses to Mr. Pous' net salvage analysis comments and resulting net salvage proposals.

A. For ease of reference, I will respond to Mr. Pous' net salvage analysis by specific account in the same order that he does in his testimony. Specifically, I address his comments and recommendations on an account-by-account basis for the eleven (11) T&D property groups for which he provides alternative proposals.

To begin with, however, I have some general comments on the net salvage analysis Mr. Pous performed on the eleven (11) T&D accounts. Mr. Pous criticized the results of the depreciation study for not considering the results of the Company's 2002 study, but he ignores the very net salvage information that is contained in that 2002 study in his net salvage analysis. The 2002 study provides specific Company information that was developed relative to abnormal and normal net salvage for each of the Company's T & D accounts that Mr. Pous has critiqued and for which he has proposed alternative net salvage parameters. Similar net salvage information was provided to the FPSC at the time of the completion of the 1997 study and was incorporated into the FPSC-approved net salvage parameters. The analysis from the 2002 and 1997 study are contained in Exhibit No. ___ (EMR-2). In general, as noted before, the information in Exhibit No. ___ (EMR-2) clearly demonstrates that the net salvage parameters in the current depreciation study are reasonable.

Throughout his net salvage analysis Mr. Pous makes reference to Electric

Industry depreciation statistics. As previously noted, inherent shortcomings exist with the overall industry data because of the age of the survey data and underlying depreciation studies and because the statistics include many companies that are far removed from the Company's location and have different operating characteristics. The more reasonable industry comparison with the Company's depreciation study results, are recently completed depreciation studies in the Company's general location. In this regard, a comparison was prepared between the proposed net salvage parameters in the current PEF depreciation study with the net salvage parameters for the same T&D accounts in the most recent Gulf and FPL depreciation studies. These other utility net salvage parameters were also compared to the net salvage parameters proposed by Mr. Pous. This comparison is included in Exhibit No. ___ (EMR-3). As shown there, Mr. Pous' proposed net salvage parameters are "way off the mark" from the parameters proposed by the Company's depreciation study and the average of Gulf and FPL's depreciation studies. In contrast, the Company's proposed net salvage parameters are consistent with the net salvage parameters for Gulf and FP&L.

As noted, Mr. Pous relies on the 2002 Study several times in making his recommendations. I have since reviewed the Company's 2002 study's net salvage analysis and have banded the 2002 study salvage and removal cost data into 5 and 10 year bands to further illustrate the Company's trends over this period of time. This is illustrated as part of Exhibit No. ___ (EMR-2) and is referred to throughout my testimony. The analysis in the 2002 study defines normal salvage as the salvage received when the asset is disposed of and sold/scrapped.

Abnormal salvage is defined as accounting generated salvage such as insurance proceeds, reimbursements/relocations, and re-use. While I believe insurance proceeds and reimbursements should be considered normal, consistent with the NARUC definition, these amounts are relatively modest when compared to the total abnormal salvage amounts. Because accounting generated salvage, such as returns to stores, are non-cash entries, I have discounted them when establishing net salvage parameters. Generally, I have found the levels of normal salvage in the Company's prior depreciation analyses to be consistent with my view that future gross salvage for these T&D accounts will be minimal at best.

It should be clear, then, from all of these sources that my net salvage estimates for the Company were conservative and gradually move the Company from its prior net salvage parameters to net salvage parameters more in line with the Company's experience and the experience of other Florida investor owned utilities.

I now address Mr. Pous' recommended net salvage parameters for each of the T&D accounts for which he proposes alternative net salvage parameters to the parameters in the Company's study.

Account 353.1 – Transmission Station Equipment

My proposed net salvage parameter for this account is zero (0) percent. From the Company's experience, the depreciation analysis data within the Company's 2002 depreciation study was summarized and a five (5) and ten (10) year average net salvage of negative nine (9) percent and negative nine (9)

percent, respectively, were identified for both periods. Mr. Pous' recommended net salvage is positive ten (10) percent net salvage.

Mr. Pous simply ignored both the actual net salvage analysis that was provided in the current study as well as the detailed analysis information that is contained in the 2002 depreciation study. In the analysis process, the level of achieved gross salvage was significantly discounted in my analysis in arriving at my proposed zero (0) percent net salvage. The historical cost of removal has averaged eight percent which would imply negative eight (8) percent if one assumed zero (0) percent gross salvage. However, it was anticipated that some minor level of future net salvage may be received from the disposal of the retired station equipment. Accordingly, future net salvage was therefore estimated a conservative zero (0) percent net salvage.

While the Company's proposed net salvage in the 2002 study was 10 percent positive net salvage, the recommendation was overly conservative in comparison with the actual study analysis results. The Company's 2002 study contained a detailed analysis demonstrating that normal net salvage for the most recent five and ten year period was negative nine (9) percent, which fully supports the proposed zero (0) percent net salvage proposed in the current study. Mr. Pous simply ignored the detailed information in the 2002 depreciation study that was provided to him. The detailed analysis in the Company's 2002 study supports my recommendation.

Account 355 – Transmission Poles & Fixtures

My proposed net salvage parameter for this account is negative twenty-five (25) percent. From the Company's experience, the depreciation analysis data within the Company's 2002 depreciation study was summarized and a five (5) and ten (10) year average net salvage of negative fifty (50) percent and negative forty-seven (47) percent, respectively, were identified. Mr. Pous' recommended net salvage is negative fifteen (15) percent net salvage.

While the historical net salvage analysis averaged approximately positive five (5) percent net salvage, the net salvage experience is being driven by a level of gross salvage which is clearly not representative of what can be anticipated in connection with the ultimate retirement of the property group's assets. Retirement poles simply have no value at the end of their life.

The net salvage forecast indicates that end of life cost of removal is anticipated at over one hundred percent and that gross salvage is calculated at approximately fifty (50) percent (a level that simply will not occur). While there may be a minor level of third party damages for the pole account throughout the property's life, it is not realistic that this category of salvage receipts will come anywhere close to fifty (50) percent.

The net salvage factor underlying the current depreciation rate (and approved by the FPSC) is negative thirty (30) percent. It can be anticipated that the future net salvage of this property category will be driven more by the cost of removal than the gross salvage activity. Because the three year rolling average cost of removal from Section 8 of the Company's study declined somewhat

during several recent bands, a slight reduction was proposed to the current negative thirty (30) percent to negative twenty-five (25) percent net salvage.

For this account, Mr. Pous simply ignored both the recommended negative twenty-five (25) percent salvage proposed in the 2002 study as well as the actual 5 and 10 year normal net salvage of negative 50 and 47 percent, respectively, in developing his proposed negative fifteen (15) net salvage for Transmission Poles. The detailed analysis within the 2002 study supports my recommendation.

Account 356 – Transmission Conductors & Devices

My proposed net salvage parameter for this account is negative thirty (30) percent. From the Company's experience, the depreciation analysis data within the Company's 2002 depreciation study was summarized and a five (5) and ten (10) year average net salvage of negative sixty (62) percent and negative thirty-nine (39) percent, respectively, was identified. Mr. Pous' recommended net salvage is negative ten (10) percent net salvage.

In this account, while the three year rolling bands from Section 8 of the Company's study are positive for most years, various individual years during recent periods experienced considerable levels of negative net salvage. With the exception of a couple of recent years, the level of cost of removal has been escalating over time. Future cost of removal trended to in excess of one hundred twenty-five (125) percent and gross salvage trended to nearly seventy (70) percent. Again this level of gross salvage will simply not occur at the end of the property's life. While some level of scrap value will be received, any such

salvage will be limited because most of the property is aluminum conductors as opposed to more valuable copper conductors. Given the currently increasing cost of removal and gradualism, future net salvage was conservatively estimated at negative thirty (30) percent.

In this account, since the 2002 study negative salvage recommendation was beneficial to Mr. Pous' position he quoted the study's recommended negative fifteen (15) percent net salvage. However, the recommendation was clearly overly conservative in comparison with the actual analysis in the study. The Company's 2002 study contained a detailed analysis which demonstrates that normal net salvage for the most recent five and ten year period was negative sixty-two (62) percent and negative (47) percent, respectively. These study results demonstrate just how conservative the current depreciation study recommendation is. Again, Mr. Pous ignored the detailed information that was provided to him.

Account 362 – Distribution Station Equipment

My proposed net salvage parameter for this account is negative fifteen (15) percent. From the Company's experience, the depreciation analysis data within the Company's 2002 depreciation study was summarized and a five (5) and ten (10) year average net salvage of negative seven (7) percent and negative six (6) percent, respectively, were identified. Mr. Pous' recommended net salvage is zero (0) percent net salvage.

The overall average experience does not begin to indicate the real

expectation with regard to the anticipated future net salvage for this property group. The gross salvage has averaged approximately thirty-five (35) percent over the historical experience but has declined rather dramatically during the last several years. Accordingly, the gross salvage was discounted to zero (0) percent. Likewise, while the cost of removal has historically averaged approximately ten (10) percent, it has declined during several recent years and then turned up to seventeen (17) percent in the most recent year. Cost of removal through the end of the useful service life of the property group forecasted to in excess of twenty-six (26) percent. The historical experience is not anticipated in the future, nevertheless, some minor level of end of life gross salvage (e.g. scrap, etc) was anticipated to be received at the end of life of the property.

With regard to cost of removal, this is a continual and ongoing factor. Sizable portions of the investments in this property groups are related to the station transformers which can either be retired and/or moved from one location to another. Retirement and/or relocation of these facilities is anticipated to occur at much greater frequency for distribution facilities and for transmission facilities (for which zero percent net salvage was estimated). With the occurrence of this retirement/relocation activity there will be a significant work effort and costs incurred in connection with those tasks. All of the above factors were considered in estimating the proposed negative fifteen (15) percent net salvage for this property group.

While the Company proposed positive five (5) percent net salvage in its 2002 depreciation study, from the study analysis a negative seven (7) and

negative five (5) percent net salvage, respectively, for the past five (5) and ten (10) year periods can be identified. Again, Mr. Pous simply ignores both the underlying historical data and the Company's 2002 study analysis data that was provided to him at his request. The detailed analysis in the 2002 study is consistent with my recommendation.

Account 364 – Distribution Poles, Tower & Fixtures

My proposed net salvage parameter for this account is negative ninety (90) percent. From the Company's experience, the depreciation analysis data within the Company's 2002 depreciation study was summarized and a five (5) and ten (10) year average net salvage of negative one hundred eleven (111) percent and negative ninety-eight (98) percent, respectively, were identified. Mr. Pous' recommended net salvage is negative thirty-five (35) percent net salvage.

While the historical net salvage for this account averaged approximately negative six (6) percent, the average by itself is misleading. Likewise the gross salvage forecasted to in excess of 380 percent and is also misleading. Both are the product of an anomalous gross salvage percent which occurred during 2001 which I will discuss below. The gross salvage and cost of removal that was booked during 2001 is most likely a delayed accounting transaction. The levels of gross salvage recorded for various other years will not be achieved at the end of the life of the property group.

The net salvage forecast indicates that end of life cost of removal is anticipated at over one hundred (100) percent and that gross salvage is calculated

at a level that simply will not occur. While there will be a certain level of third party damages for the pole account throughout the property's life, it is not realistic that these salvage receipts will reoccur to a significant degree.

The Company's cost of removal experience is the true driver of the anticipated future net salvage. The cost of removal has been continuously increasing in recent years and can be anticipated to continue to do so in future years. While the historical average cost of removal was approximately sixty (60) percent that level does not begin to recognize the actual cost of removal experienced in more recent years. The experience in recent years is in excess of one hundred (100) percent cost of removal. Considering all of these facts, I estimated future net salvage of negative ninety (90) percent for the Company's distribution poles.

The net salvage factor underlying the current depreciation rate (and approved by the FPSC) is negative thirty-five (35) percent. The future net salvage of this property category will be driven more by the occurrence of cost of removal than the gross salvage activity. The Company's 2002 study contained a detailed analysis from which one can determine that normal net salvage for the most recent five and ten year periods were negative one hundred eleven (111) percent and negative ninety-eight (98) percent, respectively, which fully supports the proposed negative ninety (90) percent net salvage proposed in the Company's current study. Again, Mr. Pous simply ignores both the underlying historical data and the Company's 2002 study analysis data that was provided to him.

In his analysis Mr. Pous singled out an anomalous entry, which I agreed

was anomalous, as representative of the Company's historical experience. The single, anomalous entry does not represent the true Company experience. One needs to look more closely at the data and recognize that the cost of removal dollars in that entry are most likely the result of delayed activity and accounting transactions from prior years. The activity did occur, the funds were expended, and there, of course, is a reasonable explanation. It is simply a matter of the timing of the activity. No adjustments are appropriate and/or warranted.

Account 365 – Distribution Overhead Conductors & Devices

My proposed net salvage parameter for this account is negative twenty-five (25) percent. From the Company's experience, the depreciation analysis data within the Company's 2002 depreciation study was summarized and a five (5) and ten (10) year average net salvage of negative one hundred two (102) percent and negative one hundred twenty-four (124) percent, respectively, were identified. Mr. Pous' recommended net salvage is negative fifteen (15) percent net salvage.

The Company's net salvage averaged approximately positive four (4) percent, but many of the factors contributing to the positive salvage occurred during the period 1975 to 1985, with some high levels of gross salvage during the late 1990's, specifically 1997 to 1999. Such salvage was likely not true salvage. Because the gross salvage dropped off significantly during the most recent years, the gross salvage was interpreted as zero (0) percent. Cost of removal has historical been high and averaged approximately ninety-three (93) percent but, likewise has dropped off during the last couple of years. The forecasted end of

life cost of removal aggregated approximately 188 percent. Because cost of removal dropped off some from the prior high level, a modest decline in the current level of future net salvage of negative thirty-five (35) percent to negative twenty-five (25) percent was proposed for this property group.

The Company had actually proposed negative twenty-five (25) percent net salvage for this account in its 2002 study. Mr. Pous did not specifically mention the net salvage recommendation in the study. Mr. Pous also did not mention the fact that the 2002 study contained an analysis from which normal average net salvage levels of negative 102 percent and negative 124 percent net salvage for the five and ten year periods, respectively, can be determined. Both the Company's 2002 and the current depreciation study net salvage proposals are very conservative in comparison to the actual net salvage being experienced by the Company.

Mr. Pous, on various occasions, including for this account, has relied rather heavily on industry statistics, even though the Company has extensive level of salvage analysis data specific to its property. While industry statistics are a reference point, significant weight should only be placed upon such data when specific Company information is not available. Furthermore, as discussed earlier in my testimony, the industry depreciation statistic (in general) have various shortcomings, one of which is the fact that many of the studies underlying the industry data are quite dated and therefore are increasingly unreliable. More recently, completed depreciation studies for Florida investor owned utilities and well as other utilities tend to demonstrate increasing levels of negative net

salvage.

Mr. Pous even goes so far as to state that his recommended negative fifteen (15) percent net salvage "is more representative of the industry average." This statement simply is not true. The industry average net salvage for this property group is negative twenty (20) percent, which is midway between Mr. Pous' negative fifteen (15) percent and the Company's study which proposes negative (25) percent. All of the above data support my recommendation.

Account 367 – Distribution Underground Conductors & Devices

My proposed net salvage parameter for this account is negative fifteen (15) percent. From the Company's experience, the depreciation analysis data within the Company's 2002 depreciation study was summarized and a five (5) and ten (10) year average net salvage of negative four hundred three (403) percent and negative two hundred forty-six (246) percent, respectively, were identified. Mr. Pous' recommended net salvage is negative five (5) percent net salvage.

The Company's historical net salvage has averaged approximately negative eight (8) percent net salvage, in which the resulting negative net salvage is being significantly mitigated by the continuous positive net salvage up through the early 1990's. Since that period of time the net salvage has turned significantly negative. During the late 1990's, notwithstanding the fact that significant levels of gross salvage were recorded, negative net salvage remained very high.

Future gross salvage was discounted to zero (0) percent because the high levels of gross salvage during the late 1990's dropped off significantly in recent

years. While various levels of gross salvage have been received in connection with third party damage of limited portions of the Company's property and will continue to be experienced, it is extremely unlikely that levels anywhere near the levels recorded will be applicable to the "total property group" throughout the property's life.

Conversely, with regard to the cost to retire this property, ongoing costs can be anticipated to continue throughout the life of the property at increasing levels. Cost of removal for this property group actually forecasts to in excess of two hundred sixty (260) percent. The 2002 study likewise acknowledges extremely high levels of net negative salvage. Accordingly, future net salvage was modestly increased from the current zero (0) percent net salvage to negative fifteen (15) net salvage.

Mr. Pous references the 2002 study comment that "abandonment in place is the preferred method of retirement" and then states that, because of the abandonment in place, cost of removal should diminish. First, while abandonment in place may be the preferred method of retirement, retirements are not necessarily limited to that approach. Second, even with abandonment in place, the Company still incurs costs to isolate and disconnect the assets from the operating distribution system.

Now in this property account, when the net salvage recommendation in the 2002 study zero (0) percent is beneficial to his proposed negative five (5) percent net salvage, Mr. Pous specifically mentions the net salvage parameter in the 2002 study. Even more important, however, the 2002 depreciation study demonstrates

that this property class is experiencing extremely high levels of negative net salvage. From the 2002 study one can see that, during the recent five (5) and ten (10) year periods, the property group has experienced negative four hundred and three (403) percent and negative two hundred forty eight (248) percent net salvage. Mr. Pous simply chose to ignore this information when he recommended his negative five (5) net salvage and criticized the proposed negative fifteen (15) percent net salvage recommended in the current depreciation study. Again, all of this data supports my recommendation.

Account 368 – Distribution Line Transformers

My proposed net salvage parameter for this account is negative ten (10) percent. From the Company's experience, the depreciation analysis data within the Company's 2002 depreciation study was summarized and a five (5) and ten (10) year average net salvage of negative nineteen (19) percent and negative fifteen (15) percent, respectively, were identified. Mr. Pous' recommended net salvage is negative five (5) percent net salvage.

Historically, the Company has experienced average net salvage of approximately negative seven (7) percent for this property group. Gross salvage has averaged twelve (12) plus percent and cost of removal has averaged nineteen (19) percent. The forecasted gross salvage is two (2) percent, which is being driven by the recent decline in the gross salvage experience. Likewise, while the cost of removal level has also experienced declines during the last several years (which lowers the overall average cost of removal), the future forecast cost of

removal level is still at more than thirty (30) percent. Given that the level of cost of removal has declined over the last several years, a modest reduction from the net salvage parameter of negative fifteen (15) percent underlying the present depreciation rate, to negative ten (10) percent net salvage was currently estimated for this property group.

Mr. Pous references the potential impact of PCB related costs being associated with the disposal of earlier PCB contaminated facilities. While such costs may have occurred during earlier years in the Company's experience, this activity would not have occurred during the late 1990's when the Company experienced negative net salvage ranging from negative ten (10) to negative eighteen (18) percent net salvage.

Furthermore, the proposed net salvage for this account in the Company's 2002 depreciation study was negative ten (10) percent net salvage. Mr. Pous does not mention that fact in his analysis. Also, from the Company's 2002 depreciation study analysis it can be determined that the Company's normal net salvage for the five and ten year periods was negative nineteen (19) and negative fifteen (15) percent, respectively, again, data which Mr. Pous simply ignored. This data supports my recommendation.

Account 369.1 – Distribution Services

My proposed net salvage parameter for this account is negative seventy-five (75) percent. From the Company's experience, the depreciation analysis data within the Company's 2002 depreciation study was summarized and a five (5) and

ten (10) year average net salvage of negative four hundred twenty-six (426) percent and negative three hundred fifty-six (356) percent, respectively, were identified. Mr. Pous' recommended net salvage is negative fifty (50) percent net salvage.

The Company's historical net salvage in this account averaged negative one hundred sixteen (116) percent. Gross salvage averaged ninety-six (96) percent and the cost of removal averaged in excess of two hundred (200) percent. Both the gross salvage and cost of removal were nonexistent during the two most recent years due to a delay in the booking of retirements. Gross salvage forecasted to approximately one hundred ninety two (192) percent, while cost of removal forecasted to more than four hundred (400) percent. While future customer relocations will likely generate some level of gross salvage, nothing near the overall recorded levels of gross salvage will be experienced for the Company's total plant. Conversely, cost of removal levels will continue to increase over time. Considering the high levels of both historic and even higher future cost of removal factors, I very conservatively estimated an increase in negative net salvage from negative fifty (50) percent to negative seventy-five (75) percent net salvage.

Mr. Pous claims the "almost total elimination of gross salvage is questionable.....". I did not "eliminate" salvage. In reality, the net of forecasted gross salvage and cost of removal is nearly negative two hundred fifty (250) percent net salvage. The proposed negative seventy-five (75) percent net salvage demonstrates how conservative the recommendation really is.

Mr. Pous selectively quotes the Company's proposed net salvage factor of negative fifty (50) percent since it seems to support his net salvage proposal of negative fifty (50) percent. What Mr. Pous fails to mention is the fact that the same 2002 depreciation analysis demonstrates that the Company has experienced normal net salvage of negative four hundred twenty six (426) percent and negative three hundred fifty-six (356) percent net salvage over the past five (5) and ten (10) years, respectively. Accordingly, while the Company's proposed net salvage in the 2002 study was set forth at negative fifty (50) percent net salvage, the net salvage recommendation (within the 2002 study) was overly conservative in comparison with the actual study analysis results. This data supports my recommendation.

Account 369.2 – Distribution Services

My proposed net salvage parameter for this account is negative twenty-five (25) percent. From the Company's experience, the depreciation analysis data within the Company's 2002 depreciation study was summarized and a five (5) and ten (10) year average net salvage of three (3) percent and negative five (5) percent, respectively, were identified. Mr. Pous' recommended net salvage is zero (0) percent net salvage.

The Company's historical net salvage for this account averaged approximately four (4) plus percent, which is influenced by the significant levels of positive salvage during the 1970's and early 1980's. While gross salvage averaged approximately fifteen (15), the gross salvage forecast was assumed to be

zero (0) percent. While various levels of gross salvage have been received relative to swimming pool construction and third party damage, it is extremely unlikely that future levels will be anywhere near the past levels recorded throughout the total property's life.

The historical cost of removal averaged eleven percent and forecasted to in excess of twenty-six (26) percent. Using the Company's 2002 depreciation study, it can be determined that normal negative net salvage of nine (9) and (8) percent, respectively, occurs for the most recent five (5) and (10) year periods. While it can be argued that much, if not most of the underground services will be abandoned in place, the Company will still incur cost to disconnect the services from the distribution system at the end of the life. Giving consideration to the historical experience, the results of the forecast analysis which identifies that cost will continue to escalate in future years, future net salvage for this account was estimated at negative twenty-five (25) percent.

Account 373 – Distribution Street Lighting

My proposed net salvage parameter for this account is negative twenty (20) percent. From the Company's experience, the depreciation analysis data within the Company's 2002 depreciation study was summarized and a five (5) and ten (10) year average net salvage of negative sixty-two (62) percent and negative thirty-eight (38) percent, respectively, were identified. Mr. Pous' recommended net salvage is zero (0) percent net salvage.

While the Company's historical net salvage in this account averaged a

positive fifteen (15) percent, the average was driven by large positive values during the 1970's and 1980's. More recent years routinely experience negative net salvage.

The historic gross salvage averaged thirty three (33) percent which forecasted to approximately thirty-four (34) percent. Company management specifically indicated that no municipalities had recently acquired street light systems and no street lighting system acquisitions are anticipated for future years. Conversely, historical cost of removal averaged more than eighteen (18) percent and forecasted to twenty five (25) percent due increased future costs.

Mr. Pous discusses the occurrence of the 2001 cost of removal and implies that this cost of removal entry influences the cost of removal. The vintage level of cost of removal has no impact on the cost of removal forecast because the calculation is based upon the overall average cost of removal. This high cost of removal entry is simply a matter of the timing of the recording of the expenditure. Mr. Pous would have us make an adjustment when, in fact, the Company actually expended those dollars in connection with the retirement of plant in service.

Mr. Pous relies on my deposition statement regarding the 1997 and 1998 net salvage entries that "it doesn't make sense". After a further look at the data, "it clearly does make sense". It is quite obvious, even to the untrained eye that the calculations are being impacted by the timing of transactions within the data. That is, within the data there are clearly corrections that lead to adjustments between 1997 and 1998. Netting the two years data to account for the timing of the adjustment would bring the net salvage well within the range of the other

year's activity.

In this account Mr. Pous referenced the recommendation in the Company's 2002 depreciation study of negative five (5) percent net salvage. But he again failed to mention that the same study provides the information necessary to demonstrate that the Company has experienced normal net salvage of negative sixty-two (62) percent and negative thirty-eight (38) percent net salvage over the past five (5) and ten (10) years, respectively, a fact that fully supports the proposed negative twenty (20) percent net salvage within the current depreciation study. The Company's 2002 depreciation study net salvage recommendation was overly conservative in comparison with the actual study analysis results.

III. REBUTTAL TESTIMONY TO WITNESS MICHAEL GORMAN

Q. What do you understand are the criticisms of Mr. Gorman with regard to your depreciation study?

A. I understand Mr. Gorman's criticism of my study to be as follows:

1. He claims a variance exists between the Company's book depreciation reserve and theoretical depreciation reserve and proposes an immediate five year flow back of $250 million of the reserve variance.
2. He claims that including the Company's proposed future net salvage parameters in the depreciation rates produces excessive depreciation rates.
3. He claims that the recovery of the net salvage component of depreciation should be recovered on a cash basis as opposed to the standard depreciation accrual basis.

Q. Do you agree with Mr. Gorman's criticisms?

A. No, I do not.

Q. Mr. Gorman is proposing an accelerated reserve adjustment. Is his proposal reasonable or appropriate?

A. No. Just as with Mr. Pous' proposed adjustment, Mr. Gorman is proposing an accelerated adjustment to the Company's annual depreciation rates and expense for a perceived excess depreciated reserve variance. Mr. Gorman's proposal is inconsistent with depreciation practices and procedures that have been continuously used and applied by the Company and the FPSC for recovery of the Company's plant investments for many years. The perceived excess depreciation reserve is not unusual by any means. Furthermore, the variance that currently exists was exacerbated by the fact that the Company, in the calculation of its current theoretical depreciation reserve, incorporates the proposed license extension of CR3 even though an extension has not yet been received. Even assuming that the license extension is granted, there is no assurance that the plant will operate until the end of the proposed life extension. To the extent that the plant does not operate to the full end of life, the calculated reserve variance would be reduced.

Q. Does Mr. Gorman understand what causes the alleged depreciation reserve surplus?

A. Yes. As Mr. Gorman stated "The theoretical book depreciation reserve reflects the size of the book depreciation reserve if the proposed depreciation parameters (average service lives, survivor curves, remaining lives, and net salvage ratios) had been in place over the entire asset lives." That is the exact issue. The current depreciation parameters have not been utilized over the entire life of the property. The resulting depreciation reserve variance is simply a snap shot in time and will change upwards or downwards depending upon the ongoing change in the proposed depreciation parameters. The depreciation reserve has been built up over the life of the asset and therefore should continue to be adjusted using the average remaining life rates over time (the average remaining life of the property).

Q. Mr. Gorman states that the Company's net salvage estimates produce depreciation rates that are excessive. Do you agree?

A. No. The Company's proposed net salvage factors and related depreciation rates are reasonable and appropriate. The depreciation rates, inclusive of net salvage, are designed to recover the unrecovered original cost of the investment minus end of life positive or negative net salvage over the average remaining life of each of the property groups. In doing so the annual depreciation expense will, by design, in the early years recover far more of the net salvage depreciation component than the Company receives or expends because such net salvage activity does not generally occur until the end of the property's useful service life. To defer the recovery of the end of life cost until it occurs is inconsistent with accrual accounting concepts, straight line depreciation based accounting, and is therefore

totally inappropriate. This is one answer to Mr. Gorman's criticism that the Company's proposed net salvage parameters are different from the Company's books.

Q. Does Mr. Gorman's Table 2 demonstrate that the Company's proposed net salvage parameters are excessive?

A. No. Mr. Gorman's table is misleading because the positive salvage amounts incorporated into his schedule include return to stores salvage amounts along with the normal cash salvage amounts and are, therefore, significantly overstated. Furthermore, the accounting entries for return to stores are a far more limited portions of the Company's plant retirements and will not apply to the larger portion of the Company's overall plant investments.

Q. Is Mr. Gorman's conclusion that "what causes the disparity between net salvage expense included in depreciation rates and actual net salvage experience" is the product of inflation and economies of scale correct?

A. Absolutely not. As previously discussed in my testimony, the reason for the variance between the net salvage per books and that included in the depreciation rates is that the depreciation rates, by design, must include the proportional recovery of end of life net salvage cost in the current depreciation rates. Furthermore, Mr. Gorman's conclusion that inflation was improperly included in the net salvage estimate is also incorrect. The net salvage estimating process does not inflate future net salvage, but simply defines the true end of life cost (net salvage percent) as it relates to the current plant in service investment serving the

Company's customers.

Mr. Gorman's comment with regard to potential future economies of scale is also unfounded. Mr. Gorman would have us believe that the Company's property retirement process is similar to a production line, with the employees gaining significant efficiencies through improved knowledge, experience, and workflows. Such benefits simply will not occur, in that retirements will continue to occur randomly throughout the Company's large distribution area. Furthermore, work crews will continue to change and there are regular circumstances encountered that complicate the retirement process such as soil conditions and other utility infrastructure in the affected area.

Q. What comments do you have regarding Mr. Gorman's example of the impact on net salvage associated with including future inflation in the development of net salvage ratios?

A. Mr. Gorman's testimony is partially correct, but for the most part incorrect and misleading. To the extent that inflation will occur over the remaining years until the end of the life of the property (and the occurrence of the end of life costs), such increased costs must be included in the net salvage estimate. This situation is no different than what has historically occurred. The inflation included in the future calculation is not inflating the historical cost, but is only used to define the true future end of life cost that will be incurred. The depreciation rate must recognize the total beginning of life and end of life cost if it is going to properly recover such costs. Mr. Gorman then discusses applying a discount rate to the

future cost of removal as if the Company has a cash sinking fund upon which it can earn a return. There is no cash sinking fund. More importantly, to calculate a straight line depreciation rate (as opposed to a sinking fund based depreciation rate), the depreciation rate calculation must be based upon the yearly proportional recovery of the total cost over the average remaining life rate.

Q. On pages 12 and 13 of his testimony Mr. Gorman provides an illustration of the revenue requirement of a $1,000 investment with a negative 25 net salvage percentage at end of life. What are your comments?

A. While it is true that, as a result of including the negative 25 percent net salvage in depreciation rates, the rate base will temporarily go negative near the end of the property's life, such an event must occur if the Company is to recover its full cost of the property proportionately and correctly from the customers who benefited from the use of the property. Otherwise, the Company's plant would reach the end of its life and the Company would be faced with the cost of removal of the plant with no customers from which to recover the cost.

Q. Please provide your comments regarding Mr. Gorman's proposal to use current expensing (cash accounting) of net salvage. (Gorman Testimony, pages 13 and 14).

A. Mr. Gorman's position to amortize historic levels of net salvage is incorrect and unwarranted. The fallacy of Mr. Gorman's proposal is that the proposed five (5) year average net salvage is a back-end loaded recovery mechanism. First, his

proposal uses five years of experience which ignores ever increasing cost of removal in the Company's recovery amounts. Therefore, the Company fails to begin recovering its full cost of removal at the beginning of life which means customers are not paying their fair share of the end of life plant cost that was utilized in providing service. The result is a dramatic mismatch between the provision of service and the payment for the service provided. This proposed net salvage approach totally fails to recognize the basic matching principle that underlies the fairness doctrine inherent in rate making principles.

Mr. Gorman's incorrect and inappropriate approach will result in the Company facing dramatic under-recovery of its total life asset costs. If Mr. Gorman's proposal were adopted, the Company will find itself in a position where property is routinely being taken out of service and the Company will not receive the recovery of the retirement cost until after the fact. This approach is totally inconsistent with any accounting and rate making principles.

A simple illustrative test to demonstrate the unreasonableness of Mr. Gorman's recommended net salvage approach can be provided. To make the demonstration clear, concise, and simple, consider the following basic depreciation principles and facts:

1. The customer should pay all the Company's plant related cost incurred in providing service to the customer.
2. The plant used to provide the service to one (1) customer has an initial original cost of $1,000.

3. The useful service life is 10 years after which the customer will no longer exist.

4. The end of life retirement cost is $500.

Under Mr. Gorman's proposal the customer would pay annual depreciation expense of $100 per year for 10 years to recover the $1,000 initial original cost investment. After 10 years the customer leaves and no longer exists. The Company retires the plant and has been made whole for the initial investment. However, in the process of retiring the plant the Company must expend $500 to retire the plant that has previously served the customer. Given that the customer no longer exists, there is no one to pay for the retirement cost.

The true annual cost of providing the customer service was actually $1,000 plus $500 (cost to retire) = $1,500 divided by 10 years = $150 per year. The customer only paid $100 per year or 1/3 less than he should have paid. Furthermore, the Company has expended $500 for the asset retirement and has no available source of recovery. If new customers are assumed to be added, this illustration demonstrates that future customers will incorrectly and inappropriately pay for plant cost from which they received no benefit. That is, these new customers would end up paying the $500 negative net salvage incurred to retire the facility that the prior customers used.

By using the appropriate depreciation rate approach (under which depreciation rates are routinely calculated), the annual depreciation relative to the above illustration would be $150 per year during the 10 years which the company was providing service. After 10 years the company would retire the plant and

expend the $500 for retirement cost with the result that the company would have been made whole and the customer who received the benefit would have paid the appropriate level for annual depreciation expense.

Q. Mr. Gorman states that his proposal is supported by industry trade publications. Is he correct?

A. While the quote provided by Mr. Gorman is included in the NARUC Depreciation Practices Manual, the quote is taken out of context. The complete reference to the net salvage discussion in the NARUC text is included as Rebuttal Exhibit No. ____ (EMR-4). The generally accepted depreciation practice, referenced on page 18 of the NARUC publication, is as follow:

> "Net salvage is expressed as a percentage of plant retired by dividing the dollars of net salvage by the dollars of original cost of plant retired. The goal of accounting for net salvage is to allocate the net cost of an asset to accounting periods, making due allowance for the net salvage, positive or negative, that will be obtained when the asset is retired. This concept carries with it the premise that property ownership includes the responsibility for the property's ultimate abandonment or removal. Hence, if current users benefit from its use, they should pay their pro rata share of the costs involved in the abandonment or removal of the property and also receive their pro rata share of the benefits of the proceeds realized."

> "This treatment of net salvage is in harmony with generally accepted accounting principles and tends to remove from the income statement any fluctuations caused by erratic, although necessary, abandonment and removal operations. It also has the advantage that current consumers pay or receive a fair share of costs associated with the property devoted to their service, even though the costs may be estimated."

> "The practical difficulties of estimating, reporting, and accounting for salvage and cost of retirement have raised questions as to whether more satisfactory results might be obtained if net salvage were credited or charged, as appropriate, to current operations at the time of retirement instead of being provided for over the life of the asset. The advocates of such a procedure contend

that salvage is not only more difficult to estimate than service life but, for capital intensive public utilities, it is typically a minor factor in the entire depreciation picture."

The full NARUC discussion supports the annual recognition of net salvage consistent with generally accepted accounting and depreciation principles followed in the Company's study.

IV. REBUTTAL TESTIMONY TO WITNESS HUGH LARKIN

Q. What do you understand are the criticism's of Mr. Larkin with regard to your depreciation study?

A. I understand Mr. Larkin's criticism of my study to be as follows:

1. He claims that there is significant Commission precedent supporting the amortization of the variance between the Company's book depreciation reserve and theoretical depreciation reserve over an accelerated basis as opposed to the Company's proposed recovery of the unrecovered cost using ARL depreciation rates.

Q. Do you agree with Mr. Larkin's criticisms?

A. No, I do not.

Q. In his approximate ten (10) pages of testimony on the depreciation reserve amortization subject, Mr. Larkin cites numerous orders in which the Commission authorized the amortization of asset investments over

accelerated time periods. He also acknowledges that most of the referenced orders were relative to telecommunications. Please provide us with your comments.

A. The referenced telephone cases were applicable to telecommunications equipment that became rapidly obsolete due to technological changes and were either already retired from service and/or were subject to retirement from service during a very short time frame. Because the assets were either no longer providing service to the applicable company's customer or were subject to providing service for extremely short periods of time, the company was permitted to accelerate recovery of the cost of the obsolete equipment. Maintaining such residual telephone asset costs in rate base would have resulted in far higher costs to rate payers than the cost for providing a rapid recovery of those out of service asset costs.

Conversely, with the Company's current reserve variance, the assets are currently in service, and prospectively will continue to provide service to the Company's customers. The book versus theoretical depreciation reserve variance, relative to the assets in question, is not overly material given the current level of depreciation reserve. Since the Company's book depreciation reserve is somewhat higher than the theoretical depreciation reserve, rate base is lower than it would otherwise have been. Given the lower rate base, both the depreciation expense and return is lower, resulting in a lower cost to the Company's customers. This lower cost to current customers will continue until the book and theoretical depreciation reserve are at equilibrium.

Q. Do you believe that the Company's proposed treatment of retired meters supports Mr. Larkin's proposal to refund the variance between the company's theoretical and book reserve?

A. No. Again, the above amortization discussion is relative to the recovery of property investments that are no longer in service as opposed to the depreciation of assets that are continuing to provide service to the Company's customers. It would be imprudent, as well as costly to customers, to continue to carry un-recovered costs, relative to retired assets, on the Company's books for long periods of time after the property was removed from service.

Q. Does that conclude your rebuttal testimony?

A. Yes, it does.

REBUTTAL TESTIMONY OF
DAVID MCDONALD

I. Introduction and Purpose

Q. Please state your name.

A. My name is David McDonald.

Q. Did you submit Direct Testimony in this case on April 29, 2005?

A. Yes.

Q. Have you reviewed the intervenor testimony of Donna Deronne and Jacob Pous filed on behalf of the Office of Public Counsel ("OPC"), of Sheree Brown filed on behalf of the Florida Retail Federation ("FRF"), and of Carl Vinson, William "Tripp" Coston, and Sidney Matlock filed on behalf of the Florida Public Service Commission Staff (the "Staff")?

A. Yes.

Q. What is the purpose of your rebuttal testimony in this proceeding?

A. The purpose of my rebuttal testimony is to respond to certain wholly unsupported arguments presented by Ms. Brown and Ms. Deronne asserting that O&M expenses associated with various distribution initiatives should be reduced. In addition, I address the inferences in Staff's testimony that PEF's vegetation management and pole inspection programs are somehow less than adequate and that our record of reliability performance is less than superior. I also generally address PEF's cost to install and remove distribution equipment and the salvage value, if any, that the Company receives for such equipment following the end of

its useful life. This issue is addressed in greater detail by Bob Matthews and Ray DeSouza in their rebuttal testimony,

II. Response to Ms. Deronne's Distribution Vegetation Management Recommendations

Q. Ms. Deronne indicates that Progress Energy Florida's ("PEF's" or the "Company's") incremental distribution vegetation management spending request of $11 million is not adequately supported in your testimony. Do you agree with her assessment?

A. No I do not. First, Ms. Deronne is a CPA. She is not an engineer. Nor does it appear from her testimony that she has ever held any positions overseeing the operation and maintenance of a distribution system. She also has not inspected PEF's electric distribution system in this case that would enable her even to opine on what level of vegetation management programs are appropriate. Even if she were to have undertaken such a review, she does not appear to have the relevant experience to give such an opinion in any event as a CPA. As I will discuss in greater detail below, Ms. Deronne's request to eliminate $11 million is arbitrary and has no basis in fact.

My direct testimony, on the other hand, is based on my extensive experience operating and maintaining electric distribution systems and a detailed understanding of PEF's distribution system, vegetation management practices and future needs.

Q. Please summarize the Company's vegetation management program over the past several years.

A. Since 2002, PEF has been operating under the terms of our Stipulation and Settlement Agreement (the "2002 Settlement"), which resolved the Company's last rate case. Under the 2002 Settlement, the Company committed to achieve a system average interruption duration index ("SAIDI") of 80 minutes or less by 2004 while simultaneously delivering an annual $125 million rate reduction to our customers. PEF met these commitments. Two factors were most critical to this success. The first was the Company's investment of more than $120 million, over and above normal expenditures, to upgrade the transmission and distribution systems through the Commitment to Excellence ("CTE") program. The second factor was the efficiency gained from work prioritization, which allowed the Company to concentrate its reliability efforts on activities with the potential to produce the greatest improvements in relation to our SAIDI commitment. The prime example of this prioritization was the emphasis placed on outage mitigation; that is, reducing the average duration of, and the number of customers impacted by, outages occurring on the system. One effect of this increased focus on outage mitigation was a more stringent and strategic application of fault prevention activities that would not significantly impact that facet of reliability as measured by SAIDI. These circumstances are important to understand since they affected the level and nature of our work on several underlying initiatives, including vegetation management.

Q. Have there been any other significant impacts on your vegetation management program?

A. Yes. The cost per mile for vegetation management has risen considerably, which has impacted the number of miles we're able to trim annually. Per-mile costs of

our vegetation management contracts have increased every year and a total of 57% since 2001. This increase in the cost per mile is due to several factors. First, underlying labor and employee benefit costs have been rising over time and represent the major cost input for our contracts. Second, the end of a multi-year drought has resulted in increased vegetation growth, which has similarly contributed to the rising cost per mile. Third, the Company has established a more comprehensive trimming program, with additional attention given to right-of-way floor maintenance and overhead removal relative to the past. While this also contributes to a rising cost per mile, it provides a better result for every mile trimmed and is very consistent with our transition to a prevention focus as I will describe in a moment. Simply put, we have more growth now to trim and when we trim, we are trimming back more of the vegetation.

Q. What has been the net impact of these issues on PEF's distribution vegetation management program?

A. The Company has dedicated significantly more funding to distribution vegetation management, increasing the annual average of $9.7 million over the 1999 to 2001 period by over 150% to an annual average of $14.4 million over the 2002 to 2004 period. In addition, the Company has worked to more precisely target expenditures on those activities that will achieve maximum improvement in reliability. Although we continue to believe that a three-year weighted average maintenance cycle is a reasonable goal on a system-wide basis, there are nonetheless benefits that can be captured from the fact that preventative maintenance on certain individual feeders may be deferred to longer cycles without significantly impacting reliability. System reliability and customer impact

are our ultimate drivers, and the very successful results of our focus can be seen in a steadily declining customer-weighted average duration of tree-caused outages from 2000 to 2004 as well as the Company's broad record of reliability improvement over this period.

Q. Please describe and support your need for $11 million in incremental distribution vegetation management funding as requested in this case.

A. Going forward, PEF believes that the most significant improvements in customer satisfaction can be realized by maintaining the Company's SAIDI reliability measure in its current range while broadening the current focus on the mitigation of outages to the improvement of power quality through fault prevention. In the area of vegetation management, this means that we will have to look beyond simply reducing the duration of, and the number of customers impacted by, tree-related outages, and shift our focus to the actual prevention of tree-related faults in the first place. Clearly, this will require a much greater vegetation maintenance effort and it is the main driver of our incremental vegetation funding proposal. As opposed to a more targeted approach to trimming, this implies a broader and more robust approach where less potential for vegetation contact with the conductor can be tolerated. The payoff will be greater power quality and less interruptions for our customers.

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Q. Ms. Deronne proposes that the Commission grant PEF an increase in vegetation management spending equal to fifty percent of actual spending in 2004. Do you agree?

A. No. PEF's $11 million incremental funding request is scaled to maintain a three-year weighted average cycle time considering anticipated per-mile cost increases. This amount is based on a detailed review of our past vegetation management activities, the state of our system today, and a recognition of the unique needs of varying feeders within the system. It is not, and should not be, based on an arbitrary mathematical formula or percentage that is taken out of thin air. Our proposal represents an appropriate amount of funding and is designed to improve power quality consistent with the rising expectations of our customers. Ms. Deronne argues that the requested funding would enable trimming of 41% of overhead miles, rather than the 33% which would be consistent with a three-year cycle. While this may be true in a strict mathematical sense, it does not recognize PEF's need to operate above this level in the short term as we transition from a focus on mitigation to prevention.

Q. Ms. Deronne recommends that the PEF be required to report distribution vegetation management spending to the Commission quarterly and return any under-spent amounts to ratepayers. Do you agree?

A. No. The Company has a strong track record of balancing stakeholder interests and prioritizing spending for our customers' benefit. This is clear from the consistency and breadth of our operational improvements over the past several years. It is not in our customers' interest to blindly adhere to every underlying procedure, budget, estimate, and plan. Effective management calls for precisely the type of balancing and prioritization that PEF has demonstrated. The implementation of balancing funds for budget line items would reduce management's ability to make such tradeoffs and would not be in the best interests of our customers.

III. Response to Ms. Brown's Recommended Adjustments to Distribution Reliability Initiatives

Q. Ms. Brown recommends that the Commission reduce PEF's requested test year incremental reliability projects from $18.65 million to about $8.6 million. On what basis, does Ms. Brown make this recommendation?

A. Ms. Brown claims that, on average, from 2002 through 2004, PEF only spent 46.2% of what it said it would spend in Docket No. 000824-EI. As such, based on this simple mathematical calculation, PEF should only be able to recover 46.2% of its current request for incremental distribution initiatives.

Q. Do you agree with Ms. Brown's recommendation?

A. No. As Mr. Oliver states in his rebuttal testimony, the budget for specific distribution reliability programs identified by the Company (in Robert Sipes' testimony) in Docket No. 000824-EI were based on an annual $5 million rate reduction and not on the annual $125 million rate reduction that PEF and the interveners, including Ms. Brown's client at that time, ultimately agreed to under the 2002 Settlement. The 2002 Settlement did not mandate the programs identified in Mr. Sipes' testimony and, beyond this, it is not reasonable to think the Company could reduce revenue by almost $500 million over the term of the 2002 Settlement with no change in underlying spending. Based on the 2002 Settlement and the associated SAIDI commitment, PEF necessarily re-prioritized programs to focus on outage mitigation measures. Within that context, which Ms. Brown fails to mention in her testimony, PEF nonetheless spent $123 million from 2002 to 2004 on key distribution and transmission reliability initiatives over and above the

normal, budgeted amounts. These initiatives are shown in Exhibit No. ____(DO-1) to Mr. Oliver's direct testimony, and represent a very significant commitment to reliability and operational excellence. Ms. Brown's misstatement that the Company "overestimated" its distribution expenses in Docket No. 000824-EI is disingenuous and ignores the 2002 Settlement her client signed following the submittal of Mr. Sipes' initial testimony in that case.

Q. What other problems are there with Ms. Brown's recommended adjustments to PEF's proposed distribution initiatives?

A. Like Ms. Deronne, Ms. Brown is an accountant. Ms. Brown has no experience in operating and maintaining an electric distribution system, does not have the background to opine on what initiatives are appropriate, and appears to have undertaken no review of PEF's electric distribution system, were she even qualified to do so, to give any educated opinion as to the appropriateness of any distribution initiatives proposed by PEF. Instead, Ms. Brown simply makes up a number – based on no technical analysis. In essence, she calculates CTE spending as a percentage of the original, *as-filed*, reliability spending proposals in Docket No. 000824-EI and recommends that the Commission only approve the same proportion of this request. The 2002 Settlement renders the relationship between these two items absolutely meaningless. Since Ms. Brown's premise is flawed, it should not have any bearing on this proceeding.

IV. <u>Response to Reliability Audit Findings by Messrs. Vinson and Coston</u>

Q. Messrs. Vinson and Coston state that PEF has experienced an increase in vegetation-caused outages during the period 1999 through 2004, while

decreasing the number of miles trimmed and the number of feeders trimmed annually during the same period, which implies that reliability as a result of PEF's vegetation management programs has gone down. Do you agree?

A. No I do not. The criticism of Messrs. Vinson and Coston focuses on the number of miles and number of feeders trimmed. This is only one measure, and in this case not the best measure, of the effectiveness of PEF's distribution reliability activities. Over the period from 1999 to 2004, PEF has significantly improved overall distribution reliability. The Company reduced its 1999 SAIDI of 97 minutes by over 20% and has also reduced other system reliability metrics, including SAIFI, CAIDI, and CEMI5. The breadth and magnitude of this improvement is highlighted in the Commission's most recent "Review of Florida's Investor-Owned Electric Utilities' Distribution Reliability" report. This most recent review of reliability covers the four-year period from 2000 through 2003 and shows that PEF demonstrated improvement on seven of eight reliability metrics examined.

Two factors have been key to the distribution reliability improvements achieved by PEF over this period. The first is the Company's investment of more than $120 million, over and above normal expenditures, to upgrade its transmission and distribution systems despite the reduction in revenues associated with the current rate settlement, which provided the additional benefit to customers of over $500 million in savings. The second factor is the efficiency gained from work prioritization, which allowed the Company to readjust and concentrate its reliability efforts on activities with the potential to produce the greatest improvements. The prime example of this was the emphasis placed on outage

mitigation, which proved to be highly effective in reducing the average duration of outages and in reducing the number of customers affected by those outages that do occur. One effect of this increased focus on outage mitigation was a somewhat reduced emphasis on outage prevention activities and the resulting increase in vegetation-related outages, although this increase was more than offset by the overall reliability improvements achieved by PEF's outage mitigation efforts. The success of these efforts can be clearly seen in the Company's decreasing CAIDI related to tree-caused outages from 2000-2004, as well as in the broad record of overall reliability improvements described above. In addition, the apparent increase in the number of vegetation-related outages has been exaggerated by recent improvements in the accuracy of cause codes assigned to outages. It is likely that many outages now reported as caused by vegetation would have been assigned other codes in the past.

Despite the emphasis on outage mitigation throughout the period in question, the Company has endeavored to maintain an average trimming cycle of three years. Vegetation management spending has risen considerably over the 1999 - 2004 period. In fact, PEF's spending of $15.4 million in 2004 is an increase of over 150 percent compared to the $9.9 million spent in 1999, and the Company's average annual spending over the three-year period from 2002 to 2004 of $14.4 million is almost 150 percent greater than the 1999 - 2001 annual average of $9.7M. However, the cost per mile for vegetation management has risen considerably over this period, which has negatively impacted the annual mileage cited in the preliminary audit finding. This increase in the cost per mile is primarily due to higher labor costs and a more comprehensive trimming program,

with additional attention given to right-of-way floor maintenance and overhang removal relative to the past. Beyond this, the end of a multi-year drought has resulted in increased vegetation growth, which has contributed significantly to the rising cost per mile. In the face of these challenges, PEF has worked to more precisely target expenditures on those activities that will achieve the maximum improvement in customer reliability. Although the Company continues to believe that a three-year weighted average maintenance cycle is a reasonable goal on a system-wide basis, there are nonetheless benefits that can be captured from the fact that preventative maintenance on certain individual feeders may be deferred to longer cycles without significantly impacting reliability. System reliability and customer impact are the ultimate drivers, and the results of this focus can be seen in the steadily declining CAIDI related to tree caused outages from 2000-2004 and the Company's broad record of reliability improvement over this period.

Q. Messrs. Vinson and Coston also state that PEF does not have a fully-implemented central monitoring system to track distribution ground-line inspections and that this represents a situation that could compromise customer reliability. Do you agree?

A. No I do not. PEF enhanced its inspection program in 2003 with the implementation of a GPS tracking system, which has and will continue to significantly improve the Company's ability to monitor and administer the program. Since then, the GPS coordinates of all inspected poles have been entered into the system as they are inspected. When fully implemented, approximately an additional 8 to 10 years given our inspection cycle time, PEF will be able to

identify the precise location and specific inspection history for each of its approximately one million distribution poles. This data base, in turn, will enable the Company to better identify patterns and trends associated with inspection and maintenance practices and provide the basis for evaluating further improvements to its procedures, including the most cost-effective inspection cycle.

PEF believes that its current approach and timeline most appropriately balance costs and benefits for our customers since we essentially incur no incremental cost to build the database during our routine inspections. The alternative, obtaining the GPS coordinates of our poles outside the normal inspection process, would add roughly $5 million in cost and would not likely produce substantial benefits. Our experience and working knowledge of the system indicate that pole failures are very rare. The hurricanes of 2004 provide additional validation, given that only a miniscule number of wood poles failed due to a structural defect under even the most severe conditions.

V. Response to Mr. Matlock's Critique of Reliability Performance

Q. Mr. Matlock presents thirteen years of reliability history for PEF and, based on the trend of the data, concludes that the Company's recent improvements represent less than superior performance. First, do you agree with his approach?

A. No. I find it interesting that Staff's reliability audit, entered into evidence in this case for its alleged relevance in assessing the Company's reliability performance, utilized an evaluation period from 1999 to 2004. However, Mr. Matlock rejects such an evaluation period and substitutes data from more than a decade ago to judge the very same reliability performance in the very same case. I think this

leads to a wholly inappropriate evaluation. For several reasons, comparisons in reported reliability data become less meaningful the farther back in time one compares the results, and by the time one gets back to 1992, the analysis has little relevance.

Q. Could you please provide some examples as to why such a comparison is flawed?

A. Yes. The systems used to collect and process the data, and the procedures used to calculate and report the metrics, have improved steadily over the years. For example, the introduction and refinement of automated outage management systems have increased the amount of outage information we're able to capture and record. This would have a tendency to make our results actually look worse over time, all else equal, and makes the improvements we've shown even more impressive than would be apparent from the data. As another example, the types of outages that are excluded from the calculation have changed over time and the methods of excluding minutes have changed. Prior to 1998, a different set of criteria was in place to determine which events would be excluded from the calculations. In addition, the methodology was different and less sophisticated, removing customer minutes of interruption for the entire system for the entire day. Today, we're utilizing different exclusion criteria and our methodology is more sophisticated such that the data is not skewed as easily by unusual events.

Q. Could you please address 1993 specifically?

A. Yes. You'll notice on Mr. Matlock's Exhibit No. ___ (SWM-1), that the year 1993 is clearly an anomaly and makes no sense. The reason for this was a storm,

commonly referred to as the "Storm of the Century" that caused power interruptions to 33% of our customers and resulted in over 400 million minutes of customer interruption being excluded from the annual SAIDI calculation. Only about 94 million minutes of customer interruption (or less than one quarter of the amount excluded) were included in the calculation that year, resulting in a SAIDI of 79. Clearly, this result was based on a very different methodology than would be employed today and Mr. Matlock's assertion that we have not improved performance beyond this 1993 level is plainly wrong. Exclusions taken in association with the hurricanes of 2004 were more meticulously calculated, based on a more modern set of procedures, in order that our reported performance is roughly equal to what would have resulted had the storms never occurred. Here again, given the tendency of older data to contain a downward bias, PEF's actual results are more impressive than an uninformed review of Exhibit No. ____ (SWM-1) would suggest.

Q. Is there anything else you'd like to add?

A. Yes. I would like to make the point that customer expectations have been rising over this time period, largely due to increased use of sensitive electronics. My direct testimony discusses this in more detail. Within this context, a direct comparison of absolute performance levels over the past 13 years does not make sense. Over the long term, one would expect reliability to trend in the direction demanded by customers, which over this period suggests a downward-sloping curve.

Q. Given these clarifications, what conclusions do you draw from Exhibit No. ___ (SWM-1)?

A. The right-hand side of the exhibit, focusing on a more recent timeframe, clearly demonstrates that PEF has made consistent and substantial improvements over the full range of reliability metrics presented. Even if one were to put the negative biases and inconsistencies in the data that I described above aside, the exhibit shows significant, steady, and balanced improvement over approximately the past decade. And if we throw out 1993, which is clearly an anomaly due to exclusions associated with the "Storm of the Century", we have also shown very significant improvement on each metric since 1992.

Q. Mr. Matlock indicates that much of the Company's performance improvement for the 2001 to 2004 period occurred in 2004. Can you please explain?

A. Yes. As described in the direct testimony of Dale Oliver, the Company made significant investments in its distribution and transmission systems as part of its overall $123 million Commitment to Excellence program. As one would expect, reliability performance improved as these initiatives were rolled out over the 2002 to 2004 period. This performance effect is not necessarily linear, however, due to the substantial up-front planning, engineering, and installation time required prior to implementation of each initiative. What we noted in this case, and what is very typical, is that there is a lag in realizing the true benefits of the initiatives. Toward the later stages of the program, the cumulative effect of the implemented performance improvements begins to magnify and emphasize the observed results.

Q. Mr. Matlock states on page 4 of his testimony, that "without the changes from 2003 to 2004, little overall improvement has taken place over the entire period." Would you like to comment on this?

A. Yes. The statement is incorrect, as is obvious from a simple review of Exhibit No. ____ (SWM-1). Beyond this, a proposal to evaluate PEF's performance by excluding recent performance and substituting data from more than a decade ago makes no sense. As I just explained, our results in 2004 reflect a significant portion of the benefit derived through our Commitment to Excellence program. To exclude this year would be to exclude the core of the Company's efforts over the past several years. Again, this makes no sense. To our customers, these improvements are much more relevant than anything from thirteen years ago.

Q. Mr. Matlock also states on page 4 of his testimony, that the commitments of PEF's 2002 Settlement have not been met, specifically as they relate to 2005. Further, he states that even if they were met, this would still not indicate superior performance. Do you agree?

A. No. It is not clear on what basis Mr. Matlock is making this claim. All commitments to date, including achievement of SAIDI 80 by 2004, have been met. It is of no use to this rate case to suggest a measure of performance that cannot and will not be observable until after its conclusion. PEF's claim of superior performance is based on its historical and observable record.

Q. What is Mr. Matlock's definition of superior performance as it pertains to reliability and has PEF achieved this?

A. Mr. Matlock has not indicated how he would define superior performance. He has only indicated that he does not see superior performance in the trends on Exhibit No. ____ (SWM-1). I note that, in our prior 2002 rate case, Staff witness James Breman characterized our distribution service as "good". Putting this together with Mr. Matlock's comments and our observable improvements since 2002, I am left to assume that our performance is currently somewhere better than "good" but worse than "superior" in the eyes of the Staff. My position, on the other hand, is that PEF has demonstrated superior reliability performance. As I've already described above, a true picture of the Company's performance emerges when one disregards the anomalies, takes account of the inconsistencies in the data, and better yet uses an appropriate evaluation period. Compared against its own historical record, PEF has achieved steady, significant, and balanced improvement over time. This balance even extends down to the four regions which comprise PEF's service territory and where we've demonstrated the same steady, consistent and balanced progress over the past several years. Compared to its peer utilities, PEF has achieved top-quartile performance based on most recent benchmarks. This is a significant achievement given the frequent lightning, expansive rural areas, and high proportion of overhead miles that characterize our service area. I am extremely proud of PEF's reliability record. I urge the Commission to recognize this superior record of performance for what it truly is.

VI. PEF's Cost to Remove Distribution Equipment and Salvage Values

Q. Are you generally familiar with PEF's installation and removal of distribution equipment and the relative costs associated with each?

A. Yes. I have more than twenty years of experience in operating, designing, maintaining, and managing the operation of electric distribution systems in Florida. While I am not currently "on the ground" installing and removing equipment as is Mr. Matthews of our Company, I am generally familiar with what it takes to install and remove the various types of electric distribution equipment and the relative costs associated with installation and removal.

Q. What has been your experience relative to the installation and removal costs of distribution equipment?

A. As a general matter, it has been my experience that the cost of removing distribution equipment comes close, in many instances, to the costs to install the equipment. One key reason for this is that our access to equipment becomes more problematic as neighborhoods build up over time. For example, it's not uncommon for our crews to find poles surrounded by concrete or equipment inaccessible due to pools, sheds, and other residential structures upon removal.

Q. Are you generally familiar with the salvage value of equipment that PEF removes from service at the end of the equipment's useful life?

A. Again, throughout my career both at PEF and Florida Power & Light, I have had experience in removing distribution equipment and in disposing of such equipment.

Q. What has been your experience in the salvage values a utility typically receives for distribution equipment removed from service at the end of its useful life?

A. While I am not currently "on the ground" like Mr. Matthews, it has nonetheless been my experience that a utility typically receives very little, if any money, for distribution equipment removed from service at the end of its useful life. As one might expect, there is little to no salvage value, for example, for a 30-year old wood pole, conductor, transformer or similar equipment.

Q. Does this conclude your testimony?

A. Yes.

REBUTTAL TESTIMONY OF

ROBERT B. MATTHEWS

Q. Please state your name and business address.

A. My name is Robert B. Matthews. My business address is 2801 W. State Road 426, Oviedo, Florida 32765.

Q. By whom are you employed and in what capacity?

A. I am employed by Progress Energy Florida ("PEF" or the "Company") as a Principal Engineer within the North Central Region.

Q. What are the duties and responsibilities of your position?

A. As a Principal Engineer, I am primarily responsible for the coordination of large distribution projects, including both the engineering of such projects and the direct oversight of construction activities in the field. Over the past several years, I have been involved in the installation, removal and replacement of all types of company distribution facilities. One recent example of my responsibilities would be oversight and project management of the Company's separation and reintegration work in Winter Park.

Q. Please describe your educational background and professional experience.

A. I am a graduate of The Georgia Institute of Technology, holding a B.S. degree in Mechanical Engineering. I joined Florida Power Corporation in 1985 in the Energy Services organization and transferred to the Distribution organization in 1988. Since then, I have held various positions, including Manager of Distribution Standards and Manager of Operations and Maintenance Programs and Standards

from 1995 to 1997, where I had exposure to design and cost information throughout the Company's entire service territory, including costs of equipment removal.

Q. What is the purpose of your testimony in this proceeding?

A. My understanding is that the Company's projected costs of removal have been challenged as being too high, and the Company's projected salvage values have been challenged as being too low. The purpose of my testimony is to provide some real-world insight into removal and salvage practices. While I cannot speak to transmission, I have a significant amount of field experience in distribution and a good understanding of the practical issues associated with removal and salvage.

Q. Are salvage values and removal costs consistent across the Company's service territory?

A. Yes. Both the costs to remove equipment and salvage values are rather consistent throughout the various regions in our service area. During my tenure as Manager of Distribution Standards, I frequently analyzed engineering and cost data from across the service territory and am comfortable that any differences from one region to another would be relatively minor. The processes that we use to remove the equipment are the same, and most of the issues that we would encounter are also very similar. In terms of salvage, we use the same procedures throughout the Company.

Q. What trends are you seeing in the costs of removing equipment?

A. Our costs are rising. The major cost component is labor, and we all know that the cost of labor and associated benefits has been increasing. Given the long service lives of these assets, it is a virtual certainty that the costs of removal will be much higher than would be the case if we removed them all today. Just from 2002 to 2006 (forecast), the loaded labor rates for PEF employees have risen over 20%. This increase is not only due to escalating per-hour rates, but also the increasing cost of benefits.

Q. What other factors impact your costs?

A. One of the most significant factors is customer growth within our service territory and urban sprawl. New construction is typically undertaken prior to heavy development in a particular area and accomplished with relative ease. Over time, the tendency is for more development and urbanization. This creates numerous and costly issues when it comes time to remove equipment. For example, cable or phone attachments become a time-consuming issue at removal. Not only do we have to coordinate the logistics with other service providers, but far too frequently, we are forced to make repeated visits to the job site to complete the work, for example, if attachments have not been removed as scheduled. In addition, city, county and state rules and restrictions have increasingly limited our flexibility and increased our costs over time to operate in the public right-of-ways. Customers and property owners will also install obstructions (fences, sheds, etc.) around our facilities creating obstacles to PEF resources actually getting to facilities.

Q. Have technological advances provided and opportunity to reduce the cost of removing distribution equipment?

A. While there have been some different types of equipment used more recently in distribution construction, such as new rear-lot construction equipment, this equipment is small scale and used in small areas, such as a back yards where traditional bucket/line trucks can not get access. This type of equipment can aid in getting new poles set and removed or padmount transformers set or removed. Again, this equipment is used only in a small percentage of the cases and, in many instances, pools, sheds, landscaping, etc. prevent even this type of equipment to be used. If anything, improving technology has reduced the initial equipment cost more than the cost of removal. This would tend to increase the cost of removal as a percentage of initial cost, not lower it.

Q. Have you been able to reduce your cost through improved processes?

A. Again, not to any significant degree. The processes used to remove equipment have not changed to any great degree over the years throughout the industry. Similar to technological advances, there have been more opportunities to improve processes in the initial installation of equipment than in the removal of equipment. The installation of equipment lends itself to efficiency since there are fewer logistical and coordination obstacles in one's way. Removal projects are inherently inefficient due to the numerous obstacles and return trips back to the job location. All else equal, this effect once again would indicate that our cost to remove equipment is rising as a percentage of initial cost.

Q. Are there any general comments that you'd like to make about salvage value as it pertains to distribution equipment?

A. Yes. We are able to reuse only a very small portion of the distribution equipment that is removed. This is definitely the case for equipment that is removed at the end of its useful life, but even in instances where I've removed equipment well prior to the end of its accounting life, reuse has often not proven cost-effective due to the degree of degradation or damage sustained during removal. As a general rule, the only items that we do attempt to reuse, even at the end of its useful accounting life, are transformers. These are sent to a company repair facility for possible refurbishment or, if they don't meet the necessary criteria, for salvage. Poles and insulators are typically discarded. Conductor is typically sold for the scrap value of the metal content. The scrap value of this equipment is very low. In total, PEF receives well under $1 million per year for the scrap value of its metal.

Q. Let's discuss distribution poles, towers and fixtures. What is involved in the removal and salvage of this equipment?

A. In general, it takes no less effort to remove a pole than to install one. In fact, given the additional logistical challenges that we may face in the field and the absence of scale economies, it can often take significantly more effort. If you witnessed the actual work in the field, you'd understand. Installation involves digging a hole and placing the pole, typically for many units at a time within one trip to the project sight. Removal typically involves just as much digging to release a pole that has been stationary for 25 or 30 years, and often entails return trips that could contribute to higher per-unit cost. To the extent that poles are difficult to access or we run into other logistical challenges or restrictions, the cost is only higher. In the vast majority of cases, there would be little or no salvage value; we simply

discard the poles. Even in cases where we remove a pole well before the end of its useful life, we will usually not even attempt to reuse it due to "topping" of the pole and other damage sustained in the process of removal. However, I would mention that in instances where poles are damaged by third parties and removed (i.e., traffic accidents), PEF often receives money, usually from insurance proceeds, to compensate PEF for the damaged pole.

Q. Please discuss the removal and salvage of distribution substation transformers.

A. Understand that installing or removing a substation transformer is a very significant undertaking. These are the largest pieces of equipment (large "gray boxes") that you see behind the fence at a substation and can only be moved with special equipment. This project will typically involve a crane and a crew of perhaps 10 or 20 men, often for the better part of a day. Again, it would generally involve no less, or perhaps only slightly less, overall time and effort to remove and disconnect one of these transformers than to install one. At the end of its service life, a distribution substation transformer would be scrapped for the value of its metal content. The unit would not be rebuilt or used in another application.

Q. Please discuss the removal and salvage of overhead conductor.

A. Here again, the removal cost for overhead conductor is significant. In order to take down the wire and ancillary devices, it is necessary to set-up at each pole and remove the equipment. This is no different than the effort to install new conductor, but as I've already mentioned, the conditions are usually less favorable. For instance, when installing a new line, the system is not live and there are fewer

logistical issues to contend with. The only real savings relative to building a new line, or constructing the new line in a relocation scenario, is in pulling in the new conductor as opposed to cutting and dropping the conductor. For this reason, I would estimate that the time and effort involved in removal is roughly 50 to 60 percent of a new installation. In terms of salvage value, our past experience has shown that reuse of the conductor is not a cost-effective solution. Our practice is to scrap end-of-life conductor for the value of the metal. All of the associated insulators are typically thrown away while bolts and other ancillary metal equipment are scrapped.

Q. Please discuss the removal and salvage of underground conductor.

A. The vast majority of underground conductor is abandoned in place. Most of the early underground cable that we're removing from service today was direct-buried as opposed to placed in conduit, and therefore it is not practical to remove and replace. Our typical procedure involves digging below grade, and cutting off the cable end. Feeder-level cable is an exception, where in perhaps one-half of the cases, we do pull out old cable and replace it with new cable. In these cases, it typically does take about as long to remove the old cable as it does to install new cable. Given the amount of water, dirt and mud that may be present after many years of sitting in place, removing the cable usually is not an efficient process even where it can be justified. Difficulty of extraction due to hang-ups from this type of debris add time and effort to the removal process. Where we do have extracted cable to salvage, we almost always scrap the material for the value of the metal.

Q. Please discuss the removal and salvage of distribution line transformers.

A. When removing and replacing a transformer, it is typically necessary to schedule a short-term interruption with the customer. We make a concerted effort to inform our customers, frequently walking door to door to ensure that they are aware of the impending outage. On transformers serving commercial customers an outage may have to be set up at night or on the weekend thus requiring PEF to incur additional, overtime labor cost. Where this adds a considerable amount of time to the removal, this would not be the case when initially installing the equipment since the customer is not yet drawing service. For the removal of both overhead and underground transformers, the actual amount of time and effort expended would be roughly the same as for installation of a similar new transformer. Adding the additional hurdles and time-consuming activities I mentioned above, it actually takes longer to remove a piece of equipment than install new. Transformers are one of the few pieces of equipment that we attempt to reuse at the end of life. We send these units to our repair shop where they are evaluated and either refurbished or scrapped. In the case of overhead pole-mount transformers, we are able to refurbish perhaps 25 to 30 percent of the units. Single phase underground pad-mount units are only refurbished in about 10 to 15 percent of the cases due to structural integrity issues. Three phase underground pad-mount transformers can be refurbished in perhaps one-half of the cases due to their heavier construction. Transformers that cannot be refurbished are sold for the scrap value of the metal.

Q. Please discuss the removal and salvage of overhead services.

A. The removal of an overhead service takes approximately the same level of time and effort as a new installation. Again, when one considers the fact that arrangements must be made with the customer and other issues related to

accessibility, the amount of time and effort can easily exceed that of a new installation. The process involves scaling and disconnecting the service at the both the pole and at the service mast to the house. Other than the fact that we're disconnecting as opposed to connecting the conductor, the process is essentially the same as installation. The process of connecting might take slightly longer than disconnecting, but the difference is not significant. As with other conductor, we would scrap the equipment for the value of the metal.

Q. Please discuss the removal and salvage of underground services.

A. As with the majority of underground cable discussed above, our common practice is to abandon underground services in-place. The procedure involves digging below grade and cutting off the cable end. In this case, the labor and effort to abandon the old equipment would be less than that required to install a new underground service. Salvage value would typically not apply. However, if an underground service is moved pursuant to a request from a customer (i.e., for pool construction), that customer does pay PEF for moving the service.

Q. Please discuss the removal and salvage values of distribution street lighting.

A. The labor involved in removing a street light is approximately the same as for installation. Removing the street lighting is simply reverse of installation. The procedure involves removing the leads and taking the unit off the pole. Old streetlights are almost always discarded; there is no salvage value.

Q. Does this conclude your direct testimony?

A. Yes.

REBUTTAL TESTIMONY OF
RAY F. DESOUZA

I. Introduction and Purpose

Q. Please state your name.

A. My name is Ray De Souza.

Q. Did you submit Direct Testimony in this case on April 29, 2005?

A. Yes.

Q. Have you reviewed the intervener testimony of Jacob Pous filed on behalf of the Office of Public Counsel ("OPC"), of Sheree Brown filed on behalf of the Florida Retail Federation ("FRF"), and of Carl S. Vinson, Jr. and William "Tripp" Coston filed on behalf of the Florida Public Service Commission Staff (the "Staff Testimony")?

A. Yes.

Q. What is the purpose of your rebuttal testimony in this proceeding?

A. The purpose of my rebuttal testimony is to respond to certain wholly unsupported arguments presented by Ms. Brown asserting that O&M expenses associated with various transmission initiatives should be reduced. In addition, I address the inferences in Staff's Testimony that Progress Energy Florida, Inc.'s ("PEF's" or the "Company's") transmission pole inspection programs are somehow less than adequate. Finally, like Mr. Bob Matthews' rebuttal testimony, I provide some real-world insight into our actual costs of removal of transmission equipment and

the amount of money, if any, we typically receive for the salvage value of that equipment.

II. Response to Ms. Brown's Recommended Adjustments to PEF's Proposed Transmission O&M Expenses

Q. Have you reviewed Ms. Brown's proposed reductions to PEF's requested O&M expenses at pages 43-45 of Ms. Brown's testimony?

A. Yes.

Q. Do you agree with Ms. Brown's recommendation that the Commission should reduce PEF's requested transmission O&M expenses by $2.189 million?

A. Absolutely not.

Q. Please explain why you disagree.

A. First, Ms. Brown claims that, on average, from 2002 through 2004, PEF only spent 81.2% of what it said it would spend in Docket No. 000824-EI on transmission O&M expenses, and only 72% of its proposed incremental transmission reliability initiatives over that same period. As Mr. Oliver states in his rebuttal testimony, the budget for specific transmission reliability programs identified by the Company (in Sarah Rogers' testimony) in Docket No. 000824-EI were based on an annual $5 million rate reduction and not on the annual $125 million rate reduction that PEF and the interveners, including Ms. Brown's client at that time, ultimately agreed to under the 2002 Settlement. The 2002 Settlement did not mandate the programs identified in Ms. Rogers' testimony and, beyond this, it is not reasonable

to think the Company could reduce revenue by almost $500 million over the term of the 2002 Settlement with no change in underlying spending. Based on the 2002 Settlement, PEF necessarily re-prioritized programs to focus on outage mitigation measures. Within that context, which Ms. Brown fails to mention in her testimony, PEF nonetheless spent $123 million from 2002 to 2004 on key distribution and transmission reliability initiatives over and above the normal, budgeted amounts. These initiatives are shown in Exhibit No. ____ (DO-1) to Mr. Oliver's direct testimony, and represent a very significant commitment to reliability and operational excellence. Ms. Brown's misstatement that the Company "overestimated" its transmission expenses in Docket No. 000824-EI is disingenuous and ignores the 2002 Settlement her client signed following the submittal of Mr. Rogers' initial testimony in that case.

Q. What other problems are there with Ms. Brown's recommended adjustments to PEF's proposed transmission initiatives?

A. Ms. Brown is an accountant. Ms. Brown has no experience in operating and maintaining an electric transmission system, is not competent to opine on what initiatives are appropriate, and appears to have undertaken no review of PEF's electric transmission system, were she even qualified to do so, to give any educated opinion as to the appropriateness of any transmission initiatives proposed by PEF. In essence, she calculates CTE spending as a percentage of the original, *as-filed*, reliability spending proposals in Docket No. 000824-EI and recommends that the Commission only approve the same proportion of this request. The 2002 Settlement renders the relationship between these two items absolutely

meaningless. Since Ms. Brown's premise is flawed, it should not have any bearing on this proceeding. My direct testimony, on the other hand, is based on my extensive experience operating and maintaining electric transmission systems and a detailed understanding of PEF's transmission system and its future needs.

III. Response to Staff Witnesses' Reliability Audit Findings

Q. In Messrs. Vinson's and Coston's joint testimony, they state that while PEF has conducted transmission pole inspections, it has not maintained its inspection schedule as outlined by management. Do you agree?

A. No I do not. As the Company indicated in its response to the Staff audit included in the Staff Testimony as Exhibit No. ____ (CV/CT-1), PEF internal procedure *Ground Patrol,* MNT-TRMX-00053, outlines the Company's policies for inspecting the transmission lines and facilities. The procedure states that these inspections are used to identify and correct deficiencies and to allow the Company to efficiently prioritize future needs. These inspections are visual inspections conducted from the ground with the linemen climbing pre-selected poles. The Company's target is to inspect its transmission system every 60 months. PEF internal procedure *Transmission Line/Substation Wood Pole Inspection and Groundline Treatment*, MNT-TRMX-00057 outlines the Company's policies for inspecting the quality of its wood poles and, if necessary, treating its wood poles to reduce future decay. The Company's procedures target a 10-year inspection cycle for its transmission wood poles.

Since 2001, the Company has dedicated four transmission line crews to inspecting and maintaining PEF's transmission lines. These crews are locally

based and have direct knowledge of the facilities within their maintenance area. These crews inspect and repair lines on a routine basis. In addition, they conduct aerial patrols three times per year to further inspect the transmission facilities. These efforts are conducted with the objective to provide safe and reliable service to PEF's customers and in accordance with the PEF policy MNT-TRMX-0000.

In recognition of the number of wood transmission poles in the queue for integrity inspections, PEF elected to prioritize its inspection efforts and resources to focus on this more critical task, with a resumption of more regular preventative maintenance treatment when the backlog of integrity inspections/repairs has been significantly reduced or eliminated. This kind of priority adjustment is consistent with the Company's inspection guidelines, which recognize the need for flexibility in scheduling inspections to account for system or resource constraints as they occur from time to time. Ultimately, the success of this approach should be judged by the results, and this strategy has reduced the Retail SAIDI due to pole failures from 0.22 in 2002 to 0.001 in 2004.

In conjunction with the increased inspections, the Transmission organization is implementing an asset management organization and philosophy wherein asset management records, activities, results and future activities are more efficiently coordinated. The transmission asset management effort is ongoing and being integrated with the maintenance organization. As discussed, PEF is in the process of adding work planners and schedulers in the transmission maintenance areas to develop work plans in support of the Company's inspection objectives.

PEF's reprioritization of its wood transmission pole inspections by reallocating resources from ground-line inspections to corrective maintenance has

benefited customers and improved reliability, and has not compromised the structural integrity, reliability, or safety of the Company's transmission poles.

IV. Cost to Remove Transmission Equipment and Salvage Values

Q. What do you understand to be Mr. Pous's principal concern with the Company's Depreciation Study?

A. It is my understanding that Mr. Pous is challenging the Company's projected costs of removal of certain electric transmission equipment as being too high, and the Company's projected salvage values for that equipment have been challenged as being too low. Based on my significant amount of field experience in transmission design, construction, and maintenance, and a good understanding of the real-world issues associated with the costs of removing equipment and the salvage dollars, if any, we receive when we remove various types of transmission equipment from service, I believe Mr. Pous is incorrect in his assertions.

Q. Are salvage values and removal costs consistent across the Company's various regions such that your examples would be representative for other parts of the service territory?

A. Yes. Both the costs to remove equipment and salvage values are rather consistent throughout the various regions in our service area. I have frequently analyzed engineering and cost data from across the service territory and we do not recognize any differences in these costs from one region to another. The processes that we use to remove the equipment are the same, and most of the issues that we would encounter are also very similar.

Q. What trends are you seeing in the costs of removing equipment?

A. Our costs are rising. The major cost component is labor and benefits, which have been steadily increasing over time. Given the long service lives of these assets, it is a virtual certainty that the costs of removal will be significantly higher than would be the case if we removed them all today. We have updated our estimates for labor within the last 3 years, and we continue to review our estimating tools with a view to updating labor cost.

Q. Are there any general comments that you'd like to make about salvage value as it pertains to transmission equipment?

A. In general, with regard to salvage values, we receive the scrap value when we retire transmission equipment. The second-hand market for 30 year old transmission equipment is very limited, or non-existent.

Q. Does this conclude your testimony?

A. Yes.

REBUTTAL TESTIMONY OF JAMES H. VANDER WEIDE, PH.D.

I. INTRODUCTION AND SUMMARY

Q. What is your name and business address?

A. My name is James H. Vander Weide. My business address is 3606 Stoneybrook Drive, Durham, North Carolina.

Q. Are you the same James H. Vander Weide who previously provided direct testimony filed on April 29, 2005?

A. Yes, I am.

Q. What is the purpose of your rebuttal testimony?

A. I have been asked by Progress Energy Florida ("PEF") to review the direct testimonies and cost of capital recommendations of Mr. James A. Rothschild, Mr. Michael Gorman, Dr. Philip K. Porter, and Mr. Stephen A. Stewart. Mr. Rothschild's testimony is presented on behalf of the Florida Office of Public Counsel, Mr. Gorman's testimony is presented on behalf of White Springs Agricultural Chemicals, Inc. d/b/a PBS Phosphate – White Springs, Dr. Porter's testimony is presented on behalf of the Florida Industrial Power Users Group, and Mr. Stewart's testimony is presented on behalf of AARP.

Q. Do you have any exhibits to your rebuttal testimony?

A. Yes. I have prepared or sponsored the preparation of the following exhibits to my testimony:

- Exhibit No. ____ (JVW-14), Current Value Line Betas for Proxy Electric Companies.
- Exhibit No. ___ (JVW-15), companies with negative earned rates of return on equity and market-to-book ratios greater than 1.0.
- Exhibit No. ___ (JVW-16), companies with earned returns on equity in the range of 0 to 6% and market-to-book ratios exceeding 1.0.

These exhibits are true and accurate.

I. REBUTTAL OF MR. ROTHSCHILD

Q. How did Mr. Rothschild estimate PEF's cost of equity?

A. Mr. Rothschild applied four cost of equity methodologies to the Value Line electric and natural gas companies I used in my direct testimony. His cost of equity methodologies include: (1) the DCF model; (2) the complex DCF model; (3) the inflation risk premium method; and (4) the debt risk premium method.

A. Mr. Rothschild's Simple DCF Model

Q. What DCF Model does Mr. Rothschild use to estimate PEF's cost of equity?

A. Mr. Rothschild uses an Annual DCF Model of the form, $k = D(1+.5g)/P + g$, to estimate PEF's cost of equity.

Q. What is the basic assumption of the Annual DCF Model?

A. The Annual DCF Model is based on the assumption that companies only pay dividends at the end of each year, rather than at the end of each quarter.

Q Does the Annual DCF Model provide accurate estimates of an investor's required or expected rate of return from investing in a firm's stock?

A. No. The Annual DCF Model of stock valuation produces correct estimates of a firm's cost of equity capital only if the firm pays dividends just once a year. Since Mr. Rothschild's proxy companies pay dividends quarterly, the Annual DCF Model produces downwardly biased estimates of the cost of equity. Investors can expect to earn a higher annual effective return on an investment in a firm that pays quarterly dividends than in one that pays the same amount of dollar dividends once at the end of each year. Furthermore, because of the gain associated with the time value of money, investors value a company that pays dividends quarterly more highly than a company that pays dividends annually. Since quarterly dividends are reflected in the stock price component of the DCF model, they must also be reflected in the dividend yield component of the model. Only the Quarterly DCF Model correctly reflects quarterly dividends in the dividend yield component.

Q. Notwithstanding your disagreement with Mr. Rothschild's decision to use an Annual DCF Model, did Mr. Rothschild implement his Annual Model correctly?

A. No. The basic assumption of the Annual DCF Model is that dividends are received annually, and the first dividend is assumed to be received one year from now. Thus, the first dividend must be obtained by taking the current dividend and multiplying by one plus the growth rate, "*g*." Instead, Mr. Rothschild obtained the first dividend by multiplying the current dividend by only one plus one-half the growth rate.

Q. What method did Mr. Rothschild use to estimate investors' future growth expectations, *g*, for his proxy companies?

A. Mr. Rothschild assumes that investors form their growth expectations for the proxy companies by multiplying their average expected retention ratio, *b*, by their average expected rate of return on book equity, *r*, and then adding a term to account for external financing growth. Thus, $g = br + sv$, where *g* is the growth rate, *b* is the expected percentage of earnings retained in the business, *r* is the expected rate of return on book equity, and *sv* is a term that accounts for growth from the sale of additional shares of stock. The *br* component of the growth rate is called the internal growth component, and the *sv* component of the growth rate is called the external financing component.

Q. Why does Mr. Rothschild rely on the "*br* + *sv*" method of estimating future growth in his DCF model?

A. Mr. Rothschild argues that the *br* + *sv* method is the only consistent method of estimating future growth in the DCF model.

Q. Do you agree with Mr. Rothschild's claim that his *br* + *sv* method is the only consistent method of estimating future growth in the DCF model?

A. No. When applied to a regulated firm, the *br* + *sv* method is, in fact, logically inconsistent.

Q. Why is Mr. Rothschild's *br* + *sv* method logically inconsistent?

A. Mr. Rothschild's *br* + *sv* method is logically inconsistent because it incorporates information on the firm's expected rate of return on book equity, *r*, in calculating the firm's cost of equity through the DCF model. The firm's cost of equity, however, also determines the allowed rate of return on book equity through rate of return regulation. Thus, the cost of equity is based on knowledge of the allowed rate of return on equity, and the allowed rate of return on equity is based on knowledge of the cost of equity. The logical circularity, or inconsistency, in applying the *br* + *sv* approach to rate-of-return regulated firms cannot be resolved because only one of the two variables can be known before the other is calculated.

Q. Can you illustrate the logical inconsistency that results from the application of Mr. Rothschild's *br*+ *sv* approach to his proxy companies?

A. Yes. As noted on Schedule, Exhibit No. ____ (JAR 5), page 1, of his direct testimony, Mr. Rothschild assumes that his comparable electric utilities will earn a rate of return on book equity of 11.0 percent in all future years. Mr. Rothschild uses his 11.0 percent projected rate of return on book equity assumption to derive his 8.60 – 8.73 percent estimate of his proxy companies' cost of equity using his

DCF model. Mr. Rothschild's recommended cost of equity for his proxy companies is 9.1 percent. It is logically inconsistent for Mr. Rothschild to project that his proxy companies will earn 11 percent on book equity at the same time that he is recommending a cost of equity of 9.1 percent. If rates were based on a 9.1 percent cost of equity, regulated companies such as Mr. Rothschild's proxy companies would have a difficult time earning an 11 percent rate of return on book equity.

Q. Can the logical inconsistency of the *br + sv* approach be eliminated by changing Mr. Rothschild's initial assumption about his proxy companies' future earned rate of return on book equity from 11 percent to 9.1 percent?

A. No. The basic circularity problem with Mr. Rothschild's *br + sv* growth method is logical, not numerical. There are several problems with changing the initial earned rate of return on book equity from 11 percent to 9.1 percent. First, in Mr. Rothschild's rate-of-return regulated world, his proxy companies will only earn 9.1 percent in the future if regulators set these companies' rates to allow them to earn 9.1 percent on book equity. However, under rate of return regulation, regulators set the allowed rate of return equal to the regulated company's cost of equity. Thus, Mr. Rothschild would have to somehow "know" what the regulated company's cost of equity is before he estimates its cost of equity.

Second, if Mr. Rothschild were to assume initially that his proxy companies would earn 9.1 percent on book equity, his DCF methodology would produce a cost of equity in the range 6.67 percent to 6.81 percent. Thus, Mr.

Rothschild would still be assuming that his proxy companies would be able to earn 229 to 243 basis points more than the regulated allowed rate of return on book equity.

Q. On pages 44 - 45 of his testimony, Mr. Rothschild claims that the argument regarding inconsistency ignores the difference between "accounting rates of return" and "market required rates of return." Do you agree with Mr. Rothschild's defense of his *br + sv* method?

A. No. Mr. Rothschild's error has nothing to do with accounting standards or market returns. It is simply a matter of logic: the cost of equity cannot be based on knowledge of the allowed rate of return on equity, at the same time that the allowed rate of return on equity is based on knowledge of the cost of equity. Only one of these two variables can be known before the other is calculated. However, in the br + sv method, a variable that the analyst is attempting to calculate is assumed to be known at the outset of the analysis. Neither variable is determined independently of the other. Thus, the *br + sv* approach cannot be used to calculate the cost of equity for rate-of-return regulated companies.

In addition, Mr. Rothschild fails to recognize that his recommended rate of return on equity becomes an accounting rate of return once it is applied to PEF's book value rate based. Thus, the basic inconsistency in the *br + sv* method is that in his calculation of the allowed rate of return Mr. Rothschild assumes that PEF will be able to earn 11 percent on book equity, when he, in fact, is recommending that PEF only be allowed to earn 9.1 percent on book equity. Mr. Rothschild does

not explain how PEF could be expected to earn 11 percent on book equity when it is only allowed to earn 9.1 percent on book equity.

Q. Turning to Mr. Rothschild's data sources, where does Mr. Rothschild obtain his data for the rate of return on book equity values he uses in his *br + sv* approach to estimating the growth component of the DCF cost of equity?

A. Mr. Rothschild uses rate of return data from the Value Line Investment Survey and Zacks.

Q. What rate of return values does Mr. Rothschild report from these data sources for his electric proxy companies?

A. Mr. Rothschild reports five mean values of rates of return on book equity on his Schedule JAR 5, page 1: (1) an 11.02 percent Value Line expectation; (2) an 11.34 percent expectation derived from Zack's consensus growth rate; (3) an 11.17 percent earned return on equity in 2004; (4) an 11.44 percent earned return on equity for 2003; and (5) an 11.70 percent earned return on equity in 2002.

Q. What rate of return does Mr. Rothschild use in his br + sv calculations for his electric company proxy group?

A. Mr. Rothschild uses 11 percent as his estimate of the expected rate of return on book equity in his *br + sv* calculations for his electric proxy group.

Q. Is Mr. Rothschild's method for estimating future rates of return on book equity for his proxy electric companies subjective?

A. Yes. Even though all five of his rate of return data points exceed 11 percent, and the average of his rate of return data points is 11.4 percent, Mr. Rothschild arbitrarily picks 11 percent as his estimate of the expected rate of return on book equity in his *br* + *sv* calculations for his electric proxy group.

Q. Is Mr. Rothschild's method for estimating future rates of return on book equity for his natural gas proxy group also subjective?

A. Yes. Mr. Rothschild reports five mean values of rates of return on book equity for the gas proxy companies on his Schedule Exhibit No. ___ (JAR 5), page 2: (1) an 11.88 percent Value Line expectation; (2) an 12.85 percent expectation derived from Zack's consensus growth rate; (3) an 12.88 percent earned return on equity in 2004; (4) an 12.97 percent earned return on equity for 2003; and (5) an 11.87 percent earned return on equity in 2002. Even though the average of these five growth rates is 12.5 percent, Mr. Rothschild arbitrarily picks 12 percent as his estimate of the expected rate of return on book equity in his br + sv calculations for the natural gas companies.

Q. What are Value Line's forecasted retention ratios for Mr. Rothschild's proxy companies?

A. Value Line's forecasts of the average retention ratios, along with Mr. Rothschild's average reported rate of return on book equity and the corresponding growth rates, are shown in Table 1 below.

Table 1

Proxy Companies' Forecasted Retention Growth Rates

	Electric Companies	*Gas Companies*
Rate of Return on Equity	11.4%	12.5%
Retention Ratio	39.5%	48.3%
Retention Growth Rate	4.5%	6.0%

Q. Table 1 shows Value Line retention ratios equal to 39.5 percent for the electric proxy group and 48.3 percent for the gas proxy group. Does Mr. Rothschild use these retention ratio values in his application of the br + sv approach to estimating future growth in the DCF model?

A. No. Mr. Rothschild uses retention ratios in the range 33.57 percent to 36.07 percent for the electric group and 31.92 percent to 32.55 percent for the gas proxy group. Mr. Rothschild's use of retention ratios that are significantly less than Value Line's forecasted retention ratios for his proxy groups significantly reduces his DCF results for his proxy groups.

Q. How does Mr. Rothschild attempt to justify his use of retention ratios that are significantly less than Value Line's average forecasted retention ratios for his proxy companies?

A. Mr. Rothschild attempts to justify his use of low retention ratios on the ground that Value Line and other analysts have failed to recognize that the forecasted retention ratio for a particular company must be consistent with its actual retention ratio embodied in the current dividend. The analysts' failure to recognize this need for consistency, according to Mr. Rothschild, causes them to overestimate forecasted retention ratios, and, hence, growth.

Q. Do you agree with Mr. Rothschild's claim that the forecasted retention ratio for a company must be "consistent with" the company's actual retention ratio embodied in the current dividend?

A. No. The retention ratio embodied in the current dividend depends on the company's earnings in the previous year. Since future earnings are likely to be different from the earnings of the previous year, there is no reason why forecasted retention ratios must be "consistent with" the retention ratio embodied in the firm's current dividend. In addition, Mr. Rothschild fails to recognize that the current retention ratio can be distorted by the inclusion of non-recurring items in the firm's previous year's earnings. Analysts generally eliminate non-recurring items when they forecast future earnings and retention ratios.

Q. Do you agree with Mr. Rothschild's assertion that his retention ratio formula is the only correct formula for estimating the retention ratio in the DCF model?

A. No. Mr. Rothschild has, in fact, used an incorrect formula to calculate his proxy companies' retention ratios. The retention ratio is commonly calculated as one minus the dividend payout ratio, where the dividend payout ratio is simply dividends divided by earnings, or D/E. Mr. Rothschild, however, calculated the retention ratio incorrectly, as: one minus the ratio of the dividend yield on book value per share to the rate of return on equity. Thus, Mr. Rothschild calculated the retention ratio not as (1 - D/E), but rather, as [1 - (D/B÷E/B)]. This formula would be correct only if Mr. Rothschild had divided both dividends and earnings by the same book value per share, B. However, Mr. Rothschild divided his dividends per share by last year's book value per share, and his earnings per share by some unknown future book value per share. In short, Mr. Rothschild's formula does not correctly measure the retention ratio as one minus the dividend payout ratio.

Q. Has Mr. Rothschild provided any evidence that investors use his formula for the retention ratio, rather than the Value Line forecasted retention ratio, in estimating future growth?

A. No. Indeed, I have never seen another witness or professional use Mr. Rothschild's method for estimating a company's retention ratio.

Q. Are there other problems with Mr. Rothschild's DCF analysis?

A. Yes. There are several additional problems with Mr. Rothschild's DCF analysis. First, Mr. Rothschild's DCF methodology is extremely sensitive to his estimates

of each company's future return on equity. Yet, Mr. Rothschild provides no objective method of obtaining his estimates of the future return on equity. As a result of the sensitivity of his model results to the choice of return on equity, and because of his lack of objective standards for estimating the future rate of return on equity, Mr. Rothschild can obtain virtually any result through his choice of return on equity.

Second, the growth estimates in Mr. Rothschild's DCF analysis are inconsistent with financial research on the relationship between growth rates and stock prices. Financial research shows that analysts' growth forecasts are more closely related to stock prices than either historical growth rates or *br* growth rates. This research provides strong evidence that investors, in fact, use analysts' growth estimates and that the analysts' growth estimates should be used in the DCF Model to estimate the cost of common equity.

Third, Mr. Rothschild fails to include an allowance for flotation costs in his DCF analysis. The Florida Public Service Commission has explicitly recognized the need to include an allowance for flotation costs in Order No. PSC-02-0787-FOF-EI, issued June 10, 2002.

> Regarding flotation costs, we agree with Mr. Benore that these costs should be included in the ROE. The Hope and Bluefield decisions mandate a return that can attract capital, and flotation costs are a necessary part of attracting capital. ... We find that Mr. Benore's allowance of 20 basis points for flotation costs is reasonable. (Order at pp. 30 – 31.)

Mr. Rothschild's failure to include a flotation cost allowance causes him to further underestimate PEF's cost of equity.

Q. How does Mr. Rothschild's use of subjectively low estimates of retention ratios and rates of return for his proxy companies affect his DCF calculations?

A. Mr. Rothschild's use of subjectively low retention ratios and rates of return on equity alone reduced his DCF results by approximately 75 to 100 basis points for the electric proxy group and 230 to 240 basis points for the natural gas proxy group.

B. Mr. Rothschild's Complex DCF Model

Q. How does Mr. Rothschild's complex DCF model differ from his simplified DCF model?

A. Mr. Rothschild's simplified DCF model assumes that each company's dividends, earnings, and cash flow will grow at the same rate forever, while his complex DCF model assumes that each company's dividends will be equal to Value Line's forecasted dividends per share in each of the next five years, and that dividend growth beyond year five is equal to retention growth plus external financing growth, just as in his simple DCF model.

Q. How do Mr. Rothschild's complex DCF results compare to his simplified results?

A. Mr. Rothschild obtains complex DCF results of 9.34 percent to 9.35 percent for the electric proxy group and 9.78 percent to 9.85 percent for the natural gas proxy group. These results are approximately 80 to 110 basis points higher than the results he obtains from his simple DCF model.

Q. Does Mr. Rothschild's complex DCF model provide an accurate estimate of the cost of equity for PEF?

A. No. Mr. Rothschild's complex DCF model is subject to most of the same criticisms as his simplified DCF model. His complex DCF model incorrectly uses: (1) Mr. Rothschild's inconsistent *br +sv* approach to estimating future growth; (2) future rates of return on book equity that are less than Value Line's forecasted rates of return on book equity; and (3) future retention ratios that are significantly less than Value Line's forecasted retention ratios for his proxy companies. In addition, Mr. Rothschild's complex DCF model, like his simplified DCF model, ignores the quarterly payment of dividends and flotation costs. Given the similarities between Mr. Rothschild's complex and simplified DCF models, it is not surprising that his complex DCF model results are significantly lower than a reasonable estimate of PEF's cost of equity. For the reasons discussed above, the Commission should reject the results of Mr. Rothschild's complex and simplified DCF models.

C. Mr. Rothschild's Inflation Risk Premium Method

Q. How does Mr. Rothschild use what he calls the inflation risk premium method to estimate PEF's cost of equity?

A. Mr. Rothschild begins with Dr. Siegel's estimate that stocks have earned an average real (adjusted for inflation) rate of return over the period 1802 to 1997 in the range of 6.6 percent to 7.2 percent.[1] He then develops a calculation to support his opinion that investors expect long-term inflation to be 3.0 percent per year. From this information, Mr. Rothschild concludes that investors can expect to earn a nominal (*i.e*, not adjusted for inflation) rate of return in the range of 9.60 percent to 10.00 percent on stocks of average risk. Since, in his opinion, PEF's risk is below average, Mr. Rothschild concludes that his inflation risk premium results support his recommended 9.1 percent cost of equity for PEF (see Schedule Exhibit No. ____ (JAR 9)).

Q. You mention that Mr. Rothschild began with Dr. Siegel's estimate that stocks have earned a real rate of return of 6.6 percent to 7.2 percent over the period 1802 to 1997. Are stock data for a period beginning in 1802 reliable?

A. No. During the 19th century, the stock market was comprised of very few stocks, mainly the stocks of several banks, railroads, and insurance companies, located in the Northeast. These stocks were thinly traded; and, since no dividend data were

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[1] As the source for his data, Mr. Rothschild cites page 12 of the book, *Stocks for the Long Run*, 2nd edition, by Jeremy J. Siegel.

available, a rough estimate had to be made of the average dividends on these stocks. Furthermore, prices for the period generally were based on averages of high and low bids, not prices at which trades actually occurred. For these and many other reasons, the historical returns on these stocks are simply not indicative of returns investors expect to receive on stock investments in 2005.[2]

Q. What is the most appropriate time period for measuring the real rate of return on stock investments?

A. In general, the most appropriate period for measuring the real rate of return on stock investments is the period from 1926 to the present. As Ibbotson Associates state in their book, *Stocks, Bonds, Bills, and Inflation, Valuation Edition, 2005 Yearbook*:

> The Ibbotson Associates equity risk premium covers the time period from 1926 to the present. The original data source for the time series comprising the equity risk premium is the Center for Research in Security Prices . CRSP chose to begin their analysis of market returns with 1926 for two main reasons. ***CRSP determined that the time period around 1926 was approximately when quality financial data became available.*** They also made a conscious effort to include the period of extreme market volatility from the late 20s and early 30s; 1926 was chosen because it includes one full business cycle of data before the market crash of 1929. These are the most basic reasons why Ibbotson Associate' equity risk premium calculation window starts in 1926. [Page 78. Emphasis added.]

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[2] Siegel's study relies on data obtained from G. William Schwert, "Indexes of U.S. Stock Prices from 1802 to 1987," *Journal of Business*, 1990. Vol. 63, no. 3. Schwert discusses the many problems with stock return data prior to 1926.

The Ibbotson Associates' recommendation to base risk premiums on the 1926 to 2004 period is especially compelling because Mr. Rothschild himself cites Ibbotson Associates as providing support for his own testimony.[3]

Q. What was the average real rate of return on stock investments over the period 1926 through 2004 period studied by Ibbotson Associates?

A. As shown in Table 2-1 of Ibbotson Associates' 2005 Yearbook, page 33, the average real rate of return on stock investments over the period 1926 through 2004 was 9.3 percent.

Q. What was the average rate of inflation over the period 1926 through 2004?

A. The average rate of inflation over this period was 3.1 percent, almost the same as Mr. Rothschild's 3.0 percent estimate of current expected inflation.

Q. What cost of equity would Mr. Rothschild have obtained from his inflation risk premium method if he had appropriately used data for the period 1926 through 2004 rather than data from the period 1802 through 1997?

A. Mr. Rothschild would have obtained a cost of equity estimate of 12.3 percent (9.3 percent real return + 3 percent inflation = 12.3 percent expected return).

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[3] I will address later in my testimony how Mr. Rothschild mischaracterizes what Ibbotson Associates actually recommends.

D. Mr. Rothschild's Debt Risk Premium Approach

Q. How does Mr. Rothschild implement his debt risk premium method to estimate PEF's cost of equity?

A. Mr. Rothschild implements his debt risk premium method in three steps. First, he estimates a market risk premium for investments in a broad portfolio of common stocks compared to investments in corporate bonds, long-term U.S. Treasury bonds, intermediate term U.S. Treasury bonds, and U.S. Treasury bills. Second, he multiplies his estimate of the market risk premium for each of these classes of bonds by the average utility beta to obtain his estimate of the risk premium for utility stocks compared to each class of bonds. Third, he adds his utility stock risk premium for each class of bonds to the current yield on that category of bonds to obtain his debt risk premium estimates of PEF's cost of equity. (See Schedule, Exhibit No. ___ (JAR 10), page 1 of 6.)

Q. What are Mr. Rothschild's estimates of the appropriate risk premiums for investments in common stocks compared to investments in corporate bonds, long-term U.S. Treasury bonds, intermediate term U.S. Treasury bonds, and U.S. Treasury bills?

A. Mr. Rothschild's estimates of these risk premiums are shown in Table 2 below:

Table 2

Mr. Rothschild's Estimates of Risk Premiums on Investments in Common Stocks Compared to Investments in Various Classes of Bonds

Bond Class	*Risk Premium vs. Common Stocks*
Corporate	3.52%
Long-term U.S. Treasury	4.00%
Intermediate-term U.S. Treasury	4.08%
Short-term U.S. Treasury	5.72%

Q. How does Mr. Rothschild obtain his estimates of the risk premiums shown in Table 2?

A. Mr. Rothschild obtains his risk premium estimates by: (1) using the geometric mean risk premiums on common stocks compared to each class of bonds reported in the Ibbotson Associates' 2005 Yearbook; and (2) reducing the Ibbotson Associates' reported geometric mean risk premiums to reflect Mr. Rothschild's opinion that risk premiums have declined over time.

Q. Does Ibbotson Associates recommend that the cost of equity be estimated using the geometric mean data reported in its 2005 Yearbook?

A. No. Ibbotson Associates specifically recommend that its *arithmetic mean return* data be used to estimate the cost of equity.

> The equity risk premium data presented in this book are arithmetic average risk premia as opposed to geometric average risk premia. The arithmetic average equity risk premium can be demonstrated to be most appropriate when discounting future cash flows. For use as the expected equity risk premium in either the CAPM or the building block approach, the arithmetic mean or the simple difference of the arithmetic means of stock market returns and

> riskless rates is the relevant number. This is because both the CAPM and the building block approach are additive models, in which the cost of capital is the sum of its parts. The geometric average is more appropriate for reporting past performance, since it represents the compound average return. [*2005 Yearbook Valuation Edition*, p. 75.]

Q. Can you illustrate how the arithmetic mean is the best measure for estimating future returns on equity?

A. Yes.[4] Suppose that the expected return on a stock is 10 percent per year, and that the only possible outcome in each of the next two years is a return of plus 30 percent, or minus 10 percent, with equal probability. If the investor invests one dollar at the beginning of year one, their expected wealth at the end of year two will be equal to $1.21, calculated as follows:

Table 3

Outcome	EOY 2 Wealth	Probability	Expected Value
(30,30)	$1.69	.25	0.4225
(30,-10)	1.17	.25	0.2925
(-10,30)	1.17	.25	0.2925
(-10,.-10)	0.81	.25	0.2025
		TOTAL	$1.21

The arithmetic mean return on the above investment over the two-year period is 10 percent, calculated as (30 – 10)/2 = 10 percent. The geometric mean return on this investment is 8.2 percent, calculated as follows:

$$[(1 + 0.30) \times (1 - 0.10)]^{1/2} - 1 = 0.082$$

That the arithmetic mean is the correct rate of return to use in discounting future cash flows can be seen by discounting the expected future value of $1.21 using the arithmetic mean return of 10 percent as the discount rate:

$$\$1 = \frac{\$1.21}{(1.10)^2}$$

That the geometric mean is the incorrect term to use as the discount rate of future cash flows can be seen by discounting the expected future value of $1.21 using the geometric mean return of 8.2 percent as the discount rate:

$$\$1.0335 = \frac{\$1.21}{(0.082)^2}$$

Thus, the geometric mean return does not equate the expected future value of the investment to its present value, and, hence, is not the correct rate to use in discounting future cash flows.

Q. On page 81 of his testimony, Mr. Rothschild claims that you "did not apply the geometric or the arithmetic method properly" in the example you present. Do you agree with his claim?

A. No. The geometric mean return on an investment that can earn 30 percent with probability .5 and 10 percent with probability .5 is undoubtedly 8.2 percent; and the arithmetic mean return on this investment is undoubtedly 10 percent. It is Mr.

(. . . continued)

[4] This example, taken from *Stocks, Bonds, Bills, and Inflation Valuation Edition, 2005 Yearbook*, Ibbotson Associates, pp. 76 – 77, is also summarized in my direct testimony, Exhibit JVW-7.

Rothschild who did not apply the geometric mean and arithmetic mean methods correctly.

Q. Does Ibbotson Associates calculate the geometric and arithmetic mean the same way you have in the previous example?

A. Yes. I calculated the geometric and arithmetic mean in precisely the same way as Ibbotson Associates. Indeed, my example is a summary of an example presented on pages 76 – 77 of their 2005 Yearbook, and my conclusion is the same as Ibbotson Associates'.

Q. On pages 78 – 81 of his testimony, Mr. Rothschild claims that his use of the geometric mean risk premium data is supported by the financial community. Do you agree with his assertion?

A. No. Mr. Rothschild fails to note that the references he cites to support his position generally are discussing the appropriate use of geometric mean return data to measure the actual return earned on a portfolio in an historical period. The financial community does not support the use of geometric mean return data to estimate the cost of equity. As Ibbotson Associates clearly states in the quote cited above, the geometric mean is only appropriate for measuring past returns on stock investments. It is not appropriate for estimating the cost of equity because the arithmetic mean return is the only return that will equate the expected value of future wealth to the current investment.

Q. On page 80 of his testimony, Mr. Rothschild claims that Ibbotson Associates supported use of geometric mean data to estimate the cost of equity in its 1986 yearbook. Do you agree with this claim?

A. No. The quote provided by Mr. Rothschild is taken out of context--it does not pertain to Ibbotson Associates' discussion of how to estimate the cost of equity. Ibbotson Associates has consistently supported the exclusive use of arithmetic mean return data to estimate the cost of equity. In fact, the following statements from Ibbotson Associates' 1986 yearbook, as shown in Exhibit No. ___ (JAR 14), pp. 32 – 33 of 47, demonstrate that, contrary to Mr. Rothschild's claim, in their 1986 yearbook, Ibbotson Associates strongly supported using the arithmetic mean risk premium to estimate the cost of equity:

> 41. Q. Why do you use the arithmetic mean risk premium, instead of the geometric mean (compound annual return)?
>
> A. We are interested here in expected year-by-year rates of return. In order to achieve a given compound annual return over the long run, it is necessary to expect, in each separate year, a somewhat higher return – the arithmetic mean. For example, if you had a stock with annual returns of +30 percent, then – 10 percent, then +30, -10,. +30, -10 *et cetera* forever, the expected return or forecast mean in every year would be the arithmetic mean of +30 and -10, or 10 percent. The compound annual return to an investor holding this stock, however, would be only 8.3 percent per year. Thus, given this stock's level of variability (a standard deviation of 20 percent, roughly that of the actual stock market, although the "evenness" of returns in our example is not realistic), it is necessary to have an expectancy of 10 percent every year – the arithmetic mean – in order to achieve the geometric mean – 8.3 percent – over a multi-year period. ***Since we are interested in the year-by-year expectancy, the arithmetic mean is the relevant rate of return.*** [Emphasis added.]

Furthermore, Ibbotson succinctly reiterates his view that one must use the arithmetic mean risk premium to estimate the cost of equity in a 1989 publication:

12. Q. In your initial example, you use the arithmetic mean historical risk premium as the forecast of the future risk premium. Why do you use the arithmetic mean, instead of the geometric mean (compound annual return)?

A. The arithmetic mean is the rate of return which, when compounded over multiple periods, gives the mean of the probability distribution of ending wealth values. Thus, the arithmetic mean return is appropriate for calculation of a discount rate, because expected cash flows (i.e., the means of distributions of future values) are discounted to arrive at a present value. Similarly, it is appropriate for the cost of capital or market-required rate of return.

Definitionally, the discount rate that equates expected (mean)future values with the present value of an investment is that investment's cost of capital (Van Horne 1977). The logic is that investors will discount their expected (mean) ending wealth values using the arithmetic mean. They will, therefore, require such an expected (mean) return prospectively.[5]

Q. Do textbooks generally support use of the arithmetic mean return, rather than the geometric mean return, to estimate the cost of equity?

A. Yes. In fact, the most widely-used finance text emphasizes the importance of using arithmetic averages to estimate the cost of equity:

> *Moral*: If the cost of capital is estimated from historical returns or risk premiums, use arithmetic averages, not compound annual rates of return.[6] [Original emphasis.]

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[5] Roger G. Ibbotson, Rex A. Sinquefield, *Stocks, Bonds, Bills, and Inflation: Historical Returns (1926 – 1987)*, The Research Foundation of the Institute of Chartered Financial Analysts, Charlottesville, VA, pp. 125 – 126.

[6] Richard A. Brealey, Stewart C. Myers, and Franklin Allen, *Principles of Corporate Finance*, 8th ed., McGraw-Hill Irwin, p. 151.

Q. You noted that Mr. Rothschild also reduces the Ibbotson reported geometric mean risk premiums to reflect Mr. Rothschild's opinion that risk premiums have trended downward over the last three or four decades. Do you agree with Mr. Rothschild's opinion that the market risk premium has declined significantly over the last three or four decades?

A. No. I provided evidence in my direct testimony that there is no statistically significant downward trend in historical risk premiums. The absence of a downward trend in risk premiums is also evident from the data on the average risk premium by decade provided by Ibbotson Associates, reproduced below in Table 3. (Ibbotson Associates 2005 Yearbook, Valuation Edition, p. 79.)

Table 4
Historical Risk Premium By Decades

1920s	*1930s*	*1940s*	*1950s*	*1960s*	*1970s*	*1980s*	*1990s*	*2000s*	*1995-2004*
17.6%	2.3%	8.0%	17.9%	4.2%	0.3%	7.9%	12.1%	-6.2%	8.1%

Q. In Exhibit JAR-10, Mr. Rothschild presents a graph of the 30-year moving average risk premium on stocks versus long-term Treasury bonds, which seems to indicate that the risk premium has, in fact, declined. Do you agree with Mr. Rothschild's conclusion?

A. No. Ibbotson Associates explains that the decline in the 30-year moving average risk premium around this period can be explained entirely by the very large negative returns that were earned in 1973 and 1974 as a result of the oil embargo:

> The key to understanding this result [the apparent downward trend in the 30-year period] lies again in the years 1973 and 1974. The oil embargo during this period had a tremendous effect on the

market. The equity risk premium for these years alone was -21 and -34 percent, respectively. Periods that include the years 1973 and 1974 result in an average equity risk premium that is as low as 3.1 percent. In the most recent 30-year period [through 2004] that excludes 1973 and 1974, the average rises to close to 7 percent. The early 2000s have also had an enormous effect on the equity risk premium.[7]

Q. How does the average risk premium over the last 30 years compare to the average risk premium over the entire time period?

A. As shown below in Table 5, the average risk premium over the last 30 years is 6.9 percent, as compared to the risk premium of 7.2 percent for the entire period 1926 – 2004.

Table 5
Stock Market Return and Equity Risk Premium over Time
1926 – 2004[8]

Period Length (Years)	*Beginning Year through 2004*	*Large Company Stock Arithmetic Mean Return*	*Long-Horizon Equity Risk Premium*
79	1926	12.4%	7.2%
70	1935	13.1%	7.7%
60	1945	13.3%	7.3%
50	1955	12.3%	5.6%
40	1965	11.8%	4.4%
30	1975	14.9%	6.9%
20	1985	14.5%	7.4%
15	1990	12.4%	6.0%
10	1995	14.0%	8.1%
5	2000	-0.7%	-6.2%

[7] Ibbotson Associates, 2005 Yearbook Valuation Edition., p. 84.
[8] *Op. cit.*, p. 81.

Thus, the average risk premium over the last 30 years has not declined, as Mr. Rothschild claims; rather, it is approximately equal to the average risk premium over the entire 1926 through 2004 period.

Q. On page 84 of his testimony, Mr. Rothschild also provides quotes from the Ibbotson Associates' 2004 and 2005 yearbooks, which purportedly support Mr. Rothschild's view that Ibbotson Associates is now recommending a risk premium equal to approximately 3.84 percent. Has Mr. Rothschild correctly interpreted Ibbotson Associates?

A. No. Mr. Rothschild has taken the Ibbotson Associates' quotations completely out of context. The statements that Mr. Rothschild refers to do not relate to Ibbotson Associates' recommendations for estimating the cost of equity. There can be little doubt that Ibbotson Associates continue to recommend the arithmetic mean risk premium to estimate the cost of equity. For example, on the last page of Ibbotson Associates' 2005 yearbook valuation edition, Ibbotson lists the key variables in estimating the cost of equity. Among these key variables is the 7.2 percent arithmetic mean equity risk premium on large company stocks compared to long-term government bonds.

Q. Do you have other criticisms of Mr. Rothschild's debt risk premium approach?

A. Yes. Mr. Rothschild uses an average beta of .79 to implement his debt risk premium approach, even though the average beta for his proxy group of companies is .83 [see Vander Weide Rebuttal Exhibit No. ___ (JVW-14)].

Q. What cost of equity would Mr. Rothschild have obtained if he had implemented his debt risk premium approach correctly?

A. Mr. Rothschild would have obtained a cost of equity of 10.65 percent using the 4.55 percent interest rate on 20-year Treasury bonds at the time of his testimony (see Exhibit No. ____ (JAR-10) and a cost of equity of 11.55 percent using the 5.70 percent forecasted interest rate on 20-year Treasury bonds (see Exhibit No. ____ (JVW-8) in my direct testimony). The 11.55 percent cost of equity is slightly higher than the 11.4 percent cost of equity result I obtained before my adjustment for differences in financial risk.

E. Response to Mr. Rothschild's Comments on Dr. Vander Weide's Cost of Equity Studies

Q. What are Mr. Rothschild's criticisms of your cost of equity studies?

A. Mr. Rothschild has five basic criticisms of my cost of equity studies. First, he argues that I incorrectly excluded companies from my DCF analysis. Second, he argues that I incorrectly use analysts' growth rates as a proxy for future growth in the DCF model. Third, he argues that I mistakenly adjusted my DCF results for the quarterly compounding of dividends and flotation costs. Fourth, he argues that I inappropriately based my risk premium studies on historical arithmetic mean

results rather than geometric mean results and failed to recognize that risk premiums have declined. Fifth, he argues that I make an improper adjustment for differences in the financial risk of my proxy companies and the financial risk embodied in PEF's recommended capital structure.

1. Proxy Companies

Q. How did you choose your proxy companies for the purpose of estimating PEF's cost of equity?

A. I selected all the companies in Value Line's groups of electric companies that: (1) paid dividends during every quarter of the last two years; (2) did not decrease dividends during any quarter of the past two years; (3) had at least three analysts included in the I/B/E/S mean growth forecast; (4) have an investment grade bond rating and a Value Line Safety Rank of 1, 2, or 3; and (5) have not announced a merger. I also selected all the companies in Value Line's groups of natural gas companies that receive a significant percentage of revenues and income from regulated natural gas businesses and otherwise meet the same criteria as described above for the electric companies.

Q. How do your proxy companies compare in risk to PEF?

A. As described on page 37 and page 40 of my direct testimony, my proxy company groups are less risky than PEF.

Q. Does Mr. Rothschild use your proxy companies in his cost of equity studies?

A. Yes, he does.

Q. On page 62 of his testimony, M. Rothschild asserts that your elimination of companies that cut their dividends may have increased your DCF results. Is he correct?

A. No. Since companies generally cut their dividends only as a last resort, those companies that have cut their dividends often are more risky than those companies that have not cut their dividends. Thus, one would expect that companies that have cut their dividends would have a higher cost of equity than companies that have not cut their dividends. In addition, although cutting the dividend generally reduces the company's dividend yield, a dividend cut also generally significantly increases the company's expected earnings growth, because the company's retention ratio can be expected to be higher once the dividend has been cut.

Q. On pages 62 – 63 of his testimony, Mr. Rothschild also argues that your exclusion of companies from the S&P 500 that did not have a positive forecast of growth "produced what could be a substantial upward skewing of [your] analysis." How many companies did you exclude from your S&P 500 DCF analysis on the basis that the company did not have a positive growth estimate?

A. No companies were eliminated because of a negative expected growth rate.

Q. Did this criterion have any effect on your DCF result for the S&P 500?

A. No. Since no companies were eliminated from my S&P 500 DCF analysis because they did not have a positive expected growth rate, this criterion had no effect on the results of my S&P 500 DCF analysis.

2. Growth Estimates for the DCF Model

Q. How did you estimate investors' expectations of future growth in your DCF analysis?

A. As my estimate of investors' expectations of future growth in my DCF analysis, I used the mean analysts' long-term expected growth rate published by I/B/E/S Thomson Financial.

Q. Does Mr. Rothschild agree with your use of analysts' growth rates in your DCF analysis?

A. No. Mr. Rothschild claims on page 64 of his testimony that analysts' EPS growth rates should not be used in a DCF analysis because: (1) "analysts' growth rates are different from investors' anticipated growth rates"; and (2) analysts' growth rates tend to be overly optimistic.

Q. Do you agree with Mr. Rothschild's assertion that the analysts' EPS growth forecasts are different from investors' anticipated growth rates?

A. No. As I describe on pp. 31 – 32 of my direct testimony, my studies indicate that analysts' growth forecasts are more highly correlated with stock prices than other growth forecasts that are generally available to investors. My studies, which are

consistent with other research on this topic, indicate that investors use analysts' forecasts in making stock buy and sell decisions.

Q. Does Mr. Rothschild discuss studies, including your paper with Professor Carleton, in his testimony?

A. Yes. Mr. Rothschild claims that my conclusion is not justified by the results of my studies because I didn't assess the accuracy of the analysts' growth forecasts compared to other possible growth forecasts such as dividend growth forecasts or growth forecasts determined by multiplying a forecasted earned return on equity by a retention rate. (Rothschild at pp. 64 – 65.)

Q. Is Mr. Rothschild's criticism that you did not test the accuracy of analysts' growth forecasts relevant to whether analysts' growth forecasts should be used when estimating the cost of equity based on the DCF model?

A. No. The DCF model requires the use of *investors' expected growth rates, whether these growth rates subsequently turn out to be accurate or not.* My studies indicate that the analysts' earnings growth forecasts are good proxies for the growth forecasts actually used by investors.

Q. Did Mr. Rothschild provide any evidence in his testimony that his $br + sv$ growth estimates are reasonable proxies of investors' growth expectations?

A. No, Mr. Rothschild made no attempt to estimate investors' expected growth forecasts for the proxy companies. It is evident from my earlier discussion of Mr.

Rothschild's testimony that his *br* + *sv* growth forecasts are subjective estimates that reflect his own judgment about the companies' future rates of return on equity and retention rates, not the judgment of investors.

Q. Why did you use analysts' earnings growth forecasts instead of dividend growth forecasts?

A. I relied on analysts' earnings growth forecasts rather than dividend growth forecasts because I am not aware of any sources that provide mean analysts' dividend growth forecasts. Furthermore, in the long run, dividend growth will be identical to earnings growth.

Q. When Mr. Rothschild asserts that analysts' forecasts are consistently overly optimistic, is he referring to a comparison of growth forecasts with investors' expectations or to a comparison of analysts' forecasts with the earnings that subsequently materialized?

A. Mr. Rothschild's references to articles in the business press generally discuss analysts' forecasts compared to earnings that were subsequently realized, in particular analysts' forecasts in the late 1990's during the high tech bubble to the earnings that were subsequently realized after the bubble burst.

Q. Does the fact that analysts' forecasts during the high tech bubble were higher than the earnings that were subsequently realized after the bubble burst

indicate that the analysts' earnings forecasts were not shared by investors at the time the forecasts were made?

A. No. Indeed, the fact that stock prices were unusually high during the tech bubble of the late 1990's indicates that the analysts' growth forecasts were widely shared by investors at that time. Again, recall that the most important issue in applying the DCF model is to use the expected growth rates of investors.

3. Quarterly DCF Model and Flotation Costs

Q. What is the basic assumption of your quarterly DCF model?

A. My quarterly DCF model is based on the assumption that companies pay dividends at the end of each quarter rather than at the end of each year.

Q. Is this assumption realistic?

A. Yes, my proxy companies pay dividends quarterly.

Q. Would an annual DCF model provide a more accurate estimate of the expected of return on stock investments for companies that pay dividends quarterly?

A. No. The DCF model is based on the assumption that a company's stock price is equal to the present value of the future cash flows received by investors. When dividends are paid quarterly, the only DCF equation that equates a company's current stock price to the present value of future dividend payments is the quarterly DCF equation. Since the annual DCF equation cannot be

mathematically derived from the assumption that stock prices are equal to the present value of quarterly dividend payments, the annual DCF model necessarily provides a less accurate estimate of the expected rate of return on stock investments than the quarterly DCF equation.

Q. What is Mr. Rothschild's basic objection to your use of a quarterly DCF model?

A. Mr. Rothschild objects to my use of the quarterly DCF model because he claims that it ignores the fact that companies receive revenues on a daily basis.

Q. Is Mr. Rothschild's objection valid?

A. No. The DCF model has nothing whatsoever to do with the timing of a company's revenues. Rather, the focus of the DCF model is on the timing of the cash flows received by investors. The investors' rate of return, according to the DCF model, is that rate of return which equates the present value of the stream of cash flows *investors receive from the company* to the company's current stock price. When dividends are paid quarterly, the only rate of return that satisfies the requirements of the DCF model is that obtained from the quarterly DCF equation.

Q. Does Mr. Rothschild also object to your inclusion of a flotation cost allowance in your DCF results?

A. Yes. Mr. Rothschild objects to my inclusion of flotation costs for two reasons. First, he claims that the companies in my proxy groups are selling at market prices

that exceed book value, and that the difference is sufficient to fully pay for financing costs. (Rothschild p. 86.) Second, he claims that according to the information provided by PEF in response to Citizens' Third Set of Interrogatories, No. 155, PEF showed that my financing allowance for flotation costs greatly exceeds the actual flotation costs incurred by Progress Energy in the last 20 years.

Q. Does issuing stock at a market price that exceeds book value compensate a company for the financing costs it incurs in issuing this stock?

A. No. The relationship between the price of a stock and its book value has nothing whatsoever to do with financing costs. Financing costs are a legitimate and necessary expense of issuing securities and they must be recovered in additional revenues if the company is to be able to earn a fair rate of return on its investment. Indeed, book value is largely irrelevant in the pricing of common stock.

Q. Does Mr. Rothschild's conclusion regarding flotation costs follow from PEF's response to Citizen's Third Set of Interrogatories, No. 155?

A. No. PEF's response to the Citizens' Third Set of Interrogatories, No. 155, reported information on the two stock issuances that have occurred since Progress Energy was formed. The data provided in that response, which is reproduced in Table 6, indicates that total expenses paid to outside parties as a percentage of net proceeds received were: 3.8 percent for the August 14, 2001, issuance; and 8.5 percent for the November 6, 2002, issuance. Contrary to Mr. Rothschild's

conclusion, these data suggest that my 5 percent flotation cost allowance, which includes both issuance expenses and market pressure, is conservative.

Table 6
Response to Citizens' Third Set No. 1005:
PGN Flotation Expense

Information	*Date*	*Date*
Date of offering	14-Aug-01	6-Nov-02
Number of shares issued	11 mm.	14.67 mm
Net proceeds received by the company	$ 424.6	$ 600.0
Total expenses paid by the company to outside parties	$ 16.2	$ 50.9
Expense as Percent of Proceeds	3.8%	8.5%

Q. Does Mr. Rothschild acknowledge that the Florida Public Service Commission has explicitly recognized the need to include a flotation cost allowance in the allowed return on equity in its Order PSC-02-0787-FOF-EI?

A. No. Mr. Rothschild fails to acknowledge that the Florida PSC recognized the need to include a flotation cost allowance of 20 basis points in that decision.

4. Risk Premium Method

Q. How did you estimate the required risk premium on stock investments compared with bond investments?

A. I estimated the required risk premium on stock investments compared with bond investments by: (1) comparing the historical arithmetic mean return on stock investments to the historical arithmetic mean return on bond investments; and (2) comparing the expected rate of return on stock investments as measured by the DCF model to the yield on bond investments over the last five to six years.

Q. Does Mr. Rothschild object to your use of the historical arithmetic mean return on stock and bond investments to estimate investors' expected risk premium on stock investments?

A. Yes. Mr. Rothschild objects to my use of the historical arithmetic mean return on the grounds that: (1) the arithmetic mean does not provide an accurate measure of the return actually received by investors during the historical time period; (2) the financial community recommends using geometric mean data to measure historical returns, and (3) my example in my direct testimony that demonstrates why the arithmetic mean must be used to measure the expected risk premium is based on an incorrect calculation of the arithmetic and geometric means.

Q. Is Mr. Rothschild correct when he claims that the arithmetic mean cannot be used to estimate investors' expected risk premium on stock investments because the arithmetic mean does not accurately measure the return received by investors over the historical period of time?

A. No. Mr. Rothschild fails to understand that our task in this proceeding is to estimate investors' expected risk premium on stock investments, not to measure the actual return earned by investors over the historical period. As discussed earlier in my rebuttal testimony as well as in my direct testimony, the arithmetic mean is the appropriate average for use in estimating investors' expected risk premium because it is the only number that equates the present value of the investors' expected future wealth to investors' current wealth.

Q. Does the financial community recommend using the geometric mean to measure historical results?

A. Yes. However, the financial community does not recommend that the geometric mean be used to measure the expected future risk premium. As I discussed above, Ibbotson Associates and others strongly recommend the arithmetic mean as the appropriate measure for the purpose of estimating investors' expected future risk premiums on stock investments.

Q. Mr. Rothschild criticizes your example explaining why the arithmetic mean must be used to estimate the expected future risk premium. Does Mr. Rothschild attempt to recalculate your example using an alternative method for calculating the arithmetic and geometric mean returns on investment?

A. Yes. Mr. Rothschild provides an alternative example in Exhibit JAR-13. However, Mr. Rothschild has miscalculated the arithmetic and geometric mean returns on his hypothesized investment. As I demonstrated in my Exhibit No. ___ (JVW-7), the arithmetic mean return on an investment that can earn a 30 percent return with a probability of ½ and a negative 10 percent return with a probability of ½ is 10 percent, just I showed in my exhibit [(30%) (.5) + (-10%) (.5) = 10%.]. The geometric mean return on this same investment is only 8.2 percent. Furthermore, the arithmetic mean of 10 percent is the only rate of return that equates the present value of the expected future wealth of $1.21 to the $1.00 current value of wealth in the example.

Q. Mr. Rothschild also claims that you have ignored the decline in risk premiums that, in his opinion, has occurred over the last several decades. Have you already addressed Mr. Rothschild's arguments on this subject?

A. Yes. I have addressed Mr. Rothschild's arguments above in Section D.

5. Adjustment of the Cost of Equity for Financial Risk

Q. How do financial market participants measure risk?

A. Under the assumption that the probability distribution of returns is symmetric, *i.e.*, centered on the mean return, financial market participants generally measure risk by the forward-looking variance of return on investment.

Q. Does the forward-looking variance of an investor's return on a stock investment in a company depend on the company's capital structure?

A. Yes. The forward-looking variance of an investor's return depends on the company's debt to equity ratio, where both debt and equity are measured in terms of market values, not book values.

Q. What is the meaning of the term, "financial risk"?

A. Economists use the term, "financial risk" to refer to the contribution of the firm's capital structure , *i.e.*, its debt to equity ratio, to the forward-looking variance of return on the firm's stock.

Q. Does financial risk reflect the market values of debt and equity in a company's capital structure or the book values of debt and equity in a company's capital structure?

A. Since financial risk measures the contribution of the company's capital structure to the forward-looking variance of return on the company's stock, and the forward-looking variance depends on the market values of debt and equity in the company's capital structure, not the book values.[9]

Q. Is PEF recommending that its weighted average cost of capital in this proceeding be calculated based on the market values of debt and equity in its capital structure?

A. No. Consistent with previous regulatory practice, PEF is recommending that its weighted average cost of capital be based on the book values of debt and equity in its capital structure.

Q. Is the financial risk associated with PEF's recommended capital structure measured in the same way as the financial risk associated with the capital structures of your proxy companies?

A. No. The financial risk of my proxy companies is reflected in their market value capital structures, while PEF is recommending that a book value capital structure be used for the purpose of setting rates. Thus, the financial risk of my proxy

companies is measured by their market value capital structures, while PEF's financial risk is measured by its book value capital structure.

Q. How did you adjust your cost of equity results for your comparable companies to reflect the difference between the market's perception of the financial risk of your proxy companies and the financial risk reflected in PEF's recommended capital structure?

A. As described on pp. 56 – 59 of my direct testimony, I adjusted the cost of equity results for my comparable companies by equating the after-tax weighted average cost of capital of my proxy companies to the after-tax weighted average cost of capital of PEF. In this procedure, I used market-value capital structure weights for my comparable companies because the cost of capital for these companies is based on market values, and I used book value weights for PEF because the recommended cost of capital for PEF in this proceeding is based on book values.

Q. What is Mr. Rothschild's basic objection to your financial risk adjustment?

A. Mr. Rothschild's basic objection is that my use of market value capital structures to calculate the weighted average cost of capital of my proxy companies is, in his opinion, inconsistent with the use of a DCF model to estimate the cost of equity.

(. . . continued)

[9] See Brealey, Myers, and Allen, *op. cit.*, Chapter 17.

Q. Do you agree with Mr. Rothschild's assertion that a market value capital structure is inconsistent with the use of a DCF model to estimate the cost of equity?

A. No. Contrary to Mr. Rothschild's assertion, the DCF model is only consistent with a market value capital structure because the DCF model is based on the market price of the company's equity, and so is the company's market value capital structure. Thus, investors will only have an opportunity to earn their required return on investment if the estimated cost of equity is applied to the market value of the company's equity.

Q. Does Mr. Rothschild present an example that purportedly demonstrates that the DCF model is inconsistent with the use of a market value capital structure?

A. Yes. On pages 92 – 93 of his testimony, Mr. Rothschild states:

> By recommending that a company should be allowed to earn its DCF return on the market value of its investment rather than the book value of its investment, Dr. Vander Weide is saying that fully competitive companies can earn this DCF return on this market value. However, in reality this is far from the truth. Consider the following: According to page MW 58 of the June 13, 2005 issue of Barron's, the earnings yield (earnings divided by price) on the S&P 500 index is 5.04%. This means that the return on market value for the S&P 500 that investors in these mostly competitive industrial companies are earning, is no where near the cost of equity indicated by the DCF method.

Q. Does Mr. Rothschild's example, in fact, demonstrate his conclusion that the DCF model is inconsistent with use of a market value capital structure?

A. No. Mr. Rothschild's example is based on his incorrect assumption that the investors' expected rate of return on market value is equal to the earnings/price ratio. This assumption is incorrect, because the investors' expected return is actually equal to expected dividend plus expected growth. Because Mr. Rothschild incorrectly measures the investors' expected rate of return on market value, he reaches an incorrect conclusion regarding the consistency of the DCF model and a market value capital structure.

Q. On page 76 of his direct testimony, Mr. Rothschild argues that your DCF formula requires earnings, dividends, book value, and stock price to all grow at the same rate in each future year. Is he correct?

A. Although Mr. Rothschild is technically correct in stating that earnings, dividends, book value, and stock price are all assumed to grow at the same rate in the DCF model, he grossly misunderstands how the DCF model is used in practice by investors. While investors recognize that earnings, dividends, book value, and stock price rarely grow at the same rate in every future year, they continue to use the simple constant growth DCF model because it represents a reasonable approximation of reality. As long as the growth term in the DCF model is a reasonable representation of the *average* long-run growth, it is reasonable to use the constant growth DCF model in valuing stocks.

Q. On page 74 of his direct testimony, Mr. Rothschild argues that your use of the five-year analysts' growth rate implies a continuous increase in a company's earned rate of return on equity. Do you agree?

A. No. My use of the I/B/E/S growth rates is simply based on the assumption that these rates accurately reflect investors' long-run average growth expectations for earnings, dividends, book value, and share price. An average growth rate, by implication, is a constant growth rate, and does not imply a "continuous increase" in the earned return on equity.

Q. Do you agree with Mr. Rothschild's assertion that your use of the I/B/E/S growth estimates implies an average earned rate of return on equity and an average retention ratio that are higher than the most recently reported rates of return on equity and retention ratios for your proxy companies?

A. Yes. However, my acceptance of this proposition does not imply that investors expect the earned rate of return on equity and retention ratio to increase forever. It only implies that the average forecasted earned rate of return and retention ratios are higher than the most recent historical earned rates of return and retention ratios for the proxy companies. Given the changes in the energy industries I have studied, this is not an unreasonable assumption.

Q. Do you have any evidence that investors expect your proxy companies' earned rates of return on equity and retention ratios to be higher than their most recent historical levels?

A. Yes. The analysts preparing Value Line reports for my proxy companies clearly believe that the average future rate of return on equity and the average future retention ratio for these companies are likely to be greater than their most recent historical levels.

Q. Do you agree with Mr. Rothschild's assertion that the arithmetic average risk premium you used in your historical risk premium study is an upwardly biased estimator of future expected risk premiums?

A. No. Mr. Rothschild fails to understand that the arithmetic average risk premium is the best risk premium for the purpose of discounting expected future cash flows. In particular, the arithmetic average risk premium is the only risk premium, that, when used as a discount rate, will equate the future expected value of an investment with its present value. Since the cost of equity reflects the future, not the past, the arithmetic average risk premium should be used in estimating the cost of equity.

II. REBUTTAL OF MR. GORMAN

Q. How did Mr. Gorman estimate PEF's cost of equity?

A. Mr. Gorman applied several cost of equity methodologies to the same groups of electric and natural gas companies that I presented in my direct testimony. His cost of equity methodologies include: (1) a constant growth DCF; (2) a risk premium method; and (3) a Capital Asset Pricing Model ("CAPM").

A. Mr. Gorman's DCF Model

Q. What DCF model did Mr. Gorman use to estimate PEF's cost of equity?

A. Mr. Gorman used an annual growth DCF model without flotation costs. His annual DCF model can be described by the equation, $k = D_1/P_0 + g$, where k is the cost of equity, D_1 is the expected next period dividend, P_0 is the current price, and g is the expected growth rate.

Q. Does Mr. Gorman's annual DCF model provide accurate estimates of the cost of equity?

A. No. Mr. Gorman's annual DCF model ignores the fact that dividends are paid quarterly and fails to adjust for flotation costs. For the reasons discussed in my direct testimony at pp. 28 – 29 and 33 - 35, quarterly dividends and flotation costs are important considerations in the proper application of the DCF model. Inclusion of these considerations would add approximately 40 basis points to Mr. Gorman's annual constant growth DCF results.

Q. How did Mr. Gorman estimate the growth component of his annual DCF model?

A. Mr. Gorman used an average of the consensus analysts' growth rates provided by Zack's, I/B/E/S, and Reuters to estimate the growth component of his annual DCF model.

Q. Did you also use analysts' growth rates to estimate the growth component of your DCF model?

A. Yes, I did.

Q. On page 22 of his testimony, Mr. Gorman states that his use of analysts' forecasts for his proxy companies produces a growth estimate that is "conservatively high." Do you agree?

A. No. As I discuss on pp. 37 – 38 of my direct testimony, at this time the DCF model in general produces cost of equity results that are unreasonably low. First, the monthly DCF results for electric companies have been considerably more volatile than interest rates over the last five years, even though it is widely recognized that the cost of equity varies significantly less than interest rates. Indeed, DCF results for electric companies varied within a range of 445 basis points over this period, while interest rates varied within a range of only 309 basis points. Second, the DCF results are significantly less than estimates of the cost of equity using the risk premium and CAPM methodologies. The high volatility of DCF results and the fact that DCF results are significantly less than the cost of equity results produced by other methodologies suggests that the DCF model is not providing an appropriate indication of the electric companies' cost of equity at

this time.[10]

B. Mr. Gorman's Risk Premium Model

Q. How did Mr. Gorman estimate the required risk premium for investing in his electric company proxy group?

A. Mr. Gorman estimated the required risk premium for investing in electric utility stocks from data on the average authorized electric utility rates of return on equity for each year from 1986 to 2004. Mr. Gorman found that the average authorized rate of return on equity for electric utilities over this period was 4.96 percent higher than the yield on long-term Treasury bonds and 3.54 percent higher than the yield to maturity on A-rated utility bonds.

Q. Do you agree with Mr. Gorman's method of estimating the required risk premium on electric utility stocks?

A. No. Mr. Gorman fails to recognize that the Florida Public Service Commission has a responsibility to make an independent assessment of the required return on equity for PEF in this proceeding. In addition, Mr. Gorman fails to recognize that the indicated risk premium in his data base tends to increase as interest rates decline. Mr. Gorman should have adjusted his average risk premiums to account

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[10] Mr. Gorman argues that his growth estimates are conservatively high, noting that utility earnings cannot grow at a rate in excess of GDP growth forever. However, Mr. Gorman fails to recognize that his growth estimates are less than forecasted GDP growth, not higher than the GDP growth estimates.

for the relationship between the allowed risk premium on equity and the level of interest rates on long-term Treasury bonds and A-rated utility bonds.

Q. Have you studied the relationship between the allowed rates of return on equity by regulatory commissions and the interest rates on long-term Treasury bonds and A-rated utility bonds?

A. Yes. Using the data found in Mr. Gorman's Exhibit Nos. ____ (MPG-10) and (MPG-11), I performed a regression analysis of the relationship between the risk premium implied by the allowed rates of return on equity issued by regulatory commissions and the interest rates on long-term Treasury bonds and A-rated utility bonds. I found that the risk premium implied by allowed rates of return compared to the yield on long-term Treasury bonds is given by the relationship:

$$RP_{AUTHORIZED} = 7.87 - 0.424 \times T_B$$

where:

$RP_{AUTHORIZED}$	=	the risk premium implied by utility commission authorized rates of return on equity,
7.87 and 0.424	=	estimated regression coefficients; and
T_B	=	the yield on long-term Treasury bonds.

Similarly, I found that the risk premium implied by allowed rates of return compared to the yield on A-rated utility bonds is given by the relationship:

$$RP_{AUTHORIZED} = 6.68 - .378 \times A_B$$

where:

$RP_{AUTHORIZED}$	=	the risk premium implied by utility commission authorized rates of return on equity,
6.68 and 0.378	=	estimated regression coefficients; and
A_B	=	the yield on Moody's A-rated utility bonds.

Q. What risk premiums do you obtain from your statistical analysis of the relationship between allowed rates of return and interest rates using Mr. Gorman's data?

A. Using current forecasted interest rates, I obtain a risk premium of 5.94 percent over the yield on 20-year U.S. Treasury bonds and 4.57 percent over the yield to maturity on A-rated utility bonds. These risk premiums are approximately 100 basis points higher than the 4.96 percent and 3.54 percent risk premiums obtained by Mr. Gorman.

Q. Why are the estimated risk premiums from your regression analysis so much higher than the average risk premiums over the 1986 – 2004 period that Mr. Gorman used?

A. The risk premiums from my regression analysis are higher than the average risk premiums over the period of Mr. Gorman's study because, as my regression analysis demonstrates, risk premiums generally increase when interest rates decline; and interest rates have declined over the period of Mr. Gorman's study.

Q. How did Mr. Gorman estimate the interest rate component of his risk premium method?

A. Mr. Gorman estimated the interest rate component of his risk premium method in two ways. For his risk premium over the Treasury bond yield, Mr. Gorman used the 5.5 percent projected yield on 20-year Treasury bonds. For the risk premium over A-rated utility bonds, Mr. Gorman used the average yield on A-rated utility bonds for the three-month period ending June 17, 2005.

Q. Does Mr. Gorman explain why he used a forecasted interest rate in the case of the Treasury bond risk premium, but an historical three-month average interest rate in the case of the utility bond risk premium?

A. No, he does not.

Q. What interest rates should Mr. Gorman have used in his risk premium analysis?

A. Mr. Gorman should have used forecasted interest rates on both the Treasury and A-rated utility bonds in his risk premium analysis because PEF is using a forecasted test year in this case.

Q. What cost of equity estimates would Mr. Gorman have obtained from his risk premium analysis if he had used forecasted interest rates to measure the interest rate component of his risk premium equation?

A. Using forecasted interest rates of 5.5 percent on long-term Treasury bonds and 6.72 percent on A-rated utility bonds for the test year, Mr. Gorman would have obtained estimated risk premiums of 5.54 percent over long-term Treasury bonds

and 4.14 percent over A-rated utility bonds. Adding these risk premium estimates to the forecasted interest rates and including a flotation allowance of 25 basis points, Mr. Gorman would have obtained cost of equity estimates of 11.3 percent and 11.1 percent. These results are approximately equal to the cost of equity results I obtained for my proxy companies before my financial risk adjustment, but they exceed Mr. Gorman's risk premium estimates of the cost of equity by 50 to 200 basis points.

C. Mr. Gorman's Capital Asset Pricing Model ("CAPM")

Q. How does Mr. Gorman use the CAPM to estimate the cost of equity for his proxy companies?

A. The CAPM requires an estimate of the risk-free rate, the company-specific risk factor or beta, and the expected return on the market portfolio. For his estimate of the risk-free rate, Mr. Gorman used the forecasted yield to maturity on long-term Treasury bonds. For his estimate of the company-specific risk, or beta, Mr. Gorman used the average Value Line beta for his proxy companies. For his estimate of the expected return on the market portfolio, Mr. Gorman used data on the return on the S&P 500 over the period 1926 to 2004 reported in Ibbotson Associates' 2005 Yearbook.

Q. What risk premium values did Mr. Gorman use in his application of the CAPM?

A. As explained on page 29 of his testimony, Mr. Gorman used risk premium values in the range 6.4 percent to 6.6 percent in his CAPM approach.

Q. Do you agree with the values Mr. Gorman used to estimate the risk premium on the market portfolio in his CAPM approach?

A. No. Mr. Gorman relies on data from Ibbotson Associates to estimate the expected risk premium on the market portfolio. Ibbotson Associates strongly recommend the use of an arithmetic mean risk premium equal to 7.2 percent, not 6.4 percent or 6.6 percent. The Ibbotson Associates 7.2 percent recommended risk premium is the difference between the arithmetic average return on the market portfolio over the period 1926 through 2004 and the income return on long-term Treasury bonds.

Q. Why does Ibbotson Associates use the arithmetic average return on long-term Treasury bonds rather than the arithmetic average total return on long-term Treasury bonds to measure the market risk premium?

A. Ibbotson Associates explain the use of the income return on long-term Treasury bonds on page 75 of their 2005 yearbook:

> Price changes in bonds due to unanticipated changes in yields introduce price risk into the total return. Therefore, the total return on the bond series does not represent the riskless rate of return. The income return better represents the unbiased estimate of the purely riskless rate of return, since an investor can hold a bond to maturity and be entitled to the income return with no capital loss.

Q. How did Mr. Gorman estimate the risk-free rate component of his CAPM approach?

A. Mr. Gorman estimated the risk-free rate component of his CAPM approach using the forecasted 5.5 percent yield to maturity on long-term Treasury bonds at the time of his testimony.

Q. How did Mr. Gorman estimate the beta component of his CAPM approach?

A. Mr. Gorman used the average Value Line betas for his proxy groups, which were .80 for the electric proxy group and .81 for the gas proxy group at the time of his testimony.

Q. What cost of equity range would Mr. Gorman have obtained from his CAPM approach if he had correctly used the Ibbotson Associates' 7.2 percent market risk premium ?

A. Mr. Gorman would have obtained a CAPM cost of equity estimate of 11.7 percent, 100 basis points higher than the 10.7 percent CAPM cost of equity estimate Mr. Gorman reports in his testimony. This estimate is based on Mr. Gorman's risk-free rate of 5.5 percent, the Ibbotson risk premium of 7.2 percent, the most recent average .83 Value Line beta for the proxy companies, and a flotation allowance of 25 basis points.

D. Mr. Gorman's Return on Equity Recommendation

Q. Does Mr. Gorman summarize the results he obtains from his cost of equity analyses?

A. Yes. Mr. Gorman summarizes his cost of equity results in Table 1 on page 30 of his testimony, which I have reproduced below in Table 7:

Table 7
Mr. Gorman's Return on Common Equity Summary

Method	*Cost of Equity*
DCF	9.2%
Risk Premium	9.9%
CAPM	10.7%

Q. How does Mr. Gorman arrive at his recommended 9.8 percent cost of equity using the results of his DCF, risk premium, and CAPM methods?

A. Mr. Gorman first averaged the results of his risk premium and CAPM approaches, obtaining a value of 10.3 percent. He then took as his recommendation the 9.8 percent midpoint between the range of the DCF result of 9.2 percent and the average of the risk premium and CAPM, 10.3 percent.

Q. What cost of equity would Mr. Gorman have found if he had simply taken the midpoint of the range of results from his studies, 9.2 percent to 10.7 percent?

A. Mr. Gorman would have found a midpoint cost of equity of 10.0 percent, 20 basis points higher than the 9.8 percent value he found by averaging the risk premium and CAPM results into a single number before taking his range.

Q. In your rebuttal of Mr. Gorman you have demonstrated that Mr. Gorman's cost of equity results are biased downward by incorrect choices he made in implementing his three cost of equity methods. Can you summarize what cost of equity results you believe Mr. Gorman would have obtained if he had correctly implemented his cost of equity models?

A. Yes. The results Mr. Gorman would have obtained if he had correctly implemented his cost of equity models are shown below in Table 8:

Table 8
Mr. Gorman's Return on Common Equity
Summary Results Corrected

Method	*Mr. Gorman's Cost of Equity*	*Corrected Cost of Equity Result*
DCF	9.2%	9.6%
Risk Premium (1)	9.1%	11.3%
Risk Premium (2)	10.6%	11.2%
CAPM (1)	10.6%	11.7%
CAPM (2)	10.8%	11.7%
Average	10.1%	11.1%

E. Response to Mr. Gorman's Comments on Dr. Vander Weide's Testimony

Q. What basic criticisms does Mr. Gorman have of your cost of equity estimate for PEF?

A. Mr. Gorman has five basic criticisms of my cost of equity estimate for PEF. First, he argues that I should have excluded the impact of quarterly dividend payments and flotation costs in my DCF analyses. Second, he argues that I should have used current interest rates rather than forecasted future interest rates in my risk

premium analyses. Third, he argues that I failed to demonstrate why the proxy companies in my ex post risk premium analysis are comparable in risk to PEF. Fourth, he argues that I should have used the Ibbotson Associates' total return on bond investments rather than their income return on bond investments in my CAPM risk premium calculations. Finally, he argues that I should not have adjusted the cost of equity results of my proxy group to reflect the differences in the financial risk of my proxy companies and the financial risk of PEF.

Q. Why does Mr. Gorman believe that you should have excluded the impact of the quarterly payment of dividends and flotation costs in your DCF analyses?

A. On page 40 of his testimony, Mr. Gorman claims that the quarterly DCF model gives investors an opportunity to earn reinvestment returns twice on their investment. On page 41 of his testimony, he argues that I did not demonstrate that the results of my flotation cost analysis are representative of flotation expenses that PEF has incurred.

Q. Do you agree with Mr. Gorman's argument regarding the ability of investors to earn reinvestment returns twice when the quarterly DCF model is used to estimate the cost of equity?

A. No. The quarterly DCF model only assumes that dividends are reinvested once, at the time they are received. As I explain in both my direct and rebuttal testimonies, the quarterly DCF model is the correct model to estimate the cost of

equity for companies that pay dividends quarterly because it correctly represents the quarterly timing of dividend payments to investors. Since my role in this proceeding is to estimate investors' required rate of return on an equity investment in utilities that are similar in risk to PEF, I have used the quarterly DCF model in my DCF analyses.

Q. Do you agree with Mr. Gorman's argument that PEF has not demonstrated that your flotation cost allowance is representative of flotation expenses that PEF has incurred?

A. No. As noted above, in response to Citizens' Third Set of Interrogatories, No. 155, PEF provided information on the flotation costs associated with the issuances of equity made by its parent since the merger. As discussed in my rebuttal of Mr. Rothschild, these data indicate that my five percent flotation cost allowance is conservative.

Q. Why did you use forecasted interest rates rather than current interest rates to estimate the interest rate component of your risk premium analyses?

A. I used forecasted interest rates for the test year 2006 in my risk premium analyses because PEF's test year in this proceeding is 2006.

Q. Did Mr. Gorman also use forecasted interest rates when he estimated PEF's cost of equity using his risk premium approach?

A. Yes. In risk premium analysis comparing the expected return on an equity investment in PEF to the interest rate on 20-year Treasury bonds, Mr. Gorman used forecasted interest rates for the test year 2006 rather than current interest rates.

Q. Mr. Gorman claims on page 43 of his testimony that your forecasted bond yield "is not based on an independent source, but rather is based on his own projections supporting his inflated return on equity in this proceeding." Is Mr. Gorman correct that you did not base your projected bond yield on an independent source?

A. No. I took my projected bond yield from Blue Chip Financial Forecasts, the same source that Mr. Gorman used when he used the forecasted yield to maturity on Treasury bonds.[11]

Q. Do you agree with Mr. Gorman's contention that your ex post risk premium results for the S&P 500 are not relevant in this proceeding?

A. No. Mr. Gorman fails to note that I provided ex post risk premium results for both the S&P 500 [Exhibit No.___(JVW-5)] and the S&P Utilities [Exhibit No. ___ (JVW-6)] over the period 1937 to 2001. The ex post risk premium for the S&P 500 was 5.3 percent and the ex post risk premium for the

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[11] My direct testimony at page 52 and in Exhibit Nos.___(JVW-8), (JVW-9), and (JVW-12) clearly references Blue Chip as the source for the forecasted interest rates that I used.

S&P Utilities was 4.2 percent over the yield on A-rated utility bonds. Since the S&P utility stocks faced little or no competition over much of the period 1937 to 2004, I believe electric utilities today face risks that are somewhere in between the average risk of the S&P Utilities and the S&P 500 over the years 1937 to 2004. Thus, taken in conjunction with my ex post risk premium studies on the S&P Utilities, the risk premium on the S&P 500 is relevant in this proceeding.

Q. Do you agree with Mr. Gorman's assertion on page 45 of his testimony that the "S&P Utility Index includes companies that may not be risk comparable to PEF"?

A. No. The S&P Utilities Index includes companies like PEF that were considered to be regulated public utilities at the time they were included in the S&P Utilities Index.

Q. What is the difference between the total return on a bond investment and the income return on a bond investment?

A. The total return on a bond investment includes both the interest earned on the bond investment and the capital gain or loss that the investor experiences on the bond when interest rates change. The income return on a bond investment includes only the known interest rate at the time the investment is made.

Q. Why did you use the arithmetic mean *income* return on long-term Treasury bonds rather than the arithmetic mean total return on long-term Treasury bonds in your CAPM analyses?

A. I used the arithmetic mean income return on long-term Treasury bonds in my CAPM analyses because the CAPM requires that the return on equity investments be compared to the rate of return on a risk-free investment. Since capital gains and losses are highly uncertain, the income return on Treasury bonds is the best estimate of the risk-free rate in the long-horizon CAPM.

Q. How do investors measure the financial risk on an equity investment?

A. As I explained in my rebuttal of Mr. Rothschild, investors measure financial risk by a company's debt to equity ratio, where both debt and equity are measured in terms of their market values.

Q. Why did you adjust the cost of equity results for your proxy companies to reflect the average difference between the financial risk of your proxy companies and the financial risk reflected in PEF's recommended capital structure?

A. As explained in my testimony, I adjusted my cost of equity results because they reflect a higher degree of financial risk than PEF's recommended capital structure. In making this assessment, I recognized that investors measure the financial risk of investing in the equity of my proxy companies based on these companies' market value capital structures, while PEF is recommending a book value capital

structure. Since investors demand a higher return for bearing greater risk, an adjustment is required to the cost of equity result for the proxy companies.

Q. Does Mr. Gorman agree with your cost of equity adjustment?

A. No. On pp. 37 – 38 of his testimony, Mr. Gorman argues that I: (1) only examined financial risk, not business risk; (2) failed to consider off-balance-sheet debt obligations; and (3) failed to compare the book value capital structures of my proxy groups to PEF's book value capital structure.

Q. Is it necessary to consider PEF's relative business risk as part of your cost of equity adjustment?

A. No. Since, as I demonstrated in my direct testimony, PEF's business risk is similar to the average business risk of my proxy companies, an adjustment for differences in business risk was not required to estimate PEF's cost of equity.

Q. Did you consider both on-balance sheet and off-balance sheet debt obligations for your proxy companies compared to PEF?

A. I did not explicitly consider a comparison of the off-balance sheet debt obligations of my proxy companies because this information is quite difficult and burdensome to obtain. However, I am aware that PEF has a relatively high proportion of off-balance sheet debt obligations; and on the basis of my reading of information contained in sources such as Value Line, it is highly likely that the percentage of PEF's off-balance sheet debt obligations is higher than my proxy companies' off-

balance sheet debt obligations. Thus, I consider my cost of equity adjustment to be conservative.

Q. Do you agree with Mr. Gorman's assertion on page 38 of his testimony that you should have compared your proxy companies' book value capital structures to PEF's book value capital structure?

A. No. As I explained in my direct testimony and in my rebuttal of Mr. Rothschild, the financial risk of an equity investment in my proxy companies is based on investors' assessments of the companies' market value capital structures, not their book value capital structures. However, PEF is recommending a book value capital structure in this proceeding that reflects a significantly higher degree of financial risk than is contained in my cost of equity estimates for the proxy companies. Thus, it is appropriate for me to compare the market value capital structures of my proxy companies to the recommended book value capital structure of PEF.

Q. After making numerous adjustments to your cost of equity analyses, Mr. Gorman claims on page 38 of his testimony that your cost of equity analyses support his recommended cost of equity for PEF. Is this a fair characterization of your analyses?

A. No. As stated in my direct testimony, my analyses support a 12.3 percent cost of equity, not Mr. Gorman's low 9.8 percent cost of equity recommendation.

III. REBUTTAL OF DR. PORTER

A. Dr. Porter's Qualifications

Q. What is the purpose of Dr. Porter's testimony?

A. Dr. Porter's testimony presents both his estimate of PEF's cost of equity and his rebuttal of PEF's positions on cost of capital and fair rate of return.

Q. Has Dr. Porter previously provided expert testimony on the cost of capital?

A. No, in response to PEF's interrogatory, Dr. Porter stated that he has not previously provided cost of capital testimony.

Q. Is there anything in Dr. Porter's vita that would indicate that Dr. Porter has the requisite background and experience to testify as an expert on PEF's cost of equity?

A. No. As shown in the vita attached to his testimony, Dr. Porter's background, education, and research interests have been focused on public policy issues rather than financial markets and the cost of capital.

Q. Is there any evidence on his vita that Dr. Porter has taught courses in corporate finance, investments, or capital markets?

A. No. There is no evidence that Dr. Porter has taught courses in these subject areas.

Q. Does Dr. Porter use standard cost of equity models such as the DCF, risk premium, and CAPM to estimate PEF's cost of equity in this proceeding?

A. No. Dr. Porter testifies on pp. 2 – 9 of his testimony that standard cost of equity models such as these provide highly inaccurate results and are "subject to manipulation by anyone with a bias." (Porter at p. 3.)

Q. Are Dr. Porter's views regarding the DCF, risk premium, and CAPM methods shared by the investment community?

A. No, they are not. Indeed, in the financial community, the DCF, risk premium, and CAPM are the most frequently used and most accepted methods for estimating the cost of capital.

B. Dr. Porter's Cost of Equity Estimate

Q. What is Dr. Porter's estimate of PEF's cost of equity?

A. Dr. Porter estimates a 9.03 percent cost of equity for PEF.

Q. How did Dr. Porter arrive at his 9.03 percent estimate of PEF's cost of equity?

A. Dr. Porter simply adds the 5.66 percent geometric mean risk premium on large stocks compared to the return on short-term Treasury securities for the 50-year period 1955 to 2004 to the 3.37 percent "July 1, 2005, six-month U.S. Treasury bond yield."[12] (Porter at p. 13.)

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[12] Investors would normally refer to six-month Treasury instruments as "Treasury bills," not Treasury bonds.

Q. What is Dr. Porter's source for the data he uses?

A. Dr. Porter uses a subset of the data published in the Ibbotson Associates' 2005 Yearbook.

Q. What period of time does the Ibbotson Associates' data base cover?

A. The Ibbotson Associates' data base covers the 79-year period from 1926 through 2004.

Q. Why does the Ibbotson Associates' data base cover the period from 1926 through 2004?

A. As discussed in my rebuttal of Mr. Rothschild, the Ibbotson Associates' data base covers the period 1926 through the present because "1926 was approximately when quality financial data became available." (Ibbotson 2005 Yearbook Valuation Edition, p. 78.)

Q. Does Dr. Porter explain why he chose to use only the Ibbotson Associates' data for the last 50 years, *i.e.*, 1955 through 2004, rather than data for the entire period 1926 through 2004?

A. Yes. On page 13 of his testimony, Dr. Porter states,

> I chose 50 years (rather than the more extended data set beginning in 1926 from which this data was drawn) to avoid distortions caused by the extraordinary events of the Great Depression and World War II.

Q. Does Ibbotson Associates recommend that analysts only look at return data for the last 50 years, like Dr. Porter, to form their expectations for the future?

A. No. Ibbotson Associates strongly recommend using data for the entire period 1926 through the present.

Q. Why does Ibbotson Associates recommend using return data for the entire period 1926 through the present rather than return data for shorter periods such as 1955 through the present, as Dr. Porter has done?

A. On pp. 80 - 81 of the 2005 Valuation edition, Ibbotson Associates state:

> Some analysts estimate the expected equity risk premium using a shorter, more recent time period on the basis that recent events are more likely to be repeated in the near future; furthermore, they believe that the 1920s, 1930s, and 1940s contain too many unusual events. This view is suspect because all periods contain "unusual" events. Some of the most unusual events of this century took place quite recently, including the inflation of the late 1970s and the early 1980s, the October 1987 stock market crash, the collapse of the high-yield bond market, the major contraction and consolidation of the thrift industry, the collapse of the Soviet Union, and the development of the European Economic Community—all these happened approximately in the last 30 years.
>
> ...Without an appreciation of the 1920s and 1930s, no one would believe that such events could happen. The 79-year period starting with 1925 is representative of what can happen; it includes high and low returns, volatile and quiet markets, war and peace, inflation and deflation, and prosperity and depression. Restricting attention to a shorter historical period underestimates the amount of change that could occur in a long future period. Finally, because historical event-types (not specific events) tend to repeat themselves, long-run capital market return studies can reveal a

great deal about the future. Investors probably expect "unusual" events to occur from time to time, and their return expectations reflect this.

Q. On page 4 of his testimony, Dr. Porter claims that he does not use cost of equity models such as the DCF and CAPM because it is possible for users of these models "to come to virtually any finding one might wish." Could Dr. Porter "come to virtually any finding" he might wish by choosing a shorter period of return data than Ibbotson Associates presents and recommends using?

A. Yes. Dr. Porter would have come to a significantly higher conclusion regarding PEF's cost of equity if he had chosen to rely on the Ibbotson Associates' entire data base rather than a shorter period that he chose arbitrarily.

Q. How does Dr. Porter's choice of a 50-year time period, rather than a 79-year time period, affect his estimate of the investors' required risk premium and PEF's cost of equity?

A. As shown below in Table 9, Dr. Porter's choice of a 50-year time period, rather than the entire 79-year time period available in the Ibbotson data base, reduces his estimate of the geometric mean risk premium by 100 basis points; and reference to this shorter time period reduces the arithmetic mean risk premium by 170 basis points.

Table 9
Historical Arithmetic and Geometric Risk Premium for Time Periods of Different Lengths

Period Length (Years)	*Beginning Year through 2004*	*Short-Horizon Arithmetic RP*	*Short-Horizon Geometric RP*
79	1926	8.6%	6.7%
70	1935	9.2%	7.6%
60	1945	8.7%	7.4%
50	1955	6.9%	5.7%
40	1965	5.8%	4.5%
30	1975	8.7%	7.6%
20	1985	9.7%	8.4%
15	1990	8.2%	6.8%

Q. In addition to his choice of time period, does Dr. Porter make any other choices that bias his results downward?

A. Yes. Dr. Porter chose to report geometric mean returns rather than the arithmetic mean returns that Ibbotson Associates recommend for the purpose of estimating the cost of equity. My direct and rebuttal testimony have previously summarized the reasons why it is necessary to use the arithmetic mean return when estimating the cost of equity.

Q. On page 10 of his testimony, Dr. Porter claims that size adjustments are not needed for PEF because PEF is a large cap stock. Is Dr. Porter correct in his assessment of PEF's market capitalization?

A. No. Dr. Porter fails to recognize that PEF does not have a market capitalization because it is a wholly-owned subsidiary of Progress Energy. Furthermore, since PEF's book equity is small in comparison to the equity values of companies in the

S&P 500, a size adjustment would be required for PEF if it were a market-traded entity.

Q. Does Dr. Porter attempt to corroborate his low cost of equity estimate for PEF?

A. Yes. Dr. Porter states on page 15 of his testimony:

> Compustat publishes market value to book ratios for all publicly traded companies. For the parent company, Progress Energy, this value is PV/RB = 1.37. If this value hold for PEF it means the present regulated return on equity is 37 percent higher than that needed to reward equity investors for their contributions to the historic cost of the firm. The present regulated return of 12.0% should be reduced to 8.8%.

Q. What is the basic assumption of Dr. Porter's market-to-book analysis?

A. Dr. Porter's market-to-book analysis is based on his underlying assumption that a market-to-book ratio significantly above 1.0 is evidence that a company is earning more than its cost of equity, and a market-to-book ratio below 1.0 indicates that a company is earning less than its cost of equity.

Q. Do you agree with Dr. Porter's assumption that a market-to-book ratio in excess of 1.0 indicates that a company is earning more than its cost of equity?

A. No. There are many examples of companies with market-to-book ratios significantly in excess of 1.0 that are clearly earning less then their costs of equity.

Q. Is it highly unusual for a company that is clearly earning less than its cost of common equity capital to have a market price exceeding the book value of its shares?

A. No. It is common for companies whose accounting rates of return on book equity are less than their costs of common equity capital to have market prices exceeding the book values of their shares. Indeed, as I explain below, one would expect companies to have market-to-book ratios significantly in excess of 1.0, even if the company is earning less than its cost of capital, simply as a result of the accounting rules for determining book value.

Q. Do you have any evidence that firms with market to book ratios greater than 1.0 may not be earning returns in excess of their costs of equity?

A. Yes. Companies with negative rates of return on equity are clearly not earning more than their costs of equity, because a company's cost of equity must be positive. Yet the Value Line universe of firms has 84 companies whose reported rates of return on equity are negative and whose market-to-book ratios are greater than 1.0 (see Vander Weide Rebuttal Exhibit No. ___ (JVW-15). The average market-to-book ratio for these companies is 3.38, and their average rate of return on book equity is *negative* 10.29%. Clearly, a company whose rate of return on common equity is negative cannot be earning more than its cost of equity capital.

In addition, as shown on Vander Weide Rebuttal Exhibit No. ___ (JVW-16), the Value Line universe of firms also has 175 companies that have market-to-book ratios above 1.0 and rates of return on book equity in the range 0 percent to

6 percent (the approximate yield on Baa-rated utility bonds). The average earned rate of return on equity for these companies is 3.57 percent, and the average market-to-book ratio, 2.06. Clearly these firms have market-to-book ratios greater than 1.0 even though they are earning significantly less than the return investors can earn on a less risky bond investment and therefore less than their costs of equity.

Q. Are there any electric and gas companies that have market-to-book ratios greater than 1.0 but that are clearly earning less than their cost of equity?

A. Yes. Electric and gas companies followed by Value Line that have market-to-book ratios greater than 1.0 but that are clearly earning less than their cost of equity are shown in the following table:

Table 10
Electric and Gas Companies in Value Line that Have Market-to-Book Ratios Exceeding 1.0 and Earned Rates of Return on Book Equity that Are Less than Their Costs of Equity

Company Name	*Industry*	*Return on Common Equity*	*Stock Price*	*Book Value per share*	*Market to Book*
Allegheny Energy	UTILEAST	4.99	25.73	9.85	2.61
Avista Corp.	UTILWEST	4.72	18.52	15.54	1.19
Edison Int'l	UTILWEST	3.53	40.16	18.57	2.16
Empire Dist. Elec.	UTILCENT	5.76	23.89	14.76	1.62
Northeast Utilities	UTILEAST	5.07	20.64	17.80	1.16
TECO Energy	UTILEAST	(31.49)	19.12	6.84	2.80
SEMCO Energy	GASDISTR	2.52	6.00	5.79	1.04

Contrary to Dr. Porter's assumption, these companies are clearly earning significantly less than their costs of equity, even though they have market-to-book ratios exceeding 1.0.

Q. How many companies are there in the Value Line universe of companies which you have examined?

A. At July 2005, Value Line reports a market-to-book ratio for 1,591 companies.

Q. Out of these 1,591 companies, how many have market-to-book ratios of less than 1?

A. Out of the 1,591 companies, only 31 have market-to-book ratios of less than 1.0.

Q. In a competitive economy such as ours, is it likely that only 31 out of 1,591 companies would be earning less than their costs of equity, while the remaining companies are earning in excess of their costs of equity?

A. No. In a competitive economy such as ours, one would expect the average company to earn exactly its cost of equity. Thus, roughly half of the companies would be earning more than their costs of equity, and half earning less than their costs of equity.

Q. Why do the vast majority of companies in the Value Line universe have market-to-book ratios greater than 1.0?

A. There are at least two reasons why the vast majority of companies in the Value Line universe have market-to-book ratios greater than 1.0. First, accounting rules require that, for book value purposes, most assets be measured in terms of the historical cost of these assets. In a world of positive inflation, the current market value of many assets is likely to exceed book value. Land purchased in 1920, for example, is likely to be worth considerably more today than the value reported on the firm's balance sheet. Second, accounting rules require companies to write off the value of their assets when the market value of the asset sinks below book value. However, accounting rules do not allow companies to increase the book value of assets when the market value of these assets exceeds book value. Because of the asymmetrical nature of accounting rules, the value of assets reported on a company's books tends to be less than its market value.

Q. What conclusions do you draw from these long lists of companies that have negative or low rates of return on book equity and market-to-book ratios in excess of 1.0?

A. I conclude that Dr. Porter's market-to-book analysis provides no support whatsoever for his recommended cost of equity in this proceeding.

Q. Does Dr. Porter make any other attempts to corroborate his low cost of equity estimate for PEF?

A. Yes. On pp. 16 – 17 of his testimony Dr. Porter claims that a regulated utility such as PEF "faces little of the risk that proprietary firms face."

Q. Do you agree with Dr. Porter's assessment that regulated utilities face little risk?

A. No. As I explain on pp. 15 - 17 in my direct testimony, regulated utilities face many risks similar to those faced by non-regulated companies. However, in addition, regulated utilities face regulatory risks that are not faced by non-regulated companies. Dr. Porter is apparently unaware that companies such as Pacific Gas & Electric Company went bankrupt specifically because of actions taken by the California Public Utilities Commission.

C. Response to Dr. Porter's Comments on Dr. Vander Weide's Testimony

Q. What is Dr. Porter's basic criticism of your testimony in this proceeding?

A. Dr. Porter's basic criticism is that I have consistently chosen estimates of parameters in my models "that favor a high estimate of the cost of capital relative to a more prudent choice." (Porter at page 18.)

Q. Does Dr. Porter attempt to provide evidence that you have "consistently chosen" parameters "that favor a high estimate of the cost of capital"?

A. Yes. First, Dr. Porter claims on page 19 of his testimony that my decision to eliminate companies from my proxy group that decreased dividends in the last two years "will greatly overstate the expected growth rate of earnings for the electric utility industry." Second, Dr. Porter claims on page 20 of his testimony

that the 0.81 beta I used in my CAPM "is significantly higher than the beta for all utilities." Third, he claims on page 20 of his testimony that my use of arithmetic mean data to estimate the risk premium "adds 200 basis points to the risk premium." Fourth, Dr. Porter claims that my use of forecasted interest rates biases my results upward.

Q. Did your decision to eliminate companies that decreased dividends in the last two years cause you to overstate the expected growth in earnings for the electric utility industry?

A. No. My decision to eliminate companies that decreased dividends very likely caused me to understate growth in the electric utility industry. As I explained in my rebuttal of Mr. Rothschild, companies decrease their dividends so that they can retain a higher percentage of their earnings in their business. When companies retain a higher percentage of earnings in their business, their growth rates will generally increase.

Q. Does Dr. Porter agree with the 0.81 beta you used in your CAPM analysis?

A. No. On page 20 of his testimony, Dr. Porter states:

> In Dr. Vander Weide's application of the CAPM model beta is estimated as the average beta for the proxy group. This value is 0.81. This is significantly higher than the beta for all utilities.

Q. Do you agree with Dr. Porter's claim that the 0.81 beta you used in your CAPM analysis is "significantly higher than the beta for all utilities"?

A. No. My 0.81 beta was the average beta for my proxy companies at the time of my testimony, as reported by Value Line. Value Line's current beta for these companies has increased to 0.83.

Q. Do you agree with Dr. Porter's criticism that your use of arithmetic mean data rather than geometric mean data biased your results upward?

A. No. As I have discussed at length in my direct and rebuttal testimony, the arithmetic mean data is the correct data for use in estimating the cost of equity. As Ibbotson Associates explain clearly in their yearbooks, geometric mean data will underestimate future expected returns.

Q. Why did you use forecasted interest rates in your cost of equity studies?

A. I used forecasted interest rates because PEF is using a 2006 test year in this proceeding. My forecasted interest rates apply to the year 2006.

IV. REBUTTAL OF MR. STEWART

Q. Is Mr. Stewart presenting himself as a cost of capital expert in this proceeding?

A. No. On page 4 of his testimony, Mr. Stewart states:

> I do not consider myself to be an expert on either cost of capital or return on equity matters, and I am not offering an opinion on what the current required ROE is.

Q. Does Mr. Stewart nonetheless present evidence on what he considers to be the maximum allowed ROE in this proceeding?

A. Yes, he does.

Q. What evidence does Mr. Stewart present?

A. Mr. Stewart presents evidence on what he believes the Commission would allow PEF based on previous ROE decisions and the statistical relationship between average allowed rates of return on equity and average public utility bond yields since 1980.

Q. What relationship does Mr. Stewart find between average allowed rates of return on equity and average public utility bond yields?

A. Mr. Stewart finds that the allowed rate of return on equity can be predicted from the equation:

$$AROEE = 7.0766 + 0.578 \times (APUBY)$$

Where:

AROEE	=	allowed rate of return on equity
7.0766, 0.578	=	regression coefficients
APUBY	=	average utility bond yield

Q. What forecast allowed rate of return on equity does Mr. Stewart obtain from his regression analysis?

A. Mr. Stewart obtains a forecast allowed rate of return on equity of 10.4 percent based on an estimated bond yield of 5.8 percent.

Q. Do you agree with Mr. Stewart's cost of equity analysis?

A. No. First, Mr. Stewart's analysis is not really a cost of equity analysis. Rather, it is a prediction of what the Commission might authorize based on the relationship between previous authorized rates of return on equity and average public utility bond yields over the last 25 years. Second, the Commission is obligated to determine the allowed rate of return on equity in this proceeding based on the evidence presented in this proceeding. The evidence presented in my testimony indicates that the allowed rate of return should be significantly higher than the number produced from Mr. Stewart's regression analysis. Third, to obtain an authorized rate of return for a 2006 test year, Mr. Stewart should have used the forecasted interest rate for that time period.

Q. What cost of equity would Mr. Stewart have obtained if he had used a forecasted interest rate to determine the predicted allowed rate of return?

A. Mr. Stewart would have obtained a predicted allowed rate of return equal to 11.04 percent. This result is similar to the result I present in my rebuttal of Mr. Gorman's risk premium analysis, which was also based on the relationship between allowed rates of return and interest rates.

Q. Does this conclude your rebuttal testimony?

A. Yes, it does.

STATE OF FLORIDA)

: CERTIFICATE OF REPORTER

COUNTY OF LEON)

I, JANE FAUROT, RPR, Chief, Office of Hearing Reporter Services, FPSC Division of Commission Clerk and Administrative Services, do hereby certify that the foregoing prefiled testimony was assembled under my direct supervision.

I FURTHER CERTIFY that I am not a relative, employee, attorney or counsel of any of the parties, nor am I a relative or employee of any of the parties' attorney or counsel connected with the action, nor am I financially interested in the action.

DATED THIS 12th day of September, 2005.

JANE FAUROT, RPR
Official FPSC Hearings Reporter
FPSC Division of Commission Clerk and
Administrative Services
(850) 413-6732