

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition for increase in rates by
Progress Energy Florida, Inc.

DOCKET NO. 090079-EI

Submitted for filing: August 31, 2009

**REBUTTAL TESTIMONY OF
EARL M. ROBINSON
ON BEHALF OF
PROGRESS ENERGY FLORIDA**

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FPSC-COMMISSION CLEAR

**In re: Petition for rate increase by Progress Energy Florida, Inc.
Docket No. 090079-EI**

REBUTTAL TESTIMONY OF EARL M. ROBINSON

1 **I. INTRODUCTION AND PURPOSE**

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

3 A. My name is Earl M. Robinson and my business address is AUS Consultants, 792
4 Old Highway 66, Suite 200, Tijeras, New Mexico 87059.

5
6 **Q. ARE YOU THE SAME EARL M. ROBINSON THAT PREPARED THE
7 DEPRECIATION STUDY FILED IN THIS PROCEEDING?**

8 A. Yes, I prepared the depreciation study for Progress Energy Florida, Inc. ("PEF" or
9 the "Company") and it is an exhibit to my direct testimony, Exhibit No. ___ (EMR-
10 2).

11
12 **Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?**

13 A. The purpose of my rebuttal testimony is to address the positions taken and
14 criticisms made by the Office of Public Counsel ("OPC") witness, Jacob Pous,
15 with respect to the Company's Depreciation Study. In addition, I will address
16 comments and positions taken by Mr. Jeffry Pollock on behalf of The Florida
17 Industrial Power Users Group ("FIPUG") with respect to the Company's
18 Depreciation Study.

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Q. WHAT ARE THEIR POSITIONS AND CRITICISMS?

A. Mr. Pous and Mr. Pollock assert the following positions or criticisms regarding the Company's proposed depreciation rates and methodology included in my study:

1. Both Mr. Pous and Mr. Pollock criticize the use of the industry standard Average Remaining Life depreciation approach to address the variance between the Company's book depreciation reserve and theoretical depreciation reserve. Mr. Pous recommends an amortization of the entire \$646 million variance over four (4) years and return of depreciation expenses paid by customers under prior approved depreciation rates to customers during this self-selected four year period. Mr. Pollock is not willing to go that far; he proposes only a four-year reduction in depreciation expense of \$100 million, but he still proposes to pay existing customers back depreciation expense previously collected under depreciation rates approved by the Florida Public Service Commission ("PSC" or the "Commission").
2. Both Mr. Pous and Mr. Pollock challenge the Company's estimated life spans for certain but not all of the Company's Production Plants as inappropriately low and they recommend different estimated life spans for these production units.
3. Mr. Pous objects to the use of survivor curves for developing production plant interim retirements as cumbersome and inaccurate and instead proposes the use of a simple constant average to define the interim retirement adjustments.
4. Mr. Pous challenges the Company's decommissioning cost approach and estimates in its fossil fuel dismantlement study.
5. Finally, Mr. Pous disagrees with the average service life parameters for only

1 two (2) of the Federal Energy Regulatory Commission (FERC) property accounts
2 in the Depreciation Study and he disagrees with the net salvage factors proposed
3 for fifteen (15) of the FERC property accounts.

4 My rebuttal testimony will address the positions and criticisms identified in
5 items 1, 2, 3, and 5 above. Mr. Will Garrett and Mr. Ben Crisp will also address
6 the interveners' positions and criticisms in items 1 and 2 above, respectively. Mr.
7 Jeff Kopp will respond to the criticisms of the Company's fossil dismantlement
8 study in item 4 above. Mr. Michael Vilbert will address the overall financial
9 implications of the interveners' proposals.

10
11 **Q. DO YOU AGREE WITH THE POSITIONS AND CRITICISMS OF THE**
12 **INTERVENER WITNESSES?**

13 A. No, I do not.

14
15 **Q. DO YOU HAVE ANY EXHIBITS TO YOUR REBUTTAL TESTIMONY?**

16 A. Yes, I have prepared or supervised the preparation of the following rebuttal
17 exhibits:

- 18 ● Exhibit No. ___ (EMR-3), Comparison of Life Span Property With a Iowa 10-R2
19 Survivor Curve Versus an Interim Retirement Rate of 2%;
- 20 ● Exhibit No. ___ (EMR-4), excerpt from California PUC, Standard Practice U-4,
21 "Determination of Straight-Line Remaining Life Depreciation Accruals;"
- 22 ● Exhibit No. ___ (EMR-5), 364.00 POLES, TOWER AND FIXTURES, Original
23 and Smooth Survivor Curves;

- 1 • Exhibit No. ____ (EMR-6), 368.00 LINE TRANSFORMERS, Original and Smooth
2 Survivor Curves; and
3 • Exhibit No. ____ (EMR-7), Summary of Net Salvage Factors for selected plant
4 accounts for several Florida operating companies.

5 These exhibits are true and correct.

6

7 **Q. ARE THE DEPRECIATION PROPOSALS SET FORTH IN YOUR**
8 **COMPREHENSIVE DEPRECIATION STUDY FOR THE COMPANY'S**
9 **PLANT IN SERVICE REASONABLE AND APPROPRIATE?**

10 A. Yes. The Company's proposed depreciation rates resulting from an analysis of the
11 Company's property investments as of 12-31-2007 and 12-31-2009 are well
12 founded and fully supported by a detailed analysis of the history of the Company's
13 plant in service and the factors anticipated to impact the Company's property over
14 the remaining lives of the asset groups. The Company's Depreciation Study is
15 consistent with the rules of this Commission and depreciation methods that are
16 generally accepted in the utility industry and by the commissions or boards that
17 regulate the utility industry.

18

19 **Q. WERE YOU DIRECTED TO TARGET ANY PARTICULAR OUTCOME IN**
20 **YOUR DEPRECIATION STUDY?**

21 A. No. The Company's direction to me was to prepare a depreciation study consistent
22 with the Commission's rules and utility depreciation standards and practices. That
23 is what I did when preparing the Company's Depreciation Study.

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II. THE VARIANCE BETWEEN THE THEORETICAL AND BOOK DEPRECIATION RESERVE.

Q. WHAT IS A THEORETICAL DEPRECIATION RESERVE?

A. As implied by the name the theoretical depreciation reserve represents an estimate of the amount of accumulated depreciation that should exist based upon the current estimates of asset lives and salvage values. These estimates are based on the retroactive application of specific depreciation parameters supported in the Company's depreciation studies. The PSC requires, as part of the Company's depreciation study, that this measurement of the theoretical depreciation reserve be prepared and compared to actual accumulated depreciation recorded in the Company's plant continuing property records. When the theoretical reserve is less than the actual accumulated reserves there is a theoretical surplus. The opposite is true if the theoretical reserve is higher than the recorded balances, there is a theoretical deficit. Again, it is important to understand that this estimated reserve is called a theoretical reserve for good reason, as it is not based upon actual recorded levels of depreciation resulting from the application of depreciation rates approved by the Commission, but the retroactive application of proposed depreciation rates supported by the Company's recently completed depreciation study.

Q: DID YOU PREPARE THIS THEORETICAL RESERVE COMPARISON IN YOUR CURRENT DEPRECIATION STUDY?

A: Yes I did.

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Q: WHAT IS INVOLVED IN THE DETERMINATION AND MEASUREMENT OF THE THEORETICAL RESERVE?

A: The theoretical reserve is the retroactive application of current estimates to historic periods as if these estimates were known when assets were initially placed in service. The process of preparing the theoretical depreciation reserve involves application of the current estimated depreciation parameters (average service lives, Iowa Curves, and future net salvage factors) with the current surviving vintage investment, to identify what level of accrued depreciation theoretically should currently be on the Company's accounting books. The currently 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 for the future.

Q: IS IT COMMON TO HAVE A THEORETICAL RESERVE SURPLUS OR DEFICIT?

A: Yes, since the theoretical reserve calculation assumes that the current depreciation parameters have been utilized since day one of the current plant in service, and clearly this has not been the case, it would be a pure coincidence if the book and theoretical depreciation reserve were ever equal. There will always be a book versus theoretical depreciation reserve variance, since depreciation rates are an estimate, the parameters supporting these rates change over time and are impacted by factors beyond the Company's control. Factors such as operating conditions,

1 environmental impacts, technology changes, obsolescence, to name a few factors,
2 will impact the useful life of the Company's assets. The existence of a reserve
3 surplus or deficit does not reflect errors, but a change in the perception of the future
4 based on the best available information. Indeed, the simple change of depreciation
5 parameters from one depreciation study to another causes the variance to swing by
6 greater or lesser amounts. This is why it is prudent and appropriate to do periodic
7 depreciation studies as required by this Commission to validate these future
8 expectations.

9
10 **Q. WHAT IS THE PURPOSE OF THE THEORETICAL RESERVE**
11 **CALCULATION?**

12 **A.** The Commission rule does not provide the reason for performing the calculation
13 but as a matter of depreciation practice it can be an analytical tool to identify how
14 current events are validating previous projections. Since future events cannot be
15 predicted with certainty the potential for unforeseen events exists, such as climate
16 legislation impacts on fossil plant lives, catastrophic hurricanes, technological
17 changes or other factors that could impact plant retirements and salvage
18 assumptions. Through the use of the theoretical reserve the impacts of these
19 impacts can be assessed as they are incorporated in future expectations and specific
20 depreciation parameters. An additional analytical benefit of the theoretical reserve
21 calculation can be to identify potential material errors resulting from the
22 misapplication of depreciation rates, accounting errors, or other unforeseen
23 mistakes.

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Q. IS THE BOOK VERSUS THEORETICAL RESERVE VARIANCE THE PRODUCT OF IMPROPER DEPRECIATION RATES BEING USED OR OTHER ERRORS BY THE COMPANY?

A. No. The existence of the reserve variance for PEF is not the result of errors, rather, it reflects changes in the perception of the future based on the best information currently available. The level of annual depreciation rates utilized by the Company to record depreciation in prior years has been investigated and approved by the Florida PSC. Furthermore, the useful average service lives and net salvage percent vary over time and therefore require modifications from one depreciation study to the next. Because changes in depreciation parameters occur over time, the resulting level of the theoretical depreciation reserve variance increases or decreases with each calculation. This is exactly why the Commission requires that depreciation studies be performed on a regular basis. The required depreciation studies and resulting depreciation rates are then reviewed and approved by the Commission.

Q. DO MR. POUS OR MR. POLLOCK CLAIM THAT THE RESERVE VARIANCE RESULTS FROM AN ERROR OR IMPROPER DEPRECIATION RATES?

A. No, they do not. I can find no reference in their testimony that indicates that the reserve variance is the result of misapplication of approved depreciation rates, or accounting errors. This is consistent with my findings as well.

1 **Q. WHAT ARE THE REASONS FOR THE CURRENT VARIANCE**
2 **BETWEEN THE THEORETICAL AND BOOK DEPRECIATION**
3 **RESERVE?**

4 A. Approximately, seventy (70) percent of the calculated theoretical reserve variance
5 to the book depreciation reserve arises in the Company's production plant accounts
6 involving the Company's power plants. The significant drivers here are the
7 extension of production plant service lives. For example, the Company increased
8 the service lives for its Anclote oil-fired steam plant and its Crystal River Units 1
9 and 2 coal-fired plants by several years and significantly extended the service lives
10 for its coal-fired steam plants at Crystal River Units 4 and 5 by fourteen years since
11 its last depreciation study. Mr. Crisp and Mr. Garrett both sponsor rebuttal
12 testimony that discusses these asset service lives and the impacts of their extended
13 service lives, respectively. Generally, these extended service lives drive the
14 calculated theoretical to book variance up because the theoretical reserve
15 calculation assumes the proposed life extension assumptions for these generation
16 units were known and factored into the depreciation rates the day these generation
17 units became operational. That assumption, of course, is false, but it is a necessary
18 assumption to perform the theoretical reserve calculation. When service lives are
19 extended, as was the case in the Company's depreciation study, there is now a
20 longer period of time to collect these production account balances than before, so
21 the proposed depreciation rates upon which the theoretical reserve is calculated
22 will, all else being equal, be lower than the current rates upon which the book
23 reserve is calculated. Under the incorrect theoretical reserve calculation

1 assumption, that calculation is made over the entire operational life of the
2 production assets, and the result is a variance where the book depreciation reserve
3 exceeds the theoretical reserve.
4

5 **Q: Can you provide an example of the impact of the longer estimated service lives**
6 **for PEF's production plant assets?**

7 A: Yes. A deeper review of the genesis of much of the depreciation reserve variance
8 within the Production Plants occurred during the 12-31-05 calculation (as opposed
9 to the completion of earlier depreciation studies) as a result of the anticipated life
10 extension of the Company's Crystal River Unit #3 Nuclear Generating Plant (CR3).
11 That anticipated life extension changed the estimated service life for CR3 from 40
12 to 60 years. As a result, in the 12-31-05 calculation in the Company's prior
13 depreciation study, the costs associated with this unit were spread out over a 60-
14 year rather than a 40-year recovery period, driving down the rate of recovery, and
15 driving up the variance of the book depreciation reserve compared to the calculated
16 theoretical reserve. This does not mean that customers prior to this change in
17 estimate paid more than they should have paid in depreciation expense for this
18 production asset. At the time, the estimated service of life of 40 years was the best
19 estimate based on currently available information. Indeed, the prior depreciation
20 rates incorporating that 40-year service life for CR3 were approved by the PSC.

21 Based on new information and additional experience operating the unit, the
22 Company elected to extend the service life of CR3 at the time of the 12-31-05
23 calculation for my prior study. Notably, while the Company anticipates receiving

1 approval for the CR3 life extension, no formal action has yet be taken by the
2 Nuclear Regulatory Commission (NRC), nor is it a certainty that the approval will
3 be received. The Company's customers, however, are receiving the benefit of that
4 life extension now (and since 2005) in the form of the lower rate impact the service
5 life extension has on depreciation rates. To the extent that NRC approval is not
6 received, a sizable portion of the reserve variance will instantaneously disappear.
7 Furthermore, assuming the life extension is granted, there is no assurance that the
8 plant will operate the full additional period of years. It may simply become
9 uneconomical to make additional required investment nearer to the anticipated end
10 of life. If the plant does not operate the full additional period portions of the
11 perceived reserve variance will disappear. In fact, just the opposite—an under
12 recovery may occur.

13 Also, to attain the full additional life of the anticipated life extension of
14 CR3, the Company will need to add a considerable level of additional investment
15 that ultimately will need to be recovered over a shorter time period compared to the
16 original life span of the generating facilities. Accordingly, it would be imprudent
17 to rapidly adjust the Company's book depreciation reserve downward, only to then
18 need to reverse the level of capital recovery for the significant level of new
19 investments.

20
21 **Q: Have there been production life changes other than CR3 that have impacted**
22 **the theoretical reserve?**

23 **A:** Yes, in addition to the impact on the depreciation reserve variance as a result of the

1 extension of the service life for CR3 for the prior depreciation study, similar further
2 production plant life changes occurred in the current depreciation study. For
3 example, within Steam Production as I note above, the probable year of retirement
4 and resulting average service life for Anclote was extended 3 years from 2019 to
5 2022, CR units # 1 & 2 were extended two years from 2018 to 2020, and CR units
6 # 4 & 5 were extended 14 years from 2021 to 2035.

7 In addition to Steam plant, the probable year of retirement and related lives
8 for various of the Company's Other Production plants were also extended by the
9 Company in the current depreciation study. Those changes in estimated service
10 lives include: (1) Bartow Peakers, which were extended 11 years from 2016 to
11 2027; (2) Bayboro, which was extended 12 years from 2017 to 2029; (3)
12 Intercession City units # 1-6, which were extended 1 year from 2019 to 2020; (4)
13 Intercession City units # 12-14, which were extended 9 years from 2027 to 2036;
14 (5) Intercession City units # 7-10, which were extended 7 years from 2024 to 2031;
15 (6) Suwannee, which was extended 6 years from 2018 to 2024; (7) Tiger Bay,
16 which was extended 13 years from 2025 to 2038; (8) Turner units 3&4, which were
17 extended 3 years from 2017 to 2020; and (9) the University of Florida unit, which
18 was extended 17 years from 2016 to 2033. The extension of the lives for each of
19 these facilities immediately resulted in an increase in the variance between the
20 theoretical and book depreciation reserve.

21
22 **Q. Do witnesses Pous, Pollock, or Lawton consider the reasons for the variance**
23 **between the theoretical and book depreciation reserve before making their**

1 **recommendations?**

2 A. No, they do not. Mr. Pous does acknowledge at page 30 of his testimony that the
3 nature of the theoretical reserve variance is nothing more than a calculated variance
4 at a single point in time and that it assumes the proposed depreciation parameters
5 “had been applied from the outset,” which, of course, is not true. (Pous Test., p.
6 30, L. 7-11). Given the fact that the theoretical calculation by its very nature
7 applies proposed depreciation parameters retroactively to the period “from the
8 outset” of the plant lives and therefore calls into question the prior-approved
9 depreciation rates that were in effect over that prior period, the Commission should
10 not base Commission policy affecting the Company’s capital recovery and
11 customer rates without a full and clear understanding of the reasons for the changes
12 in the depreciation parameters within the study. Mr. Pous pays lip service to the
13 matching principle in utility rates, which matches customer payments for cost of
14 service for plant assets with the period of time those assets are providing electric
15 service for customers. (Pous Test., p. 30, L. 24-25). If he (or Mr. Lawton and Mr.
16 Pollock) had even bothered to determine the primary drivers for the variance
17 between the calculated theoretical and book depreciation reserve in this proceeding
18 they would have recognized the variance largely arises from the extension of
19 production plant asset service lives. As a result, the use of the Average Remaining
20 Life Depreciation Technique is the most appropriate approach to address the
21 reserve variances in PEF’s case because it appropriately matches the costs
22 customers pay for service to the remaining life of PEF’s assets over the extended
23 service lives that are now included in the depreciation rate estimates.

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Q. HOW DO YOU ADDRESS THE RESERVE VARIANCE IN YOUR STUDY?

A: 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. ARL has been the historical basis of the Company’s depreciation rates for many years. Indeed, the standard and normal treatment of the depreciation reserve variance in the utility industry is to recover the amount over the average remaining life of the Company’s property. Mr. Pous calls this “business as usual,” (Pous Test., p. 34, L. 9-12), but it is business as usual precisely because it is the industry standard method, as Mr. Pous himself acknowledges, stating that “[w]hen reserve imbalances occur, they are normally treated through the remaining life process.” (Pous Test., p. 35, L. 23-24). It is my experience that the use of the ARL depreciation technique is widely recognized as the preferred method to address reserve imbalances. Likewise, the Florida PSC has supported the use of ARL depreciation rates for the recovery of utility property under its jurisdiction.

Q: DOES THE APPLICATION OF THE ARL DEPRECIATION METHODOLOGY ADDRESS THE CALCULATED THEORETICAL RESERVE “SURPLUS”?

A: Yes. The use of Average Remaining Life depreciation rates to true-up the book versus theoretical depreciation reserve variance works. Let’s look at the results in the Company’s case comparing the current depreciation study to the Company’s

1 prior depreciation study. The book versus theoretical depreciation reserve variance
2 based upon December 31, 2009 proforma plant as set forth on Table 5-F, page 2-
3 79, of Section 2 of the depreciation report totals approximately \$646 million. The
4 same theoretical reserve calculation as of December 31, 2005 (during the prior rate
5 case) produced a book versus theoretical depreciation reserve variance of \$754
6 million. Accordingly, the book versus theoretical depreciation reserve variance has
7 declined by \$108 million, or 14 plus percent during the four short years since the
8 Company's last depreciation study.

9 This reduction of the depreciation reserve variance occurred despite the fact
10 that the underlying average service lives for various Distribution Plant accounts
11 were lengthened, and the future negative net salvage for several distribution
12 account were lowered compared to the underlying depreciation parameters in the
13 prior study, which resulted in the reserve variance for Distribution function
14 increasing. Similar circumstances affected the generation property in a Production
15 function as well. Had these changes in estimates not occurred the overall variance
16 between the book versus theoretical depreciation reserve would have declined even
17 more.

18 These impacts are offset against the depreciation reserve variance decline
19 for (1) Steam Production plant of \$85 million, or 32% from the level as of
20 December 31, 2005, (2) Nuclear Production plant of \$66 million or, a 29% decline,
21 and (3) Transmission Plant of \$101 million, or a 64% decline. The reserve
22 variance for Other Production and General Plant remained relatively similar
23 between the two study dates. Further, as noted earlier, the inclusion of production

1 life extensions into depreciation estimates results in the theoretical depreciation
2 reserve declining and the book depreciation variance over the theoretical reserve
3 increasing. Despite this impact from the increases in production unit service lives
4 by the Company, resulting depreciation reserve variance actually still decreased
5 between the two depreciation studies. This clearly indicates that application of the
6 ARL depreciation rates is closing the gap between the theoretical and book
7 depreciation reserve.

8
9 **Q. BUT MR. POUS CLAIMS ON PAGE 39 OF HIS TESTIMONY THAT THE**
10 **LEVEL OF THE DEPRECIATION RESERVE VARIANCE IDENTIFIED**
11 **BY THE COMPANY IS INCREASING. IS HE RIGHT?**

12 **A.** No. Mr. Pous' statement that the level of depreciation reserve variance identified
13 by the Company is increasing is incorrect. As I just explained, the level of the
14 book-to- theoretical depreciation reserve variance as of the proforma December 31,
15 2005 date was \$754 million while the book-to-theoretical depreciation reserve
16 variance as of the similar proforma December 31, 2009 date in the current study is
17 \$646 million, demonstrating that there is a reduction in the reserve variance of
18 \$108 million. This level of reduction in the depreciation reserve variance occurred
19 in spite of the fact that the average service life parameters for various generation
20 and distribution plant accounts were lengthened from the prior study and the
21 estimated negative net salvage factors were reduced for several distribution
22 accounts from that contained in the prior depreciation study. Such depreciation
23 parameter changes to the referenced accounts resulted in a decrease in the

1 theoretical depreciation reserve and a corresponding increase in the referenced
2 book versus theoretical depreciation reserve variance.

3
4 **Q. MR. POUS ALSO CLAIMS ON PAGE 34 OF HIS TESTIMONY THAT “IN**
5 **OTHER CASES, UTILITIES NORMALLY PERFORM FREQUENT**
6 **DEPRECIATION STUDIES AND IMPLEMENT CORRECTIVE**
7 **MEASURES SO AS NOT TO GET TOO FAR OUT OF LINE WITH**
8 **CURRENT DEPRECIATION EXPECTATIONS.” DO YOU AGREE?**

9 A. Mr. Pous does not cite what cases, proceedings, or utilities he is referring to in this
10 statement, nor does he provide any explanation of what “corrective measures” such
11 unknown companies implement. The use of the ARL depreciation technique,
12 however, is widely utilized and supported for developing depreciation rates
13 throughout the utility industry and with regulators. The ARL technique
14 automatically adjusts a company’s book depreciation reserve for positive or
15 negative variances due to the fact that the basic premise of the technique is to
16 recover the current un-recovered cost over the average remaining life of the
17 applicable property group. I am personally unaware of Mr. Pous’ referenced
18 “corrective actions,” other than the use of the ARL technique.

19
20 **Q. WHY DO MR. POUS AND MR. POLLOCK CLAIM THE THEORETICAL**
21 **TO BOOK VARIANCE SHOULD BE ADDRESSED IMMEDIATELY?**

22 A. Mr. Pous and Mr. Pollock assert that the reserve variance is material or significant
23 but they never define what a material or significant reserve variance is. They also

1 provide no industry standard definition of a material depreciation reserve variance
2 and I am aware of none. Clearly, the variance cannot be considered significant or
3 material simply in terms of an absolute dollar amount. That is, a \$500 million
4 dollar variance for a Company with a \$500 million book depreciation reserve is a
5 totally different relationship than for a Company that has a \$3 billion book
6 depreciation reserve. In fact, it is not at all uncommon for companies to have book
7 versus theoretical depreciation reserve variances of 10 to 15 percent. The
8 Company's current proforma book versus theoretical depreciation reserve variance
9 as of 12-31-09 is approximately 14.7% and declining. In fact, the level of the
10 Company's depreciation reserve variance has declined by approximately 15 percent
11 during the 4 year period between the current and prior depreciation study. I do not
12 consider this reserve variance material and it certainly does not warrant such a
13 radical reduction in actual book reserves.

14 The intervener witnesses also claim that the ARL-based rates proposed by
15 the Company to address (automatically) any reserve variance are inequitable or
16 cause intergenerational inequity. This is simply not true. There is no
17 intergenerational inequity. The continued use of the long-approved and used ARL-
18 based depreciation rates will provide full recovery of the Company's total plant in
19 service investment cost over the average remaining life. That means customers will
20 be paying rates for service for the period of time the plant assets are providing
21 customers the electric service that they are paying for. That is not an inequitable
22 situation, it is an equitable one; they are paying for exactly what they are getting in
23 terms of electric service.

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Q. WHAT ABOUT MR. POUS' ASSERTION ON PAGES 40 AND 41 OF HIS TESTIMONY THAT "CUSTOMERS NEARER THE END OF THE USEFUL LIFE OF AN INVESTMENT PAY MUCH LESS FOR SERVICE THAN DO CUSTOMERS AT THE BEGINNING OF THE USEFUL LIFE"? IS HE CORRECT?

A. No. Mr. Pous' statement is incorrect and misleading. In the context of the return on rate base, the absolute level of return on a depreciated investment would be lower and produce a lower return component at the end of asset life compared to the level at the beginning of the asset investment life. But this is not true on a per customer level basis. Given the loss of utility as property ages, is consumed, and nears the end of life it cannot provide the same utility it did when the property was brand new. Under a fixed period customer service model, one needs to consider that as the utility of property declines over time there would be an equal decline in the number of customers served. Hence, if a correlation is recognized relative to loss of utility and loss of customers the cost per customer throughout the life of the property would remain relatively constant because the lower net cost of the investment and fewer customers served would equal out. Conversely, within the real operating world where customers routinely increase over time, the operating company needs to continue adding additional new plant at ever increasing higher cost.

Q. PLEASE COMMENT ON THE INTERVENERS' PROPOSAL TO

1 **AMORTIZE THE BOOK VERSUS THEORETICAL DEPRECIATION**
2 **RESERVE VARIANCE OVER A PERIOD SUBSTANTIALLY LESS THAN**
3 **THE ARL.**

4 A. Mr. Pous is proposing to amortize the book versus theoretical depreciation reserve
5 variance of \$646 million over an extremely short four (4) year period. Mr. Pollock
6 is proposing an accelerated adjustment to the Company's annual depreciation rates
7 and expense for a perceived "excess" depreciated reserve variance as well. He
8 recommends a \$100 million reduction to the Company's annual depreciation
9 expense for a term of three (3) years. In addition to the Company's calculation of
10 the \$646 million depreciation reserve variance, Mr. Pous has proposed alternative
11 depreciation parameters and calculated an additional \$212 million of depreciation
12 reserve variance. Mr. Pous then opines "In order to remain conservative, I
13 recommend returning the Company identified \$646 million amount over a 4-year
14 period." That recommendation is anything but conservative, as Company
15 witnesses Vilbert and Garrett address, because such adjustments represent an
16 unsustainable rate reduction that has far reaching financial and customer impacts.

17
18 **Q: WHAT ARE YOUR SPECIFIC CONCERNS WITH THESE PROPOSALS?**

19 A: First, Mr. Pous and Mr Pollack provide no rational or meaningful basis for their
20 extremely short amortization periods. In fact, Mr. Pous acknowledges that ARL
21 depreciation works appropriately to adjust depreciation variances over time. He
22 uses the ARL to incorporate the additional \$212 million of alleged reserve variance
23 that he calculated into his calculations of alternative ARL depreciation rates.

1 Obviously, then, Mr. Pous is acknowledging that the ARL will effectively provide
2 recovery of this claimed excess reserve variance over the Company's calculated
3 variance without harming customers.

4 Next, the occurrence of the existing depreciation reserve variance was not
5 the result of depreciation estimates applied over the past three to four years. The
6 theoretical reserve variance calculation is premised on the false assumption that the
7 proposed depreciation parameters have always been used as the basis of the
8 Company calculation of depreciation expense. That means the entire historical
9 time period contributes to the calculated reserve variance and, therefore, the
10 intervener witnesses cannot pretend that they are merely correcting changes in
11 estimates between depreciation studies. Even so, the proposed 3 to 4 year
12 amortization periods would be retroactive rate making even if applied only to the
13 period from the last study to this one, because existing depreciation rates were
14 approved by the Commission. But certainly their amortization proposals are
15 nothing more than retroactive ratemaking when one considers that the calculated
16 theoretical reserve variance includes the entire historical time period.

17 Any attempt to change past depreciation parameters using information only
18 known during more recent periods is improperly applying depreciation rates
19 retroactively. In fact, a sizable portion of the variance, as previously discussed,
20 occurred simply due to changes in depreciation parameters between depreciation
21 studies due to the extension of production lives (e.g. the extension of the life of the
22 Company's CR3 Nuclear Plant). These service life extensions were only
23 determined to be appropriate in the current period based on the information and

1 experience the Company now has with these production assets. The depreciation
2 reserve variance is never a stationary amount — it always changes from study to
3 study depending upon factors such as variations in Company plant activity and
4 changes in depreciation parameter estimates. The intervener witness
5 recommendations will put the Commission on a path of constantly over-correcting
6 rates based on a calculation built on a false assumption when the ARL
7 automatically adjusts rates to conform to the new depreciation parameter estimates.
8 Indeed, Mr. Pous' proposal to flow back (return) the Company's calculated \$646
9 million depreciation reserve variance over 4 years (via reduced depreciation rates
10 and expense) presumes that "absolutely no reserve variance should exist." Such an
11 occurrence of a zero depreciation reserve variance is essentially an absolute
12 impossibility.

13
14 **Q: Do the intervener witnesses reflect the full impacts of the proposed reduction**
15 **of accumulated depreciation reserves in their proposed depreciation rates?**

16 **A:** No. Mr. Pous and Mr. Pollock do not reflect in their proposed depreciation rates the
17 impact of lowering book depreciation reserves by \$646 million and \$300 million
18 respectively. They propose changes to depreciation parameters with prospective
19 depreciation rates computed without any consideration for the increase in net plant
20 balances that will result from their proposals. Their proposals would result in
21 significant unrecovered plant balances for future customers to pay and that result is
22 not in the long term interest of customers.

23

1 Q: Can you illustrate this for the Commission?

2 A: Yes, Rule 25-6.0436 states that the ARL formula as follows:

$$\text{“Remaining Life Rate} = \frac{100\% - \text{Reserve \%} - \text{Future Net Salvage \%}}{\text{Avg. Remaining Life in Years}}$$

5 I will assume a \$100,000 asset that has no future net salvage but has \$60,000 (or
6 60%) in accumulated depreciation reserves with a 25 average remaining life in
7 years. Using the remaining life formula the composite depreciation rate would be:

$$1.6\% = \frac{100\% - 60\% - 0\%}{25 \text{ yrs}}$$

10 The 1.6% of \$100,000 for 25 years recovers the \$40,000 net book value.

11 Now, if I were to determine that a theoretical surplus reserve for this account
12 existed of \$40,000 (40%), and I reflected that reduction in lower depreciation
13 expense in order to lower revenue requirements, the adjusted depreciation rate
14 would be as follows:

$$3.2\% = \frac{100\% - 60\% + 40\% - 0\%}{25 \text{ yrs}}$$

17 The 3.2% of \$100,000 over 25 years recovers the new net book value of \$80,000.

18
19 The depreciation rate prospectively would need to be adjusted upward to fully
20 recover the net asset in this example. In other words the current proposed
21 depreciation rate of 1.6% which is intended to fully recover the net plant cost of
22 \$40,000 (\$100,000 less \$60,000 accumulated depreciation recoveries to date less 0
23 negative salvage), would have to double as future customers pay the net plant costs

1 of \$80,000 (\$100,000 original cost less \$60,000 accumulated depreciation
2 recoveries plus the \$40,000 reduction in book depreciation reserves plus 0 negative
3 salvage).

4 As this example illustrates, Mr Pous' and Mr Pollock's proposals will lead
5 to higher levels of depreciation expense needed in the future to recover
6 unsustainable short term reductions in depreciation expense and revenue
7 requirements.

8
9 **Q. MR. POUS CLAIMS SEVERAL COMMISSION ORDERS SUPPORT HIS**
10 **PROPOSAL TO AMORTIZE THE BOOK VERSUS THEORETICAL**
11 **DEPRECIATION RESERVE VARIANCE OVER A PERIOD SHORTER**
12 **THAN AVERAGE REMAINING LIFE. DO YOU AGREE?**

13 A. No, I do not. First though, let me be clear, I am not aware of any Commission
14 action, whether here in Florida or in any cases I have had direct involvement in,
15 that have adopted such a radical accelerated amortization of alleged depreciation
16 reserve surpluses. In general, when Commissions have strayed from the ARL
17 approach it has been in settlements or, as I will point out later, to address specific
18 unrecovered costs.

19 Mr. Pous does cite several prior cases that allegedly support his proposed
20 return of the depreciation reserve variance through reduced depreciation rates and
21 expense. Mr. Pous does not explain what these orders actually say so we cannot
22 tell from his testimony what the Commission's actions were in the referenced
23 dockets or why the Commission took those actions. He implies that the facts and

1 circumstances were the same as PEF's circumstances and that they support his
2 proposal. Having now reviewed the orders cited by Mr. Pous, he is wrong.

3 Essentially, the cited orders are simply related to reserve transfers between
4 plant functions and/or plant accounts or recovery schedules for specific, unique
5 property items, such as PCB contaminated equipment. The only cited case, in
6 which a five year amortization schedule was referenced, was the General
7 Telephone Company of Florida case (Docket NO. 840049-TL; Order No. 14929) in
8 which the Commission ordered a five (5) year amortization of un-recovered costs
9 relative to obsolete telecommunications equipment. None of the circumstances
10 within the cited orders are applicable to Mr. Pous' recommendation to amortize a
11 calculated book versus theoretical reserve variance for the entire plant in service
12 (part or all of which simply could go away in future studies) over a short period of
13 4 years. Mr. Pous misrepresents the content and context of the orders he cites.
14 They do not support his recommended radical departure from the ARL.

15 The circumstances facing the regulated telephone industry were certainly
16 unique and are not circumstances that face the regulated electric utility industry in
17 Florida. The Commission was addressing obsolete equipment subject to current
18 and/or rapid retirement due to rapidly changing technology and competition in the
19 industry. The Commission was concerned with the recovery of costs for property
20 no longer providing any service to the utility's customers. Adjustments for the
21 recovery of obsolete equipment are not in any way comparable to a normal book
22 versus theoretical depreciation reserve variance. With regard to the Company's
23 normal reserve variance the property will continue to provide customer service for

1 many years.

2 Reserve transfers have absolutely no relevance to the current proceeding
3 because they are simply the movement of dollars from one account balance to
4 another account. Indeed, this is in fact what was accomplished in the order Mr.
5 Pous cites for the proposition that the Commission (the Commission Staff actually
6 in that case), has expressed that “[the deficit] should be written off as quickly as
7 possible.” The Commission approved reserve transfers between accounts to write
8 off reserve deficits against reserve surpluses but the Commission did not authorize
9 re-stating the book depreciation reserve by amortizing the reserve variance like the
10 interveners propose. Rather, the Commission authorized the use of the ARL
11 methodology exactly as I have proposed in the Company’s current depreciation
12 study. None of the orders that the intervener witnesses cite involve the approval of
13 a proposal like the one that they recommend. I would not expect to find such a
14 radical departure from the ARL methodology by the Commission or any other
15 regulatory commission that has adopted the ARL methodology for that matter.
16 From what I have read the Commission has supported and continues to support
17 application of the ARL method just as I have proposed in the Company’s
18 depreciation study.

19
20 **III. PRODUCTION ASSET SERVICE LIVES.**

21 **Q. DO YOU AGREE WITH MR. POUS’ ASSERTIONS THAT CERTAIN LIFE**
22 **SPANS USED IN THE DEVELOPMENT OF DEPRECIATION RATES FOR**
23 **THE COMPANY’S PRODUCTION PLANT PROPERTY GROUPS WERE**

1 **ARTIFICIALLY SHORT?**

2 A. No. The Company's service lives for its coal-fired, steam-fired, and combined
3 cycle units were determined by the Company based on the Company's experience
4 with and plans for the operation of these units to meet the Company's unique load
5 demands under the circumstances and conditions that the Company face. These
6 circumstances and conditions that led the Company to identify the service lives for
7 its unique generation units on its system are explained in the testimony of Company
8 witness Ben Crisp.

9 In the course of preparing the Company's depreciation study I discussed the
10 service lives for the Company's production plant assets with the Company's
11 resource planning group and reviewed material that they provided. I also visited
12 the Company and toured representative generation facilities containing production
13 plant assets to observe field operations and obtain local operating input during the
14 site tours. Mr. Pous and Mr. Pollock, to my knowledge, have not visited the
15 Company's generation facilities nor have they considered the operational,
16 environmental, and regulatory conditions in which the Company operates.

17 In my discussions with Company management, they explained the review
18 and analysis of the Company's many operating generating facilities in the course of
19 the Company's resource planning throughout the year. These review and analysis
20 results are in part reflected in the Company's Ten Year Site Plan filed with the
21 Commission each year. In completing the analysis, Company management takes
22 into consideration all known and anticipated factors that currently impact and that
23 will impact each of the operating facilities in the coming years. Such items

1 include, but are not limited to, current plant conditions, fixed and operating costs of
2 the various plants, on-going maintenance costs, the necessity for potential
3 significant plant upgrades and other costs to comply with regulatory requirements,
4 and the cost of new replacement facilities. Based upon such considerations,
5 Company management estimated the terminal dates for each of the individual
6 production plant properties that establish the estimated service lives in the
7 depreciation study. In my professional opinion, management completed a full and
8 thorough investigation of the current and estimated future operations capability of
9 its generating facilities to estimate these service lives.

10
11 **Q. WAS THE PROCESS APPLIED BY THE COMPANY TO DETERMINE ITS**
12 **ESTIMATED SERVICE LIVES CONSISTENT WITH THE PROCESS**
13 **USED BY OTHER UTILITIES IN THE UTILITY INDUSTRY?**

14 **A.** Yes. In my experience, each utility determines its terminal dates for its production
15 plant assets based on the unique operational, environmental, regulatory, and
16 economic circumstances that the utility faces. The process may vary somewhat
17 from utility to utility but they are all making these decisions based on their
18 evaluation of their unique circumstances. This is exactly what I would expect each
19 utility company to do. Simply put, every utility operates their generation units
20 differently to meet their unique load requirements based on the unique nature,
21 condition, vintage, and operating capabilities of the units they have to meet that
22 load under their own regulatory and environmental conditions.

23 Even Mr. Pous and Mr. Pollock do not agree on the recommended service

1 lives for the Company production plant assets they question and they refer to orders
2 or settlements in other proceedings in selected places around the country that
3 demonstrate there is no uniform service life for each of the production plant assets
4 they question. I would not expect there to be and I am aware of no industry-
5 standard service lives for a coal-fired, steam-fired, or combined cycle generation
6 unit that are uniformly used in the utility industry to establish such service lives.

7 The Company's determination of the service lives for its production plant
8 assets was based on the Company's experience and judgment and was the product
9 of an apparent on-going, reasonable internal management resource planning
10 process. I saw no reason for me to substitute my judgment for Company
11 management in the Company's estimated termination dates that were used to
12 determine the service lives for these assets in the Company's depreciation study.
13 Certainly there is no reasoned basis for the Commission to substitute the
14 Company's reasonable judgment based on the anecdotal information provided and
15 generalizations made by the intervener witnesses.

16
17 **IV. INTERIM RETIREMENT RATES & RELATED NET**
18 **SALVAGE.**

19 **Q. WHAT ARE INTERIM RETIRMENTS?**

20 A. Interim retirements are related to components of location properties (e.g. motors,
21 pumps, controls, etc at generating plants) that will not live the full period of time
22 that the overall plant will live. In other words, individual "fixed capital items"
23 within an operating plant require replacement during years throughout the plant's

1 operating life to enable the applicable plant to continue to operate and achieve its
2 anticipated overall useful life. The interim retirements are used together with the
3 Life Span (a.k.a Forecast) Method to calculate the overall average service life of
4 location type properties.

5
6 **Q. WHAT IS MR. POUS' POSITION RELATIVE TO CALCULATING**
7 **INTERIM RETIREMENT RATES?**

8 A. Mr. Pous states that (1) the Company's use of Iowa Survival Curves to identify
9 interim retirement rates for the production plant accounts are inappropriate and
10 cumbersome; (2) the use of a constant interim retirement rate based upon the prior
11 32 years of historical data is a superior approach for estimating future interim
12 retirements; (3) the Company's interim retirement rate estimated for Account 312 is
13 excessive and unrealistic; (4) the Company's interim retirement rate estimated for
14 Account 343 is excessive and unrealistic; and (5) the Company provided estimated
15 interim net salvage percent schedule (calculated based upon historical study year
16 data) must be updated for future test year data. Mr. Pous believes Iowa Survival
17 Curves are inappropriate for Production Plant Accounts because, in his view,
18 Production Plant interim retirements are different and they therefore cannot be
19 correctly analyzed using actuarial analysis. He also claims future interim
20 retirements cannot be estimated using the resulting Iowa Survivor curve estimates.

21
22 **Q. IS MR. POUS CORRECT?**

23 A. No, he is not.

1
2 **Q. CAN YOU EXPLAIN WHAT HIS CONSTANT INTERIM RETIREMENT**
3 **RATE CALCULATION IS?**

4 A. Yes. Mr. Pous used a very simplistic approach to arrive at his incorrect results. He
5 completed his calculation by simply dividing the aggregate amount of interim
6 retirements that occurred during the past 32 years through December 31, 2007 by
7 the plant balance as of December 31, 2007 and then dividing the result by 32 (the
8 number of years of historical interim retirements in the database) to get his average
9 yearly historical interim retirement rate. Even his simplistic calculation is
10 incorrect.

11 To properly calculate the interim retirement rate in such a manner one
12 should calculate the ratio of each individual year's retirements and the then-existing
13 plant in service balance available for retirement and subsequently develop a
14 weighted average of each year's retirement ratio. In dividing the sum of all year's
15 retirements by the current plant balance (the calculation performed by Mr. Pous),
16 one gets a lower retirement ratio than actually occurred because the current plant
17 balance (12-31-07) for each property group is significantly higher than existed
18 during the period of time when the various prior yearly interim retirements
19 occurred.

20 Mr. Pous claims that he "...developed interim retirement ratios for each
21 plant account...". But, as I have demonstrated above, he has not developed interim
22 retirement ratios for each plant account. Instead, he has performed an aggregate
23 calculation of one interim retirement for all Production Accounts.

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Q. DOES MR. POUS' CALCULATION REPRESENT RECENT EXPERIENCE OR WHAT INTERIM RETIREMENT RATES CAN BE ANTICIPATED DURING FUTURE YEARS?

A. No. Mr. Pous' calculated average retirement ratio is backward looking in that it is based upon interim retirements that occurred during the 32-year period prior to December 31, 2007. Mr. Pous' calculation of interim retirement rates gives no consideration to the increasing level of interim retirements that will occur as property continues to age. By performing a calculation that relies solely on data over of 32-year historical period Mr. Pous significantly reduces any consideration of recent interim retirement experience and gives absolutely no consideration to expected future interim retirement events. Factors affecting the Company's operation of its production facilities today and in the future, however, have radically changed since the last few years let alone since a period two to three decades ago. The requirements for the current and future operations of production plants (and current required ongoing upgrades and replacement of plant components), do not in any way resemble what was occurring during these earlier times, especially up to 32 years ago. Mr. Pous' reliance on an alternative constant interim retirement rate, based upon data from decades past, is incorrect and inappropriate. Even Mr. Pous' own cited authority (California PUC U-4, see Exhibit No. ___ (EMR-4)), which he used to support his calculation, indicates that the Company's depreciation approach (and industry standard) for calculating interim retirements for production plant is the "more accurate application."

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Q. WHAT METHOD DID YOU USE TO IDENTIFY THE LEVEL OF FUTURE INTERIM RETIREMENTS THAT THE COMPANY'S PROPERTY WILL EXPERIENCE?

A. I performed an actuarial life analysis to identify the Iowa Curve which best represents the level of interim retirements that are anticipated to occur throughout the remaining life of the studied property groups. The life analysis approach that I used to identify the future interim retirements is widely used by depreciation professional throughout the industry. The exact same process was used in the Company's prior depreciation study that was filed in the Company's last base rate proceeding. Mr. Pous provided testimony in that proceeding too and he did not dispute my calculation of interim retirement rates in the Company's 2005 depreciation study.

Mr. Pous claims the process of using survivor curves to define the interim retirement rate for life span accounts is cumbersome this time around, but I obviously was able to perform the analysis for the Company's 2005 and 2009 depreciation studies. The same approach was also used in the current FP&L depreciation filing. The same approach is also widely used by depreciation professional throughout the utility industry. It is the accepted standard to identify the future interim retirements in completing the depreciation analysis for life span accounts.

Q. WHY IS THE USE OF THE SURVIVOR CURVE ANALYSIS MORE

1 **ACCURATE THAN MR. POUS' APPROACH OF USING A CONSTANT**
2 **INTERIM RETIREMENT RATE?**

3 A. This is best demonstrated using Mr. Pous' own illustration on pages 52 and 53 of
4 his testimony of a car to explain interim retirements. This is an excellent example
5 to see how Mr. Pous' recommended constant interim retirement rate approach is
6 inappropriate and totally incorrect to define the interim retirements that will occur
7 in conjunction with the future life of the Company's Production Plant account
8 investments.

9 Mr. Pous explains that the replacements parts for a car (e.g. battery, tires,
10 alternator) are akin to interim retirements in a life span approach. Everyone
11 recognizes that a new car (absent some unusual circumstance) operates with far
12 fewer replacements (i.e. oil filter, battery, tires, alternator) when it is taken out of
13 the showroom as opposed to later in life. It is also important to note that the
14 replacements (interim retirement items) do not all occur at the same frequency and
15 that the aggregate level of replacement items increase over time. For example,
16 while wiper blades and oil filters would likely need to be replaced early on in the
17 life of the car, followed then by replacement of the tires and battery, the
18 replacement of such items as the alternator, exhaust system, or engine, for example,
19 would likely occur at much less frequency and at later periods of time in the car's
20 life. That is, as the car gets older, the owner will experience the on-going
21 replacement of components with shorter lives, such as the oil filter and wiper
22 blades, along with the replacement of the items that will survive a longer period of
23 time before replacement is necessary, such as the exhaust or fuel system.

1 As this illustration shows, it is simply a matter of fact that interim
2 retirement percentages increase with time. I would challenge anyone to
3 demonstrate that older property experiences the same level of replacements as new
4 property. If that were the case there would be little or no need to replace aged
5 property with new property.

6 Mr. Pous readily acknowledges that components of utility property
7 experience a dispersion pattern with varying levels of increasing retirement ratios
8 over time for mass property accounts, such as transmission poles and distribution
9 poles, but he totally rejects the fact that the same dispersion patterns occur with
10 interim retirements of Life Span-type property. Simply put, however, the same
11 retirement forces affect all types of property.

12 The use of Iowa survivor curves to estimate future interim retirement rates
13 is superior to a constant interim retirement rate because the survivor curve approach
14 gives recognition to the occurrence of increasing levels of interim retirements as
15 property continues to age. Furthermore, the actuarial analysis process specifically
16 identifies the interim retirement survival/retirement pattern. Simple averages of
17 historical data (which Mr. Pous uses to arrive at his constant interim retirement
18 rate) cannot appropriately identify such life patterns.

19 Thus there is absolutely no rational or reasonable basis for using a constant
20 interim retirement rate, when a far superior analysis process (actuarial life analysis
21 and use of Survivor Curves) is available to estimate the future retirements for life
22 span property.

23

1 **Q. CAN YOU DEMONSTRATE THE IMPACT OF MR. POUS' IMPROPER**
2 **ESTIMATE OF FUTURE INTERIM RETIEMENTS AS A RESULT OF**
3 **USING A CONSTANT INTERIM RETIRMENT RATE?**

4 A. Yes, Exhibit No. (EMR-3) to my rebuttal testimony contains a graphical
5 presentation of the impact on service life and average remaining life of using a
6 constant interim retirement rate versus a survival curve. As can readily be seen
7 from the graph, Mr. Pous' use of a simple constant interim retirement rate -- even
8 if it is based upon an analysis of the Company's historical data -- significantly
9 understates the future interim retirements and overstates the average remaining life
10 of the property. Mr. Pous' interim retirement rate approach fails to appropriately
11 estimate future interim retirements because his use of a simple 0.02 (2%) interim
12 retirement rate factor does not recognize that the rate of interim retirements will
13 continue to increase as the property continues to age, just like the replacement
14 items increase as your car gets older.

15 A summary of historical interim retirement amounts understates future
16 interim retirements because the interim retirements that have occurred historically
17 occurred during the period of time when the properties were newer compared to the
18 current age of the property and they therefore experienced fewer retirements. As
19 the properties continue to age increasing levels of retirements will occur. Also
20 during earlier periods of time the Company's Production Plant properties contained
21 fewer facilities that were in service and exposed to retirement compared to today.

22 The completion of the actuarial analysis of the Company's actual
23 experience identifies the survival patterns being experienced by each of the

1 applicable Production Plant property groups. Such an approach is no different than
2 an analysis of all of the Company's remaining property groups (which Mr. Pous
3 readily accepts as the appropriate life analysis approach).
4
5

6 **Q. WHY IS MR. POUS' POSITION THAT THE COMPANY'S ESTIMATED**
7 **INTERIM RETIREMENT RATE FOR ACCOUNT 312-BOILER PLANT**
8 **EQUIPMENT IS EXCESSIVE AND UNREALISTIC INCORRECT?**

9 A. Mr. Pous opines that the interim retirement analysis and related net salvage analysis
10 for Account 312 Boiler Plant causes \$394 million of plant retirements to be
11 estimated over the 20-year remaining life of the property group. For this reason he
12 suggests that the Company's estimated interim retirement rate for this account is
13 unrealistic. Mr. Pous' opinion is incorrect.

14 Mr. Pous supports his incorrect opinion by calculating an average yearly
15 level of retirements over the backward-looking 32-year historical period. He
16 calculates the overall historical yearly average at \$1.8 million. The problem with
17 Mr. Pous' calculation is that the Company is not operating in historical times but
18 must operate its generation units under the conditions that exist today and that will
19 exist in the future. Even in the more recent historical period, just in the past five
20 years prior to the depreciation study however, the Company has experienced more
21 than \$70 million of interim retirements related to Account 312. In addition, during
22 the next two years the Company anticipates booking more than \$70 million of
23 interim retirements. That sum of more than \$140 million of interim retirements

1 which occurred or will occur during the seven year period through year end 2009 is
2 more than 35 percent of the referenced \$394 million of future interim retirements
3 estimated to occur over the remaining life of the property. Given the ever
4 increasing level of government regulation and requirements to improve and
5 enhance the operating facilities to meet air quality standards even greater levels of
6 changes and related interim retirements can be anticipated over the remaining life
7 of the property in comparison to what has occurred in the recent past. My estimate
8 of the future interim retirements rate for Account 312 is clearly representative of
9 what has occurred in the recent past and what can be anticipated to occur in future
10 years.

11
12 **Q. WHY IS MR. POUS' POSITION THAT THE COMPANY'S ESTIMATED**
13 **INTERIM RETIREMENT RATE FOR ACCOUNT 343-PRIME MOVERS IS**
14 **EXCESSIVE AND UNREALISTIC INCORRECT?**

15 A. Mr. Pous highlights the fact that the interim retirement rate changed from an Iowa
16 48-R0.5 curve in the prior depreciation study to an Iowa 25-O1 curve in the current
17 depreciation study. The driver underlying the recommended change is a dramatic
18 increase in the level of actual Company-experienced, retirement activity. In the
19 prior depreciation study through the end of 2003, the Company experienced
20 aggregate interim retirements totaling approximately \$63 million. Just four years
21 later through the end of 2007, the Company experienced aggregate interim
22 retirements totaling more than \$250 million, or about four times the amount
23 previously experienced. Over the past ten years the level of interim retirements has

1 continued to escalate as the Company continues to maintain and improve its Other
2 Production fleet.

3 While the level of interim retirements will likely vary somewhat from year
4 to year there is no reason to believe that future interim retirements will decline to
5 the level of several decades earlier, which is what Mr. Pous incorrectly relies on in
6 his interim retirement calculation. Mr. Pous expresses concern too with the level of
7 interim retirements at a relatively young age but that is no reason to believe that
8 various levels of such retirements will not continue to occur. However, even if a
9 sizable portion of the referenced retirements from the earlier age analysis were
10 excluded, the resulting life indication change between the two studies would not be
11 significantly altered due to the fact that large increases of retirements have occurred
12 in comparison to the level of retirements that occurred prior to the completion of
13 the prior depreciation study.

14 In addition, Mr. Pous readily acknowledges that components of utility
15 property experience a dispersion pattern with varying levels of increasing
16 retirement ratios over time for mass property accounts, but again he rejects the fact
17 that the same situation occurs with interim retirements of Life Span-type property.
18 Mr. Pous' rejection of this fact does not change the reality that it actually occurs.
19 Accordingly, there is no reasonable basis for using a constant interim retirement
20 rate to estimate the future retirements for life span property.

21
22 **Q. DOES MR. POUS CITE AN AUTHORITY FOR THE CONSTANT**
23 **ANNUAL INTERIM RETIREMENT RATE APPROACH HE USES?**

1 A. Yes, he does, but a close look at this authority shows that it supports the
2 Company's approach not Mr. Pous' approach to interim retirement rates. Mr. Pous
3 cites a 1961 California Public Utilities Commission publication entitled
4 "Determination of Straight-Line Remaining Life Depreciation Accruals." Mr. Pous
5 relies on the publication's statement that a simple average can be used to calculate
6 interim retirement amounts for life span accounts. However, on page 28 of the
7 publication (See Exhibit No. ___ (EMR-4) to my rebuttal testimony), it specifically
8 states "*In more accurate applications, this correction* (speaking of developing
9 interim retirement rates) *may be developed from an actuarial analysis of mortality*
10 *data for the interim retirements.*"

11 The publication continues, on page 31, with the statement that "*Certain*
12 *methods, as indicated, require detailed technical knowledge for which qualified*
13 *personnel may not be available to smaller utilities.*" The publication also lists
14 preferable methods in order of accuracy, from the most accurate to the least
15 accurate, stating "*Considering the methods solely from the standpoint of*
16 *accuracy, the preferable methods may be enumerated in the following order:*

17 a. *Develop a survivor curve by actuarial analysis and apply direct*
18 *weighting of age groups.*

19 b. *Develop remaining life by forecast methods.*

20 c. *Select a type survivor curve from actuarial analysis of comparable*
21 *property and apply direct weighting of age groups.*"

22 Then at the end of the list as item g:

23 "g. *Determine remaining life by judgment means.*"

1 Mr. Pous' approach of estimating a simple constant interim retirement percentage
2 is essentially and significantly based on a judgment approach. The CPUC U-4
3 bulletin clearly identifies the use of actuarial survivor curve analysis as the far more
4 accurate approach to identify interim retirement rates. This is the exact approach
5 that I used to develop interim retirement rates for the Company's Production Plant
6 accounts.

7
8 **Q. MR. POUS STATES THAT INTERIM RETIREMENTS ARE SOME HOW**
9 **DIFFERENT AND CANNOT BE ANALYZED WITH AN ACTUARIAL**
10 **ANALYSIS. IS HE CORRECT?**

11 A. No, Mr. Pous is incorrect, as his own cited authority clearly demonstrates. The
12 California PUC U-4 publication (see Exhibit No. __ (EMR-4) specifically states
13 *"In more accurate applications, this correction (Interim Retirement Rate) may be*
14 *developed from an actuarial analysis of mortality data for the interim*
15 *retirements."* Interim Retirement Rates are developed by an analysis of the total
16 property within each property group and are applied to the same property group in
17 arriving at the average remaining life of the category. Mr. Pous would have one
18 believe that all properties within the property group need to be the same to
19 complete such an historical analysis. It certainly would be desirable if that were
20 true but that is never the case with utility property. For example, even if there were
21 a group of similar motors or pumps that comprised a property group, not all of
22 those individual property units would experience the exact same life pattern.
23 Dispersions of retirement activity clearly exist within all utility property groups.

1
2 **Q. IS MR. POUS CORRECT IN HIS STATEMENT THAT THE INTERIM**
3 **NET SALVAGE ESTIMATES MUST BE UPDATED FOR THE FUTURE**
4 **TEST YEAR DATA?**

5 A. No he is not. The estimation of future net salvage is essentially no different than the
6 estimation of average service life parameters. That is, the basic depreciation
7 parameters (life and net salvage) are estimated as of the depreciation analysis study
8 date and then applied to the subsequent plant in service until the next
9 comprehensive depreciation study, when another determination of basic life and
10 salvage parameters is completed. While he claims that the Company's interim net
11 salvage parameters need to be mathematically updated for the additional 2008 and
12 2009 Company plant activity, he then goes on to state that his own interim net
13 salvage recommendations (using his incorrect and inappropriate approach) do not
14 need to be adjusted for the additional year's plant activity. Mr. Pous cannot have it
15 both ways and his attempt to do so clearly demonstrates the fallacy of this
16 argument.

17
18 **V. MASS PROPERTY LIFE ANALYSIS.**

19 **Q. WHAT ARE THE MASS PROPERTY ACCOUNTS?**

20 A. The mass property accounts are those FERC accounts that contain groups of utility
21 property for which there is no set retirement date. These include transmission and
22 distribution poles, FERC Accounts 355 and 364, respectively, for example. A
23 transmission or distribution pole enters service and continues to provide service
24 until it is retired due to wear, tear, storms, or other intervening events. There is no

1 estimated retirement date for such utility assets. They are expected to continue to
2 provide service until they need to be removed.

3 The Company's historical database of plant retirements for these mass
4 property accounts is used to make assessments and judgments concerning the
5 service life factors, along with information relative to current and prospective
6 factors, in order to determine the appropriate future lives over which to recover the
7 utility's depreciable fixed capital investments. The actuarial service life data is
8 used to develop a survivor curve (observed life table). This survivor curve is the
9 basis upon which smooth curves, the standard Iowa curves, are matched or fitted to
10 in order to determine the average service life being experienced by the property
11 account. This process is described in more detail in the Company's depreciation
12 study and in my direct testimony in this proceeding.

13
14 **Q. DOES MR. POUS DISPUTE YOUR ESTIMATED SERVICE LIVES FOR**
15 **ALL OF THE COMPANY'S MASS PROPERTY ACCOUNTS?**

16 **A.** No, he does not. Mr. Pous recommends alternative service lives for only two mass
17 property groups, namely, FERC Account 364 (Distribution Poles) and FERC
18 Account 368 (Distribution Transformers). However, these happen to be two of the
19 largest mass property accounts. As a result, his recommended alternative service
20 lives proposals have a larger impact on the Company's level of depreciation
21 expense, demonstrating his bias in selecting accounts to dispute.

22
23 **Q. ARE YOUR RECOMMENDED SERVICE LIVES FOR THESE TWO**

1 **ACCOUNTS PREPARED USING THE SAME METHODS YOU USED TO**
2 **ESTIMATE THE SERVICE LIVES FOR THE OTHER MASS PROPERTY**
3 **ACCOUNTS?**

4 A. Yes. I followed the same process and applied the same standard depreciation
5 methods to estimate the service lives for FERC Account 364 and FERC Account
6 368 that I used to estimate the service lives for the other Company mass property
7 accounts. I also followed the same process and applied the same standard
8 depreciation methods to estimate the service lives for these mass property accounts
9 in the current depreciation study that I used for the Company's prior depreciation
10 study.

11 It is noteworthy that Mr. Pous did not propose alternative service lives for
12 these two accounts in the prior base rate proceeding involving the prior
13 depreciation study, notwithstanding the fact that my estimated average service life
14 estimates for each of the property groups were one (1) year shorter than my
15 estimates for the same property groups in the current depreciation study. The
16 current depreciation study analysis started with the exact same depreciation
17 database from the prior study and included the additional data from that period
18 forward through December 31, 2007. Little has changed between the completion
19 of the two depreciation studies with regard to life indications and resulting life
20 estimates. Mr. Pous, however, now recommends a sizable increase in the estimated
21 service lives for both property groups. I find it remarkable that Mr. Pous is taking
22 the position he currently is taking given his prior position with respect to these
23 same two accounts.

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Q. DID YOU OBSERVE ANY PATTERN TO MR. POUS' RECOMMENDED ALTERNATIVE SERVICE LIVES FOR THESE TWO ACCOUNTS?

A. Yes. Mr. Pous relies heavily on the historical database and fitting the estimated life service curve to the historical data. However, when the historical data do not fit his desired goal he seeks to exclude the historical data. For example, in his initial discussion about service life forecasting by fitting the curves to the historical data he states that less emphasis should be placed on the raw data points at the end of life of the property group (in favor of greater emphasis on younger aged experience). However, when he applies his service life analysis to Account 368, for which he proposes an alternative service life, he weights his historical curve fitting and future life estimate heavily on the experience near the maximum life of the property group in this Account.

Also, when the Company's retirement experience does not support his proposed service life, Mr. Pous abandons his reliance on the Company's historical data in favor of other Company property information or even information from depreciation studies I performed for other companies based on their unique experience and data. Often the exclusion of data that does not support his analysis is accompanied by subjective characterizations of the depreciation study, the Company's data, or discovery responses the Company provided as inadequate or incomplete or whatever other adjective he chooses to use. Mr. Pous' accusations are hollow and unsupported. They indicate no real investigation or analysis on his part. Certainly, what Mr. Pous does is no substitute for the actual application of the

1 standard industry depreciation methods that I used to prepare the Company's
2 depreciation study.

3 It is apparent by such actions that Mr. Pous' proposed alternative service
4 lives are results driven.

5
6 **Q. IS HISTORICAL STATISTICAL LIFE ANALYSIS THE SOLE FACTOR IN**
7 **ESTIMATING FUTURE AVERAGE SERVICE LIVES?**

8 A. No. Historical life analysis is a tool used in the life estimation process but it is not
9 the determinative factor in that analysis. The NARUC "Public Utility Depreciation
10 Practice" manual makes this clear in the section discussing "Selecting the
11 Projection Life Curve." There, the NARUC manual provides on page 126 that
12 *"Depreciation analysts should avoid becoming ensnared in the mechanics of the*
13 *historical life study and relying solely on mathematical solutions."* A
14 depreciation analysis needs to consider the property content of the account, the
15 range of data, typical service life parameters and current and future expectations in
16 the process of estimating applicable future service lives. Mr. Pous does not employ
17 this range of analysis in reaching his recommended alternative service lives for
18 these two accounts.

19
20 **Q. WHAT DOES MR. POUS PROPOSE FOR ACCOUNT 364?**

21 A. Mr. Pous proposes lengthening the estimated average service life for Account 364
22 (Distribution Poles, Towers and Fixtures), 6 years from the 29 year average service
23 life I estimated to 35 years.

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Q. DO YOU AGREE WITH MR. POUS' ALTERNATIVE LIFE ESTIMATE FOR ACCOUNT 364?

A. No, Mr. Pous' estimate is not supported by the Company's experience. Mr. Pous reaches his recommended alternative service life through each of the results driven practices I observed in his analysis and discussed above.

He relies heavily on the observed life table but when historical retirements do not assist his objective he eliminates them from his analysis. To illustrate, Mr. Pous picks out and seeks to discredit sizable retirements that occurred at age interval 24.5 to 25.5. Without any empirical evidence whatsoever he calls these retirements unusual and excludes them from consideration. This is inappropriate.

Furthermore, Mr. Pous claims information the Company provided regarding its "program to inspect poles on an ongoing basis" supports his recommended service life for this account. He concludes without any support that the Company's inspection program will lengthen the useful life of the Company's pole investments. He ignores the fact that the purpose of the inspection program is to identify the condition of distribution poles and determine what action needs to be taken based on that condition assessment. The inspection program, therefore, could just as easily result in retirements and replacements of poles that would not otherwise have occurred.

Also, in an attempt to support his alternative service life estimate, Mr. Pous advances a lot of unsupported broad statements and accusations. For example, on page 91 of his testimony, Mr. Pous states "[t]he survivor curve that I currently

1 recommend will be a much better fit to the observed life table in the next
2 proceeding.....” Given that such activity has yet to occur it is pure speculation on
3 Mr. Pous’ part.

4 Further, Mr. Pous claims he conducted an investigation into the data in this
5 account and that I (erroneously) did not when the only investigation he did was to
6 go to the historic observed life table provided in the depreciation study report and
7 determine the numeric retirement values that caused the observed life table to
8 decline at selected points. This is not an investigation; this is an effort to exclude
9 data that he does not like.

10 Finally, on page 87 of his testimony, Mr. Pous states that the life estimate
11 for Account 364 is shorter than any average service life (ASL) that I have
12 determined in depreciation studies for other companies. His recommended ASL is,
13 according to him, equal to the shortest I determined in one of the many other utility
14 depreciation studies that I have prepared and that he requested from me in
15 discovery. We produced these studies to him because he asked for them and not
16 because I relied on them in any way in the preparation of the Company’s
17 depreciation study.

18 Indeed, it is inappropriate to rely on studies prepared at different times for
19 different utilities based on their unique utility systems and experience in arriving at
20 the recommended service lives (or any other depreciation parameter for that matter)
21 for PEF’s property accounts when specific Company data is available. Rather, it is
22 necessary that depreciation study analysis and proposed service lives are estimated
23 for and from data relative to the Company for which the study is being completed.

1 Information from general industry data and/or other companies is used only when
2 no company data is available. The required annual level of recovery (based upon
3 average service live and net salvage plus company investment data) needs to be
4 based upon the specific experience of the company being studied so that future
5 depreciation accruals appropriately recover the unrecovered investment in the
6 property group.

7 Mr. Pous' life estimate for the PEF's Account 364 Poles has nothing to do
8 with the Company's experience or anticipated life their property. Mr. Pous'
9 estimate is simply a results oriented estimate from other operating company's
10 service life information.

11
12 **Q. IS THERE AN ADDITIONAL ISSUE THAT NEEDS TO BE CONSIDERED**
13 **FOR THIS PROPERTY GROUP?**

14 **A.** Yes, the level of the company's recovery for Account 364-Poles is currently
15 significantly unrecovered, which clearly suggests that the Company's property is
16 actually experiencing a shorter service life and/or higher negative net salvage than
17 has been recovered to date. Such circumstances contribute to an under recovery
18 condition and subsequently produce a higher proposed ARL depreciation rate that
19 otherwise would exist.

20
21 **Q. DID YOU PERFORM AN INVESTIGATION AND ANALYSIS ON THE**
22 **ACCOUNT 364 DATABASE?**

23 **A.** Yes, I did. A detailed analysis of the various account life statistics was performed

1 for each of the Company's plant accounts that were studied. This analysis shows
2 that the property retirements over the past two decades have generally ranged
3 between \$1 and \$4 million per year and they are growing somewhat in more recent
4 periods. The average age of the retirements generally fell in the range of 25 to 30
5 years of age. Retirements were lower during the years 2001 to 2003 but they
6 subsequently increased to all time highs. Individual retirement ages vary from
7 period to period and will continue to do so in the future. The retirements at age
8 interval 24.5 to 25.5 that Mr. Pous calls unusual did occur and are properly part of
9 the historical data in the same manner as all other property dispersions are properly
10 included in the data. Contrary to Mr. Pous' assertion, even if this data were
11 removed or adjusted (which would not be appropriate), the adjusted analysis result
12 and estimated depreciation parameters (average service life and Iowa curve) would
13 not be materially altered.

14
15 **Q. CAN YOU DEMONSTRATE THAT YOUR ESTIMATED FUTURE**
16 **AVERAGE SERVICE LIFE FOR THIS ACCOUNT MORE ACCURATELY**
17 **REFLECTS THE COMPANY'S ACTUAL ACCOUNT 364 DATA**
18 **EXPERIENCE THAN MR. POUS' ESTIMATE?**

19 **A.** Yes. Mr. Pous provided a plot of actual Company historical data versus the
20 Company's estimate and Mr. Pous' estimate as an exhibit to his testimony (Exhibit
21 JP-7 page 1 of 1). Mr. Pous' inclusion of the various points of data on his graph is
22 somewhat difficult to follow but a closer look reveals that his ASL estimate is
23 inappropriate for the Company's actual data. I prepared similar plots for Account

1 364-Poles, Towers and Fixtures showing the comparative information on two
2 separate pages to provide additional clarity of the data at Exhibit No. ___ (EMR-5).
3 Page 1 of 2 displays a comparison plot of the actual Company retirement data to the
4 ASL parameters set forth in the Company's depreciation study. Page 2 of 2 shows
5 the same comparison plots of the actual Company retirement data to the ASL
6 parameters recommended by Mr. Pous. It is very obvious from this exhibit that
7 that Mr. Pous' recommendation significantly overstates the experienced and
8 anticipated useful life of the property group. Using Mr. Pous' recommended
9 service life would simply further exacerbate the under recovery that currently exists
10 for this property group.

11
12 **Q. WHAT DOES MR. POUS PROPOSED FOR ACCOUNT 368?**

13 **A.** Mr. Pous proposes lengthening the estimated ASL for Account 368-Line
14 Transformers 6 years from the 27 year average service life I estimated to 33 years.

15
16 **Q. DO YOU AGREE WITH MR. POUS' ALTERNATIVE LIFE ESTIMATE**
17 **FOR ACCOUNT 368-Line Transformers?**

18 **A.** No, Mr. Pous' ASL estimate is not supported by the Company's experience. Mr.
19 Pous again picks and chooses the historical data points that support his
20 recommendation and discards those that do not. Mr. Pous seeks to discredit sizable
21 retirements that occurred at age interval 26.5 to 27.5 in this account, again, without
22 any empirical evidence to support his exclusion of them from the analysis simply
23 because he believes they are unusual. Mr. Pous, again, relies on speculation On

1 page 91 of his testimony, he repeats the assertion he made for his ASL
2 recommendation for Account 364 for his ASL recommendation for Account 368,
3 stating "The survivor curve that I currently recommend will be a much better fit to
4 the observed life table in the next proceeding....." Since such activity has yet to
5 occur, it is pure speculation on his part.

6 Mr. Pous repeats his erroneous assertion that he investigated the retirement
7 activity in the account and that I did not. The only investigation Mr. Pous did was
8 to go to the historic observed life table provided in the depreciation study report
9 and determine the numeric retirement values that caused the observed life table to
10 decline at selected points and exclude them from his analysis because they did not
11 support his recommended ASL. This is not an investigation into the retirement
12 data.

13 Mr. Pous further relied again on my recommendations for other utilities in
14 other depreciation studies prepared based on their unique data and retirement
15 experiences. This is inappropriate when sufficient data exists for PEF that
16 represents PEF's unique retirement experience in this account. Again, it is
17 necessary that depreciation study analysis and proposed service lives are estimated
18 for and from data relative to the Company for which the study is being completed.
19 Information from general industry data and/or other companies should be used only
20 when no company data is available. The required annual level of recovery (based
21 upon average service live and net salvage plus company investment data) must be
22 based upon the specific experience of the company being studied so that future
23 depreciation accruals appropriately recover the unrecovered investment in the

1 property group.

2 Just like his recommended ASL for Account 364, Mr. Pous' life estimate
3 for the PEF's Account 368 Line Transformers has nothing to do with the
4 Company's experience or anticipated life their property. Mr. Pous' estimate is
5 simply a results oriented estimate from other operating company's service life
6 information.

7
8 **Q. DID YOU PERFORM AN INVESTIGATION AND ANALYSIS ON THE**
9 **ACCOUNT 368 DATABASE?**

10 **A.** Yes, I did. A detailed analysis of the various account life statistics was performed
11 for each of the Company's plant accounts that were studied. This analysis revealed
12 that the property retirements over the past two decades have generally ranged
13 between \$4 and \$7 million per year and they are growing in more recent periods.
14 The average age of the retirements generally fell in the range of 17 to 24 years of
15 age. There were unusually high levels of retirements during 2004 and 2005 but
16 those items had no bearing on the retirement amounts discussed by Mr. Pous.
17 Individual retirements do vary from period to period and they will continue to do so
18 in the future. Again, the retirements at age interval 26.5 to 27.5 that Mr. Pous calls
19 unusual did occur and are part of the historical data in the same manner as all other
20 property retirement dispersions are in the data. And, again, contrary to Mr. Pous'
21 assertion, even if these specific retirements were removed or adjusted (which would
22 not be appropriate), the estimated depreciation parameters (average service life and
23 Iowa curve) would not be materially altered. In fact in reviewing the observed life

1 table it appears, at most, that the life indication would likely remain the same, while
2 the survival characteristic (Iowa Curve mode subscript) may change slightly.
3

4 **Q. CAN YOU COMPARE YOUR ESTIMATED FUTURE AVERAGE**
5 **SERVICE LIFE FOR THIS ACCOUNT TO MR. POUS' ESTIMATED**
6 **AVERAGE SERVICE LIFE?**

7 A. Yes. Mr. Pous provides a plot of actual Company historical data versus the
8 Company's estimate and Mr. Pous' estimate as an exhibit to his testimony (Exhibit
9 JP-9 page 1 of 1). Again, his graph is somewhat difficult to follow. A closer look
10 at the displayed information reveals however that Mr. Pous' recommended ASL is
11 inappropriate based on the Company's actual data. Contrary to his lengthy
12 discussion about putting less reliance on the tail of the Company's actual observed
13 data, Mr. Pous' plot of his recommended ASL shows, as I noted above, that he
14 placed an extreme amount of weight on the data at the maximum life or tail of the
15 property group.

16 I prepared similar plots for Account 368-Line Transformers showing the
17 comparative information on two separate pages to provide additional clarity.
18 Exhibit No. ___ (EMR-6) page 1 of 2 displays a comparison plot of the actual
19 Company retirement data to the ASL parameters set forth in the Company's
20 depreciation study. Exhibit No. ___ (EMR-6) page 2 of 2 shows comparison plots
21 of the actual Company retirement data to the ASL parameters recommended by Mr.
22 Pous. In reviewing the exhibits it is very obvious that Mr. Pous' recommendation
23 significantly overstates the experienced and anticipated useful life of the property

1 group.

2
3 **V. NET SALVAGE.**

4 **Q. MR. POUS OPENS HIS DISCUSSION REGARDING NET SALVAGE**
5 **WITH A STATEMENT ABOUT THE SIGNIFICANT IMPACT OF NET**
6 **SALVAGE ON THE DEVELOPMENT OF DEPRECIATION RATES. IS**
7 **HIS STATEMENT CORRECT?**

8 A. No. Mr. Pous' assertions on pages 101 and 102 of his testimony about the impact
9 of net salvage on the development of a depreciation rate relate to the Whole Life
10 (WL) depreciation methodology not the Average Remaining Life (ARL)
11 depreciation methodology. The Company's current and proposed depreciation
12 rates, of course, are developed based upon the ARL method. Mr. Pous' point about
13 the impact of net salvage on the depreciation rate then is irrelevant and misleading.

14 The inclusion of negative net salvage, under ARL as opposed to WL, will
15 cause the proposed depreciation rates to increase compared to situations where no
16 negative net salvage is included. The extent to which the resulting depreciation
17 rates increase depends upon the level of recovery that has been previously
18 achieved. Conversely, to the extent that positive net salvage is estimated the
19 resulting depreciation rate will be lower than what would occur if no positive net
20 salvage was estimated.

21 It is widely acknowledged by depreciation professionals and regulators
22 alike that utility companies routinely experience far more negative net salvage (i.e.
23 cost of removal/retirement exceeds gross salvage) for the majority of the utility

1 property account investments than it receives net positive salvage. This
2 circumstance exists because the property being retired is at the end of its useful life
3 and therefore, contains little remaining utility or value. Conversely, utility
4 companies expend funds in the process of removing or disconnecting the facilities
5 in order to continue providing customer service with new replacement plant.
6 Typically many, if not most, of the operating property plant categories experience
7 negative net salvage as opposed positive net salvage.

8 It is equally generally accepted that the utility companies need to ratably
9 recovery the total cost of the property investment (original or first cost and end of
10 life cost) to be made whole. Customers who consume the property in the process
11 of receiving service need to pay their ratable fair share of the cost of the facilities
12 used to providing customer service.

13
14 **Q. DOES MR. POUS AGREE WITH THE COMPANY'S PROPOSED NET**
15 **SALVAGE PARAMETERS?**

16 **A.** Not all of them. Mr. Pous disputes the Company's proposed net salvage
17 parameters for fifteen (15) out of twenty-four (24) Transmission and Distribution
18 and one (1) General Plant mass property FERC accounts.

19
20 **Q. DID YOU ARRIVE AT YOUR RECOMMENDED NET SALVAGE**
21 **PARAMETERS IN THE SAME MANNER FOR ALL 24 FERC**
22 **ACCOUNTS?**

23 **A.** Yes. I applied the same depreciation method and tools to estimate the net salvage

1 parameters for all twenty-four FERC accounts.

2

3 **Q. WHAT CRITICISMS DOES MR. POUS HAVE FOR YOUR NET**
4 **SALVAGE PARAMETERS FOR THE 15 FERC ACCOUNTS HE**
5 **DISPUTES?**

6 **A.** Mr. Pous criticizes my net salvage proposals set forth in the Company's
7 depreciation study because he claims I (1) rely on data that incorporates
8 "catastrophic circumstances" related to hurricane events; (2) calculate a forecasted
9 future level of cost of removal that attempts to only recognize estimated future
10 inflation; (3) make no meaningful effort to actually identify and understand what is
11 reflected in PEF's historical retirement database from a net salvage standpoint,
12 such as failing to investigate the reasonableness of unusually high levels of cost of
13 removal in the historical database; (4) fail to investigate or explain significant
14 changes in net salvage values between the existing and proposed levels, including
15 alleged swings that exceed \$200 million of net salvage (i.e., Account 364); (5) fail
16 to explain the underlying reasons for changes that cause revenue requirements to
17 increase by more than \$10 million annually for an individual account; (6) fail to
18 comply with NARUC Interpretation No. 67 as it relates to reimbursed retirements;
19 and (7) fail to adequately recognize, or recognize at all, the impact of economies of
20 scale salvage will have in the future.

21

22 **Q. DO YOU AGREE WITH MR. POUS' CRITICISMS?**

23 **A.** No. I will address criticisms (1) through (5) and (7) above. Mr. Garrett is

1 addressing criticism (6) above in his rebuttal testimony.

2
3 **Q. DOES THE INCLUSION OF HURRICANE-RELATED DATA IN THE NET**
4 **SALVAGE DATABASE HAVE AN INAPPROPRIATE IMPACT ON THE**
5 **FUTURE NET SALVAGE ESTIMATES?**

6 **A.** No. Mr. Pous' criticism that the net salvage analysis results are inappropriately
7 impacted by catastrophic circumstances (hurricanes) is incorrect. First, the PEF
8 property is located in the State of Florida, an area that historically has routinely
9 experienced various levels of storms and hurricanes. Storms and even hurricanes
10 are a recurring event in the Company's service area. Such events will continue into
11 the future. They, therefore, cannot be ignored since retirements have occurred and
12 will continue to occur as a result of storms and hurricanes.

13 Additionally, Mr. Pous' criticism regarding the inclusion of this data is
14 premised on his erroneous argument that the cost of removal is not representative
15 of the Company's other retirement experience and should therefore be excluded.
16 He argues with respect to Account 364 for example, that even with the hurricane
17 circumstances the level of negative net salvage was less negative than the negative
18 50 percent net salvage I propose for Account 364 in this proceeding. (Pous Test.,
19 p. 122, L. 14-17). He explains that "in other words" even with the hurricanes the
20 Company did not sustain a negative 50 percent net salvage. (Id. at L. 17-19). Mr.
21 Pous's real argument, then, is that the cost of removal resulting from hurricanes is
22 not representative of the Company's cost of removal under other circumstances and
23 should not be considered.

1 His argument is contradicted by the position his client took in the
2 Company's proceeding to recover its storm costs. OPC stipulated there that PEF
3 shall book to plant in service the normal cost of new plant additions under normal
4 operating conditions and shall book to the storm reserve only the costs of new plant
5 additions that exceed those normal amounts. Order No. PSC-05-0748-FOF-EI, p.3.
6 With respect to retirements and cost of removal expense, OPC argued that cost of
7 removal should be determined by using the ratio of the Company's cost of removal
8 to the cost of retirements based on PEF's current depreciation study (my 2005
9 depreciation study for the Company) or PEF's most recent study. The Commission
10 agreed, finding that PEF shall calculate removal costs for plant damaged or
11 destroyed using the rate PEF is currently using to calculate removal cost. (Id. at p.
12 32). That is what PEF has done and OPC should not be heard to complain about it
13 now through Mr. Pous in this proceeding.

14 More significantly to the estimation of the net salvage parameters in the
15 current depreciation study, however, is the fact that the net salvage analysis
16 provides the basis to estimate the percentage relationship (as opposed to absolute
17 dollars of cost) of net salvage amounts to plant in service retired. The resulting
18 percentage relationship is then incorporated into the development of the proposed
19 depreciation rate. Because net salvage estimates are based on percentage
20 relationships (not absolute dollars) between net salvage amounts and retirement
21 amounts, the actual dollar cost of removal has little bearing on the estimate of the
22 net salvage parameters. Furthermore, future net salvage estimates are not based
23 upon one or two years of data, but rather the entire range of data and, importantly,

1 considerations of future forecasts of anticipated net salvage percents.

2
3 **Q. MR. POUS CRITICIZES YOUR USE OF A FORECAST OF FUTURE NET**
4 **SALVAGE. IS IT APPROPRIATE TO PREPARE A FORECAST OF**
5 **FUTURE NET SALVAGE?**

6 **A.** Absolutely. A net salvage forecast is simply one additional tool used to identify
7 and gain an understanding of the anticipated level of net salvage percent throughout
8 the remaining life of the present plant in service investments. Given that such
9 future costs are mostly comprised of labor costs, and labor costs are driven by
10 inflation, it is correct and proper to perform the forecast calculations presented in
11 the study. As readily seen in reviewing the study results, the forecast study results
12 were not used on an arithmetic basis and included without further analysis in the
13 development of the proposed depreciation rates. Mr. Pous apparently claims the
14 failure to blindly use the arithmetic net salvage forecast calculations means such
15 calculations are meaningless. In fact, it stands to reason that the use of the
16 forecasting tool helps identify the future level of cost of removal. This trend is
17 taken into account along with the more recent cost of removal experience in
18 establishing an estimated net salvage parameter that reflects a gradual movement
19 towards the future cost of removal level. The inclusion of estimated future net
20 salvage into proposed ARL based depreciation rates is a direct requirement of the
21 ARL depreciation technique.

22
23 **Q. MR. POUS CLAIMS YOU FAILED TO MAKE A MEANINGFUL EFFORT**

1 **TO IDENTIFY AND UNDERSTAND WHAT IS REFLECTED IN PEF'S**
2 **HISTORICAL RETIREMENT DATA BASE FROM A NET SALVAGE**
3 **STANDPOINT. DO YOU AGREE?**

4 A. No. It is difficult to understand his exact criticism but it appears he is suggesting
5 that there may be material abnormal events contained in the Company's salvage
6 database that should be excluded. The Company books the depreciation reserve
7 accounting data in accordance with the Uniform Systems of Accounts. No material
8 abnormal events were noted in the process of completing the depreciation study.

9 To the extent his criticism is that I did not review and analyze the historical
10 database he is wrong. Charges to the Company's depreciation reserve for gross
11 salvage and cost of removal are captured through the Company's accounting
12 system and reviewed by the Company's accounting staff. To the extent that items
13 look unusual in the course of the depreciation study analysis such information is
14 reviewed. It is unrealistic to expect gross salvage and cost of removal to be the
15 same each year or to assume that increases will routinely occur at some
16 predetermined "normal" level. Instead, net salvage (Gross Salvage less Cost of
17 Removal) routinely varies from year to year depending upon the operational and
18 transactional data that occurs during the period. Accordingly, variations of year-to-
19 year reserve activity are one of the primary reasons why banded analysis (3 year, 5
20 year, etc.) is performed to level out such variations. The depreciation reserve (net
21 salvage) was also investigated by individual component to highlight the underlying
22 components that make of the overall information.

23

1 **Q. MR. POUS CLAIMS YOU FAILED TO INVESTIGATE AND EXPLAIN**
2 **SIGNIFICANT VARIATIONS IN NET SALVAGE BETWEEN THE**
3 **EXISTING AND PROPOSED LEVELS. DO YOU AGREE?**

4 A. No. Mr. Pous references an alleged \$200 million swing but he fails to identify the
5 the source of this reference. Mr. Pous does focus his criticisms on Account 364-
6 Poles, Towers and Fixture. This is not surprising since it is one of the largest mass
7 property accounts and, therefore, important to his apparent results driven analysis.
8 It is widely recognized that the facilities that make up Account 364 experience
9 considerable levels of cost of removal relative to retired property. The removal
10 process is labor and overhead intensive. Equally, costs related to permits, traffic
11 controls, and safety, to name a few, are routinely incurred. Salvage is received for
12 a modest portion of retirements related to vehicular damage or highway relocations.
13 However, the over whelming majority of the Company's Poles are anticipated to
14 live their normal life cycle and will experience no positive salvage. They are
15 expected to incur an ultimate physical disposal cost. It is obvious by simply
16 looking at the Company's actual historical data (contained in Section 8 of the
17 depreciation study report), that the Company has recently experienced well in
18 excess of negative 50 percent net salvage --- the level of negative net salvage
19 estimated in the Company's depreciation study report. The analysis of the
20 Company's retirement experience fully supports this estimated net salvage.

21
22 **Q. MR. POUS ALSO CLAIMS THAT YOU FAIL TO EXPLAIN THE**
23 **UNDERLYING REASONS FOR CHANGES THAT CAUSE REVENUE**

1 **REQUIREMENT TO INCREASE BY MORE THAN \$10 MILLION**
2 **ANNUALLY FOR AN INDIVIDUAL ACCOUNT. DO YOU AGREE?**

3 A. No. Mr. Pous is critical of the impact (increase) on revenue requirements caused
4 by estimated future net salvage recovery levels. This is because his goal is to
5 reduce depreciation expense not set a reasonable net salvage parameter so the
6 Company is assured of recovering its full costs of service from the property. The
7 net salvage estimates are based upon an analysis of actual Company data and
8 consideration of anticipated future levels of net salvage. The Company is incurring
9 such costs as a percentage of plant retirements and is estimated to incur future
10 negative net salvage costs relative to its existing plant in service investments.
11 Accordingly, it needs to ratably and appropriately recover the costs from customers
12 that are receiving the benefit of the service of this property during the life of the
13 property. Otherwise, in future years, the property will be out of service without the
14 Company having recovered the cost of the property.

15
16 **Q. DO YOU AGREE WITH MR. POUS THAT YOU HAVE NOT**
17 **RECOGNIZED THE IMPACT ECONOMIES OF SCALE WILL HAVE ON**
18 **NET SALVAGE IN THE FUTURE?**

19 A. No. In general, economies of scale do not and will not occur in utility property
20 retirements and replacements due to the fact that such properties are not changed
21 out en masse. To the extent that a groups of properties are or will be replaced such
22 activity that would occur in future periods would likely also have occurred during
23 recent periods. Therefore, the relationships relative to plant retirements and effort

1 to remove and retire property can be deemed to reasonably represent future work
2 efforts. Those relationships do not reflect cost savings from economies of scale.
3 This is to be expected. In discussions with Company employees, they explained
4 removal or replacement projects are inherently inefficient. Replacements or
5 removals typically occur in congested areas that are difficult to access, require
6 permit, safety, and other coordination, and are dispersed throughout the service
7 territory. Efficiencies that might exist when placing property in a new development
8 do not exist when a single unit of property needs to be replaced in that same
9 development after streets, other utilities, houses and other buildings, and
10 landscaping exist. As a result, little or no cost efficiencies exist with replacement
11 or retirement projects. This is consistent with my experience preparing
12 depreciation studies for other electric utilities.

13
14 **Q. Mr. POUS ALSO ATTACKS YOUR ESTIMATES AS UN-**
15 **SUBSTANTIATED. DO YOU AGREE?**

16 **A.** No. That statement is totally false. The process I utilized is consistent with
17 and supported by actual Company data across the Company's entire range
18 of accounts. Mr. Pous simply does not like the results of the estimates
19 made relative to estimated future net salvage.

20 In completing the analysis, consideration is given to the range and
21 level of historical activity (gross salvage and cost of removal), the content
22 of the account, and the likely and/or potential for generating gross salvage
23 at the end of the property's useful life. Such factors must be considered in

1 estimating future net salvage, otherwise an improper level of net salvage
2 will be estimated (if only the raw historical data is analyzed and an estimate
3 made from an arithmetic calculation as Mr. Pous seems to suggest, for
4 example). My analysis process is totally consistent with the process used
5 by the Company in prior depreciation studies in making a professional
6 assessment regarding the makeup on the historically experienced gross
7 salvage. Likewise this type of assessment was recognized and
8 acknowledged by the FPSC in consideration and approval of prior net
9 salvage percents.

10
11 **Q. WHAT DO YOU HAVE TO SAY REGARDING MR. POUS' ANALYSIS**
12 **AND RECOMMENDATIONS?**

13 A. First, Mr. Pous is inconsistent. He severely criticizes the presentation of the net
14 salvage forecast analysis and the supposedly un-substantiated estimates in the
15 development of the future net salvage percent within the Company's depreciation
16 study for the accounts for which he proposes alternative net salvage factors. Yet,
17 he readily accepts the results of the same net salvage study analysis for all the
18 remaining accounts.

19 Second, Mr. Pous relies heavily on the average historical net salvage or
20 gross salvage when it supports his recommended net salvage parameters.
21 Similarly, Mr. Pous relies on a single year or event of gross salvage or cost of
22 removal experience when that year or event best supports his recommended net
23 salvage parameters. Mr. Pous continuously looks backward in the historical

1 database because over time cost of removal has increased and negative net salvage
2 has generally increased. But we are not setting rates based on historical events or
3 periods; the depreciation rates, including the net salvage parameters, are set
4 prospectively.

5 Finally, I analyzed the Company's data to identify the future trends to
6 determine the appropriate net salvage parameters for each FERC account. I also
7 supplemented my analysis with discussions with Company management with
8 responsibility for the assets in each of the Company's mass property accounts. As
9 a result, I made an informed judgment what the net salvage parameters should be
10 for each account. Mr. Pous on the other hand makes recommendations that are
11 clearly biased toward decreasing net salvage percentages with the apparent goal of
12 decreasing depreciation expense. With respect to each disputed account, Mr. Pous
13 recommends a lower, not higher net salvage percentage and the most readily
14 apparent calculation that he makes is the calculated reduction in depreciation
15 expense that results from his recommendation.

16
17 **Q. WILL YOU PLEASE TURN TO MR. POUS' NET SALVAGE**
18 **PROPOSALS?**

19 **A.** Yes. What follows are my comments regarding Mr. Pous' account-by-account
20 analysis for the fifteen (15) property groups for which he provides alternative
21 proposals.

22
23 **Q. WHAT DOES MR. POUS PROPOSE FOR ACCOUNT 353.1-**

1 **TRANSMISSION STATION EQUIPMENT?**

2 A. Mr. Pous estimates future net salvage at positive 5%.

3
4 **Q. DO YOU AGREE WITH HIS RECOMMENDATION?**

5 A. No, I do not. Mr. Pous references a large \$11.7 million retirement in the account
6 and states "...when large retirement activity occurs, on anticipated that large
7 transformers are reflected in such activity." Mr. Pous automatically jumps to the
8 conclusion that "all" transformer retirements will automatically experience the
9 same level of gross salvage. Such an assumption is not true. Mr. Pous simply
10 ignored both the actual net salvage analysis that was provided in the study which
11 was approaching zero or turned negative during more recent years.

12
13 **Q. WHAT DO YOU PROPOSE AND WHY?**

14 A. My proposed net salvage parameter for this account is zero (0) percent. In my
15 analysis process, the level of achieved gross salvage was significantly discounted in
16 arriving at my proposed zero (0) percent net salvage. The historical cost of
17 removal has averaged eleven percent, which would imply negative eleven (11)
18 percent if one assumed zero (0) percent gross salvage. However, it was anticipated
19 that some minor level of future net salvage may be received from the disposal of
20 the retired station equipment. Accordingly, future net salvage was therefore
21 estimated at a conservative zero (0) percent net salvage.

22 The \$11.7 million retirement referenced by Mr. Pous was related to a
23 variety of items from the property account of which approximately \$6 million was

1 specifically related to the retirement of transformers. Conversely, with regard to
2 the \$1.66 million gross salvage experienced, the majority of the amount is related
3 to transformers, but a large portion of the experienced 2007 gross salvage is
4 applicable to property that has long been out of service. Specifically, with regard
5 to the 2007 recorded gross salvage, during 2007 the Company disposed of 50 plus
6 Transformers, many of which had been retired from service years earlier and were
7 physically located at various substation sites throughout the Company's service
8 area. Given the large size and extra work effort to move the transformers, they had
9 never been assembled to a central location for disposal. Accordingly, much of the
10 booked scrap salvage was not relative to 2007 retirements or any other recent
11 year's retirement activity. In addition to the recorded retirements and gross salvage
12 amount, \$1.034 million was also incurred for Cost of Removal during 2007, which
13 was related to cost of removal related to the 2007 retirements.

14 The calculation of 2007 net salvage without the inclusion of the sale of the
15 50 plus old transformers would produce negative 22.2% net salvage (\$1,662,961
16 recorded gross salvage minus \$1,012,843 sale of old out of service transformers
17 minus \$1,034,280 cost of removal/\$11,732,609 2007 retirements= \$384,162
18 negative net salvage relative to the 2007 booked retirements).

19 Mr. Pous makes a further misleading statement, saying: "In 2006, the year
20 before the large positive net salvage (the positive net salvage was only 5%)
21 corresponding to the large retirement activity, the Company retired only \$2 million.
22 In that year the Company experienced the largest negative net salvage percent in its
23 entire database." What Mr. Pous fails to mention is that in the preceding two years,

1 2004 and 2005, the Company experience retirement of \$2.3 and \$5.1 million for
2 which it experienced 16.6% and 17.9% negative net salvage, respectively. Also,
3 for 2006 the event Mr. Pous references, the negative net salvage percent was 45.2
4 percent. This activity clearly shows that at the very least the estimated zero (0)
5 future net salvage is reasonable given that three (3) of the last four (4) years net
6 salvage experience have been significantly negative.

7 Lastly, Mr. Pous relies on speculation that the Company will generate
8 significant level of scrap salvage from future plant retirements. While some
9 increased levels of scrap salvage may occur, it will likely be limited, plus any such
10 increase in scrap value is far from certain.

11
12 **Q. WHAT DOES MR. POUS PROPOSE FOR ACCOUNT 355 --**
13 **TRANSMISSION POLES & FIXTURES?**

14 A. Mr. Pous proposes negative twenty-five (25) net salvage for Transmission Poles.

15 **Q. DO YOU AGREE WITH HIS RECOMMENDATION?**

16 A. No, I do not. Mr. Pous simply ignored the actual recent net salvage in developing
17 his proposal. Mr. Pous totally failed to recognize or significantly discounted the
18 fact that negative net salvage for the most recent five years ranged from negative
19 ninety-two (92) to negative four hundred eighty-four (484) percent.

20
21 **Q. WHAT DO YOU PROPOSE AND WHY?**

22 A. My proposed net salvage parameter for this account is negative fifty (50) percent.
23 The historical net salvage analysis averaged approximately negative fifty-two (52)

1 percent net salvage, due to a dramatic increase in the level of negative net salvage
2 during more recent years. Retirement poles have little or no value at the end of
3 their life thus the cost of cost of removal/retirement is the primary driver for net
4 salvage in the property group.

5 The net salvage forecast indicates that end of life cost of removal is
6 anticipated at nearly two hundred (200) percent. Historical gross salvage
7 experience is calculated at approximately thirty-six (36) percent (a level that will
8 likely occur only for a limited amount plant retirements related to damages or
9 relocations). While there will likely be some modest level of third party damages
10 for the pole account throughout the property's life, it is not realistic that this
11 category of salvage receipts will come anywhere close to 36 percent for the entire
12 property class. A sizable portion of the recorded gross salvage is likely property
13 returned to stores, which is simply an accounting entry and not real salvage at all.
14 While various earlier years experienced net positive salvage, in other years the
15 Company experienced net negative salvage ranging upwards to negative fifty (50)
16 percent net salvage. Mr. Pous simply ignores the Company's actual overall and
17 most recent net salvage experience.

18
19 **Q. WHAT DOES MR. POUS PROPOSE FOR ACCOUNT 356 – OVERHEAD**
20 **CONDUCTORS & DEVICES?**

21 **A.** Mr. Pous recommends negative ten (10) percent net salvage.
22

23 **Q. DO YOU AGREE WITH HIS RECOMMENDATION?**

1 A. No, I do not. Mr. Pous recommended negative ten (10) percent in the current case
2 but he recommended negative fifteen (15) percent net salvage in the prior case,
3 notwithstanding the fact that the Company has experienced dramatic increases in
4 net salvage during more recent years. Again, Mr. Pous ignored the detailed
5 information that was provided to him and misrepresented the facts as they exist.
6 Mr. Pous references the review of work orders in which he identified a credit of
7 \$50,000 to plant as a Contribution in Aid of Construction (which he implies should
8 be gross salvage). Mr. Garrett addresses his apparent argument that this credit
9 should have been recorded as gross salvage. Whether it should be or not, the
10 \$50,000 credit is extremely minimal given that the Company has historically
11 experienced more than \$17 million of cost of removal.

12
13 **Q. WHAT DO YOU PROPOSE AND WHY?**

14 A. My proposed net salvage parameter for this account is negative thirty (30) percent.
15 In this account, while the three year rolling bands are positive for most years, years
16 during more recent periods experienced considerable levels of negative net salvage.
17 The level of cost of removal has generally been escalating over time. Future cost of
18 removal trended to in excess of two hundred (200) percent while overall historical
19 gross salvage averaged approximately sixty (60) percent. Five year trend analysis
20 of gross salvage equaled zero (0) percent. Again, the level of historical gross
21 salvage will simply not occur at the end of the property's life. While some level of
22 scrap value will be received, such salvage will be limited inasmuch as most of the
23 property is aluminum conductors as opposed to more valuable copper conductors.

1 Given the currently increasing cost of removal and the trend toward higher cost of
2 removal, I conservatively estimated negative thirty (30) percent net salvage.

3
4 **Q. WHAT DOES MR. POUS PROPOSE FOR ACCOUNT 358 -**
5 **UNDERGROUND CONDUCTORS & DEVICES?**

6 A. Mr. Pous proposes negative zero (0) percent net salvage for this property group.

7
8 **Q. DO YOU AGREE WITH HIS PROPOSAL?**

9 A. No, I do not.

10
11 **Q. WHAT DO YOU PROPOSE AND WHY?**

12 A. My proposed net salvage parameter for this account is negative three (3) percent.
13 The historical net salvage analysis averaged zero (0) percent net salvage. The
14 forecast net salvage is negative three (3) percent. It is anticipated that a modest
15 level of future negative net salvage will be required to disconnect the facilities at
16 the end of their useful lives.

17
18 **Q. WHAT DOES MR. POUS PROPOSE FOR ACCOUNT 362 -**
19 **DISTRIBUTION STATION EQUIPMENT?**

20 A. Mr. Pous recommends zero (0) percent net salvage.

21
22 **Q. DO YOU AGREE WITH HIS PROPOSAL?**

23 A. No, I do not. In arriving at his current 0% net salvage proposal, Mr. Pous simply

1 ignored the underlying historical data that was provided to him at his request. Mr.
2 Pous acknowledges that "negative 15% does correspond to the level adopted in the
3 Company's last rate case, which was based on a settlement." OPC was a party to
4 that prior rate case settlement.

5 Lastly, Mr. Pous speculates that the Company will generate significant level
6 of scrap salvage from future plant retirements. While some increased levels of
7 scrap salvage may occur, it will likely be limited, plus it is far from certain.

8
9 **Q. WHAT DO YOU PROPOSE AND WHY?**

10 A. My proposed net salvage parameter for this account is negative fifteen (15) percent.
11 The overall average experience does not begin to indicate the real expectation with
12 regard to the anticipated future net salvage for this property group. The gross
13 salvage has averaged approximately twenty-six (26) percent over the historical
14 experience but has declined rather dramatically during more recent years.
15 Accordingly, the gross salvage trended to one (1) percent. The cost of removal has
16 historically averaged sixteen (16) plus percent and the level has increased during
17 more recent years. Cost of removal through the end of the useful service life of the
18 property group forecasted to in excess of sixty (60) percent.

19 Much of the gross salvage activity is certainly related to accounting
20 transactions for return to stores. The historical experience is not anticipated in the
21 future, nevertheless, some modest level of end of life gross salvage (e.g. scrap, etc)
22 is anticipated to be received at the end of life of the property.

23 With regard to cost of removal, sizable portions of the investments in this

1 property groups are related to the station transformers which can either be retired
2 and/or moved from one location to another. Retirement and/or relocation of these
3 facilities are anticipated to occur at much greater frequency for distribution
4 facilities and for transmission facilities (for which zero percent net salvage was
5 estimated). With the occurrence of this retirement/relocation activity there will be
6 a significant work effort and costs incurred in conjunction with those tasks. All of
7 the above factors were considered in estimating the proposed negative fifteen (15)
8 percent net salvage for this property group.

9
10 **Q. WHAT DOES MR. POUS PROPOSE FOR ACCOUNT 364 –**
11 **DISTRIBUTION POLES, TOWERS & FIXTURES?**

12 A. Mr. Pous' recommended net salvage is negative thirty-five (35) percent net salvage.

13
14 **Q. DO YOU AGREE WITH HIS RECOMMENDATION?**

15 A. No, I do not. Mr. Pous' proposal is based heavily on historical data as opposed to
16 consideration of future expectancies. The long-term average historical net salvage
17 and gross salvage are simply not representative of the recent and expected
18 experience in this account. Mr. Pous is improperly looking to the past to set rates
19 prospectively when he should be looking more at the current and expected
20 experience to set future rates. Mr. Pous also claims I recognized my recommended
21 net salvage parameter in the last depreciation study was extremely unreasonable.
22 Mr. Pous' statement is incorrect. My recommendation then as now is based on my
23 analysis of the Company's net salvage experience and expected future net salvage.

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Q. WHAT DO YOU PROPOSE AND WHY?

A. My proposed net salvage parameter for this account is negative fifty (50) percent. The Company's cost of removal is the true driver of the anticipated future net salvage. The cost of removal has continuously increased in recent years and can be anticipated to continue to do so in future years. While the historical average cost of removal was approximately fifty-six (56) percent that level does not begin to recognize the actual level of cost of removal the Company experienced in more recent years. In various past years, the Company experienced in excess of one hundred (100) percent cost of removal.

During the most recent couple of years, this cost of removal moderated somewhat, but it will likely return to much higher levels in the future. Net salvage over the past four (4) years temporarily moved to a less negative level than prior periods. The current estimate of future negative net salvage recognizes the existing level of negative salvage data notwithstanding the anticipation that during future years the negative net salvage will again increase to all time high levels. This anticipation is based upon the fact that net salvage for this property account is primarily driven by labor cost, and the fact that retirements and related cost of removal routinely occurs randomly throughout the Company's service territory, requiring extensive travel time plus all the other related cost associated with the replacement of retirement and removal of Poles.

Considering the recent moderation in cost of removal, and other factors related to the account, future negative net salvage was currently estimated at a

1 lower conservative level of negative fifty (50) percent.

2
3 **Q. WHAT DOES MR. POUS PROPOSE FOR ACCOUNT 365 -**
4 **DISTRIBUTION OVERHEAD CONDUCTORS & DEVICES?**

5 A. Mr. Pous proposes negative twenty (20) percent net salvage.

6
7 **Q. DO YOU AGREE WITH HIS PROPOSAL?**

8 A. No, I do not. His proposal heavily relies again on the long-term, backward looking
9 historical net salvage. Mr. Pous gives essentially no consideration to recent
10 experience let alone expected future experience. Mr. Pous also speculates, again,
11 about the level of future scrap value as a basis for his future net salvage estimate.

12
13 **Q. WHAT DO YOU PROPOSE AND WHY?**

14 A. My proposed net salvage parameter for this account is negative forty-five (45)
15 percent. The Company's net salvage averaged approximately negative twenty (20)
16 percent, but many of the factors contributing to the positive salvage occurred
17 during the period 1975 to 1985, with some high levels of gross salvage during the
18 late 1990's, specifically 1997 to 1999. Such salvage was likely not true salvage.
19 Because the gross salvage dropped off significantly during the most recent years,
20 the gross salvage was interpreted as zero (0) percent. Cost of removal has
21 historically been high, averaged approximately seventy (70) percent, but returned to
22 all time highs during the last few years. The forecasted end of life cost of removal
23 aggregated approximately 143 percent. Based upon the available data, future net

1 salvage was estimated at negative forty-five (45) percent.

2
3 **Q. WHAT DOES MR. POUS PROPOSE FOR ACCOUNT 366 –**
4 **UNDERGROUND CONDUIT?**

5 A. Mr. Pous proposes negative 0% net salvage.

6
7 **Q. DO YOU AGREE WITH HIS PROPOSAL?**

8 A. No, I do not. His proposal is entirely based upon the statement that the property
9 will be abandoned in place irrespective of the fact that the Company has
10 experienced negative net salvage.

11
12 **Q. WHAT DO YOU PROPOSE AND WHY?**

13 A. My proposed net salvage parameter for this account is negative ten (10) percent.
14 Historically, the Company has experienced average net salvage of approximately
15 negative eighteen (18) percent. For the most recent ten three-year rolling bands,
16 net salvage ranged between negative twenty-four (24) and negative two hundred
17 forty (240) percent. The forecasted level of net salvage is approaching negative
18 four hundred (400) percent. Notwithstanding the recent significantly negative
19 experienced, future net salvage was estimated at a very modest negative ten (10)
20 percent due to the fact that much of the property may be abandoned in place.

21
22 **Q. WHAT DOES MR. POUS PROPOSE FOR ACCOUNT 367 –**
23 **DISTRIBUTION UNDERGROUND CONDUCTORS & DEVICES?**

1 A. Mr. Pous recommends negative five (5) percent net salvage.

2

3 **Q. DO YOU AGREE WITH HIS PROPOSAL?**

4 A. No, I do not. Abandonment in place may occur for much of the property, but
5 retirements are not necessarily limited to that approach. Additionally, even with
6 abandonment in place, the Company still incurs costs to isolate and disconnect the
7 assets from the operating distribution system. Mr. Pous simply chose to ignore this
8 information.

9

10 **Q. WHAT DO YOU PROPOSE AND WHY?**

11 A. My proposed net salvage parameter for this account is negative ten (10) percent.
12 The Company's historical net salvage has averaged approximately negative ten (10)
13 percent net salvage. And, since the early 1990's, the net salvage has routinely
14 turned negative and during various years significantly more negative. During the
15 late 1990's, notwithstanding the fact that significant levels of gross salvage were
16 recorded, negative net salvage remained very high. Future gross salvage was
17 estimated at zero (0) percent inasmuch as the very high levels of gross salvage
18 during the late 1990's dropped off significantly in recent years. While levels of
19 gross salvage have been received in conjunction with third party damage of limited
20 portions of the Company's property and will continue to be experienced, it is
21 extremely unlikely that levels anywhere near the levels recorded in the past will be
22 applicable to the "total property group" throughout the property's life. Conversely,
23 cost of removal for this property group actually forecasts to in excess of one

1 hundred thirty (130) plus percent. Again, all of this data supports my
2 recommendation.

3
4 **Q. WHAT DOES MR. POUS PROPOSE FOR ACCOUNT 368 -**
5 **DISTRIBUTION LINE TRANSFORMERS?**

6 A. Mr. Pous recommends negative five (5) percent net salvage.

7
8 **Q. DO YOU AGREE WITH HIS RECOMMENDATION?**

9 A. No, I do not.

10
11 **Q. WHAT DO YOU PROPOSE AND WHY?**

12 A. My proposed net salvage parameter for this account is negative fifteen (15) percent.
13 Historically, the Company has experienced average net salvage of approximately
14 negative ten (10) percent for this property group. Gross salvage has averaged ten
15 (10) plus percent and cost of removal has averaged twenty (20) percent. The
16 forecasted gross salvage is three (3) percent, which is being driven by the recent
17 decline in gross salvage. Cost of removal levels previously declined during the
18 turn of the century only to again increase during the last several years. Three year
19 rolling band costs during recent periods has been in excess of twenty (20) percent
20 while gross salvage during the same periods have generally been approaching zero
21 (0) percent. The future forecast cost of removal level is still at more than thirty
22 (30) percent. Accordingly, future negative net salvage was estimated at negative
23 fifteen (15) percent.

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Q. WHAT DOES MR. POUS PROPOSE FOR ACCOUNT 369.1 – DISTRIBUTION OVERHEAD SERVICES?

A. Mr. Pous estimated negative forty (40) percent net salvage.

Q. DO YOU AGREE WITH HIS RECOMMENDATION?

A. No, I do not. Mr. Pous claims the updated data yields a positive level of net salvage. Mr. Pous' statement is incorrect and unsupported. The net salvage over the past four (4) did change and the current estimate of future negative net salvage accounts for that data. Mr. Pous, however, is wrong in his assertion that Overhead Services routinely generate positive salvage. Many of the Company's Overhead Services are Aluminum Triplex, which generates a limited amount of scrap value, plus removing Overhead Services is a labor intensive task resulting in the Company incurring high costs of removal.

Q. WHAT DO YOU PROPOSE AND WHY?

A. My proposed net salvage parameter for this account is negative fifty (50) percent. The Company's historical net salvage for this property group averaged negative eighty-nine (89) percent. Gross Salvage averaged approximately seventy-six (76) percent (much of which is likely relative to return to stores -- which is not actual salvage), and the cost of removal averaged in excess of one hundred sixty-five (165) percent. Gross salvage forecasted to zero (0) percent, while cost of removal forecasted to more than two hundred eighty (280) percent. While future customer

1 relocations will likely generate some level of gross salvage, nothing near the
2 overall recorded levels of gross salvage will be experienced for the Company's
3 total plant. Conversely, cost of removal levels will continue to increase over time.
4 Considering the high levels of both historic and even higher future cost of removal
5 factors a conservative estimate of negative fifty (50) percent was proposed for this
6 property group.
7

8 **Q. WHAT DOES MR. POUS PROPOSE FOR ACCOUNT 369.2 -**
9 **DISTRIBUTION UNDERGROUND SERVICES?**

10 A. Mr. Pous estimates zero (0) percent net salvage.
11

12 **Q. DO YOU AGREE WITH HIS RECOMMENDATION?**

13 A. No, I do not. Mr. Pous claims hurricane damage is a contributing factor to negative
14 net salvage. Given that the facilities are underground little, if any hurricane
15 damage would occur.
16

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

18 A. My proposed net salvage parameter for this account is negative fifteen (15) percent.
19 The Company's historical net salvage for this account averaged approximately
20 negative six (6) percent, which is influenced by the significant levels of positive
21 salvage during the 1970's and early 1980's. Historical gross salvage averaged
22 approximately six (6) percent, and the gross salvage forecast was zero percent.
23 While various levels of gross salvage have been received relative to swimming

1 pool construction and third party damage, it is extremely unlikely that future levels
2 will be anywhere near the past levels recorded throughout the total property's life.

3 The historical cost of removal averaged eleven (11) plus percent and
4 forecasted to nearly thirty (30) percent. While it can be argued that much, if not
5 most, of the underground services will be abandoned in place, the Company will
6 still incur costs to disconnect the services from the distribution system at the end of
7 the life. Giving consideration to the historical experience, the results of the forecast
8 analysis which identifies that cost will continue to escalate in future years, future
9 net salvage for this account was estimated at a conservative negative fifteen (15)
10 percent.

11
12 **Q. WHAT DOES MR. POUS PROPOSE FOR ACCOUNT 370 – METERS?**

13 A. Mr. Pous estimates negative six (6) percent net salvage.

14
15 **Q. DO YOU AGREE HIS ESTIMATE?**

16 A. No, I do not. Mr. Pous simply ignores the range of historical data and events
17 affecting this property group.

18
19 **Q. WHAT DO YOU PROPOSE AND WHY?**

20 A. My proposed net salvage parameter for this account is negative ten (10) percent.
21 Mr. Pous' recommended net salvage is less negative than the overall historical
22 experience. The Company's historical net salvage for this property group averaged
23 negative seven (7) percent, which was dramatically influenced by the change out of

1 a significant quantity of meters during the last couple of years. During earlier
2 years, when more typically levels of meter retirements and change-outs occurred,
3 the level of net salvage was routinely in the range of negative ten (10) to fifteen
4 (15) percent or higher. Now that the major change-out has occurred, a return to the
5 more typical level of cost is anticipated. Furthermore, cost of removal levels are
6 anticipated to continue to increase over time.
7

8 **Q. WHAT DOES MR. POUS PROPOSE FOR ACCOUNT 373 -**
9 **DISTRIBUTION STREET LIGHTING?**

10 A. Mr. Pous recommended net salvage is negative five (5) percent net salvage.
11

12 **Q. DO YOU AGREE WITH HIS PROPOSAL?**

13 A. No, I do not. Mr. Pous relies on supposed future sales of street lighting systems to
14 generate unknown levels of positive salvage. He also continues to refer to the
15 impact of past hurricanes on the study results. Neither of these items is an
16 appropriate consideration in estimating the future net salvage on this account.
17

18 **Q. WHAT DO YOU PROPOSE AND WHY?**

19 A. My proposed net salvage parameter for this account is negative twenty (20)
20 percent. While the Company's historical net salvage in this account averaged a
21 positive eight (8) percent, the average was driven by large positive value during the
22 1970's and 1980's. In more recent years, the Company routinely experienced
23 negative net salvage. The historic gross salvage averaged twenty-seven (27)

1 percent, which forecasted to zero (0) percent. Inasmuch as Company management
2 specifically indicated that no municipalities had recently acquired street light
3 systems much of the gross salvage is likely attributable to return to stores. Returns
4 to stores is not true gross salvage. Likewise, no street lighting system acquisitions
5 are anticipated for future years. Historical cost of removal averaged more than
6 nineteen (19) percent and is forecasted to twenty seven (27) percent due increased
7 future costs. The property within this property group will live to the end of its
8 useful life and experience the end of life negative net salvage cost.

9
10 **Q. WHAT DOES MR. POUS PROPOSE FOR ACCOUNT 390 – STRUCTURES**
11 **& IMPROVEMENTS?**

12 A. Mr. Pous recommended positive fifteen (15) percent net salvage.

13
14 **Q. DO YOU AGREE WITH THIS RECOMMENDATION?**

15 A. No, I do not. Mr. Pous ignores the realities of the operations of special use utility
16 properties in estimating the future net salvage for the property group. His estimate
17 of future net salvage is generally based upon the premise that the Company will sell
18 the properties at the end of their service life, which in many cases will not occur.

19
20 **Q. WHAT DO YOU PROPOSE AND WHY?**

21 A. My proposed net salvage parameter for this account is negative five (5) percent.
22 The Company's historical net salvage for this property group averaged negative
23 one (1) percent. Historical overall gross salvage averaged approximately five (5)

1 percent while the cost of removal averaged six (6) percent. While in some
2 historical years, the Company experienced a limited level of net positive salvage, in
3 far more years the Company experienced either zero or much greater negative net
4 salvage. During 2007, the Company experienced the largest retirement of property
5 (\$12,158,714) during the 32 year history, and the net salvage relative to that one (1)
6 retirement year was in excess of negative five (5) percent. While some properties
7 may be sold from time to time, the facilities are special use properties with little
8 value for the structures at the end of their useful life. Often times such properties
9 are refurbished or upgraded and not sold. Such activity routinely generates high
10 levels of cost of removal and little or no salvage. Accordingly, future net salvage
11 was estimated at a modest negative five (5) percent net salvage.

12
13 **Q. MR. POUS ASSERTED THAT YOUR ESTIMATED NET SALVAGE**
14 **PARAMETERS WERE EXCESSIVELY NEGATIVE. DO YOU AGREE?**

15 A. No. I can demonstrate that my recommended net salvage parameters are
16 conservative and not excessively negative as Mr. Pous erroneously claims. In
17 Exhibit No. ___ (EMR-7) to my rebuttal testimony, I have included a summary of
18 net salvage factors for selected plant accounts for several operating companies
19 located in the State of Florida, namely PEF, Florida Power & Light ("FPL"),
20 Tampa Electric Company ("TECO"), and Gulf Power Company. The listed net
21 salvage rates for TECO are those from the most recent approved Order (Order No.
22 PSC-08-00145), plus those in effect prior to the order. For Gulf Power the net
23 salvage rates are from the Company's 2009 depreciation study. The net salvage

1 rates for PEF and FPL are included from the proposed rates in the respective
2 company's depreciation study. I have also included OPC's recommended net
3 salvage percentages in the pending PEF and FPL rate case proceedings because Mr.
4 Pous is the OPC depreciation consultant in both proceedings.

5 In comparing the data, the Company's proposed negative net salvage factors
6 are reasonably comparable, if not lower, than other operating entities within the
7 State of Florida. While net salvage factors should be based on the merits of the
8 information within each operating company, the comparison demonstrates that my
9 recommendations are not excessively negative and in fact are conservative.

10 The exhibit also demonstrates that OPC's proposed net salvage factors for
11 PEF and FPL are driven by a results oriented approach. In several large mass
12 property accounts (namely Acct 356, 364, 365, 368, 369.1, and 370), Mr. Pous
13 recommended a percentage level of negative net salvage equal to or higher for FPL
14 property than he recommended for similar PEF property accounts. Indeed, with
15 respect to each of the referenced accounts, Mr. Pous recommended a considerably
16 lower level of negative net salvage for PEF's property than he recommended for
17 FPL's property.

18
19 **VI. SUFFICIENT COMPANY DATA.**

20 **Q. ARE THE DEPRECIATION PROPOSALS SET FORTH IN YOUR**
21 **COMPREHENSIVE DEPRECIATION STUDY RELATIVE TO PEF'S**
22 **PLANT IN SERVICE REASONABLE AND APPROPRIATE?**

23 **A.** Yes. The Company's proposed depreciation rates resulting from an analysis of the

1 Company's property investments as of 12-31-2007 and 12-31-2009 are well
2 founded and fully supported by a detailed analysis of the history of the Company's
3 plant in service and the factors anticipated to impact the Company's property over
4 the remaining lives of the asset groups. The Company maintains their books and
5 records in accordance with the Uniform System of Accounts in the Code of Federal
6 Regulations.

7
8 **Q. WAS YOUR DEPRECIATION ANALYSIS OF PEF'S STUDY PREPARED**
9 **USING THE GENERALLY ACCEPTED STANDARD DEPRECIATION**
10 **METHODS, PROCEDURES AND TECHNIQUES?**

11 A. Yes. Additionally, the study was prepared in accordance with Commission Rules
12 25-6.0436 and 25-6.04361, F.A.C.

13
14 **Q. WHAT STEPS WERE TAKEN TO ENSURE YOU HAD SUFFICIENT**
15 **DETAIL TO PREPARE THE PROPOSED DEPRECIATION RATES?**

16 A. My comprehensive depreciation analysis included a detailed analysis of PEF's
17 fixed asset records through December 31, 2007, the end of the most recent fiscal
18 year. All historical data utilized in the course of performing the detailed service
19 life and salvage study were obtained directly from PEF's books and records.
20 Historical vintage data for additions, retirements, adjustments and balances were
21 obtained for each depreciable property group. These historical cost records by
22 FERC account were assembled into a depreciation database upon which detailed
23 service life and salvage analysis were performed.

1 The Company also provided estimated proforma January 1, 2008 through
2 December 31, 2009 data. This data was provided by FERC account for additions,
3 retirements and adjustments and was used to arrive at the proposed December 31,
4 2009 investment balance, reserve balance and proposed depreciation rates.

5
6 **Q. DID YOU RECEIVE THE NECESSARY DATA FROM THE COMPANY**
7 **TO COMPLETE THE DEPRECIATION STUDY PROPERLY?**

8 A. Yes, the Company provided a full and complete database of all of the Company's
9 available historical additions, retirements, adjustments and net salvage data (cost of
10 removal and gross salvage). Additionally, Mr. Pous was in possession of the same
11 data that I was provided to complete the depreciation study, therefore, he had every
12 opportunity to assess whether, in his opinion, components set forth in the
13 depreciation study were reasonable.

14
15 **Q. DID YOU HAVE ANY DISCUSSIONS WITH MANAGEMENT OR PLANT**
16 **PERSONNEL?**

17 A. Yes, I had detailed discussions with plant and asset management personnel in
18 power operations (steam and combustion turbine/combined cycle), nuclear
19 generation, transmission, distribution and general plant (IT/Telecom related)
20 personnel. I also had detailed discussions with resource planning personnel. These
21 were comprehensive discussions about the Company's planned use of assets,
22 planned retirements, or major upgrades. Additionally, I made several site visits to
23 view the operation and question Company personnel.

1

2 **Q. CONTINUOUSLY THROUGHOUT HIS TESTIMONY, MR. POUS BOTH**
3 **STATES AND IMPLIES THAT INSUFFICIENT INFORMATION WAS**
4 **PROVIDED BY THE COMPANY TO SUPPORT THE COMPANY'S NET**
5 **SALVAGE ESTIMATES AND TO ENABLE HIM TO COMPLETE HIS**
6 **ANALYSIS. DO YOU AGREE?**

7 A. No. Mr. Pous was provided with all the underlying net salvage database
8 information that is available within the Company's records. The information
9 contained within the Company's records are items of information that are normally
10 and routinely maintained by all operating companies in accordance with the
11 Uniform System of Accounts. In addition, the depreciation study includes a
12 complete analytical analysis of the historical data through December 31, 2007
13 along with the completion of net salvage forecast analysis based upon the
14 underlying historical data.

15

16 **VII. CONCLUSION.**

17 **Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?**

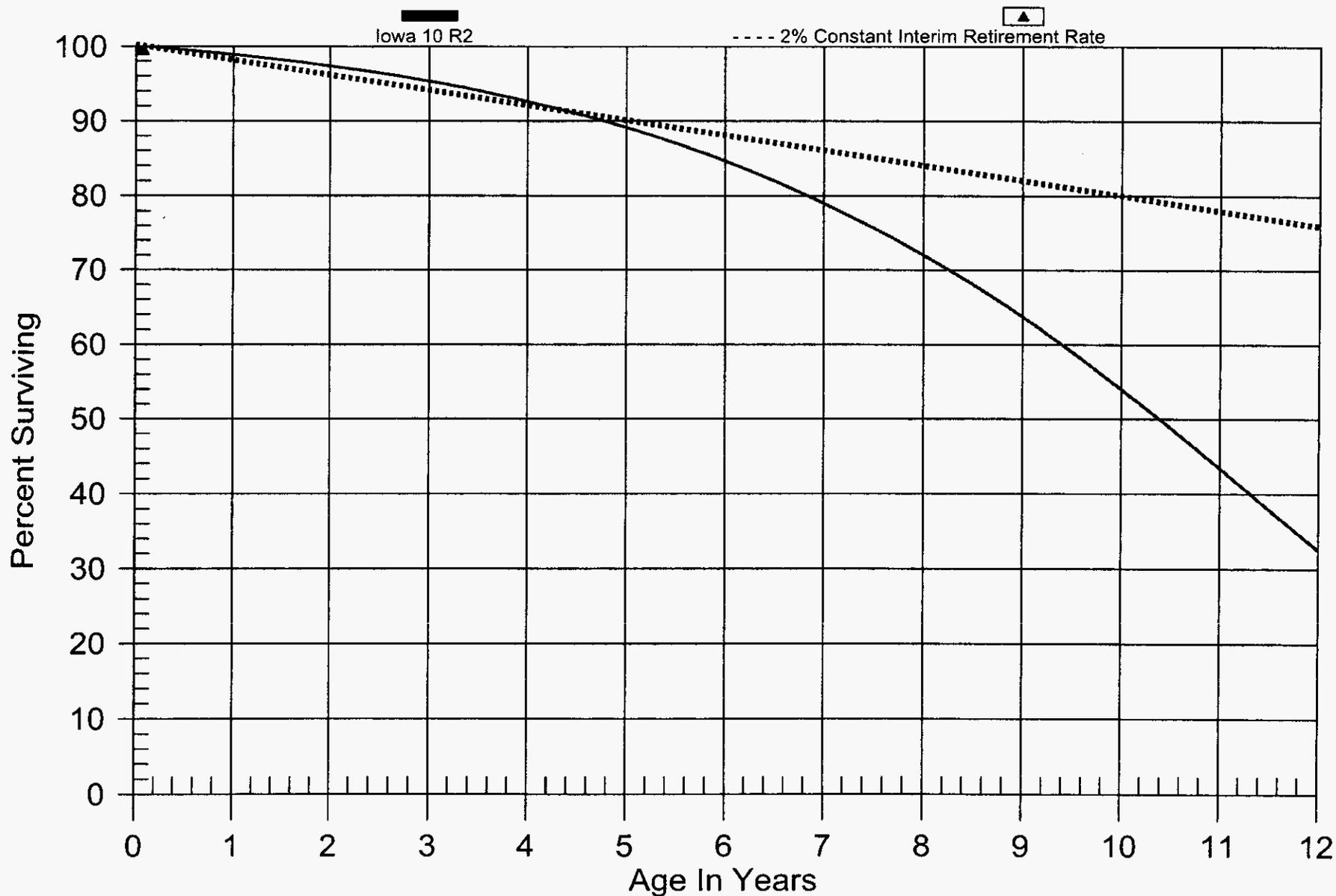
18 A. Yes.

Progress Energy Florida, Inc

Total Company

Comparison of Life Span Property With a Iowa 10-R2

Survivor Curve Versus An Interim Retire. Rate of 2%



CALIFORNIA PUBLIC UTILITIES COMMISSION
UTILITIES DIVISION

**DETERMINATION
OF
STRAIGHT-LINE REMAINING LIFE
DEPRECIATION ACCRUALS**

STANDARD PRACTICE U-4

SAN FRANCISCO, CALIFORNIA
Revised January 3, 1961

Forecast Method

15. In certain accounts such as buildings, structures, telephone central office, dams, reservoirs, generating plants and other classes of property comprised of major units which it is expected will be retired as a single unit at one time, the development of an appropriate remaining life is more readily accomplished by direct estimate. This method is referred to as the Forecast Method or in some cases, the Life Span Method. The tabulation below shows a sample calculation using this method. First step in the procedure is to list each major unit of property included in the account together with its relating plant dollars surviving today (Columns 1 and 3). Next, a direct judgment estimate is made of the remaining service span or the terminal date when each unit will be retired (Columns 4 and 5). To the remaining span a small correction is applied for so-called "interim retirements" of smaller units comprising part of the major unit. Interim retirements and additions include such items as changes within a building or changes at an electrical generation station not altering the basic structures, etc. As an approximation the assumption is made that future annual interim retirements will occur at a consistent ratio to the present plant balance (Column 6). The correction for interim retirements is then developed by picturing the resulting survivor curve shape. The major unit of property with its forecasted terminal date is represented by a square-shaped survivor curve. The interim retirements cause the top of this square to slope downward to the terminal date when the entire unit is retired. The correction for interim retirements is then the area of the triangle lost at the top of the square by reason of the interim retirements. The base of this triangle is the remaining span. The depth (height of this triangle) is the interim retirement rate times the number of years during which they will continue, namely, the interim retirement rate times the remaining span. The correction for interim retirements (Column 7) is then the area of this triangle, or one-half times the interim retirement rate times the remaining span squared. In more accurate applications, this correction may be developed from an actuarial analysis of mortality data for the interim retirements. After applying the correction to obtain the effective remaining life (Column 8), the composite remaining life for the account is obtained by direct weighting with the dollars for each unit (Column 9). However, average service life weighting is more appropriate where only a few items occur in an account and a long time interval exists between the extreme probable retirement dates.

Example of Determination of Remaining Life by Forecast Method

Alpha Water Company, Northern Area
Ac. 311, Structures and Improvements as of 1/1/60.

Unit (1)	Year Placed (2)	Plant 1/1/55 (3)	Probable Retirement Date (4)*	Remaining Span (5)	Interim Retire- ment Rate † (6)	Correction For Interim Retirements (7)	Remaining Life (8) = (5) - (7)	Future Dollar Years (9) = (3) × (8)
Office Building	1933	\$10,420	1982	22.5	0.5	1.3	21.2	\$220,904
Pump Station A	1928	1,290	1968	8.5	--	--	8.5	10,965
Pump Station B	1934	1,340	1974	14.5	0.25	0.3	14.2	19,028
Pump Station C	1954	1,770	1994	34.5	0.25	1.5	33.0	58,410
Garage Building	1946	4,720	1977	17.5	0.5	0.8	16.7	78,824
		\$19,540						\$388,131

Composite Remaining Life = $\frac{388,131}{19,540} = 19.86$, use 20 years.

* Probable retirement date for buildings was selected directly and for pump stations was determined from an estimated total span of 40 years.

† Annual percentage correction for interim retirements. These are judgment rates based on experience.

‡ Interim retirements estimated to be 0.5% per year for buildings and 0.25% per year for pump stations.

Example: For office buildings $\frac{0.5 \times 22.5}{2} = 5.6\%$ and 5.6% of 22.5 gives a correction of 1.3 years.

Approximation Method

16. Where survivor curves cannot be selected and the forecast method is not applicable, indications of remaining life may be obtained from the accounting records of gross additions and plant balances. Standard form D-5 provides for calculation by this method as illustrated in Table 5-D. The method is subject to the limitations discussed in Paragraph 9 above. However, indications may be obtained from a short span of years thereby avoiding some of the inconsistencies occasionally found in accounting data. Referring to Table 5-D, to apply the method, the starting plant balance, Item (4), plus the total gross additions (1) for a span of years is totaled to give plant exposed (6). The total of the plant balances (3) less one-half the beginning balance (5) and less one-half the ending balance (8) for the same span of years is likewise totaled (10) and a correction for past dollar years for transfers (11) is made to obtain Past Dollar Years (13). The quotient of these two totals [(13) divided by (6)] represents the realized life (14) of the plant during the span of years selected. The plant surviving at the end of the span (7) divided by the total of gross additions (6) indicates the portion of exposed plant surviving (9). The remaining life (16) has been obtained by selecting an appropriate average service life (12), subtracting from this the realized life (14) and dividing this difference (15) by the portion surviving (9).

When using this method where heavy additions to plant have been made in recent years, it is unnecessary to extend the span of years beyond the beginning of the heavy additions to derive reasonable indications of the remaining life. Where consistent accounting data is not available prior to a given year, this will determine the starting balance. If the starting balance under these circumstances is sizable, an estimated correction to the past dollar years for the prior life of this plant is required.

Direct Judgment Method

17. Where lack of appropriate data and other considerations make the application of any of the preceding methods unavailable, direct engineering judgment estimates of service life expectancies may be appropriate. It should be helpful to the engineer to study possible ranges of life estimates, setting down reasonable minimum and maximum expectancies before coming to final conclusions. Likewise, where the judgment method is being used, it may be desirable to consider the relationship of age plus remaining life which equals probable life. As previously noted at any age the probable life of survivors equals the age plus remaining life expectancy. This relationship is strictly true only for groups with all units of one age whose probable life is correctly estimated. However, the relationship is of value in determining a judgment estimate of remaining life. It should be noted that the average life of all units originally placed in the group, is less than the probable life of surviving units because of the prior retirement of short-lived units.

E--CHOOSING A METHOD OF ESTIMATING REMAINING LIFE

Steps in Choosing a Method

18. As can be seen from the foregoing, the methods available for estimating remaining life range in detail and accuracy from full actuarial analysis with age group weighting, through various approximation methods, to the simple direct judgment selection of a value for "E". In choosing a particular method best suited to the property in question the engineer should first have in mind the general nature of plant mortality characteristics and pertinent experience in similar properties; second, he should determine the type data available from the utilities' records; third, he should evaluate available methods in relation to the size of plant and the practical aspects of accuracy and work economy; and, finally, consistent with all the foregoing, he should select a method designed to yield the greatest accuracy practicable. Oftentimes it may be desirable to use different methods for different accounts and sometimes even for different classes of property within the same account. These steps are discussed in detail in the remaining paragraphs of this chapter.

Step One: "Have in mind the general nature of plant mortality characteristics and pertinent experiences in similar properties."

19. Paragraphs 2 and 3 of this chapter provide a basis for this information. Also the staff engineer should review recent depreciation studies of comparable utilities, and make a field inspection of the properties. For the larger utilities, experience in comparable accounts of the same utility should be noted. Other background information on mortality characteristics is covered in Chart 5-A and in Chapter 6.

Step Two: "Determine the type of data available from the utilities' records."

20. Paragraph 4 enumerates some sources of data. Paragraphs 5 through 9 discuss types of data which may be assembled to aid in determining estimates. The various factors of Chapter 3 as applied to the utility in question are also pertinent. Particular attention should be given to the methods used in determining unit retirement costs or retirement charges. Often appropriate mortality summary or age distribution data may be assembled from the unit cost data. One further consideration should be undertaken in this step; namely, the base for individual estimates should be fixed. Thus the classes of property within each account should be considered and those to be treated separately in the estimates should be selected. The presence of distinct mortality characteristics and the availability of data to permit separate estimates are criteria to be considered in this selection.

Step Three: "Evaluate available methods in relation to the practical aspects of accuracy and work economy."

21. The available methods are described in Paragraphs 12 through 17 above. Certain methods, as indicated, require detailed technical knowledge for which qualified personnel may not be available to smaller utilities. Different degrees of approximation are involved in each method. Generally the more approximate methods are easier to apply but are subject to greater possibility of error. Considering the methods solely from the standpoint of accuracy, the preferable methods may be enumerated in the following order:

- a. Develop a survivor curve by actuarial analysis and apply direct weighting of age groups.
- b. Develop remaining life by forecast methods.
- c. Select a type survivor curve from actuarial analysis of comparable property and apply direct weighting.
- d. Select a survivor curve by simulated plant balance methods and apply direct weighting.
- e. Select a type curve on a judgment basis using turnover indications of average service life if available and apply direct weighting.
- f. Use the method of approximation from plant account records.
- g. Determine remaining life by judgment means.

For accounts exceeding \$100,000 in plant, development of the remaining life using type curves and direct weighting of age groups or more accurate means is urged. The last two alternatives, while applicable to any size account, are more appropriate for accounts of less than \$25,000.

Step Four: "Select a method designed to yield the greatest accuracy practicable."

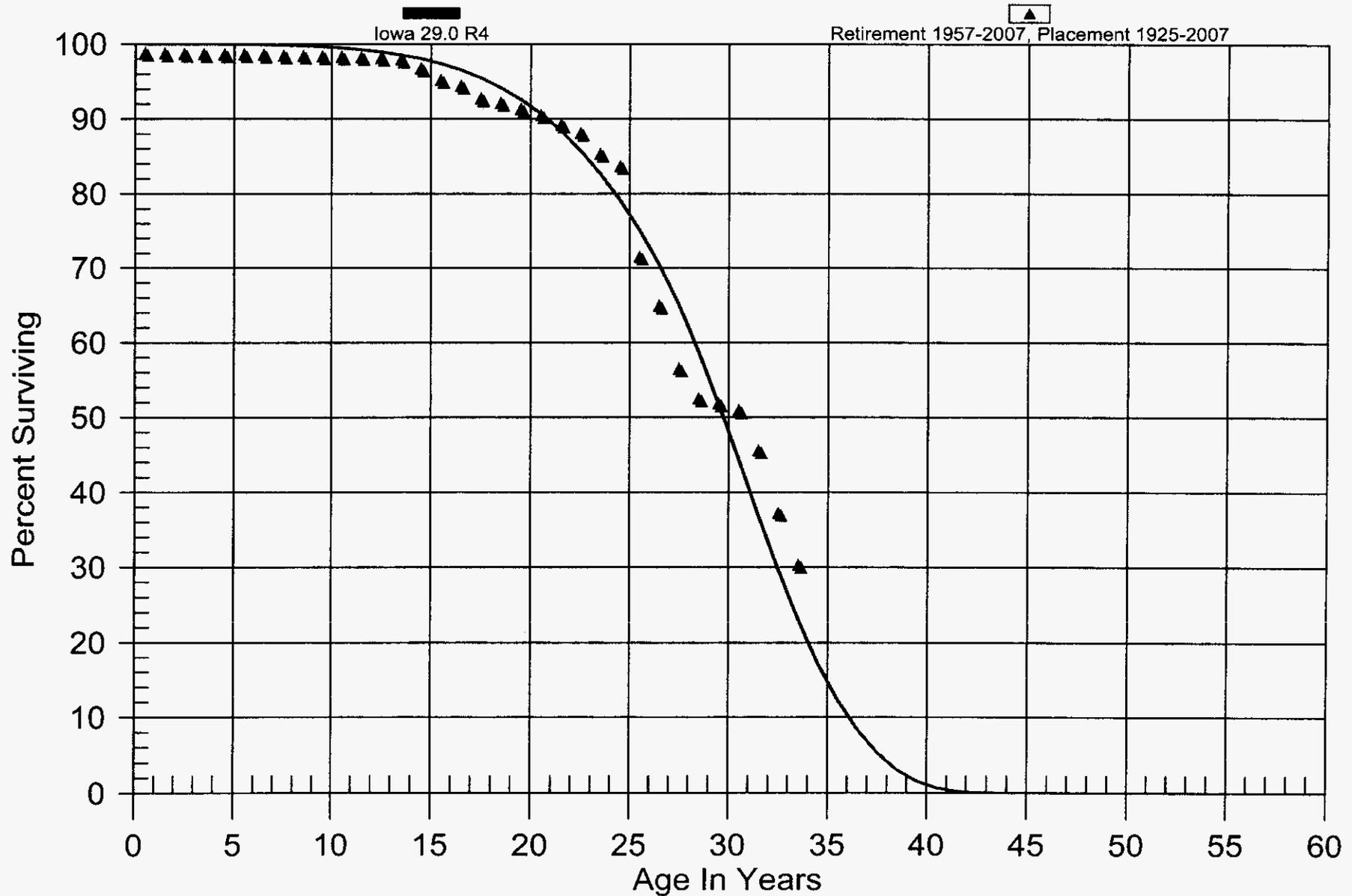
22. The final selection of a method will be somewhat apparent from the foregoing steps. Limitations on available data will result in deletion of some methods; smaller utilities will lack qualified personnel to perform some of the more accurate methods, etc. As a general guide, it is desirable to apply a survivor curve wherever possible. From a survivor curve weighting by age groups may be applied as illustrated in Tables 5-A and 5-B. The standard form for this calculation is designated Form D-3. Space is provided on the form for deriving age distribution data from gross additions and a selected survivor curve. Where the survivor curve is determined by actuarial analysis, or where age distribution data are otherwise available, Columns 2 and 3 of the form need not be used. Where the Iowa type curves are selected the appropriate remaining life to be entered in Column 5 may be taken from the tabulations given in the Appendix. To aid in testing the reasonableness of final results, some typical average service lives are given in Chapter 6. These typical results may be helpful, but they are to be used with caution.

23. The final selected value of the remaining life as previously discussed should be entered in Column 5 of the standard determination form D-1 or D-2. Where estimates of average service life, probable life, or average age were used to develop the remaining life estimate, these values should be shown in Columns B, C, and D of the standard determination form.

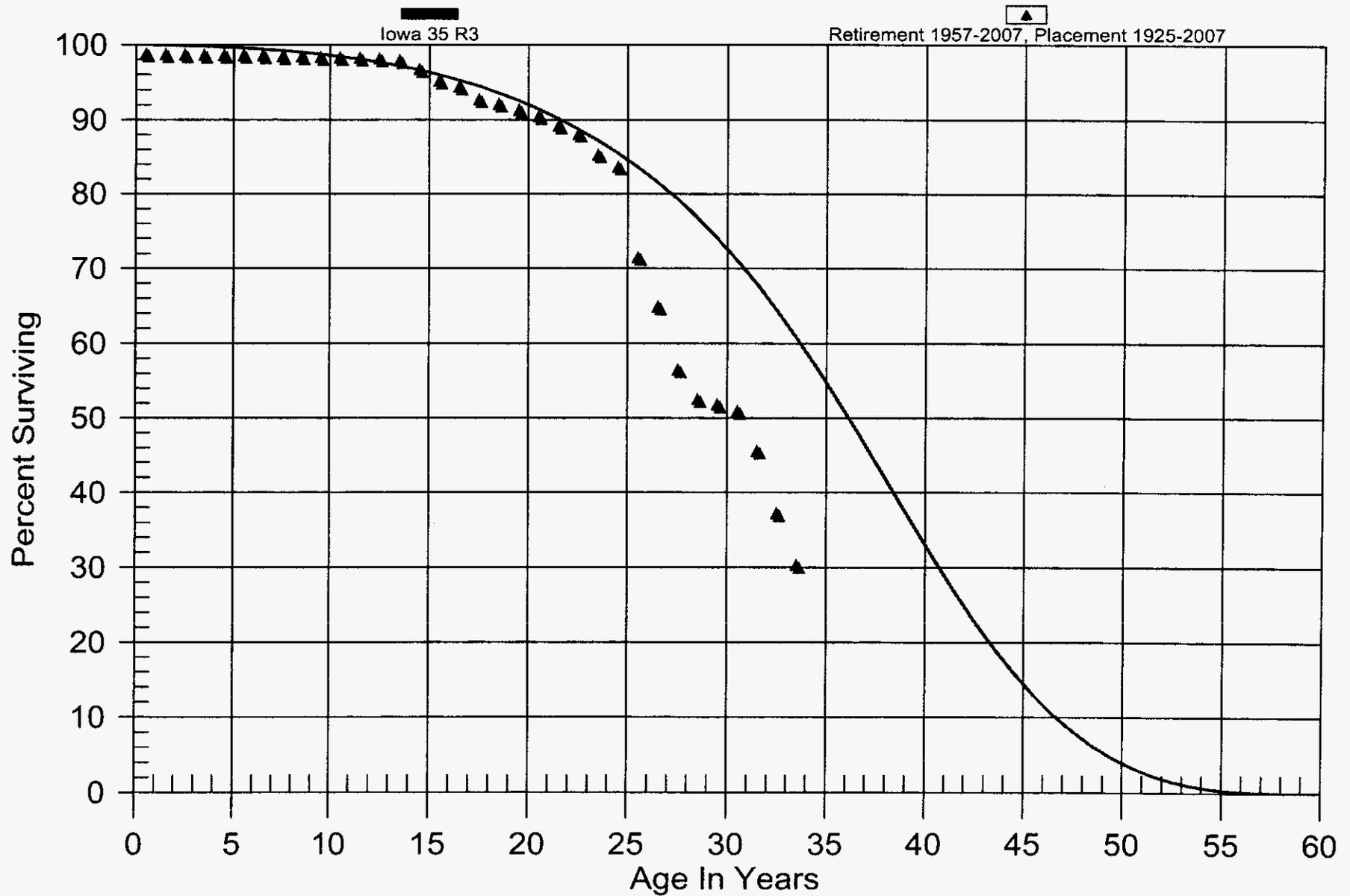
Choosing a Method for Smaller Utilities

24. The preceding discussion of the steps in choosing a method to be used for estimating the remaining life expectancy is applicable to utilities of all sizes. However, smaller utilities having limited technical personnel available or having a minimum of records relating to plant additions and retirements, will find but one or two methods applicable. As a general rule, the utilities having less than \$100,000 of plant must rely largely on the Judgment Method described in Paragraph 17. These utilities may also occasionally use the Forecast Method described in Paragraph 15.

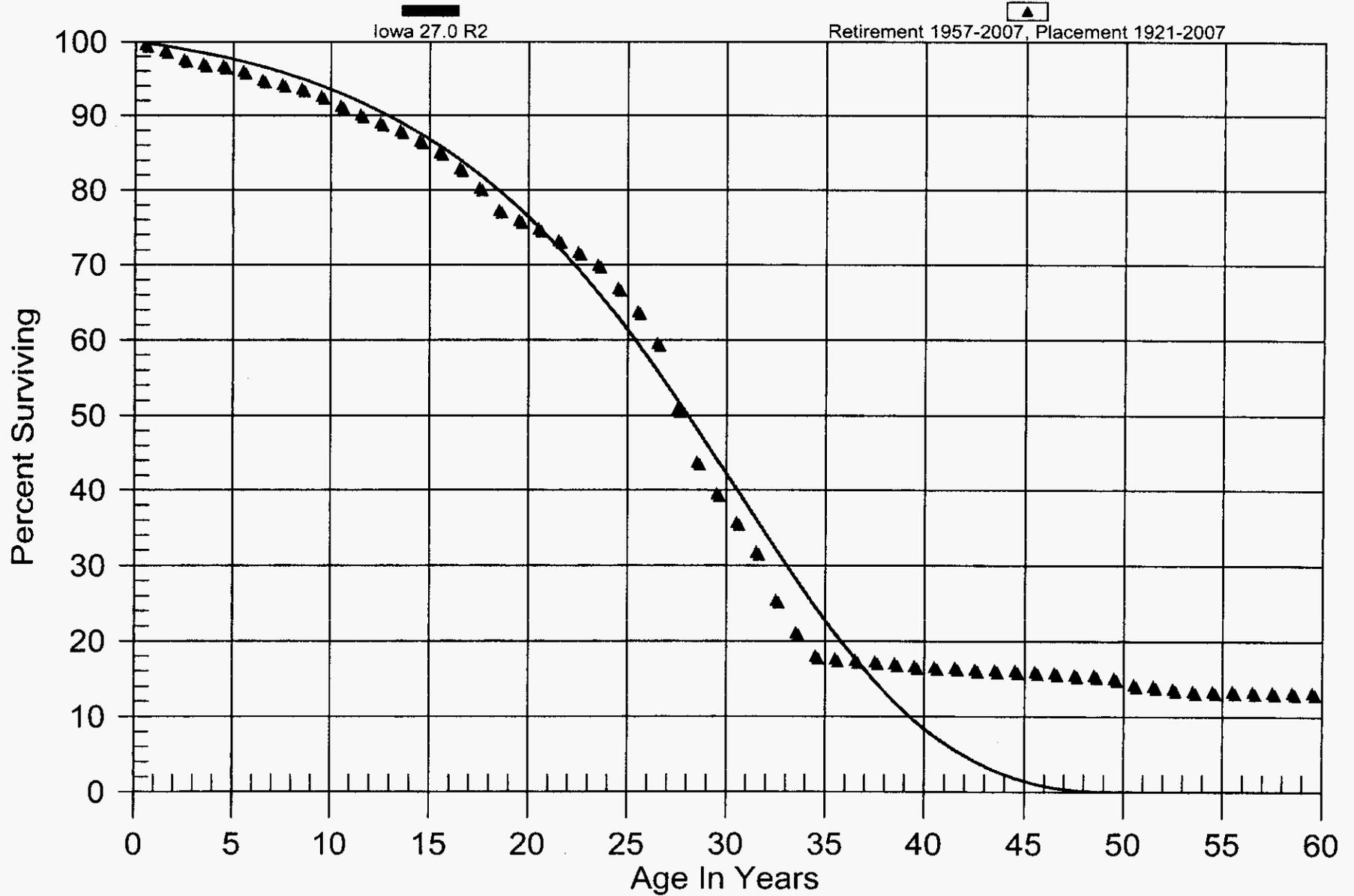
Progress Energy Florida, Inc
Total Company
364.00 POLES, TOWER AND FIXTURES
Original And Smooth Survivor Curves



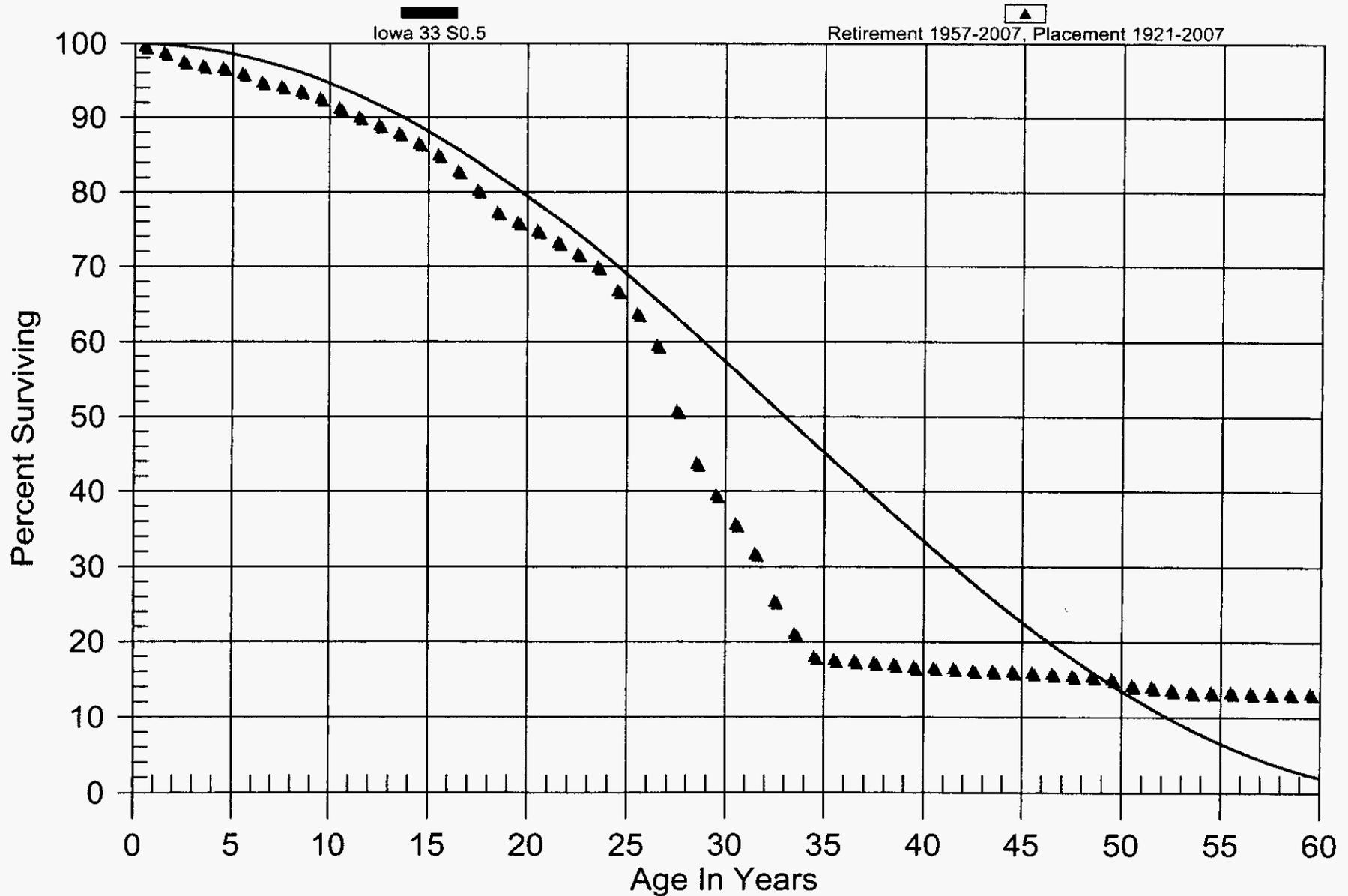
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Progress Energy Florida, Inc
Total Company
368.00 LINE TRANSFORMERS
Original And Smooth Survivor Curves



Progress Energy Florida, Inc
 Total Company
 368.00 LINE TRANSFORMERS
 Original And Smooth Survivor Curves



NET SALVAGE

FERC ACCOUNT	PEF 2009 Study ¹	OPC Recommendation ²	FPL 2009 Study ³	OPC Recommendation ⁴	TECO Net Salvage Prior to Order No. PSC-08-00145	TECO Commission Approved Net Salvage Order No. PSC-08-00145 ⁵	Gulf 2009 Study ⁶
353	0%	5%	-10%	0%	-5%	-5%	-5%
355	-50%	-25%	-50%	-30%	-30%	-40%	-40%
356	-30%	-10%	-50%	-40%	-20%	-30%	-30%
358	-3%	0%	-10%	NA	0%	0%	0%
362	-15%	0%	-10%	NA	-10%	-10%	-5%
364	-50%	-35%	-125%	-60%	-35%	-50%	-75%
365	-45%	-20%	-100%	-50%	-20%	-20%	-20%
366	-10%	0%	-5%	0%	0%	0%	0%
367	-10%	-5%	-5%	0%	0%	0%	-8%
368	-15%	-5%	-25%	-20%	30%	30%	-20%
369.1	-50%	-40%	-125%	-85%	-20%	-20%	-45%
369.2	-15%	0%	-10%	-5%	-15%	-15%	-10%
370	-10%	-6%	-55%	-10%	0%	-30%	-10%
373	-20%	-5%	-20%	NA	0%	0%	-10%
390	-5%	15%	-10%	25%	-20%	-20%	-5%

¹ PEF Depreciation Study; Exhibit No. ____ (EMR-2), Docket No. 090079-EI

² Exhibit No. ____ (JP-10), Docket No. 090079-EI

³ Exhibit No. ____ (CRC-1), Docket No. 080677-EI and 090130-EI

⁴ Exhibit No. ____ (JP-7), Docket No. 080677-EI and 090130-EI

⁵ Order No. PSC-08-0014-PAR-EI, Docket No. 070284-EI, January 4, 2008

⁶ Docket No. 090319-EI