

**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  
JEFFREY T. KOPP**

**On behalf of Progress Energy Florida**

DOCUMENT NUMBER-DATE

09010 AUG 31 8

FPSC-COMMISSION CLERK

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

**REBUTTAL TESTIMONY OF JEFFREY T. KOPP**

1 **I. INTRODUCTION**

2 **Q: Please state your name and business address.**

3 A: Jeffrey (Jeff) T. Kopp, Burns & McDonnell Engineering Co., 9400 Ward Parkway,  
4 Kansas City, MO, 64114.

5  
6 **Q: By whom are you employed, and in what capacity?**

7 A: I am employed by Burns & McDonnell Engineering Company. I am an Engineer in the  
8 Project Development Department of the Business & Technology Services Division of the  
9 company.

10  
11 **Q: What is your educational background?**

12 A: I have a Bachelor's Degree in Civil Engineering from the University of Missouri - Rolla,  
13 and a Masters of Business Administration from the University of Kansas.

14  
15 **Q: What is your employment history?**

16 A: I have 10 years total experience working as an engineer and 8 years of experience as a  
17 consultant in the electric power industry. My background includes project management,  
18 engineering design, site dismantlement estimates, asset due diligence, feasibility studies,  
19 siting studies, and project development.

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23

**Q: Have you been involved in dismantlement studies for other facilities?**

A: Yes. I have been involved in numerous dismantlement studies, and served as project manager on the majority of them. I have helped prepare dismantlement studies on all types of power plants utilizing various fossil fuels. These demolition estimates have been utilized in rate cases, have been used to estimate the liability associated with site demolition and retirement at the end of the facilities' useful lives, and have been used to satisfy Financial Accounting Standard 143, or utilized for actual unit demolition planning.

**II. TERMINAL NET SALVAGE**

**Q: What is the purpose of your testimony?**

A: My testimony will address Progress Energy Florida's (PEF) dismantlement study prepared by Burns & McDonnell Engineering Company (B&McD) and respond to the issues raised by Jacob Pous ("Pous") in his direct testimony filed on behalf of the Office of Public Counsel ("OPC") regarding the Terminal Net Salvage value calculated in the study.

**Q: Were you involved in PEF's dismantlement study prepared by B&McD, and if so what was your role?**

A: Yes. I served as the B&McD project manager for the preparation of the study.

**Q: Have you reviewed Pous's testimony?**

1 A: Yes. I have reviewed Pous's testimony, specifically Section IV F, which references the  
2 Terminal Net Salvage Value of PEF's fossil plants.

3  
4 **Q: What does Pous assert with respect to B&McD's dismantlement study?**

5 A: Pous claims that the fossil dismantlement study does not justify PEF's request for  
6 Terminal Net Salvage. He bases this assertion on two separate "levels of review." He  
7 first addresses the various options associated with the final retirement of the generating  
8 facilities under utility regulation that he claims are available to PEF. The second "level  
9 of review" is the quantification of the cost of removal once an option for removal is  
10 selected. Pous's arguments in both "levels of review" are invalid for several reasons, as I  
11 discuss below.

12  
13 **Q: Pous claims that several options, such as re-selling the units, are available to PEF in  
14 the context of dismantling fossil units in this study. Are these other options  
15 available to PEF?**

16 A: No, they are not. Pous states in his testimony that "the options available to the Company  
17 range from the worst case scenario of total dismantlement and site restoration, to the best  
18 case scenario corresponding to the sale of the facility at an amount significantly above net  
19 book value." (Testimony at p. 71) However, these are not viable options given the  
20 regulations in Florida related to the calculation of net terminal salvage value in utility  
21 dismantlement studies. B&McD prepared the dismantlement study at the request of PEF  
22 pursuant to the Florida Administrative Code Rule 25-6.04364, Electric Utilities  
23 Dismantlement Studies. This rule states in subsection (1) that "Each utility that owns a

1 fossil fuel generating unit is required to establish a dismantlement accrual.” Subsection  
2 (2)(c) of the rule defines dismantlement cost as “the costs for the *ultimate physical*  
3 *removal and disposal of plant and site restoration*, minus any attendant gross salvage  
4 amount, upon final retirement of the site or unit from service.” (emphasis added). This  
5 definition clearly states that the basis of the dismantlement costs should be for physical  
6 removal of the facilities. It does not allow for a range of possibilities from total  
7 dismantlement to a sale of the facility. It limits the basis of the study to dismantlement  
8 only. B&McD’s fossil dismantlement study for PEF based its costs, consistent with the  
9 rule, on the assumption that, upon dismantlement, each generating unit will be physically  
10 removed from the site, the materials will be disposed of, and the site will be restored.

11  
12 **Q: Is the basis of the B&McD dismantlement study being full dismantlement and site**  
13 **restoration consistent with the previous dismantlement studies?**

14 A: Yes. B&McD reviewed the dismantlement study prepared in 2004 by Sargent & Lundy  
15 (S&L). Full dismantlement and site restoration was the basis of the 2004 study as well as  
16 the previous studies that were accepted by the Florida Public Service Commission.

17  
18 **Q: Do you have any comments about Pous’s statements regarding generating facilities**  
19 **that have been sold rather than demolished?**

20 A: The statements Pous makes regarding the sale of generating facilities are irrelevant in this  
21 case since Florida Administrative Code Rule 25-6.04364 explicitly defines the basis of  
22 the study as full dismantlement. In any event, it is highly speculative to assume that any  
23 third party would want to purchase a generating unit that PEF has decided is cost

1 effective to stop running and dismantle. Pous himself admits that the “vast majority” of  
2 sales of generating units occur in de-regulated areas. (Testimony at p. 72). Since Florida  
3 is clearly not a de-regulated state for electric generation purposes, it is too speculative to  
4 assume that the sale of these units is a viable option.

5  
6 **Q: Pous also states that “even though the company is not legally required to dismantle**  
7 **and restore the site to a greenfield condition, it has elected to charge customers for**  
8 **that scenario.” Is this an accurate statement?**

9 A: No. The dismantlement study is not based on restoring the site to a “greenfield”  
10 condition. The industry standard use of the term greenfield is indicative of undeveloped  
11 land that is typically either in a natural state, or utilized for agricultural purposes. If  
12 B&McD were to prepare an estimate to restore a site to a greenfield condition, we would  
13 typically assume that everything that had been installed as part of the development of the  
14 site would be removed, including all underground facilities, in order to return it to a  
15 greenfield condition. This is not the basis of the dismantlement study that B&McD  
16 prepared. We have assumed that only facilities and equipment located 2 feet below grade  
17 and above will be removed. All underground piping, foundations, etc. located greater than  
18 2 feet below grade will be abandoned in place. This is consistent with Florida  
19 Administrative Code 25-6.04364, Subsection (2)(b) that states that the site should be  
20 restored to a “marketable or useable condition.”

21  
22 **Q: Is the assumption that facilities and equipment be removed to a depth of 2 feet**  
23 **below grade reasonable?**

1 A: Yes. Florida Administrative Code Rule 25-6.04364 does not give specific guidance on  
2 this, therefore, B&McD utilized this assumption consistent with the previous PEF  
3 dismantlement studies presented to the Florida Public Service Commission. B&McD has  
4 seen regulations in other states with removal depth requirements typically between 2 and  
5 4 feet below grade. This allows for the site to be reseeded as greenspace or even used for  
6 agricultural purposes. Removal of equipment and facilities to 2 feet is consistent with the  
7 concept of restoring the site to a marketable condition, and is the minimum removal  
8 depth that B&McD would recommend.

9  
10 **Q: What does Pous argue in his second “level of review” with respect to the**  
11 **quantification of the Company’s costs in the fossil dismantlement study and how do**  
12 **you respond?**

13 A: Pous states that the Company’s approach to dismantlement is “reverse construction,”  
14 meaning that each piece of the facility is dismantled piece by piece, as compared to some  
15 sort of explosive or blast. This is not an entirely accurate statement. Pous assumes that  
16 all demolition activities will be performed in this manner. In reality, a combination of  
17 demolition techniques will likely be required to dismantle the facilities in a safe and  
18 effective manner, consistent with Florida Administrative Code Rule 25-6.04364,  
19 Subsection (2)(b). In the original 1993 dismantlement study prepared by S&L, a  
20 demolition contractor, U.S. Dismantlement Corporation (USDC), was retained to assist  
21 with the development of the demolition costs. There is no indication that PEF or S&L  
22 dictated to USDC that “reverse construction” techniques be employed for all demolition  
23 activities. The manhour estimates from this study have been used as the basis and been

1 updated for each subsequent submittal. The 2004 study that was used as the starting  
2 point for B&McD's 2008 dismantlement study states that the demolition approach was to  
3 "maximize efficiency."  
4

5 **Q: Can you please expand on your statement that a combination of demolition**  
6 **techniques will be required?**

7 A: Pous implies in his testimony that either "reverse construction" can be utilized and the  
8 facilities be demolished piece by piece, or that demolition through the use of explosives  
9 can be utilized. He illustrates this example with the demolition of a power plant stack in  
10 Oklahoma, in which a stack was demolished by explosives. While it is true that  
11 demolishing a single concrete stack with the use of explosives and allowing it to break  
12 apart along a predefined "fall line" may be the least cost and best alternative for that  
13 piece of equipment in that particular situation, it is not the single best alternative for all  
14 equipment and facilities. Based on the equipment, location, regulations, and regard for  
15 safety, different techniques will be required for different pieces of equipment throughout  
16 the different sites. The use of explosives and allowing a structure to break apart along a  
17 predefined "fall line" may be appropriate for a concrete stack, but would not be a feasible  
18 approach to demolishing a boiler, boiler building, and turbine building.  
19

20 **Q: Why would the use of explosives and allowing a structure to break apart along a**  
21 **predefined "fall line" not be appropriate for a boiler, boiler building, and turbine**  
22 **building?**

1 A: A concrete stack could be demolished in this manner due to the fact that it is mainly  
2 concrete, with some steel. With the use of explosives, the base of the stack will be  
3 broken, and it will continue to break along the "fall line" until the entire stack has fallen.  
4 This technique would not work on a boiler, boiler building, and turbine building, which  
5 consist of mainly steel, because they would not break apart along a predefined "fall line."

6  
7 **Q: Are there other techniques available utilizing explosives to reduce the costs of**  
8 **demolishing these structures?**

9 A.: Yes. In B&McD's experience, a common approach to demolishing these structures  
10 would be to use explosives on the base support beams to drop the structure on its side.  
11 This would not cause the structure to continue to break itself apart like in the case of the  
12 concrete stack, but it would bring the entire structure closer to the ground making it easier  
13 to cut apart. The structure would still need to be cut into manageable pieces by the  
14 demolition crews in order to allow the scrap metal to be hauled off for salvage value and  
15 allow the remaining demolition debris to be placed in an on-site landfill or hauled to an  
16 off-site landfill. The use of controlled explosions would only be used after all asbestos  
17 has been removed from the structure and major pieces of equipment, such as steam  
18 turbines, had been removed from the structure.

19  
20 **Q: Generally, what are your conclusions regarding Pous's statement that the**  
21 **dismantlement costs assume "reverse construction" and that the estimates are**  
22 **therefore too high?**

1 A.: The original manhour estimates were prepared by a demolition contractor. There is  
2 nothing in the original study that would indicate that the demolition contractor was  
3 limited to using reverse construction techniques only for all activities. B&McD reviewed  
4 these manhour estimates in the context of our experience with other demolition studies,  
5 other demolition contractor bids we have received, and other actual demolition projects  
6 with which we have been involved. The manhour estimates are in line with our  
7 expectations for these facilities. The manhour estimates are also consistent with using a  
8 combination of techniques for demolition, including controlled explosions to lay  
9 structures down prior to cutting them into manageable sized pieces. Generally, B&McD  
10 believes that the manhour estimates in the dismantlement study are appropriate.

11  
12 **Q: What about the case in Nevada that Pous cites, in which the actual demolition costs**  
13 **came in at 30 cents on the dollar compared to the demolition estimates?**

14 A: Pous did not provide the Nevada Power Company cost estimates or the actual demolition  
15 cost and scope, therefore, at this point in time, it is impossible for me to make an  
16 assessment of the cause of the difference in the costs. However, in B&McD's  
17 experience, there are a variety of reasons that the demolition costs from demolition  
18 contractors could have come in at a much lower cost than the original estimates. These  
19 differences could include but are not limited to any of the following: (1) Dramatic  
20 changes in scrap value; (2) the ability to sell major equipment (steam turbines, GSU's,  
21 etc.) for reuse rather than scrap; and (3) major omissions in scope by the demolition  
22 contractor. It is impossible to determine the reason for the difference between the  
23 estimated cost and the actual costs without further information about this specific case.

1 However, generally speaking, this is a single example that does not necessarily translate  
2 to PEF's case. There are undoubtedly numerous cases in which actual demolition costs  
3 have been higher than the demolition cost estimates prepared by an engineering firm.  
4 Using this Nevada Power Company example alone is misleading and inaccurate.

5  
6 **Q: You mention that one of the differences in cost could be the result of omissions in**  
7 **scope by the demolition contractor. Please elaborate.**

8 **A:** I have seen instances where B&McD has prepared a cost estimate for site dismantlement  
9 and restoration, such as the study it did for PEF in this case, and also separately received  
10 bids from demolition contractors. In some cases demolition contractors provided bids at  
11 a substantially lower cost than B&McD's cost estimates, because the demolition  
12 contractor was only quoting the cost to demolish the above grade structures that are  
13 mainly steel with a significant scrap value. The contractor's quote did not include any  
14 scope of work to provide site restoration. The contractor's cost estimates also excluded  
15 the costs to remediate any hazardous materials, such as asbestos. By limiting their scope  
16 to the facilities with significant scrap value, the demolition contractors were able to keep  
17 their costs low. However, this would be inconsistent with Florida Administrative Code  
18 Rule 25-6.04364, Subsection (2)(b) that states that the site should be restored to a  
19 "marketable or useable condition." Without knowing if the Nevada Power Company site,  
20 upon which Pous relies, was restored to a marketable or useable condition, it is  
21 impossible and inappropriate to compare this project to the PEF case.  
22

1 **Q: What about Pous's assertion that the use of a 20% contingency factor is not**  
2 **reasonable?**

3 A: There are two parts of his assertion with which I disagree. First he states that the  
4 Company has proposed a very high side cost estimate. (Testimony at p. 77). I disagree  
5 that the Company has proposed a very high side cost estimate. I believe that B&McD has  
6 tried to capture as accurately as possible the actual demolition cost that PEF will need to  
7 incur when it dismantles each of its fossil fuel generating units. Pous assumes that those  
8 costs include pre-cutting members, beams, piping, etc. high above the ground and then  
9 carefully lowering them. In some cases it will be necessary to precut certain components  
10 and lower them to the ground. In some cases, structures will be dropped on their side and  
11 then cut up. In all cases, all metal components will have to be cut to manageable sizes to  
12 be loaded for hauling in a manner that maximizes the quantity of metal in a load. The  
13 metal will be required to be cut up and hauled to a scrap dealer in order to obtain scrap  
14 value for the metal, which is used to offset a significant portion of the demolition costs.  
15 There is not a viable alternative for eliminating the manhours required to cut up these  
16 components. Therefore, I disagree with his statement that this is a very high side cost  
17 estimate.

18 Secondly, he implies that a contingency is only warranted on a low side cost  
19 estimate. The application of a contingency is an standard industry approach in the  
20 preparation of cost estimates. Contingency is applied to cover unknowns. This is  
21 applied on top of the basic estimated cost. As mentioned in Pous's testimony, a  
22 contingency covers issues such as potential weather delays, which are not accounted for

1 in the base cost estimate. A contingency is therefore appropriate with every cost  
2 estimate, irrespective of how Pous would characterize such an estimate.

3  
4 **Q: What about Pous's suggestion that negative contingency may be warranted?**

5 A: I have never seen a case where a cost estimator prepared a cost estimate and then applied  
6 negative contingency. Pous's suggestion that a negative contingency be considered is not  
7 only inconsistent with industry standards, it is inconsistent with Florida Administrative  
8 Code Rule 25-6.04364. Subsection (2)(a) of that rule defines and permits contingency  
9 costs to be included in the cost estimates to account for "unforeseeable elements of cost  
10 within the defined project scope."

11  
12 **Q: Pous discusses an instance in which a demolition contractor paid \$1 million for the  
13 right to demolish the King generating plant. Is this a reasonable scenario?**

14 A: Similar to the Nevada Power Corporation case referenced by Pous, he has not provided  
15 the demolition cost details and scope associated with this project. Therefore, at this point  
16 in time, it is impossible for me to make an assessment of the reason that the contractor  
17 would have paid for the right to demolish the King generating plant. Again there are  
18 numerous potential reasons that the contractor would have paid for the right to demolish  
19 the King generating plant that may not apply to the PEF facilities. Plants vary in the  
20 level of costs required for demolition and site remediation and vary in the level of scrap  
21 metal and salvageable equipment. The only thing I do know about the King generating  
22 plant is that, according to Pous, scrap metal prices were at an all-time high when the  
23 plant was dismantled. (Testimony at p. 78) In any event, details of this project would

1 need to be reviewed to determine if this project is comparable to any of the PEF facilities  
2 prior to relying on the King generating plant to draw any conclusions about the PEF  
3 facilities.

4  
5 **Q: Pous takes the King generating plant example and concludes that the Company's**  
6 **method for estimating costs for fossil dismantlement is neither accurate or**  
7 **economically efficient. Do you agree?**

8 A: No. In fact, the scrap metal prices B&McD used in the dismantlement study are quite  
9 high and were near their all time highs. B&McD elected to use these values because they  
10 were accurate prices at the time of the study, and would result in conservatively low net  
11 retirement cost estimates. Contrary to Pous's statement, the theory used in the  
12 dismantlement study uses an economically efficient theory of dismantling the facilities at  
13 a time of high scrap metal prices.

14  
15 **Q: Yes, but Pous states that the scrap metal market will experience high prices once the**  
16 **economies of China and India begin to grow at substantial rates. Do you agree?**

17 A: Yes. I agree the scrap metal market will experience and increase in prices over the  
18 current market pricing, however, it is very speculative to think that they will rise above  
19 the rates reflected in the B&McD study anytime in the near future. Again, the B&McD  
20 study was completed during a period of very high scrap metal prices. If the study was  
21 completed today using the current, lower scrap metal prices, the cost to dismantle would  
22 be higher than what the Company is currently proposing.

1 **Q: Pous claims that there is an error in B&McD's calculation in labor costs. Do you**  
2 **agree that an error was made in the calculation?**

3 A: No. I don't agree that there was an error made in the calculation. There was, however,  
4 an error in a previous discovery response regarding the calculation of labor costs. In  
5 response to Florida's Office of Public Council OPC's Fifth Interrogatories No. 189, we  
6 incorrectly stated that the study used an average of local union wage rates and the pay  
7 scales listed in the 2008 RS Means Heavy Construction Cost Data, 22nd Annual Edition  
8 ("RS Means book"). While B&McD reviewed the pay scales listed in the RS Means  
9 book, B&McD decided to utilize only the local union wage rates in the study. The local  
10 union wage rates more accurately represent the cost of the local workforce that would  
11 perform the work, as compared to the pay scales listed in a national publication such as  
12 the RS Means book. This assumption was consistent with the previous studies performed  
13 by S&L.

14  
15 **Q: Do you agree with Pous's recommendation that a 60% reduction be applied to the**  
16 **Company's request in this proceeding?**

17 A: No. Pous's 60% reduction is based on the Nevada Power demolition example he  
18 provides as one example of how a demolition methodology resulted in lower costs than a  
19 "reverse construction" methodology. (Testimony at p. 80). Arbitrarily applying a 60%  
20 cost reduction based on a single case from a state on the other side of the country is  
21 unreasonable. As I explain above, there are numerous reasons that the cost estimate  
22 prepared by the engineering firm on behalf of Nevada Power could have varied so much  
23 from the actual demolition costs. It is unreasonable to assume that these same factors,

1 that lead to the actual price being lower than the estimated price in Nevada Power's case,  
2 would all apply to PEF's case. Pous's proposed reduction is arbitrary and not based on  
3 any real analysis of PEF's specific generation fleet. By contrast, in preparing the  
4 B&McD study, I personally reviewed each of the Company's units and developed  
5 detailed cost estimates based on the specific and unique characteristics of those units.  
6 The cost estimates provided in the B&McD study are reasonable and supported by actual  
7 analysis. Therefore the Company's requested costs for dismantling its fossil generating  
8 units should be approved in their entirety.

9  
10 **Q: Does this conclude your testimony?**

11 **A.: Yes.**