

PROGRESS ENERGY FLORIDA
In re: Nuclear Cost Recovery Clause
Docket 100009-EI
Eighteenth Request for Confidential Classification

Exhibit B

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DOCUMENT NUMBER DATE

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FFSC-CONFIDENTIAL

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

**In re: Nuclear Cost Recovery
Clause**

DOCKET NO. 100009

Submitted for filing: August 3, 2010

REDACTED

REBUTTAL TESTIMONY OF JEFF LYASH

**ON BEHALF OF
PROGRESS ENERGY FLORIDA**

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FPSC-COMMISSION CLERK

1 COL. PEF agrees that project cancellation is a reasonable option for the LNP given
2 the existing schedule shift on the LNP and the risks PEF faced on the project, and that
3 is why PEF evaluated this option before making its decision to continue pursuing the
4 COL. In fact, PEF decided to continue with the LNP only when PEF was able to
5 obtain favorable terms to amend the EPC agreement and implement an extended
6 partial suspension to focus the work on obtaining the LNP COL while maintaining the
7 existing contractual benefits and risks under the EPC agreement during this licensing
8 period.

9 This favorable amendment allowed the Company to continue with the project
10 [REDACTED] to PEF and its customers. As a result, the Company was able to
11 extend the near-term LNP costs to customers in excess of one billion dollars to the
12 period after the LNP COL is obtained while preserving the long-term benefits of low-
13 fuel cost, carbon-free nuclear energy generation for PEF and its customers. This is a
14 reasonable and prudent decision under the circumstances and Jacobs does not contend
15 otherwise. Indeed, for all the reasons provided in my direct and rebuttal testimony in
16 this proceeding, this was the right decision for PEF, its customers, and the State of
17 Florida.

18 Later in his testimony, Jacobs does claim that PEF was unreasonable with
19 respect to PEF's execution of the EPC agreement at the end of 2008 without the
20 Nuclear Regulatory Commission ("NRC") Limited Work Authorization ("LWA")
21 determination in hand. (Jacobs Test., p. 12, L. 20-25, p. 13, L. 1-24, p. 14, L. 1-18).
22 Jacobs admits, however, that he made this exact same argument last year in the 2009
23 nuclear cost recovery clause ("NCRC") docket. (Id., p. 12, L. 23). In that docket, the

1 Company's assessment of all other enterprise risks affecting the LNP as I describe in
2 detail in my direct testimony.

3

4 **Q. If termination of the EPC agreement and cancellation of the LNP was a**
5 **reasonable option why didn't the Company cancel the project?**

6 A. PEF was able to amend the EPC agreement to continue the project, focusing work on
7 obtaining the COL under an extended partial suspension, while maintaining the
8 favorable terms and conditions of the existing EPC agreement. In Amendment 3 to
9 the EPC agreement, PEF further placed the majority of the milestone dates on hold
10 until the COL is issued [REDACTED]

11 [REDACTED]. This allowed PEF to [REDACTED]
12 [REDACTED]

13 [REDACTED] During this licensing period, then, PEF and its customers have the
14 benefit of [REDACTED]

15 [REDACTED]. PEF, therefore, was able to obtain the
16 [REDACTED] in Amendment 3 while placing the Company and its
17 customers [REDACTED]

18 [REDACTED]
19 [REDACTED]

20

21 **Q. Would PEF have continued with the LNP without Amendment 3 to the EPC**
22 **agreement?**

1 A. No. In the event PEF was unable to negotiate the favorable terms to amend the EPC
2 agreement that PEF obtained in Amendment 3 to the EPC agreement, PEF would have
3 terminated the EPC agreement and cancelled the project. As I explained in detail in
4 my direct testimony, the enterprise risks associated with the LNP have increased.
5 Over the past year, there has been more uncertainty with respect to the enterprise risks
6 facing the project. On this point, there is no disagreement between PEF and the
7 intervenor witnesses. This increased uncertainty associated with the risks facing the
8 project led PEF away from proceeding as quickly as possible with the LNP
9 construction to consider cancellation of the project if PEF could not continue with the
10 project on a longer term schedule shift. PEF determined that it would proceed with
11 the project only if it was able to [REDACTED]
12 [REDACTED]. PEF was
13 able to achieve these objectives in Amendment 3 to the EPC agreement. PEF,
14 therefore, decided that cancellation of the project at this time was not in the best
15 interests of PEF and its customers.

17 **Q. What contractual and long-term project benefits were preserved by Amendment**
18 **3 to the EPC Agreement?**

19 PEF was able to preserve all of the contractual benefits that PEF obtained [REDACTED]
20 [REDACTED]. These
21 beneficial contract terms and provisions were identified in my testimony in Docket
22 No. 090009 and include:

23 [REDACTED]

1 All of these beneficial contractual terms and provisions were maintained in
2 Amendment 3 to the EPC agreement.

3 This decision also preserves the long-term benefits of nuclear generation for
4 the Company, its customers, and the State of Florida. These long-term benefits are
5 fuel portfolio diversity, reduced reliance on fossil fuels for energy production, carbon
6 free energy generation, and base load capacity with a relatively low cost fuel source.
7 The LNP will provide PEF with fuel portfolio diversity, reduce PEF's reliance on
8 fossil fuels for energy production, and provide essentially carbon-free energy
9 production, regardless of the impact of global warming concerns and attendant

1 with the LNP as quickly as possible is approximately [REDACTED], the estimated cost
2 to terminate the EPC agreement and cancel the project is [REDACTED], and the
3 estimated cost to amend the EPC agreement and defer most capital costs until the COL
4 is obtained is [REDACTED]. Again, the Company's decision will defer over \$1
5 billion in capital costs for the LNP until after the COL is obtained. Further, for an
6 estimated [REDACTED] --- the difference over this period between immediate
7 cancellation and proceeding with the project by extending the partial suspension and
8 focusing work on the COL --- the Company preserves the favorable terms and
9 conditions of the EPC agreement and the long-term benefits of nuclear generation.
10 The Company also avoids any lost benefits of sunk costs in the project for the
11 Company and its customers if the project is not terminated.

12 As I explained in my direct testimony, termination of the EPC agreement and
13 cancellation of the project involves not only [REDACTED]
14 [REDACTED], and administrative costs to conclude the project, it
15 also involves an opportunity cost because the benefit of some of the costs already
16 incurred on the LNP, or the sunk project costs, may be lost upon termination of the
17 EPC agreement and project cancellation. The lost benefit of these sunk costs is likely
18 if there is no renewed effort for nuclear generation in Florida for the foreseeable
19 future. These lost opportunity costs are difficult to identify and therefore estimate, but
20 they certainly exist in the event of project cancellation and should be and were
21 considered in the Company's evaluation of the LNP options.
22

1 **Q. Jacobs claims that PEF failed to consider all costs because PEF did not consider**
2 **at this time the costs of cancellation of the project in 2013 after the COL is**
3 **obtained. Do you agree with his claim?**

4 **A.** No, I do not. As I explained above, Jacobs' argument boils down to an argument that
5 PEF should have immediately cancelled the project because there are increased
6 uncertainties and risks that are unlikely to diminish by the time PEF obtains the LNP
7 COL. Jacobs believes today that PEF will likely terminate the project after PEF
8 receives the LNP COL in 2013 because of these project uncertainties and risks. This
9 is, in essence, an argument that PEF should immediately cancel the project. PEF did
10 evaluate the immediate cancellation option including the costs of that option.

11 It makes no sense to compare the estimated costs of cancellation three years
12 from now to the estimated costs of cancellation or continuation today if one now
13 believes as Jacobs apparently does that the project uncertainties and risks are so great
14 that the project will be cancelled in the future. If that is the case, immediate
15 cancellation is the reasonable option and one would simply consider the estimated
16 costs of immediate cancellation in the evaluation, just as PEF did in its evaluation of
17 the LNP options. It also makes no sense to compare the estimated costs of
18 cancellation options at different points in time when one is trying to decide whether or
19 not project cancellation or continuation is in the best interests of the utility and its
20 customers. Obviously the costs of future cancellation after three or four more years of
21 project investment, approximately [REDACTED], will be higher than the costs of
22 immediate cancellation of the project, approximately [REDACTED]. However, since

1 the decision must be made at a particular point in time, the costs of the options must
2 be estimated at the time the decision will be made.

3 This does not mean that PEF ignored the likely future costs if decisions were
4 made at a different point in time in its discussions evaluating the LNP options before
5 the Company. PEF certainly understood at the time it evaluated these options and
6 made its decision that PEF would be spending more money on this project over the
7 next three to four years and still face potential termination of the project at a future
8 point in time. These costs were discussed at SMC and Board meetings evaluating the
9 presentations on the LNP options facing the Company.

10 These additional costs are in fact evident in the presentations made to the SMC
11 and the Board. I have reviewed the Company's express estimate of the costs of
12 continuing the project under the partial suspension and cancelling the project shortly
13 after receipt of the COL included as Exhibit No. ___ (JE-6) to Mr. John Elnitsky's
14 rebuttal testimony. Obviously, this option incorporates the costs of the extended
15 partial suspension option the Company selected, which is estimated at approximately
16 [REDACTED] over the licensing period between 2010 and 2012. This amount is
17 included in the SMC presentation included in Exhibit No. ___ (JL-6) to my direct
18 testimony. In addition, the Company estimates an incremental cost for cancellation at
19 the end of that period of [REDACTED], for a total estimated cost of [REDACTED].
20 This incremental amount includes [REDACTED], wind down costs, and the
21 estimated balance on long lead equipment (LLE) that can be found within the
22 cancellation option by amount or the nature of the costs in Exhibit No. ___ (JL-6) to
23 my direct testimony. The Company, therefore, was clearly aware of the estimated

1 additional environmental costs, in particular greenhouse gas ("GHG") compliance
2 costs of some type, for fossil fuel energy generation. Under this long-term view,
3 preserving the LNP new nuclear generation option with the COL focus approach
4 makes sense. Accordingly, as I explained in my direct testimony, it is the Company's
5 reasonable management judgment, that new nuclear generation is still the appropriate
6 long-term future base load generation for the Company and its customers.

7 In terms of these future, long-term benefits and even the total project cost to
8 achieve those benefits, the incremental costs of cancelling the project after receipt of
9 the COL compared to immediate cancellation of the project are clearly insignificant on
10 a relative basis. Cancellation after COL is estimated at [REDACTED] while
11 immediate project cancellation is estimated at [REDACTED] for a difference of [REDACTED]
12 [REDACTED]. This difference largely reflects the fact that cancellation after COL occurs at
13 least three years later after continued spending on the project over that time period.
14 This difference, however, does not account for the fact that PEF will have completed
15 certain LLE that will be available for salvage value or the fact that, in reality, the
16 balance for disposition of the LLE will actually be lower due to the fact that three
17 years of additional payments will reduce that to an amount lower than the LLE
18 disposition costs estimated upon immediate cancellation which were used in
19 generating the cost estimate upon cancellation after COL receipt. Therefore, the likely
20 difference will be lower than [REDACTED], although PEF cannot accurately estimate
21 how much lower it will be.

22 In any event, even if the full [REDACTED] estimated amount for cancellation
23 after COL is compared to the estimated cost of immediate cancellation [REDACTED]

1 and the cost of proceeding with the project under the partial suspension to receipt of
2 the COL [REDACTED], the differences are [REDACTED] and [REDACTED]
3 respectively. In other words, PEF will incur at most an additional [REDACTED] if it
4 decides to cancel the project shortly after receipt of COL than if it decided to
5 immediately cancel the project. PEF will also incur an additional [REDACTED] on
6 the LNP to preserve the project contractual and long-term benefits during the licensing
7 period compared to project cancellation at the end of the licensing period. This
8 amount is only [REDACTED] more to pay to preserve
9 these contractual and long-term benefits when proceeding with the project under the
10 partial suspension during the licensing period and terminating the project at the end of
11 that period is compared to the differential between proceeding with the project during
12 the licensing period and immediate project cancellation.

13 None of these incremental estimated values rise to a magnitude that affects the
14 Company's decision to continue with the LNP or cancel the project. It is simply
15 unreasonable to conclude that a decision as important as project cancellation or
16 continuation will turn on amounts in these ranges no matter which of these
17 incremental comparisons Jacobs believes should be used (which he does not identify
18 in his testimony). These incremental, estimated costs are a small fraction of the total
19 project costs and the total project benefits that will be obtained upon the completion of
20 the investment of those costs in the project. To decide to continue or cancel this
21 project, the decision must turn on an evaluation of the total project costs, benefits, and
22 risks and that is exactly what PEF did.

1 PEF first determined that the LNP was qualitatively and quantitatively feasible.
2 The quantitative economic feasibility analysis compared the total project costs to the
3 total, quantifiable benefits of the LNP. Once PEF determined the LNP was feasible
4 from a qualitative and quantitative analysis of the LNP project benefits and costs, PEF
5 decided if proceeding with the project was in the best interests of the Company and its
6 customers even if the project was feasible. The Company's assessment of the risks led
7 the Company to focus on the costs of each evaluated option over a three-year project
8 continuation period. This three-year period corresponded to the expected licensing
9 period and, therefore, allowed PEF to focus on deferring capital investment, if
10 possible, during this period to mitigate the risk of exposing substantial capital
11 investment to the uncertainties associated with the licensing on the project. As a result
12 of this analysis, PEF narrowed the options down to project cancellation or
13 continuation under an extended partial suspension to focus work on obtaining the
14 COL. The decision between these two options again depended on PEF's ability to
15 mitigate the regulatory and other project enterprise risks through an amendment to the
16 EPC agreement that preserved the contractual and long-term project benefits of
17 continuing to pursue new nuclear generation [REDACTED]
18 [REDACTED]. PEF reasonably made its decision based on this assessment of the LNP
19 costs, benefits, and risks.
20

21 **Q. By the way, are you aware that Jacobs has testified on behalf of the Georgia**
22 **Public Service Commission regarding the Vogtle AP1000 nuclear reactors that**
23 **Georgia Power Company plans to license, construct, and operate in Georgia?**

1 does not even mention these risks in his testimony before the Georgia Public Service
2 Commission in the Vogtle AP1000 matter.

3
4 **Q. Did the Florida PSC Staff Auditors review the EPC agreement amendments in**
5 **this proceeding?**

6 A. Yes, they did. The staff auditors reviewed the EPC agreement and its amendments. In
7 particular, the staff auditors reviewed and commented on Amendment 3 to the EPC
8 agreement, which implements PEF's decision to extend the partial suspension and
9 focus work on the LNP COL. Audit staff agreed that PEF was able to preserve the
10 existing contractual benefits of the EPC agreement in Amendment 3. Audit staff notes
11 that Amendment 3 to the EPC agreement (a [REDACTED]
12 [REDACTED] (b)
13 maintains [REDACTED]
14 [REDACTED] (c) maintains [REDACTED]
15 [REDACTED]
16 [REDACTED] (d [REDACTED]
17 [REDACTED]
18 [REDACTED] and (e) maintains the [REDACTED]
19 [REDACTED] (Staff Audit Report, p. 9). Audit Staff concluded that the Company was
20 able to negotiate a favorable amendment with limited fee impact. (Id.). PEF agrees
21 with the audit staff conclusion that PEF was able to obtain a favorable amendment that
22 preserved the contractual benefits of the EPC agreement with limited fee impact to
23 PEF and its customers.

1 Audit staff also addressed the mitigation of risk under Amendment 3 to the
2 EPC agreement. Specifically, audit staff concluded that Amendment 3 [REDACTED]
3 [REDACTED]
4 [REDACTED] (Id.). PEF, again,
5 agrees that PEF was able to mitigate the risk to the Company and its customers
6 through Amendment 3 to the EPC agreement.
7

8 **Q. Will PEF continue to evaluate the options for proceeding with the LNP including**
9 **the option of project cancellation and termination of the EPC agreement?**

10 A. Yes. As audit staff notes in its audit report, the Company's amendment to the EPC
11 agreement allows the Company to continue to [REDACTED]
12 [REDACTED] to the Company and its
13 customers. PEF will, of course, evaluate the project at each important step in the
14 project to determine not only that the project remains feasible but that, even if the
15 project is feasible, it is in the best interests of the Company and its customers to
16 continue with the project. This is simply reasonable, prudent project management that
17 PEF has employed and will continue to employ on the LNP.
18

19 **Q. Jacobs concludes his testimony regarding the LNP by re-stating arguments he**
20 **made in the 2009 NCRC proceeding. Do you have any response to these**
21 **arguments?**

22 A. Yes, I do. At pages 12-15 of his direct testimony, Jacobs opines that (1) it was
23 unreasonable for PEF to sign the EPC agreement when it did on December 31, 2008

1 Q. WHAT IS THE POTENTIAL IMPACT OF THE COMPANY SIGNING THE
2 EPC CONTRACT WITH THE KNOWN OUTSTANDING RISKS?

3 A. The economic impact of PEF's execution of the EPC contract is unknown at this
4 time. The Company is currently attempting to renegotiate the EPC contract with the
5 consortium. From an overall project cost standpoint they are clearly in a weaker
6 position to renegotiate the signed contract than if they had delayed signing until the
7 LWA schedule and other risks were known or clarified. [REDACTED]

8 [REDACTED]
9 [REDACTED]. As a minimum the Company will incur additional carrying costs
10 due to spending money under the EPC agreement earlier than would have been
11 required if they had not signed. The answer to this question will become clearer once
12 the EPC contract has been renegotiated.

13
14 Q. WHAT IS YOUR CONCLUSION REGARDING PEF'S EXECUTION OF THE
15 EPC CONTRACT ON DECEMBER 31, 2008?

16 A. In my opinion, the Company's decision to sign the EPC contract on December 31,
17 2008 given the uncertainty that existed with the LWA, the lack of committed joint
18 owners and the myriad of other uncertainties including the deteriorating economy, the
19 chaos in the financial markets and the uncertain federal and state regulatory climate
20 was not reasonable. I do not believe the company has met its burden of demonstrating
21 that this action was reasonable or prudent. This decision may result in significant
22 extra cost to the project that could have been avoided with a more cautious approach
23 given the known risks and uncertainties at the time of signing. At the very least, the
24 Commission does not have sufficient information to determine whether 2009 and
25 2010 EPC contract related costs are reasonable.

REDACTED

1 [REDACTED] Now, however, finalization
2 of any joint ownership participation agreement will, again, depend on the costs
3 and schedule in the amended EPC agreement. We expect to reach joint ownership
4 participation agreements only after we have an amended EPC agreement.
5

6 **Q. Are the impacts of the economy on the capital markets, financing, and**
7 **regulatory and legislative uncertainty risks that the Company has considered**
8 **and will consider in making its decisions with respect to the LNP?**

9 **A.** Yes. These risks were identified by management as part of the Company's risk
10 management practices and policies, there were risk mitigation strategies
11 developed for these risks, and those strategies have been employed by the
12 Company throughout the course of the LNP so far. Notably, neither the Staff
13 witnesses nor the intervenor witnesses assert that PEF's risk management
14 practices and policies, or PEF's application of those policies with respect to the
15 risk mitigation strategies the Company developed, are not reasonable or not
16 prudent.

17 These risks cannot be eliminated; they can only be monitored and
18 managed with appropriate responsive risk mitigation strategies. These risks also
19 exist, however, for any generation or other utility project and certainly they exist
20 for any long term, base load generation project like the LNP. It is unreasonable to
21 expect a utility to eliminate these risks or obtain certainty with respect to these
22 risks for a nuclear power plant project. If that was the expectation, no utility
23 would build a nuclear power plant.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

**In re: Nuclear Cost Recovery
Clause**

DOCKET NO. 100009

Submitted for filing: August 3, 2010

REDACTED

REBUTTAL TESTIMONY OF JOHN ELNITSKY

**ON BEHALF OF
PROGRESS ENERGY FLORIDA**

1 In any event, PEF has included as Exhibit No. ____ (JE-6) to my testimony the
2 Company's express evaluation of the costs of continuing with the project by amending
3 the EPC agreement and focusing on obtaining the COL and then cancelling the project.
4 This is called "Option 4" in Exhibit No. ____ (JE-6) and this is the option that Jacobs says
5 PEF should have evaluated. As I have explained, PEF evaluated this "Option 4" because
6 the costs of this "option" were inherent in PEF's evaluation of all options for the LNP.

7 As you can see in Exhibit No. ____ (JE-6), "Option 4" includes the [REDACTED]
8 in costs for "Option 3," Continued Partial Suspension, because PEF will incur these costs
9 over the next three years to obtain the COL for the LNP. These are the same costs that
10 are included in the SMC presentations included in Exhibit No. ____ (JL-6) to Mr. Lyash's
11 direct testimony and Exhibit No. ____ (JE-2) to my direct testimony.

12 In addition, if PEF cancels shortly after obtaining the COL, PEF will incur
13 incremental costs estimated at [REDACTED] See Exhibit No. ____ (JE-6) to my
14 testimony. These costs include the [REDACTED] under the EPC and fuels contracts
15 that are identified in the cancellation option included in Exhibit No. ____ (JL-6) to Mr.
16 Lyash's direct testimony and Exhibit No. ____ (JE-2) to my direct testimony. These costs
17 also include the estimated balance of [REDACTED] on the equipment costs for selected
18 long lead equipment ("LLE") compared to option 2, project cancellation, in Exhibit No.
19 ____ (JL-6) to Mr. Lyash's testimony. Finally, the incremental costs for this option
20 include incremental legal and other project wind-down costs that were also identified in
21 option 2, project cancellation, in Exhibit No. ____ (JL-6) to Mr. Lyash's testimony. As a
22 result, the nature and in most cases the amount of the estimated costs of this "Option 4"
23 that Jacobs says PEF should have evaluated are contained within the Company's

1 presentations to management regarding the project options and this “option” was
2 therefore an inherent part of the Company’s evaluation of the project options.

3 The total estimated cost to cancel the project shortly after obtaining the COL
4 under “Option 4” is [REDACTED]. This includes the estimated [REDACTED] to
5 continue with the partial suspension and obtain the COL and the incremental, estimated
6 [REDACTED] in cancellation and project wind-down costs to cancel the project after
7 obtaining the COL. It bears emphasis that the estimated incremental costs are
8 conservatively high. PEF has not offset these costs with salvage value for equipment that
9 will be completed and available commercially for new or replacement parts on other
10 projects. PEF has also conservatively included the full balance of the LLE disposition
11 costs from the project cancellation option in this option even though PEF will continue
12 with LLE payments under this option for three additional years and therefore lowering
13 the final disposition costs for this equipment if the project is cancelled after the COL is
14 obtained.

15 The estimated costs of [REDACTED] to continue with the partial suspension of
16 the project and shortly after we obtain the COL we cancel the project, is higher than the
17 estimated cost of [REDACTED] to cancel the project in early 2010 at the time PEF made
18 its decision. See Exhibit No. ___ (JL-6) to Mr. Lyash’s testimony. The difference in the
19 estimated costs of these options necessarily follows from the fact that the cancellation
20 decisions are not made at the same time under these two options.

1 **Q. Does this information affect your recommendation to management?**

2 A. No, it does not. The difference between cancellation of the project after obtaining the
 3 COL and cancellation in 2010 is at most an estimated [REDACTED] Even Jacobs
 4 concedes that PEF should be required to justify its decision only if the costs of
 5 cancellation after the COL is obtained are “significantly” greater than immediate
 6 cancellation of the project. (Jacobs Test., p. 8, L. 31-33). Jacobs nowhere defines what
 7 he means by “significantly” greater costs in his testimony.

8 The cost differential in the timing of project cancellation, however, can
 9 realistically be considered significant only in terms of the total project costs and benefits.
 10 The cancellation decision terminates the project and ends the potential for future project
 11 costs and benefits, therefore, the question is whether the incremental increase in the costs
 12 of cancellation in the future compared to cancellation today are significant in terms of the
 13 total project costs and benefits. The incremental cancellation costs of an estimated
 14 [REDACTED] is insignificant compared to the estimated billions of dollars in estimated
 15 total project costs and total project benefits in fuel and carbon cost savings and other
 16 future, long-term project benefits. It is unreasonable to consider an additional [REDACTED]
 17 [REDACTED] on a project of this magnitude in terms of costs and benefits to be determinative
 18 with respect to the decision to proceed with or cancel the project.

19
 20 **Q. If cancellation was a reasonable option for the LNP why didn't PEF decide to cancel
 21 the project?**

22 A. PEF was able to obtain favorable terms to amend the EPC agreement and extend the
 23 partial suspension of the project to continue the work to obtain the COL while mitigating

1 the project risks until the COL was obtained for the project. If PEF was unable to obtain
2 these favorable terms to amend the EPC agreement and continue the work necessary to
3 obtain the COL, PEF would have cancelled the project.

4 As I explained in my direct testimony beginning at page 22, in the fall of 2009
5 PEF identified three reasonable options for the LNP. These options included (1)
6 proceeding as quickly as possible with the LNP, (2) negotiating a longer schedule shift
7 and suspension of the EPC agreement to focus work on the COL, and (3) project
8 cancellation. Proceeding with option one on a 36-month schedule shift was aggressive
9 given the schedule risks facing the project, exposed the Company and customers to the
10 largest near-term capital investment and customer price impact of all options, and
11 provided the least flexibility with respect to the other enterprise risks facing the project.
12 As a result, PEF did not favor this option.

13 PEF focused on the second option. This option minimized the near-term capital
14 investment in the project until the COL was obtained, lowered the near-term customer
15 price impact, and minimized the capital investment exposed to the other enterprise risks.
16 To pursue this option, however, the Company needed the Consortium's agreement to
17 [REDACTED] and enter into a longer
18 term partial suspension of the work unrelated to the COLA work until the COL was
19 obtained. Without that agreement from the Consortium the Company would have
20 decided on the cancellation option.

21 To pursue the second option, the Company first negotiated [REDACTED]
22 [REDACTED] under the EPC agreement.
23 [REDACTED] to work with the Consortium on an

1 agreement for a longer term partial suspension of all work except work necessary to
2 obtain the COL until the COL was obtained. As a result, the Company evaluated the
3 options and recommended this second option to senior management for the reasons that I
4 have described above and described in more detail at pages 29 and 30 of my direct
5 testimony. This recommendation was accepted by the SMC subject to the Company's
6 ability to obtain a favorable amendment of the EPC agreement to implement this option.

7 The Company's objectives for a favorable amendment to the EPC agreement to
8 implement this option are described in detail at pages 32 and 33 of my direct testimony.
9 Briefly, however, the Company first wanted to maintain the favorable terms and
10 conditions of the existing EPC agreement and amend only the contractual milestones and
11 schedule affected by the shift in project schedule. The Company also wanted to [REDACTED]

12 [REDACTED]
13 [REDACTED]

14 [REDACTED] These objectives allowed the Company to proceed with the work on the project
15 necessary to obtain the COL while maintaining the existing contract benefits and risks

16 [REDACTED]

17 PEF was able to achieve each of these objectives in Amendment 3 to the EPC
18 agreement. Amendment 3 allowed PEF to implement the COL focused option while
19 maintaining the favorable terms of the EPC agreement and the [REDACTED] under the EPC
20 agreement to PEF and its customers during the licensing period. As a result, the SMC
21 and the Board decided to pursue the COL focused option.

1 **Q. Does Jacobs address PEF's objectives for its decision to continue the project**
2 **through an amendment to the EPC agreement?**

3 A. No, he does not. Jacobs does not address PEF's direct testimony explaining PEF's
4 objectives to amend the EPC agreement to implement its COL focus decision at all. He
5 does not even mention Amendment 3 to the EPC agreement. The Staff testimony
6 including the Staff audit report, however, does discuss the benefits of Amendment 3 to
7 the EPC agreement.

8 The Staff auditors reviewed the EPC agreement and its amendments in the course
9 of the Staff audit of the LNP. Audit Staff explained that Amendment 3 [REDACTED]
10 [REDACTED]
11 [REDACTED] (Audit Staff Report, p. 9). Audit Staff further explained that
12 Amendment 3 [REDACTED]
13 [REDACTED] (Id.). Audit Staff also
14 explained that this amendment maintained [REDACTED]
15 [REDACTED]
16 [REDACTED]
17 [REDACTED] (Id.). In sum, Audit Staff
18 expressed the belief "that the company was able to negotiate a favorable amendment with
19 limited fee impact." (Id.).

20 Audit Staff also addressed the commitment of capital and risk allocation under
21 Amendment 3 to the EPC agreement. Audit Staff noted that "the amendment allowed the
22 company to maintain [REDACTED]
23 [REDACTED]. (Id.). Audit Staff further explained that the amendment

1 maintains the [REDACTED] that existed when the EPC agreement was signed [REDACTED]
 2 [REDACTED]. (Id.). Finally, Audit Staff noted that “this amendment
 3 allows the company [REDACTED]
 4 [REDACTED] (Id.). As a
 5 result, the Staff Audit report confirms PEF’s belief that PEF obtained the necessary
 6 favorable terms in Amendment 3 to the EPC agreement to implement its decision to
 7 continue the project and extend the partial suspension to focus work on obtaining the
 8 COL for the project.

9
 10 **Q. Did the Audit Staff address PEF’s LNP decision?**

11 A. Yes, they did. After auditing the LNP project, including the Company’s decision for the
 12 LNP, Audit Staff concluded that “given the uncertainties facing the company,” the
 13 decision to keep “the project progressing, without further substantial investment of cost,
 14 is a reasonable approach by PEF at this point in time.” (Staff Audit Report, p. 4).

15
 16 **V. REGULATORY AND TECHNICAL FEASIBILITY.**

17 **Q. Gundersen claims that there are unresolved technical safety issues with the AP1000**
 18 **design that represent a “significant risk” of scheduling delays. Do you agree?**

19 A. PEF agrees that there is additional uncertainty regarding the NRC LNP COL review
 20 schedule. The reasons for this increased uncertainty regarding the NRC LNP COL
 21 review schedule are discussed in detail at pages 16 to 21 of my direct testimony. This is
 22 the reason PEF concluded that the minimum possible schedule shift was 36 months and
 23 that by the fall of 2009 that option was fairly optimistic and aggressive. This risk was

1 incurred. Termination provisions that provide for the payment of costs upon the
2 termination or cancellation of a contract are standard utility industry terms in EPC and
3 other utility construction contracts. It is standard practice in the electric utility industry to
4 include such terms in utility design and construction contracts of all types. Termination
5 provisions providing for costs upon contract cancellation or termination are necessary in
6 the industry to ensure that utilities can obtain EPC and other utility construction contracts
7 at reasonable prices. In fact, it is unlikely that an electric utility can obtain an EPC or
8 other utility construction contract without a provision providing for the payment of costs
9 upon cancellation or termination of the contract by the utility.

10 The EPC contract termination provisions are reasonable and prudent. They are
11 consistent with accepted, best utility industry contracting practice and industry standards
12 for utility construction projects. Before PEF executed the EPC agreement, PEF
13 confirmed that the EPC contractual termination provisions were reasonable and prudent
14 and consistent with industry best contracting practices by having the EPC agreement
15 audited by PricewaterhouseCoopers. As the Staff Audit report notes, “the audit
16 determined that the EPC contract was [REDACTED] of this type.”
17 (Staff Audit Report, p. 33). This independent audit included all major articles and
18 contract terms and conditions including the suspension and termination provisions of the
19 EPC agreement. (Id. at pp. 33-34). The Staff Auditors also reviewed the EPC agreement
20 and its terms and conditions and they nowhere find in the Staff Audit Report that the
21 termination provisions and termination and cancellation costs are unreasonable or
22 imprudent. For all these reasons, the EPC agreement termination provisions and resulting

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

**In re: Nuclear Cost Recovery
Clause**

**DOCKET NO. 100009-EI
Submitted for filing:
August 3, 2010**

REDACTED

REBUTTAL TESTIMONY OF JON FRANKE

**ON BEHALF OF
PROGRESS ENERGY FLORIDA**

1 **V. LAR COSTS.**

2 **Q. What does the Staff Audit Report recommend with respect to the CR3**
3 **Uprate project costs?**

4 **A.** Audit Staff recommends that the Commission consider whether an additional [REDACTED]
5 [REDACTED] for the LAR re-write and additional engineering work by AREVA for the
6 LAR application resulted from inadequate management oversight. (Staff Audit
7 Report, p. 59). Audit Staff's recommendation is based on the July 2009 expert
8 panel report that I previously mentioned and PEF's subsequent, internal adverse
9 condition report in response to the expert panel recommendations. In sum, the
10 expert panel report found, as I explained above, that PEF had not incurred the
11 costs and performed the work necessary to that point to prepare a draft EPU LAR
12 capable of NRC acceptance review. As Audit Staff notes, the Company had to
13 expend resources to strengthen the EPU LAR submittal to prepare a quality LAR
14 draft that, if submitted, was acceptable for review by the NRC. PEF did expend
15 these resources on the design, engineering, and procurement work for the EPU to
16 enhance the LAR and subsequent expert panel reviews confirmed that the work
17 had been done and that the LAR submittal met NRC acceptance standards.

18
19 **Q. Did the Company's internal adverse conditions report conclude that the**
20 **Company had not provided adequate management oversight for the LAR**
21 **prior to the submittal of the draft LAR to the expert panel?**

22 **A.** Yes. PEF initially relied too heavily on AREVA to prepare the draft LAR for
23 review by the expert panel and did not engage sufficient management oversight of
24 that work as early as PEF should have. PEF subsequently added these

1 an action plan to address them, and corrected them. Further expert panel reviews
2 in November 2009 and January 2010 confirmed that these recommendations were
3 adequately addressed. See, e.g., Exhibit No. ____ (JF-8).

4 This demonstrates PEF's prudent project management, contracting, and
5 oversight controls. PEF reviewed and re-reviewed the LAR work, corrected any
6 work that was not up to par, and ensured a final, sufficient and adequate work
7 product consistent with standards at the time the LAR must be submitted. This is
8 exactly what is supposed to occur when prudent project management and
9 oversight controls are in place, and this is how those project management and
10 oversight controls are supposed to be implemented to identify and remedy any
11 issues on a timely basis.

12
13 **Q. Audit Staff identifies change order costs for AREVA for certain LAR work
14 and questions whether these costs represent avoidable work and costs. Were
15 these change orders for avoidable or duplicative LAR work?**

16 **A.** No. Audit Staff questions two change orders PEF executed with AREVA.
17 Neither one of these change orders involves avoidable or duplicative LAR work.
18 The fact that they are "change" orders means they are for additional, not
19 duplicative or avoidable, work.

20 The first change order Audit Staff questions is Change Order 23 in the
21 amount of [REDACTED]. This change order is for the work necessary to re-write
22 the LAR to comply with the revised LAR template to meet evolving industry
23 standards and NRC expectations. Change Order 23 expressly states the LAR re-
24 write effort was to re-write sections of the LAR to comply with the revised

1 template and other new scope activities. It is not payment to AREVA to re-write
2 poorly drafted LAR sections. Indeed, Change Order 23 further expressly states
3 that the expert panel “comment incorporation is considered part of the original
4 scope of activities and is not included in this scope of work” (emphasis added).
5 See Exhibit No. ___ (JF-5) to my rebuttal testimony.

6 On its face, Change Order 23 makes clear this [REDACTED] payment was
7 for additional work and that it was not payment to correct prior work. Change
8 Order 23 also makes clear that the “LAR re-write effort” work is [REDACTED], not
9 [REDACTED] as indicated in the Staff Audit Report. (Staff Audit Report, p. 5).
10 AREVA was entitled to more compensation for more work to conform the LAR
11 to additional requirements based on evolving industry standards and NRC
12 expectations.

13 The second Change Order that Audit Staff questions is Change Order 25
14 for an additional [REDACTED]. This Change Order is for additional engineering work
15 scope required to support the LAR. It included engineering work to incorporate
16 EPU Phase 3 work into the LAR. The [REDACTED] was therefore paid to AREVA
17 for additional engineering work scope required to complete the LAR based on the
18 EPU phase work. See Exhibit No. ___ (JF-6) to my rebuttal testimony.

19
20 **Q. Did PEF pay AREVA twice for the same work to draft the LAR?**

21 **A.** No. AREVA will only be paid the original contract amount of [REDACTED] to
22 write the LAR sections reviewed by the expert panel in July 2009 utilizing the
23 Ginna LAR submittal as the initial model. These payments are identified at line
24 items 8.28, 8.28 revised, and Note 2 in the “Deliverable Section” on page 4 of the

1 Work Authorization No. 84 between PEF and AREVA for design and engineering
 2 work to support the CR3 Uprate project, including the work to support the LAR.
 3 These line items demonstrate that AREVA was paid [REDACTED] for LAR inputs
 4 and draft comment responses and that AREVA will be paid another [REDACTED]
 5 when the LAR is submitted to the NRC. See Exhibit No. ___ (JF-7) to my
 6 rebuttal testimony. That is all AREVA will be paid for the initial draft LAR
 7 work. After the expert panel issued its report and recommendations, AREVA
 8 corrected their quality issues and re-wrote the LAR sections at AREVA's own
 9 cost. PEF paid AREVA no additional compensation for this corrective work.

10 PEF met with AREVA prior to AREVA submitting each invoice under
 11 Work Authorization No. 84 and Change Order 23. That is why the costs for work
 12 to re-write portions of the LAR do not show up in subsequent AREVA invoices to
 13 PEF. However, AREVA did in fact correct portions of the LAR without charging
 14 PEF for those corrections. Subsequent expert panels confirmed that these
 15 corrections were made. See, e.g., Exhibit No. ___ (JF-8) to my rebuttal
 16 testimony. PEF, however, paid AREVA no additional compensation for that
 17 work.

18
 19 **Q. Why was a revised LAR template necessary for the LAR?**

20 **A.** The revised template for the LAR was required to ensure that the LAR submittal
 21 met evolving industry standards and NRC expectations for LAR submittals. At
 22 the time PEF initiated the project in 2007, PEF asked the NRC what LAR
 23 submittal should be used by PEF as a model for its LAR submittal for the CR3
 24 EPU. The NRC suggested the Ginna LAR submittal as a model. The Ginna LAR

1 2 to Phase 3 in the amount of [REDACTED] is due to “possible vendor error.” (Staff
 2 Audit Report, p. 43). Nowhere in the report does Audit Staff assert that the LPTs
 3 issues were the result of PEF imprudence. PEF in fact prudently managed the
 4 LPTs through vendor oversight and took appropriate action when the vendor
 5 issues were identified. Audit Staff notes that PEF’s Quality Assurance group
 6 rejected this product component because of the failure to meet contractual
 7 acceptance criteria in recognizing the importance of PEF’s Vendor Oversight Plan
 8 in the Staff Audit Report. (Id., p. 53).

9 **Q. Has PEF resolved the LPTs issues with Siemens?**

10 **A.** Yes. PEF recently resolved the LPTs issues with Siemens. As a result of that
 11 settlement, PEF [REDACTED]
 12 [REDACTED] the low pressure turbine rotors under a new Letter of
 13 Intent (“LOI”) executed with Siemens. This [REDACTED]
 14 [REDACTED] identified by Audit Staff associated with re-
 15 scheduling the LPTs from Phase 2 to Phase 3. The [REDACTED]
 16 [REDACTED] to PEF and its customers all other circumstances being
 17 equal. The [REDACTED] will be reflected in the true-up of
 18 costs in the 2011 NCRC docket. In addition, Siemens agreed [REDACTED]
 19 [REDACTED]

20
 21 **VII. CONCLUSION.**

22 **Q. Will the CR3 Uprate project be successfully completed at a reasonable and**
 23 **prudent cost to the Company and its customers?**

Docket 100009
Progress Energy Florida
Exhibit No. ____ (JF-5)

Pages 1 through 10 are redacted in their entirety

Docket 100009
Progress Energy Florida
Exhibit No. ____ (JF-6)

Pages 1 through 8 are redacted in their entirety

Docket 100009
Progress Energy Florida
Exhibit No. ____ (JF-7)

Pages 1 through 91 are redacted in their entirety

Docket 100009
Progress Energy Florida
Exhibit No. ____ (JF-8)

Pages 1 through 8 are redacted in their entirety