

BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 110009-EI

In the Matter of:

NUCLEAR COST RECOVERY CLAUSE.

VOLUME 4

Pages 499 through 648

PROCEEDINGS: HEARING

COMMISSIONERS
PARTICIPATING: CHAIRMAN ART GRAHAM
COMMISSIONER LISA POLAK EDGAR
COMMISSIONER RONALD A. BRISÉ
COMMISSIONER EDUARDO E. BALBIS
COMMISSIONER JULIE I. BROWN

DATE: Wednesday, August 10, 2011

TIME: Commenced at 3:20 p.m.
Concluded at 4:24 p.m.

PLACE: Betty Easley Conference Center
Room 148
4075 Esplanade Way
Tallahassee, Florida

REPORTED BY: JANE FAUROT, RPR
Official FPSC Reporter
(850) 413-6734

APPEARANCES: (As heretofore noted.)

DOCUMENT NUMBER-DATE

FLORIDA PUBLIC SERVICE COMMISSION

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P R O C E E D I N G S

(Transcript continues in sequence from Volume 3.)

MR. ANDERSON: Chairman Graham, FPL calls as its next witness Mr. Armando Olivera, who has not been in the room to be sworn in.

CHAIRMAN GRAHAM: Sir, can I get you to stand and raise your right hand.

ARMANDO J. OLIVERA

was called as a witness on behalf of Florida Power and Light Company, and having been duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. ANDERSON:

Q. Good afternoon, Mr. Olivera.

A. Good afternoon.

Q. Would you please state your name and your business address?

A. Armando J. Olivera, 700 Universe Boulevard, Juno Beach, Florida.

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

A. I'm employed by Florida Power and Light. My title is President and Chief Executive Officer.

Q. Have you prepared and caused to be filed five pages of Prefiled Direct Testimony in this proceeding on May 2nd, 2011, entitled Nuclear Power Plant

1 Cost-Recovery for the Years Ending December 2011 and
2 2012?

3 A. I have.

4 Q. Do you have any changes or revisions to your
5 Prefiled Direct Testimony?

6 A. I do not.

7 Q. If I asked you the same questions contained in
8 your Prefiled Direct Testimony, would your answers be
9 the same?

10 A. They will be.

11 MR. ANDERSON: Mr. Chairman, FPL requests that
12 the Prefiled Direct Testimony be inserted into the
13 record as though read.

14 CHAIRMAN GRAHAM: We will insert the Prefiled
15 Testimony of Armando Olivera into the record as though
16 read.

17 MR. ANDERSON: We also note that there are no
18 exhibits sponsored by the witness.

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1 **BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**

2 **FLORIDA POWER & LIGHT COMPANY**

3 **DIRECT TESTIMONY OF ARMANDO J. OLIVERA**

4 **DOCKET NO. 110009-EI**

5 **MAY 2, 2011**

6

7 **Q. Please state your name and business address.**

8 A. My name is Armando J. Olivera. My business address is Florida Power &
9 Light Company, 700 Universe Boulevard, Juno Beach, Florida 33408.

10 **Q. By whom are you employed and what is your position?**

11 A. I am employed by Florida Power & Light Company (FPL or the Company) as
12 President and Chief Executive Officer.

13 **Q. Please describe your duties and responsibilities in that position.**

14 A. I have overall responsibility for the operations of FPL.

15 **Q. Please describe your educational background and business experience.**

16 A. I have a Bachelor of Science degree in electrical engineering from Cornell
17 University and a Master of Business Administration from the University of
18 Miami. I am also a graduate of the Professional Management Development
19 program of the Harvard Business School. I was appointed to my current
20 position in 2003.

21 **Q. What is the purpose of your testimony?**

22 A. The purpose of my testimony is to address the unfounded allegation that FPL
23 provided incomplete or inaccurate information to the Commission in the 2009

1 Nuclear Cost Recovery Clause (NCRC) proceeding. Because FPL takes its
2 obligations to the Commission very seriously, I felt compelled to make myself
3 available to address this issue.

4
5 I also wish to emphasize to the Commission in this proceeding that while
6 nuclear power has its challenges and difficulties, it is an important part of
7 providing clean, efficient, low cost electric service to FPL customers and FPL
8 remains committed to its pursuit of the extended power uprate (EPU) project.

9 **Q. How much nuclear-based capacity does FPL currently have?**

10 A. At present, FPL's four nuclear units provide approximately 2900 megawatts
11 (MW) of our electric generating capacity, or 12.4 percent of FPL's total system
12 generation. Because nuclear energy is the lowest cost resource in the
13 generation fleet, and highly available, this capacity produces about 20 percent
14 of the energy FPL currently provides to its 4.5 million customer accounts, or
15 approximately 8 million Florida residents. FPL is in the process of conducting
16 its EPU project to produce additional nuclear power from its existing nuclear
17 units.

18 **Q. What does it mean to "uprate" FPL's existing four nuclear units?**

19 A. A "power uprate" is a proven, safe, reliable way to increase output from
20 existing nuclear power plants. In the case of FPL's EPU project, we are
21 replacing current plant systems with equipment that is more efficient and
22 enables greater power production. Essentially, to "uprate" a unit we install a
23 number of new components and systems such as pipes, valves, pumps, heat

1 exchangers, electrical transformers, turbines and generators to accommodate
2 the plant conditions that will exist at higher power levels.

3 **Q. How much more power will FPL's existing nuclear plants produce when**
4 **the EPU project is completed?**

5 A. FPL expects that the extended power uprate project at its St. Lucie and Turkey
6 Point nuclear plants will increase FPL's nuclear-based capacity by about 450
7 MW, or about 15%.

8 **Q. What are some of the expected benefits of FPL's uprate project for its**
9 **customers?**

10 A. The expected benefits of FPL's EPU project for customers fall into several
11 areas, detailed in the testimony of FPL Witness Dr. Steven Sim. At a high
12 level, the EPU project will increase the percentage of nuclear generation,
13 produce fuel savings for customers, provide generating capacity sufficient to
14 meet the needs of more than 200,000 residential customer accounts, decrease
15 dependency on fossil fuels and reduce FPL's system CO₂ emissions.

16 **Q. OPC has proposed that the Commission decide as an issue in this case**
17 **whether "FPL willfully withheld information that the Commission needed**
18 **to make an informed decision during the September 2009 hearing in**
19 **Docket No. 090009-EI." Please comment.**

20 A. Let me be very clear. FPL did not willfully withhold information that the
21 Commission needed to make an informed decision during the September 2009
22 hearing in Docket No. 090009-EI.

23

1 Simply put, as of September 2009, cost forecast information for the EPU
2 project was not vetted and accepted such that it would have supported a
3 reliable revision to the estimated in-service costs for the project. The work
4 needed for such a revision was not concluded until about seven months later, in
5 April 2010, in time for the May 2010 NCRC filing required by the
6 Commission's rules.

7
8 FPL has also submitted the testimony of Art Stall, the former President of FPL
9 Group Nuclear, who describes in detail the information in FPL's possession in
10 the September 2009 time period and why FPL could not reliably update its
11 NCRC testimony during the September 2009 hearings before the Commission.

12 **Q. Does the situation at the Fukushima nuclear plant in Japan affect FPL's**
13 **plans to pursue the EPU project?**

14 A. No. As discussed in the testimony of Dr. Nils J. Diaz, former chairman of the
15 Nuclear Regulatory Commission (NRC), FPL, the nuclear power industry, and
16 the NRC will all incorporate lessons learned from the Fukushima accident.
17 However, Dr. Diaz does not forecast any drastic changes to the NRC's
18 regulatory process to safely license the EPU project.

19 **Q. Does FPL intend to pursue completion of the EPU project?**

20 A. Yes. While very challenging due to its great technical and business
21 complexity, the EPU project is expected to deliver solid benefits for FPL's
22 customers for many years. Completing the EPU project is the right thing to do
23 for FPL's customers.

1 Q. Does this conclude your direct testimony?

2 A. Yes.

1 BY MR. ANDERSON:

2 Q. Mr. Olivera, have you prepared a summary and
3 could you provide that to the Commission?

4 A. I have. Thank you.

5 Good afternoon, Mr. Chairman, Commissioners.
6 FPL remains committed to the pursuit of the extended
7 power uprates project because of the significant
8 expected benefits to customers from the project. The
9 project will produce additional power from its existing
10 nuclear units, increase the percentage of nuclear
11 generation, produce fuel savings for customers, provide
12 generating capacity sufficient to meet the needs of more
13 than 200,000 residential customer accounts, decrease
14 dependency on fossil fuels, and reduce FPL's system
15 greenhouse emissions.

16 Nuclear power is an important part of
17 providing clean, efficient, low-cost electric service to
18 FPL's customers. FPL's four nuclear units currently
19 provide approximately 2900 megawatts of our electric
20 generating capacity, or about 20 percent of the energy
21 it currently provides to its four and a half million
22 customers, or approximately 8 million Florida residents.

23 A power uprate is a proven, safe, reliable way
24 to increase output from existing nuclear plants. We are
25 replacing current plant systems with more efficient

1 equipment that will enable greater power production. We
2 expect that these uprate projects will increase FPL's
3 nuclear base capacity by about 450 megawatts or
4 15 percent.

5 My testimony also addresses the unfounded
6 allegation that FPL provided incomplete or inaccurate
7 information to the Commission in the 2009 Nuclear
8 Cost-Recovery Clause proceeding. This is a very serious
9 allegation, and that is why I wanted to make myself
10 available to the Commission to address any questions.

11 As of the date of the hearing in
12 September 2009, cost forecast information for the EPU
13 project was not vetted and accepted such that it would
14 have supported a reliable revision of the estimated
15 in-service costs for the project. The work needed for
16 such a revision was not concluded until April 2010 in
17 time for the May 2010 nuclear cost-recovery filing
18 required by the Commission's rules.

19 While the EPU project is very challenging due
20 to its great technical and business complexity, the EPU
21 project is expected to deliver solid benefits for FPL
22 customer goes for many years. Completing the EPU
23 project is the right thing to do for FPL customers.

24 And this concludes my summary.

25 **MR. ANDERSON:** Mr. Olivera is available for

1 cross-examination.

2 CHAIRMAN GRAHAM: Thank you. Okay. Who's
3 first?

4 MS. KAUFMAN: I think Mr. McGlothlin is going
5 to go first.

6 MR. McGLOTHLIN: I'd be happy to start.

7 CROSS EXAMINATION

8 BY MR. McGLOTHLIN:

9 Q. Good afternoon, Mr. Olivera. Joe McGlothlin
10 with OPC.

11 A. Good afternoon, Mr. McGlothlin.

12 Q. If you will look at Page 1 of your prefiled
13 testimony. At Line 22, and you mentioned this in your
14 summary, as well, you say the purpose of your testimony
15 is to address the unfounded allegation that FPL provided
16 incomplete or inaccurate information. To whose
17 unfounded allegation are you referring in that sentence?

18 A. I'm referring to the allegations that I have
19 read that the company purposefully withheld information
20 from this Commission.

21 Q. Yes, sir. Is there a particular person or
22 entity --

23 A. Well, I believe your office has made that
24 allegation, and FIPUG has also agreed with that
25 allegation.

1 Q. Anyone else?

2 A. There may be others.

3 Q. Can you think of anyone?

4 A. Not right off the top of my head.

5 Q. Okay. You filed your testimony on May 2nd,
6 did you not?

7 A. Correct.

8 Q. And at that time, is it true that OPC had not
9 filed its testimony in this docket?

10 A. I'm not familiar with the timing of all the
11 filings.

12 Q. Well, would you accept, subject to check, that
13 OPC's testimony of Doctor Jacobs, who addresses the
14 subject of the 2009 hearing, was filed in July after --

15 A. I accept that, subject to check.

16 **CHAIRMAN GRAHAM:** Mr. McGlothlin, we need for
17 you to speak more into the mike. You're not getting
18 picked up.

19 **MR. MCGLOTHLIN:** Yes, sir. Thank you.

20 **CHAIRMAN GRAHAM:** Sorry.

21 **BY MR. MCGLOTHLIN:**

22 Q. Did FPL engage Mr. John Reed and his firm,
23 Concentric Energy Advisors, to perform an investigation
24 of a certain employee complaint letter that the company
25 received in February of 2010?

1 A. Yes, we did.

2 Q. And as part of that investigation, did
3 Mr. Reed and his company address the episode with
4 respect to the testimony filed in May 2009 and the
5 September 2009 hearing?

6 A. Yes, Mr. Reed addressed that.

7 Q. Now, do I assume -- FPL has used Mr. Reed and
8 his company for consulting services in the past, has it
9 not?

10 A. Yes. We find that Mr. Reed is a very credible
11 witness, and his firm has done a good job on most
12 issues. We happen to disagree in this one conclusion
13 that he made. We frankly agreed with most everything
14 else he had in his report.

15 Q. So to take that to the logical next step, at
16 the time FPL engaged Mr. Reed you believe he was well
17 qualified to conduct the investigation for which he was
18 engaged?

19 A. I believe that he was well qualified. I still
20 believe he is well qualified, but well-qualified people
21 and reasonable people can have disagreements.

22 **MR. McGLOTHLIN:** I'm going to take a moment
23 and ask that a document be distributed.

24 **CHAIRMAN GRAHAM:** Sure. Staff, can you help
25 her pass that out.

1 **MR. McGLOTHLIN:** Mr. Chairman and
2 Commissioners, this document is a redacted version of
3 the June 2010 investigation report that Mr. Reed and his
4 company prepared. We do commonly refer to it as the
5 Concentric report. It has not been made an exhibit at
6 this point. I'm requesting that you give it a number.

7 **CHAIRMAN GRAHAM:** We will enter this -- I'm
8 sorry, we will give it an exhibit number of 197, and it
9 will have the short title of Concentric Investigation
10 Report.

11 **MR. McGLOTHLIN:** Yes, sir.

12 **CHAIRMAN GRAHAM:** June 2010. Please continue.

13 (Exhibit 197 marked for identification.)

14 **BY MR. McGLOTHLIN:**

15 Q. Mr. Olivera, are you familiar with the
16 Concentric report?

17 A. I'm sorry?

18 Q. Are you familiar with the Concentric report?

19 A. I am familiar with the Concentric report.

20 Q. And do you recognize this to be a redacted
21 version of that document?

22 A. That is what it appears, yes.

23 Q. If you will turn to Page 2, under Concentric
24 overview and work plan, do you see Paragraph B, sources
25 of information?

1 A. You are referring to page -- which Page 2?
2 There are a couple of Page 2s.

3 Q. Page 2 of 23 as Concentric numbered those
4 pages at the very bottom.

5 A. Okay.

6 Q. Are you at Paragraph B, sources of
7 information?

8 A. I am.

9 Q. You will see that Mr. Reed says there were two
10 primary pathways, a number of requested documents, and
11 also certain interviews. Was FPL responsive to Mr.
12 Reed's request for documents that he felt pertinent to
13 his investigation?

14 A. Let me read the two paragraphs, because it has
15 been a long time since I read this report.

16 Q. Yes, sir.

17 (Pause.)

18 A. I'm finished.

19 Q. The question was, was FPL responsive to Mr.
20 Reed's request for documents?

21 A. I believe we were.

22 Q. And did FPL make its personnel available for
23 interviews as he requested?

24 A. I believe we did.

25 Q. If you will turn to Page 15 of 23. Let me

1 correct my reference. At Page 3 of the document --

2 A. Page 3 of 23?

3 Q. Yes. At the top, Paragraph C is captioned
4 independence. Was Mr. Reed and his company -- were Mr.
5 Reed and his company permitted to act independently from
6 FPL's influence with respect to the investigation?

7 A. I'm sorry, I'm having trouble finding the
8 specific reference. You are on Page 3?

9 Q. Page 3, top of the page, independence.

10 A. Okay.

11 Q. And please take a moment, if you wish, to
12 review that.

13 A. Thank you.

14 Okay. I have read the first Section C.

15 Q. Yes. And my question is simply do you agree
16 with his characterization of the relationship, which is
17 that he acted independently from any direction or
18 influence of FPL as he conducted his investigation?

19 A. Yes, I do. I think it is also important to
20 note that we brought Concentric in at our request, at
21 our discretion. We had an employee letter that was
22 signed by an employee, which is really what generated us
23 bringing in Concentric to review the allegations, so
24 this was really brought in at the company's request. I
25 asked that it be brought in, because I wanted to make

1 sure that the information that we were receiving was
2 accurate. And the understanding was that Mr. Reed would
3 have complete independence to talk to anybody he wanted
4 to, or his firm wanted to, and to come to their own
5 conclusions.

6 Q. And in that regard, is it true that after
7 having access to FPL's personnel, after reviewing the
8 many documents that he requested and that FPL provided,
9 and after discussing and analyzing the subject of the
10 prefiled testimony at the September hearing at Pages 12
11 and 15, did Mr. Reed conclude that by the time your
12 witness took the stand on September 8th the information
13 presented and the testimony related thereto was out of
14 date?

15 A. That is what Mr. Reed's report says, and this
16 is what I referred to earlier. You know, while, you
17 know, I have a lot of regards for the quality of the
18 work that they do, this is one instance where I and the
19 rest of our team disagreed with his conclusion.

20 MR. McGLOTHLIN: That's all my questions.

21 CHAIRMAN GRAHAM: Does that conclude your
22 questions?

23 MR. McGLOTHLIN: Yes.

24 CHAIRMAN GRAHAM: FIPUG.

25 CROSS EXAMINATION

FLORIDA PUBLIC SERVICE COMMISSION

1 **BY MS. KAUFMAN:**

2 Q. Good afternoon, Mr. Olivera. How are you?

3 A. Good; thank you.

4 Q. You would agree with me, would you not, that
5 it is absolutely critical for the Commission to have
6 up-to-date correct information as they proceed through
7 this docket that we are involved in today?

8 A. I would agree. And I think that goes to the
9 issue of the information that we had and what did we
10 know, and I think in this context I just want to take an
11 opportunity to say we had --

12 **MS. KAUFMAN:** Excuse me. Mr. Chairman, I
13 think that he answered my question. And I know you give
14 some latitude, but I think that he answered my question,
15 and that I can move on.

16 **CHAIRMAN GRAHAM:** Yes.

17 Mr. Olivera, here we allow for you to answer
18 the question, especially if it is yes or no, and we'll
19 give you a little latitude to clarify a little further,
20 but depending on the person asking the question on how
21 much editorial we'll allow into it. So if you can be a
22 little bit more concise with your answers, please.

23 **THE WITNESS:** I'll do my best. Thank you.

24 **CHAIRMAN GRAHAM:** Thank you.

25

1 BY MS. KAUFMAN:

2 Q. And you would agree that the accuracy of
3 information that you provide the Commission is
4 important, regardless of how simple or how complex a
5 particular project is?

6 A. I think regarding -- the accuracy is very
7 important for both parties.

8 Q. Now, you discussed with Mr. McGlothlin the
9 company's decision to hire Mr. Reed and his company to
10 look into some of the allegations that were made in an
11 employee letter, correct?

12 A. Correct.

13 Q. And when you hired Mr. Reed, is it correct
14 that you had full confidence in his ability to conduct
15 this investigation and provide you with an accurate and
16 complete report?

17 A. I do; I did; and I still have confidence in
18 the capability of the firm. It doesn't mean that they
19 are 100 percent correct on everything that they conclude
20 or say.

21 Q. You expected them, however, to do a thorough,
22 independent, and objective analysis of the information
23 you provided, is that correct?

24 A. I do.

25 Q. Were you interviewed for the Concentric

1 report?

2 A. I was not.

3 Q. Recognizing disagreement over this issue of
4 the accuracy, or inaccuracy of the information, if you
5 would take a look at Page 3 of 23 of what is now Exhibit
6 197. And if you would, look toward the bottom there,
7 it's a subsection that is called key questions. Do you
8 see that?

9 A. Yes.

10 Q. And one of the questions that Concentric was
11 tasked with answering is Number 3, which is specifically
12 whether the information that was provided was accurate,
13 consistent, timely, and reliable, correct?

14 A. Yes.

15 Q. I just want you to assume with me, Mr.
16 Olivera, that the Commission agrees with Concentric and
17 Mr. Reed's opinion that the information provided to them
18 in 2009 was not accurate, consistent, timely, or
19 reliable, if you could make that assumption. If the
20 Commission decides that to be the case, would you agree
21 that a penalty would be appropriate for a company that
22 provided inaccurate and inconsistent and unreliable
23 information?

24 A. Well, for the record, I don't agree. But in
25 your supposition, there has been no evidence found --

1 **MS. KAUFMAN:** Excuse me. Mr. Chairman, I
2 think we could have a yes or no.

3 **MR. ANDERSON:** Mr. Chairman, our CEO was asked
4 specifically to explain, and he's being cut off. We
5 respectfully ask that he be permitted to answer the
6 question.

7 **MS. KAUFMAN:** Mr. Chairman, I simply asked him
8 if under the circumstances of my hypothetical he thought
9 that a penalty would be appropriate.

10 **MR. ANDERSON:** In which case we would object
11 to the question, as it assumes facts not in evidence.

12 **CHAIRMAN GRAHAM:** My understanding is he said
13 he disagreed, and he was explaining to you why he
14 disagreed, and we allow for that to happen. So, Mr.
15 Olivera, if you would continue.

16 **THE WITNESS:** Thank you.

17 There was no evidence found of imprudently
18 spent funds, either by Mr. Reed in his report, he makes
19 that clear, or by the internal audit of the staff. So
20 even if you believe that it was incorrect, there has
21 been no evidence presented, no one has found that we
22 spent any of these funds improperly.

23 **Q.** Putting aside the expenditure of the funds, do
24 you not think it is appropriate for a company to be
25 penalized if they provide inaccurate or incomplete

1 information to the Commission, or is it your testimony
2 that that is not an appropriate action for the
3 Commission to take?

4 **A.** If it was determined that the company
5 knowingly provided misleading information or inaccurate
6 information, I would agree. That is not the case here.

7 **MS. KAUFMAN:** Thank you, Commissioners.
8 That's all I have.

9 **CHAIRMAN GRAHAM:** SACE.

10 **MR. WHITLOCK:** No questions, Mr. Chairman.

11 **CHAIRMAN GRAHAM:** Any other intervenors?
12 Staff.

13 **MR. YOUNG:** No questions.

14 **CHAIRMAN GRAHAM:** Any redirect?

15 **MR. ANDERSON:** Let me pause for just a moment.

16 **COMMISSIONER EDGAR:** Mr. Chairman, I
17 apologize, I do have a question or two, and generally we
18 do that before redirect.

19 **CHAIRMAN GRAHAM:** Okay; sure. I apologize,
20 Commissioner. I did not see your light.

21 **COMMISSIONER EDGAR:** That's all right. Thank
22 you.

23 Good afternoon.

24 **THE WITNESS:** Good afternoon.

25 **COMMISSIONER EDGAR:** Just a couple of quick

1 questions. On Page 3 of your testimony, written
2 testimony, you make the statement that, I'm quoting,
3 "FPL did not willfully withhold information that the
4 Commission needed to make an informed decision."

5 Do you believe that FPL withheld information
6 that was required to be submitted either by statute or
7 rule?

8 **THE WITNESS:** No, I don't, and if I explain
9 why. We had an estimate from a vendor, a contractor,
10 analogous to you get an estimate to remodel your house.
11 Somebody comes in and says it's going cost you ten
12 thousand dollars. You want to know what is involved,
13 what are they going to do for ten thousand dollars.
14 Take that and magnify that hundreds of thousands of
15 times. It's a project with ten million manhours. We
16 had not had a chance to vet the information. We hadn't
17 validated the information. We weren't even sure if we
18 wanted to stick with that contractor at the time that
19 the testimony was going on. I mean, we had discussions
20 do we get rid of Bechtel or not. Do we break the
21 project up. We went through all kinds of iterations
22 subsequent to the hearings.

23 I think you expect us when we come in here
24 that we present to you a number that is fully vetted,
25 that we stand by it, that we have spent the time

1 scrubbing.

2 I mean, the analogy is if you go to the
3 legislature with a number that you internally in this
4 Commission haven't had time to review; somebody gives
5 you a number and you run to the legislature with it. In
6 my mind, that is the way that this felt. And so I was
7 involved in the decision, and I told them, look, when we
8 have -- when we fully vet the information, when we
9 understand whether this is accurate or not, we'll go to
10 the Commission.

11 **COMMISSIONER EDGAR:** And so I'm going to turn
12 it back and make sure that I'm hearing you correctly.
13 From your position, as CEO and President, what I'm
14 hearing you say is that it is your belief and
15 professional opinion that those altered numbers or
16 revised numbers were not required to be disclosed to the
17 Commission at the point in time that is under discussion
18 and should not have been because of where they were in
19 the review process? And feel free to restate.

20 **THE WITNESS:** Yes. Let me be completely
21 transparent. I mean, after all the discussions that
22 have been going on about this information, you know, I
23 have asked myself, you know, what should we have done.
24 And perhaps we missed an opportunity during the hearings
25 to say, look, we have this information from a vendor.

1 It hasn't been vetted. It's not the official number.
2 We still stand by this number, meaning the estimate that
3 Mr. Kundalkar presented. That was still the official
4 number. You know, you step back and you say, well, I
5 think you still would have expected us to have -- not to
6 present something to you until it is vetted, and I think
7 also we would have lost some leverage with the vendor in
8 trying to negotiate a better price once that information
9 sort of becomes effectively public, when you discuss it
10 in this forum.

11 But it wouldn't have changed -- you know,
12 perhaps we should have said it. It wouldn't have
13 changed, at the end of the day, the estimate that we
14 stood by, which was the estimate that was presented to
15 this Commission.

16 **COMMISSIONER EDGAR:** Thank you. And I do
17 intend to ask a similar question when OPC Witness Jacobs
18 comes, who was also listed before us on this issue. I
19 have a question on another point, if I may, Mr.
20 Chairman.

21 **CHAIRMAN GRAHAM:** Sure. You have the floor.

22 **COMMISSIONER EDGAR:** Mr. Olivera, I recognize
23 in the Prehearing Order you are specifically listed on
24 Issue 15A, which you have been questioned on now and
25 responded to, but I would like to ask you a question on

1 another issue, which is in the Prehearing Order Issue
2 3A. And, again, I recognize you are not listed for
3 that, but in your position as CEO and president, I think
4 it would be useful to me to pose this question to you.

5 We have heard in opening arguments and in some
6 of the testimony and responses and questions today the
7 position of SACE that regarding Turkey Point 6 and 7
8 that there is no real demonstrated intent to actually
9 construct the reactors. I recognize that the receipt of
10 a COL is a necessary step in the longer process, but
11 from your perspective, what things is the company doing
12 or not doing that represent an intent or commitment to
13 move forward on construction?

14 **THE WITNESS:** We are currently pursuing, as
15 Mr. Scroggs mentioned, the permitting process at the
16 NRC, but there is also a lot of local permits that are
17 going on. We are in the process of getting the water
18 permits. We are in the process of going through a very
19 contentious transmission line siting, because it will
20 require additional transmission in some of the most
21 heavily congested areas in our service territory. We
22 are also pursuing all the state issues. There are
23 literally dozens of permits that have to be obtained,
24 and so we are currently under that process.

25 What we are now doing, and I think Mr. Scroggs

1 referred to it, we have not contracted with an
2 engineering procurement and construction contractor to
3 start the project. And if I may just hit quickly this
4 issue of, you know, what our intentions are. Our
5 intentions are to go through the licensing process.
6 When we have the COLA application approved, I think we
7 will look at, you know, what is happening, what do we
8 think is the most likely demand outlook for the state.
9 You know, does this project -- is the project needed?
10 Hopefully it will be, because it will be a positive sign
11 for the economy. And, you know, is it -- what is our
12 view of what the alternatives are.

13 You know, I am very bullish on nuclear.
14 Fundamentally, I believe that our country would be
15 better off if we had more nuclear plants for lots of
16 reasons. Florida, in particular, because we are so
17 dependent on natural gas. You know, right now life is
18 good because gas has been cheap and very stable in the
19 \$4 range, but I think you were in this Commission when
20 gas hit \$14 per MMBtu, which was not that far away. It
21 was October of '05. So I have lived through all of
22 those things, and I fundamentally believe that our
23 customers and our state are better served by a balanced,
24 a more balanced fuel portfolio.

25 Whether that is doable or not, we don't have

1 to make that decision today. And please be assured that
2 we would come back to you and say, look, this is our
3 view. We have the license -- and you have flexibility
4 once you get that license. Flexibility that you don't
5 have today. And it is going to take four or five years
6 to get this license. I think it is the right thing for
7 our customers, I think it is the right thing for our
8 state, and if I had the power, the right thing for our
9 country.

10 **COMMISSIONER EDGAR:** Thank you. Thank you,
11 Mr. Chairman.

12 **MR. WHITLOCK:** Mr. Chairman, could I ask a
13 couple of questions just following up on Commissioner
14 Edgar?

15 **CHAIRMAN GRAHAM:** No, sir. Commissioner
16 Balbis.

17 **COMMISSIONER BALBIS:** Thank you, Mr. Chairman.
18 And I just have one question for Mr. Olivera.
19 In your testimony, and I believe Commissioner Edgar
20 brought it up on your statement on FPL did not willfully
21 withhold information during the September 2009 hearing,
22 and you indicated that in your testimony that's because
23 that information wasn't properly vetted. Is the, or was
24 the information that was presented, did that go through
25 a vetting process that you described that the new

1 information did not?

2 **THE WITNESS:** Yes, it did. The information we
3 provided to you went through multiple levels of reviews,
4 both within the nuclear organization, the construction
5 organization, and then through the senior steering
6 committee.

7 **COMMISSIONER BALBIS:** And that process, I
8 believe you mentioned it in your testimony, for the new
9 information was subsequently done in time for the next
10 year's hearing, is that correct?

11 **THE WITNESS:** It was. And actually that
12 second round of information, because it represented an
13 increase, went through even more scrutiny than the prior
14 one. We actually brought in a third party to really
15 review the detailed estimates that Bechtel had provided.
16 So we brought in more resources to really truly vet that
17 information, and that took a period of months. So it
18 wasn't until the subsequent filing that we had gone
19 through that whole vetting process.

20 **COMMISSIONER BALBIS:** Okay. Thank you. I
21 don't have any further questions.

22 **CHAIRMAN GRAHAM:** Florida Power and Light,
23 redirect.

24 **MR. ANDERSON:** We have no redirect, Mr.
25 Chairman.

1 **CHAIRMAN GRAHAM:** Okay. Exhibits.

2 **MR. McGLOTHLIN:** I move 197.

3 **CHAIRMAN GRAHAM:** We are going to enter 197
4 into the record.

5 **MR. ANDERSON:** No objection.

6 **CHAIRMAN GRAHAM:** Staff?

7 **MR. YOUNG:** No objection.

8 (Exhibit Number 197 admitted into the record.)

9 **CHAIRMAN GRAHAM:** And there is nothing --
10 there is no exhibits from this witness?

11 **MR. YOUNG:** No.

12 **CHAIRMAN GRAHAM:** Okay. Are you finished with
13 this witness?

14 **MR. ANDERSON:** We are. He is indicated as a
15 rebuttal witness who will be returning.

16 **CHAIRMAN GRAHAM:** Okay.

17 **MR. ANDERSON:** And we do have our next witness
18 prepared.

19 **CHAIRMAN GRAHAM:** Okay. Thank you, sir, for
20 your testimony.

21 **THE WITNESS:** Thank you.

22 **MR. ROSS:** Mr. Chairman, the company calls
23 John Reed.

24 **CHAIRMAN GRAHAM:** Before this witness starts,
25 we are about at our two hour mark and we have got to let

1 our court reporter rest those fingers. So we will take
2 a break and we reconvene here at 4:00 o'clock.

3 (Recess.)

4 **CHAIRMAN GRAHAM:** Okay. Florida Power and
5 Light, you're up.

6 **MR. ROSS:** Mr. Chairman, Mr. Reed is on the
7 stand, and he has not been sworn.

8 **CHAIRMAN GRAHAM:** Mr. Reed, if I can get you
9 to stand and raise your right hand. Is there anybody
10 else that we are going to be doing today that has not
11 been sworn earlier?

12 **MR. ROSS:** Mr. Jones is in the room.

13 **CHAIRMAN GRAHAM:** If you can raise your right
14 hand, as well.

15 (Witnesses sworn.)

16 **MR. ROSS:** May I proceed?

17 **CHAIRMAN GRAHAM:** Yes, please.

18 **JOHN J. REED**

19 was called as a witness on behalf of Florida Power and
20 Light Company, and having been duly sworn, testified as
21 follows:

22 **DIRECT EXAMINATION**

23 **BY MR. ROSS:**

24 Q. Mr. Reed, would you please state your name and
25 business address.

1 A. My name is John Reed. My address is 39 Boston
2 Post Road, Marlboro, Massachusetts 01752.

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

5 A. I am the Chairman and CEO of Concentric Energy
6 Advisors.

7 Q. Have you prepared and caused to be filed 50
8 pages of Prefiled Direct Testimony in this proceeding on
9 March 1, 2001, entitled Extended Power Uprates 2009?

10 A. Yes, I have.

11 Q. Have you prepared and caused to be filed 47
12 pages of Prefiled Direct Testimony in this proceeding on
13 March 1, 2011, entitled Turkey Point 6 and 7, 2009 and
14 2010?

15 A. Yes, I have.

16 Q. Do you have any changes or revisions to your
17 Prefiled Direct Testimony?

18 A. No, I do not.

19 Q. If I asked you the same questions contained in
20 your Prefiled Direct Testimony, would your answers be
21 the same?

22 A. Yes, they would.

23 **MR. ROSS:** Mr. Chairman, I ask that the
24 Prefiled Direct Testimony of Mr. Reed be inserted into
25 the record as though read.

1 **CHAIRMAN GRAHAM:** We will insert the prefiled
2 direct testimony of Mr. Reed into the record as though
3 read.

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1 **BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**
2 **FLORIDA POWER & LIGHT COMPANY**
3 **DIRECT TESTIMONY OF JOHN J. REED**
4 **DOCKET NO. 110009**
5 **March 1, 2011**

6
7 **Section I: Introduction**

8 **Q. Please state your name and business address.**

9 A. My name is John J. Reed. My business address is 293 Boston Post Road West,
10 Marlborough, Massachusetts 01752.

11 **Q. By whom are you employed and what is your position?**

12 A. I am the Chairman and Chief Executive Officer of Concentric Energy Advisors,
13 Inc. ("Concentric").

14 **Q. Please describe Concentric.**

15 A. Concentric is an economic advisory and management consulting firm,
16 headquartered in Marlborough, Massachusetts, which provides consulting
17 services related to energy industry transactions, energy market analysis, litigation,
18 and regulatory support.

19 **Q. Please describe your educational background and professional experience.**

20 A. I have more than 30 years of experience in the energy industry, having served as
21 an executive in energy consulting firms, including the position of Co-Chief
22 Executive Officer of the largest publicly-traded management consulting firm in
23 the United States and as Chief Economist for the largest gas utility in the United
24 States. I have provided expert testimony on a wide variety of economic and

1 financial issues related to the energy and utility industry on numerous occasions
2 before administrative agencies, utility commissions, courts, arbitration panels and
3 elected bodies across North America. A summary of my educational background
4 can be found on Exhibit JJR-EPU-1.

5 **Q. Are you sponsoring any exhibits in this case?**

6 A. Yes. I am sponsoring Exhibits JJR-EPU-1 through JJR-EPU-6, which are
7 attached to my direct testimony.

8	Exhibit JJR-EPU-1	Curriculum Vitae
9	Exhibit JJR-EPU-2	Testimony of John J. Reed 1998 – 2011
10	Exhibit JJR-EPU-3	Total Production Cost of Electricity
11	Exhibit JJR-EPU-4	List of the EPU Projects’ Periodic
12		Meetings
13	Exhibit JJR-EPU-5	Concentric Observations Regarding the
14		EPU Projects’ Activities in 2009
15	Exhibit JJR-EPU-6	Concentric’s Prior Recommendations for
16		the EPU Projects

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

18 A. The purpose of my testimony is to review the benefits of nuclear power and the
19 appropriate prudence standard to be applied to Florida Power & Light’s (“FPL”
20 or the “Company”) decision-making processes in this Nuclear Cost Recovery
21 Clause (“NCRC”) proceeding before the Florida Public Service Commission (the
22 “FPSC” or the “Commission”). In addition, I review the system of internal
23 controls that were being used by FPL to manage and implement Extended
24 Power Uprate (“EPU”) Projects at FPL’s existing Saint Lucie Units 1 & 2

1 (“PSL”) and Turkey Point Units 3 & 4 (“PTN” and collectively with PSL the
2 “EPU Projects” or the “Projects”) in 2009.

3 **Q. Please describe your experience with nuclear power plants, and**
4 **specifically your experience with major construction programs at these**
5 **plants.**

6 A. My consulting experience with nuclear power plants spans more than 25 years.
7 My clients have retained me for assignments relating to the construction of
8 nuclear plants; the purchase, sale and valuation of nuclear plants, power uprates
9 and major capital improvement projects at nuclear plants; and the
10 decommissioning of nuclear plants. In addition to my work at FPL’s plants, I
11 have had significant experience with these activities at the following plants:

- | | | |
|----|-------------------|------------------|
| 12 | • Big Rock Point | • Oyster Creek |
| 13 | • Callaway | • Palisades |
| 14 | • Duane Arnold | • Peach Bottom |
| 15 | • Fermi | • Pilgrim |
| 16 | • Ginna | • Point Beach |
| 17 | • Hope Creek | • Prairie Island |
| 18 | • Indian Point | • Salem |
| 19 | • Limerick | • Seabrook |
| 20 | • Millstone | • Vermont Yankee |
| 21 | • Monticello | • Wolf Creek |
| 22 | • Nine Mile Point | • Vogtle |

23 I have recently been active on behalf of a number of clients in pre-construction
24 activities for new nuclear plants across the United States. These activities include
25 state and Federal regulatory processes, raising debt and equity financing for new
26 projects and evaluating the costs schedules and economics of new nuclear
27 facilities. These activities have included detailed reviews of cost estimation and

1 construction project management activities of other new nuclear project
2 developers.

3 **Q. Please summarize your testimony.**

4 A. The remainder of my testimony covers three main topic areas: (1) the benefits of
5 nuclear power to Florida; (2) the prudence standard; and (3) Concentric's review
6 of the Projects. Each of these topics is summarized below.

7 The five existing nuclear reactors in Florida have provided, and continue
8 to provide, substantial benefits to Florida customers. These benefits include
9 virtually no air emissions, increased fuel diversity, reduced exposure to fuel price
10 volatility, fuel cost savings, highly reliable base load capacity, and efficient land
11 use. Similarly, additional nuclear capacity is expected to provide more of these
12 same benefits to Florida.

13 The rule that governs the Commission's review of FPL's nuclear projects
14 calls for an annual prudence determination. The prudence standard encapsulates
15 three main elements. First, prudence relates to decisions and actions and not
16 costs incurred by a utility. Second, the prudence standard includes a
17 presumption of prudence with regard to the utility's actions. Absent evidence to
18 the contrary, a utility is assumed to have acted prudently. Third, the prudence
19 standard excludes hindsight. Thus the prudence of a utility's actions must be
20 evaluated on the basis of information that was known or could have been known
21 at the time the decision was made.

22 Finally, Concentric has reviewed the processes and procedures that are
23 used to manage and implement the Projects. This review has focused on the
24 Company's internal controls that are in place to provide assurance that the

1 Company meets its strategic, financial, and regulatory objectives related to the
2 Projects. Our review is premised on a framework developed by Concentric
3 when advising potential investors in new nuclear development projects and our
4 recent regulatory experience. Based upon our review, it is my conclusion that
5 FPL management's actions did not result in any imprudently incurred costs
6 during the review period, and the Company's costs should all be allowed in rates.
7 For the EPU Projects, in 2009, these prudent actions included managing an
8 organizational shift of more responsibilities to the sites and a management
9 transition within the EPU Projects, and making progress towards completion of
10 all four License Amendment Requests ("LAR") that must be submitted to the
11 Nuclear Regulatory Commission ("NRC"), including the submittal of one LAR
12 to the NRC. These actions, as of December 2009, left the EPU Projects better
13 positioned for the upcoming implementation of the EPU's through 2012.

14 **Q. Please describe how the remainder of your testimony is organized.**

15 A. The remainder of my testimony is organized into six sections. Section II
16 provides an overview of the potential benefits of additional nuclear power for
17 FPL's customers, and Section III discusses the appropriate prudence standard
18 for evaluating FPL's management of the Projects. Section IV describes the
19 framework that guided Concentric's review. Sections V and VI describe the
20 EPU Projects' activities in 2009 and Concentric's review of and observations
21 relating to the EPU Projects' 2009 project controls, respectively. Finally, Section
22 VII presents my conclusions.

1

2 **Section II: Potential Benefits of Nuclear to Florida**3 **Q. Has nuclear power benefited FPL customers?**

4 A. Yes. Nuclear power has a long and successful history of operation in FPL's
5 power generating fleet. The four reactors at PSL and PTN have been generating
6 power for an average of over 34 years. Throughout the last three decades, these
7 units have benefited Florida customers by reliably producing emissions-free
8 energy, decreasing total fuel costs, enhancing the diversity of fuels used to
9 generate power and insulating customers from commodity price spikes.

10 **Q. Is it prudent to continue the development of additional nuclear capacity in**
11 **Florida?**

12 A. Yes, whenever that capacity can be developed on an economic basis over its
13 useful life. One of the most compelling advantages to additional nuclear power is
14 that it emits virtually no carbon dioxide. Whereas the alternative base load
15 power sources in Florida are carbon intensive, nuclear power emits no
16 greenhouse gases ("GHG"). Based upon FPL's 2009 generation and the
17 Environmental Protection Agency's ("EPA") eGrid tool, the four nuclear units
18 FPL operates in Florida avoid between 11 and 12 million tons of CO₂ emissions
19 per year compared to an average natural gas-fired, combined cycle generating
20 station.¹ The magnitude of avoided emissions would increase further if
21 compared with a coal-fired plant that is capable of producing the same amount
22 of energy, rather than a natural gas-fired power plant.

23 Legislation to address the problems associated with anthropomorphic
24 GHG emissions has been introduced on several occasions. These efforts are

1 currently stalled in Congress, but Federal regulation of the point sources of
2 emissions is poised to proceed nevertheless. In 2009, the EPA declared CO₂ and
3 several other GHGs to be dangerous to public health and welfare, and began a
4 process to enact Federal regulations for the emission of these gases.² At the
5 moment, the prospects for this type of regulation are unclear. The current
6 administration has made it clear that it would like to move forward with GHG
7 regulation through executive agencies if Congressional action does not produce a
8 satisfactory bill, and the Senate rejected a bill that would strip the EPA of the
9 authority to regulate CO₂.³ However, opposition to regulations, which could
10 affect factories, utilities and automobiles, remains strong in the House of
11 Representatives. Independent of progress at the Federal level, State and regional
12 programs such as the Regional Greenhouse Gas Initiative in the northeast and
13 the Western Climate Initiative in the northwest continue to move forward with
14 programs to regulate emissions.

15 While the stringency and form that GHG regulations will ultimately take
16 remains uncertain, there is a very real likelihood that industrial emitters, including
17 utilities, will be faced with regulations addressing GHG emissions within the next
18 several years.

19 Moreover, the diversification of the electric generation mix is an
20 important source of benefits to customers. In recent years, Florida has become
21 increasingly dependent on natural gas as a fuel source for electric generating
22 facilities.⁴ Unless the State's utilities continue to develop alternatively fueled
23 facilities, Florida's generation mix is likely to become extraordinarily dependent
24 on natural gas-fired generation. As a result, Florida will become even more

1 susceptible to natural gas price spikes and acutely vulnerable to natural gas supply
2 disruptions. Furthermore, the State would fall short of achieving any meaningful
3 reductions in GHG emissions levels.

4 **Q. How does the current price of natural gas compare with recent trends in**
5 **natural gas prices?**

6 A. While the wholesale price of natural gas is currently below levels that have been
7 observed for the past several years, the long-term outlook for the price of natural
8 gas is an increasingly important concept to consider when evaluating the benefits
9 of resource diversity. While the price of natural gas is currently on the low end
10 of what we have observed in recent years, the price has also been subject to
11 significant swings, and reasonably can be expected to revert to more traditional
12 cross-fuel price relationships over the likely 60 year life of a nuclear facility.

13 **Q. How do trends in the production cost of natural gas-fired generation**
14 **compare with trends in the price of nuclear power?**

15 A. The cost of nuclear power has been stable due to the fact that fuel represents a
16 comparatively small portion of the operating costs of nuclear power facilities.
17 According to the Nuclear Energy Institute (“NEI”), fuel accounts for
18 approximately 90% of the total production cost of energy from natural gas,
19 whereas fuel costs of nuclear power are only 25-30% of the total production
20 cost.⁵

21 As shown in Exhibit JJR-EPU-3, the production cost of energy from
22 nuclear power is substantially lower than other sources of base load energy. The
23 electric bills of Florida residents are and have been lower and much less subject
24 to fuel price volatility as a result of the lower production costs of nuclear power.

1 **Q. Is it appropriate for the Commission to continue to allow recovery of**
2 **certain pre-construction costs and construction carrying costs prior to the**
3 **units entering into service?**

4 A. Yes. Given the magnitude of the potential benefits of additional nuclear
5 capacity, it is absolutely appropriate to allow for cost recovery through the
6 annual NCRC process. The NCRC is important for both the Company and its
7 customers. With respect to the Company, the NCRC provides FPL's debt and
8 equity investors with some measure of assurance of cost recovery if their
9 investments are used to prudently incur costs. In addition, by allowing recovery
10 of carrying costs during construction, the NCRC eliminates the effect of
11 compound interest on the total project costs, which will reduce customer bills if
12 and when the facilities are constructed.

13 **Q. Have other utilities considering nuclear development activities noted the**
14 **necessity of NCRC-like recovery mechanisms?**

15 A. Yes. Utilities such as Duke, SCANA, Georgia Power, Progress Energy and
16 Ameren have publicly acknowledged the benefits and the necessity of cost
17 recovery mechanisms like the NCRC.

18 **Q. Are there benefits of nuclear power other than those that quantitatively**
19 **affect the price of electricity?**

20 A. Yes. The comparatively small footprint of a nuclear powered generating station
21 compared to alternative clean, emissions-free technologies is often overlooked.
22 By requiring less land, nuclear power plants limit the degree of forest clearing,
23 wetlands encroachments, and other environmental impacts associated with siting
24 a generating facility.

1

2 **Section III: The Prudence Standard**3 **Q. Please generally describe the prudence standard as you understand it.**

4 A. The prudence standard is captured by three key features. First, prudence relates
5 to actions and decisions; costs themselves are not prudent or imprudent. It is the
6 decision or action that must be reviewed and assessed, not simply whether the
7 costs are above or below expectations. The second feature is that the standard
8 incorporates a presumption of prudence, which is often referred to as a
9 rebuttable presumption. The burden of showing that a decision is outside of the
10 reasonable bounds falls, at least initially, on the party challenging the utility's
11 actions. The final feature is the total exclusion of hindsight. A utility's decisions
12 must be judged based upon what was known or knowable at the time the
13 decision was made by the utility. The prudence of a utility's decisions cannot be
14 judged based upon the result of the decision or information that was not
15 available for several weeks, months or even years after the decision was made.
16 This feature would preclude a finding that identifies a decision as potentially
17 imprudent dependent upon the future outcome. Such a finding would create an
18 unachievable standard for utility managers.

19 **Q. Are there historical precedents for the prudence standard?**

20 A. Yes. The original standard of prudence was expressed by Supreme Court Justice
21 Louis Brandeis in 1923 as a means of guiding regulators conducting reviews of
22 utility capital investments. Since that time, substantial jurisprudence has been
23 developed to refine the Prudent Investment Test. Much of this was developed in
24 the 1980s following the nuclear construction programs of the previous two

1 decades. As originally proffered, the test provides a basis for establishing a
2 utility's investment or rate base based on the cost of such investment:

3 There should not be excluded from the finding of the base,
4 investments which, under ordinary circumstances, would be deemed
5 reasonable. The term is applied for the purpose of excluding what
6 might be found to be dishonest or obviously wasteful or imprudent
7 expenditures. Every investment may be assumed to have been made
8 in the exercise of reasonable judgment, unless the contrary is
9 shown... adoption of the amount prudently invested as the rate base
10 and the amount of the capital charge as the measure of the rate of
11 return ... [would provide] a basis for decision which is certain and
12 stable. The rate base would be ascertained as a fact, not determined
13 as a matter of opinion.⁶

14 The position of Justice Brandeis was endorsed in 1935 when Supreme Court
15 Justice Benjamin N. Cardozo stated:

16 Good faith is to be presumed on the part of managers of a
17 business. In the absence of a showing of inefficiency or
18 improvidence, a court will not substitute its judgment for theirs
19 as to the measure of a prudent outlay.⁷

20 The Prudent Investment Test offered by Justice Brandeis was applied sparingly
21 for the first four decades following its pronouncement. It was not until the
22 nuclear construction projects of the 1970s and 1980s that the Prudent
23 Investment Test, at least in name, was applied frequently in various electric utility
24 rate cases.

25 **Q. Please further describe the Prudent Investment Test.**

26 A. The Prudent Investment Test closely follows the traditional standard established
27 by Justice Brandeis. Under this standard, regulators must utilize a balanced,
28 retrospective review based upon the information that was known or knowable at
29 the time of the decision. In addition, the Prudent Investment Test considers a
30 range of reasonable behavior given the circumstances, rather than requiring
31 perfection or even consistently above-average performance.

1 The National Regulatory Research Institute (“NRRI”) advocated for
2 similar principles in a 1984 research paper entitled The Prudent Investment Test
3 in the 1980s. In this paper the NRRI stated that the prudent investment
4 standard should include the following four guidelines:

- 5 • “...a presumption that the investment decisions of the utilities
6 are prudent...”
- 7 • “...the standard of reasonableness under the circumstances...”
- 8 • “...a proscription against the use of hindsight in determining
9 prudence...”
- 10 • “...determine prudence in a retrospective, factual inquiry.
11 Testimony must present facts, not merely opinion, about the
12 elements that did or could have entered into the decision at
13 the time.”

14 **Q. What test for prudence has been adopted by the Commission?**

15 A. The traditional interpretation of the Prudent Investment Test, as described
16 above, has been used by the Commission in several recent orders:

17 Prudence has been defined as “what a reasonable utility manager
18 would have done in light of conditions and circumstances which
19 were known or reasonably should have been known at the time
20 the decision was made.”⁸

21 A utility should not be charged with knowledge of facts which
22 cannot be foreseen or be expected to comply with future
23 regulatory policies. Expectations are not always borne out. The
24 prudence of decision making should be viewed from the
25 perspective of the decision maker at the time of the decision.
26 Contract administration must be viewed at a point in time which
27 takes into consideration the facts which were known or which
28 should have been known at the time the contract is entered into
29 or amended...

1 We have not sought to retroactively apply new policies to Gulf's
2 prior actions and we have recognized that a utility cannot foresee
3 the future.⁹

4 We must avoid impermissibly applying hindsight review, which is
5 the application of facts that are known today to decisions made in
6 the past (i.e., Monday morning quarterbacking). As we consider
7 whether PEF acted prudently, we must ask ourselves, did PEF
8 know or should PEF have known about a particular set of
9 circumstances.¹⁰

10 As can be seen from these statements, the Commission has generally prohibited
11 the use of hindsight when reviewing utility management decisions. Instead, the
12 Commission has chosen to strictly follow the traditional standard by developing
13 a range of reasonable behaviors based on the circumstances that were known at
14 the time of the decision or action. The Commission's order in the 2009 Nuclear
15 Cost Recovery docket adopted a similar position. Further, the Commission has
16 noted a need to apply a consistent standard to reviewing utility decisions.

17

18 **Section IV: Framework of Internal Controls Review**

19 **Q. What is meant by the term "internal control" and what does it intend to**
20 **achieve?**

21 A. The Committee of Sponsoring Organizations of the Treadway Commission
22 ("COSO") is a global industry organization that provides guidance as to the
23 development, implementation and assessment of systems of internal control.
24 COSO has defined internal control as a process that provides reasonable
25 assurance of the effectiveness of operations, reliability of financial reporting and
26 compliance with applicable laws and regulations. This definition has been
27 further expanded to reflect four critical concepts. First amongst these is that
28 internal control is a process. While internal control may be assessed at specific

1 moments in time, a system of internal control can only be effective if it responds
2 to the dynamic nature of organizations and projects over time. Second, internal
3 control is created by people, and thus the effectiveness of an internal control
4 system is dependent on the individuals in an organization. Third, internal
5 control is specifically directed at the achievement of an entity's goals. Thus, risks
6 that present the greatest challenge to the achievement of those objectives must
7 take priority. Finally, internal control can provide only reasonable assurance.
8 Expectations of absolute assurance cannot be achieved.

9 **Q. Please describe the framework Concentric used to review the Company's**
10 **system of internal control as implemented by the EPU Projects in 2009.**

11 A. In order to review and assess the Company's internal controls, Concentric
12 utilized a similar framework to that which it has used previously for FPL's
13 NCRC proceedings. That framework is based upon Concentric's
14 contemporaneous experience advising prospective investors in new nuclear
15 projects and Concentric's regulatory experience.

16 In summary, the framework has focused on six elements of the
17 Company's internal controls, including:

- 18 • Defined corporate procedures
- 19 • Written project execution plans
- 20 • Involvement of key internal stakeholders
- 21 • Reporting and oversight requirements
- 22 • Corrective action mechanisms
- 23 • Reliance on a viable technology

24 Each of these elements was reviewed for five processes including:

- 1 • Project estimating and budgeting processes
- 2 • Project schedule development and management processes
- 3 • Contract management and administration processes
- 4 • Internal oversight mechanisms
- 5 • External oversight mechanisms

6 Concentric's work in 2010 and 2011 is additive to our work reviewing the
7 projects in 2008 and 2009. In other words, Concentric's efforts in 2010 and
8 2011 reflect the information and understanding of the Projects gained during
9 Concentric's reviews in prior years.

10 **Q. Please describe how Concentric performed this review.**

11 A. Concentric's review was performed over two distinct periods. In the first quarter
12 of 2010, we performed the review described below with a focus on 2009
13 activities. Subsequently, in January and February 2011, we supplemented our
14 prior year's review to confirm and update our understanding of the EPU
15 Projects' 2009 activities. Concentric began our evaluation by reviewing the
16 Company's policies, procedures and instructions with particular emphasis placed
17 on those policies, procedures or instructions that may have been revised since
18 the time of Concentric's 2009 review. In addition, Concentric reviewed the
19 project organizational structures and key project milestones that were achieved in
20 2009. Concentric then reviewed other documents and conducted several in-
21 person interviews to make certain the EPU Projects' policies, procedures and
22 instructions were known by the project teams, were being implemented by the
23 Projects and have resulted in prudent decisions based on the information that
24 was available at the time of each decision.

1 Concentric's in person interviews included representatives from each of the
2 following functional areas:

- 3 • Project Management
- 4 • Project Controls
- 5 • Integrated Supply Chain Management ("ISC")
- 6 • Marketing & Communications
- 7 • Employee Concerns Program
- 8 • Quality Assurance/Quality Control ("QA/QC")
- 9 • Human Resources
- 10 • Transmission
- 11 • Environmental Services
- 12 • Legal Services
- 13 • State Regulatory Affairs
- 14 • NRC Regulatory Interface

15 In addition to our periodic reviews of the Projects, Concentric also
16 undertook during 2010 an investigation related to employee concerns regarding
17 project management, at the request of FPL.

18 **Q. Please describe why you believe it is important for FPL to have defined
19 corporate procedures in place throughout the development of the Projects.**

20 **A.** Defined corporate procedures are critical to any project development process as
21 they detail the methodology with which the project will be completed and make
22 certain that business processes are consistently applied to the project. To be
23 effective, these procedures should be documented with sufficient detail to allow

1 project teams to implement the procedures, and they should be clear enough to
2 allow project teams to easily comprehend the procedures. It is also important to
3 assess whether the procedures are known by the project teams and adopted into
4 the Company's culture, including a process that allows employees to openly
5 challenge and seek to improve the existing procedures and to incorporate lessons
6 learned from other projects into the Company's procedures. Within each of the
7 EPU Projects, the Project Controls and the Nuclear Business Operations staff is
8 primarily responsible for ensuring the Company's corporate procedures are
9 applied consistently by the various FPL and contractor staff members who are
10 working on the Projects. However, it is acknowledged that this is a shared
11 responsibility held by all project team members, including the project managers.

12 **Q. Please explain the importance of written project execution plans.**

13 A. Written project execution plans are necessary to prudently develop a project.
14 These plans lay out the resource needs of the project, the scope of the project,
15 key project milestones or activities and the objectives of the project. These
16 documents are critical as they provide a "roadmap" for completing the project as
17 well as a "yardstick" by which overall performance can be monitored and
18 managed. It is also important for the project sponsor to require its large-value
19 contract vendors to provide similar execution plans. Such plans allow the project
20 sponsor to accurately monitor the performance of these vendors and make
21 certain at an early stage of the project that each vendor's approach to achieving
22 key project milestones is consistent with the project sponsor's needs. These
23 project plans must be updated to reflect changes to the project scope and
24 schedule as warranted by project developments.

1 **Q. Why is it important that key internal stakeholders are involved in the**
2 **project development process?**

3 A. One of the most challenging aspects of prudently developing a large project is
4 the ability to balance the needs of all stakeholders, including various Company
5 representatives and the Company's customers. This balance is necessary to make
6 certain that the maximum value of the project is realized. For example, it is
7 important that an EPU project be successfully implemented in an efficient
8 manner to avoid unnecessarily interfering with each plant's operations.
9 Modifications to an existing nuclear plant can have unwanted or unexpected
10 impacts on the day-to-day operations of the facility. By including these
11 stakeholders in a transparent project development process, the project sponsor
12 will be better positioned to deliver on these high-value projects.

13 **Q. Why is it important to have established reporting and oversight**
14 **requirements?**

15 A. Effective internal and external communications enable an organization to meet
16 its key objectives, and allow employees to effectively discharge their
17 responsibilities. By having an established reporting structure and periodic
18 reporting requirements, the project sponsor's senior management will be well
19 informed on the status of the project's various activities. Reporting requirements
20 give senior management the information it needs to leverage its background and
21 previous experience to prudently direct the many facets of the project. In
22 addition, established reporting requirements ensure that senior management is
23 fully aware of the activities of the respective project teams so management can
24 effectively control the overall project risks. In the case of the EPU Projects, this

1 level of project administration by senior management is prudent considering the
2 large expenditures that will be required to complete the Projects and the potential
3 impact of the Projects on the Company overall.

4 In order to be considered robust, these reporting requirements should be
5 frequent and periodic (*i.e.*, established daily, weekly and monthly reporting
6 requirements) and should include varying levels of detail based on the frequency
7 of the report. The need for timely and effective project reporting is well
8 recognized in the industry. To that point, a field guide for construction
9 managers notes:

10 Cost and time control information must be timely with little delay
11 between field work and management review of performance.
12 This timely information gives the project manager a chance to
13 evaluate alternatives and take corrective action while an
14 opportunity still exists to rectify the problem areas.¹¹

15 **Q. What is the purpose of corrective action mechanisms and why are they**
16 **important to ensure the Company is prudently incurring costs?**

17 A. A corrective action mechanism is a defined process whereby a learning culture is
18 implemented and nurtured throughout an organization to help eliminate
19 concerns that can interfere with the successful completion of the project.
20 Corrective action mechanisms help identify the root cause of issues, such as an
21 activity that is trending behind schedule, and provide the opportunity to adopt
22 mechanisms that mitigate and correct the negative impact from these issues. A
23 robust corrective action mechanism assigns responsibility for implementing the
24 corrective actions and a means by which these activities are managed. In
25 addition, a corrective action mechanism educates the project team in such a
26 manner as to ensure project risks are prudently managed in the future.

1 **Q. Are there any other elements of the Company's internal controls included**
2 **in your review?**

3 A. No. There were no other elements of the Company's internal controls included
4 in my review.

5

6 **Section V: EPU Projects Activities in 2009**

7 **Q. What period of time did your review of the EPU Projects encompass?**

8 A. As stated previously, my review of the EPU Projects was for the period January
9 1, 2009 through December 31, 2009. Concentric's review of this time period
10 relied upon data that was provided to Concentric in the period from January
11 2010 to August 2010, as well as in January and February 2011.

12 **Q. Please provide a brief introduction to FPL's EPU Projects.**

13 A. FPL is implementing an EPU at PSL and PTN. An EPU is the process of
14 modifying and upgrading specific components at a nuclear power plant to
15 increase the maximum power level at which the power plant can operate. Once
16 completed, the EPU Projects were expected to increase the nuclear generating
17 capacity of PSL and PTN by at least 414 megawatts in total as of January 2010.
18 The final increase in capacity will not be known until all design engineering is
19 complete.

20 **Q. How were the EPU Projects structured as of year-end 2009?**

21 A. The EPU Projects consisted of four overlapping phases: (i) the Engineering
22 Analysis Phase; (ii) the Long Lead Equipment Procurement Phase; (iii) the
23 Engineering Design Modification Phase; and (iv) the Implementation Phase.
24 The first three phases are already underway, and as of January 2010, the first

1 steps had been made in the Implementation Phase. As of January 2010, the EPU
2 Projects were expected to be implemented in 2011 for PSL Unit 1, and in 2012
3 for PTN Units 3 and 4 and PSL Unit 2. The EPU Projects were scheduled at
4 that time for completion in 2012, after the last of the outages required for
5 finishing the Implementation Phase at both PSL and PTN. The activities
6 undertaken in each of the four phases presented above are further described in
7 the testimony of FPL Witness Jones.

8 **Q. Please describe the general progress of the EPU Projects in 2009 as it**
9 **pertained to the phases you have identified above.**

10 A. The Engineering Analysis and Long Lead Procurement Phases were in progress.
11 One LAR Alternative Source Term ("AST") submittal was completed in 2009
12 and, as of January 2010 three LAR submittals were planned for 2010. Regarding
13 Long Lead Procurement, most of the long lead contracts were awarded and the
14 equipment was being fabricated as of January 2010. The Engineering Design
15 Modification Phase was also underway, and, as of January 2010, two percent of
16 the design modifications were issued. Finally, the Implementation Phase was in
17 its nascent stage, with the overwhelming majority of the construction work
18 expected to be performed during the outages scheduled in 2010 through 2012.

19 **Q. Given that all phases of the Projects were underway, what was the timeline**
20 **for the implementation of the EPU Projects?**

21 A. As of January 2010, the project schedule included approximately 185 EPU
22 modifications at PSL and PTN. These modifications were expected to be
23 performed in successive outages for each of the nuclear units, the last of which
24 was scheduled for completion in the fall of 2012. The licensing schedule for

1 NRC approval was supportive of the implementation schedules for the physical
2 modifications to each unit. In 2009, the EPU Projects' management team
3 continued to make the necessary adjustments to the Projects to meet schedules,
4 control costs and contain additional project scope.

5 **Q. How were the EPU Projects organized in 2009?**

6 A. Prior to 2009, the EPU Projects were centrally managed to streamline oversight
7 and procurement functions. As the Projects moved from the analysis and
8 planning phases to include the Implementation Phase, FPL made the appropriate
9 decision to disaggregate its management structure and moved a significant
10 portion of the project management responsibility to the plant sites.

11 **Q. Please describe the reorganization of the project management in 2009.**

12 A. In July 2009, FPL determined that the reorganization of project management was
13 necessary as the EPU Projects moved from the Engineering Analysis and Long
14 Lead Procurement phases to the Implementation Phase. Previously consisting of
15 a centralized management team, the restructuring created business unit
16 management teams and staff at each site to report to a core leadership group at
17 FPL headquarters. This new structure allowed director-level control over the
18 operations and staff at each site, and its creation acknowledged the different
19 operating and staffing conditions between the EPU sites. This management
20 change was announced on July 15, 2009 and was implemented effective August
21 1, 2009.

22 **Q. What centralized oversight remained for the EPU Projects as of 2009?**

23 A. In 2009, FPL maintained a core project management team to provide centralized
24 oversight for the EPU Projects. The primary centralized positions that provided

1 this project management included: the Nuclear Power Uprate Vice President,
2 responsible for all aspects of project execution, including licensing, design,
3 engineering, cost, implementation and regulatory; the EPU Implementation
4 Owner - South, who provided oversight and governance for the respective site
5 EPU project; a Technical Director, who provided management and technical
6 support; the Controls Director, who provided direction, oversight and
7 governance to the Project Control Supervisor at each site and held overall
8 responsibility for the EPU Projects control functions including cost control,
9 estimating, scheduling and support activities; the EPU Licensing and Regulatory
10 Interface Director, who was responsible for the oversight, coordination,
11 production and technical quality of the licensing engineering and analysis related
12 to the LARs and other regulatory submittals; and the EPU Nuclear Cost
13 Recovery interface manager, responsible for the overall coordination of the
14 project with the Commission and FPL Regulatory Affairs.

15 **Q. Did the EPU Projects team consist of any other centralized management**
16 **positions?**

17 A. Yes. Throughout 2009, the EPU Projects team included a Quality Assurance
18 ("QA") manager at the Company's headquarters. Described in greater detail later
19 in this section of my testimony, this function necessarily acted separately from
20 the functions described above to maintain independence when assessing the
21 EPU Projects.

22 **Q. Please briefly describe each project site's management team in 2009.**

23 A. Since the project management function was decentralized, each EPU site had its
24 own management team organized under a Site Project Director. This position

1 served as the senior EPU project management individual on site and held overall
2 responsibility for all aspects of the EPU project at the assigned site. Reporting
3 directly to the Site Project Director was the Site Project Manager, Site EPU
4 Contracts Manager, and the Site EPU Modification Engineering Manager.
5 Additionally, there were Site Managers in place for Project Controls, and for
6 EPU LAR, who reported to the Controls Director and the Director of EPU
7 Licensing and Regulatory Interface, respectively.

8 **Q. Was the management structure explicitly defined in a Company procedure**
9 **or instruction?**

10 A. Yes. Initially this management structure was outlined in the EPU Change
11 Management Plan. Extended Power Uprate Project Instruction ("EPPI")-140:
12 Roles and Responsibilities, was later revised to incorporate this management
13 structure.

14 **Q. What major milestones were met on the EPU Projects in 2009?**

15 A. The EPU Projects achieved several major accomplishments in 2009, including
16 the reorganization of the project management, change in management personnel
17 and organization, further outage planning, the execution of a groundwater
18 monitoring agreement for PTN, submittal of the first LAR for PTN, and
19 progress on the remaining LARs.

20 **Q. Please describe the other changes to the EPU Projects management in**
21 **2009.**

22 A. In addition to decentralizing the project management, there were several changes
23 of EPU management personnel during 2009. These included the appointment of
24 Mr. Terry Jones as the Vice President of Nuclear Power Uprates, the elimination

1 of the position of Director of EPU Projects, creation of the position of
2 Implementation Owner – South and the changed reporting structure of Project
3 Controls to the director level. A copy of the EPU Projects Organizational Chart
4 can be found in the testimony of FPL Witness Jones as Exhibit TOJ-3.

5 **Q. Please describe the EPU Projects' regulatory progress in 2009.**

6 A. FPL submitted the AST LAR for PTN Units 3 and 4 in late June 2009. The AST
7 LAR, which included preliminary EPU information required for approval before
8 the submittal of the EPU LAR to the NRC, was accepted by the NRC on
9 September 25, 2009. The company also continued to make progress on the two
10 EPU LARs for PSL (one for each unit), and the one EPU LAR for PTN during
11 2009. These filings were scheduled for submission to the NRC in 2010. The
12 NRC review and approval was expected to take approximately fourteen months
13 for each EPU LAR, during which time the NRC may require additional
14 modifications.

15 **Q. Were there any outstanding Conditions of Certification that were satisfied**
16 **in 2009?**

17 A. Yes. In October 2009, the South Florida Water Management District
18 ("SFWMD") governing board adopted the Fifth Supplemental Agreement
19 between SFWMD and FPL concerning the operation and monitoring of the
20 PTN cooling canal system. This agreement provided for two years of
21 groundwater monitoring prior to operating the PTN facility at increased power
22 levels and for two years following the implementation of the EPU Projects. The
23 adoption of this agreement closed the remaining Conditions of Certification for
24 the PTN EPU project.

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Section VI: Review and Observations Relating to the EPU Projects in 2009

Q. How is this section of your testimony organized?

A. This section describes my review of the five key processes (*i.e.*, project estimating and budgeting, project schedule development and management, contract management and administration, internal oversight mechanisms, and external oversight mechanisms), described above, as well as observations and recommendations related to each process.

Q. As a preliminary matter, what did your review lead you to conclude with regard to the prudence of FPL's actions in 2009 as they related to the EPU Projects?

A. FPL's decision to continue pursuing the EPU Projects in 2009 was prudent and was expected to be beneficial to FPL's customers; FPL properly considered an updated cost estimate in its updated feasibility analysis in July 2009, which reinforced the conclusion that significant benefits were expected from the EPU Projects. In addition, it is my opinion that FPL's 2009 expenditures on the EPU Projects have been prudently incurred. While Concentric's review produced a list of observations (summarized in Exhibit JJR-EPU-5) and recommendations for process improvements, for nearly all of the recommendations, Concentric has noted that changes to the EPU Projects since July 2009 have already addressed these recommendations.

1 Project Estimating and Budgeting Processes

2 **Q. Please describe the mechanisms utilized to track the Projects' 2009**
3 **budgets.**

4 A. Several budget and cost reporting mechanisms were established to ensure that
5 key decisions related to the EPU Projects were prudent and made at the
6 appropriate level of FPL's management structure. These reporting mechanisms
7 included presentations and status calls as well as periodic reports. This allowed
8 the Company to leverage the experience of its executive team. A list of the EPU
9 Projects' periodic meetings can be found in Exhibit JJR-EPU-4.

10 **Q. How was undefined scope accounted for in the EPU Projects' cost**
11 **estimates?**

12 A. Undefined scope was accounted for by a specific line denoted as scope not
13 estimated within the EPU Projects' cost estimates. In 2009, the EPU Projects'
14 allowance for undefined scope was released at times to fund project costs. It is
15 Concentric's view that this practice was inconsistent with FPL's policies and
16 procedures, as described in more detail in Exhibit JJR-EPU-5.

17 **Q. Did the EPU Projects take steps to correct this concern?**

18 A. Yes. FPL retained an independent consulting firm, High Bridge Associates, Inc.
19 ("High Bridge") to assist the Company with establishing an appropriate
20 contingency for the project.

21 **Q. How were project controls executed by the site teams and the overall**
22 **project management team to track the EPU Projects' 2009 budget?**

23 A. The site team utilized multiple reports and reviews in 2009 to track the EPU
24 Projects' 2009 budget including those that are listed on FPL Witness Jones'

1 Exhibit TOJ-4. These reports included the Monthly Operating Performance
2 Report that categorized the overall performance of the EPU Projects as either on
3 budget, budget-challenged, or out of budget. Each site also produced monthly
4 cash flow reports in 2009, which contained monthly actual and forecast capital
5 expenditures as compared to the budget. These reports were reviewed and
6 discussed during formal project management meetings. Concentric has noted
7 certain instances in 2009 where certain project reports do not appear to have
8 been updated to reflect current cost estimates or cost-related performance
9 indicators did not appropriately reflect the EPU Projects' performance, as
10 described in more detail in Exhibit JJR-EPU-5.

11 **Q. What steps were taken by the Company to address Concentric's**
12 **observations?**

13 A. As part of its transition, the new EPU senior management team has undertaken a
14 process to revise many of the EPPIs to address many of the lessons learned over
15 the course of the project. As described below, this process has included
16 extensive revisions to EPPI-300, which was revised at least four times since July
17 2009 and has been updated to include more rigorous trend identification, to
18 more clearly define the roles of each person involved with the trend program and
19 to define the timeframes for review and approval of these forms. These
20 revisions included a revision to the forms used to track scope changes and trends
21 (*i.e.*, Scope Change/Trend Notice ("SC/TN") forms). This revision also
22 changed the name of these forms to explicitly include forecast variations.
23 Similarly, the SC/TN forms (now titled "Scope Change or Forecast Variation" or
24 "SC/FV" forms) being issued by the EPU Projects today dictate the source of

1 the funds for each scope change or forecast variance. The options for these
2 funds include: 1) No change to project budget; 2) Contingency; 3) Variance to
3 approved budget; or 4) Other. Nonetheless, the EPU Projects continued in 2009
4 to use the contingency allowance to fund scope changes, rather than maintaining
5 the contingency at a level that appropriately reflects the risk to the cost forecast.
6 Concentric believes scope changes should be funded through a forecast variance
7 to eliminate the use of contingency as a forecast balancing variable, consistent
8 with the Company's procedures.

9 Lastly, the use of the trend program is improving with greater alignment
10 between the Risk Register and the Trend Register (described in Exhibit JJR-
11 EPU-5).

12 **Q. In 2009, did anything related to the budgeting and expenditure tracking**
13 **processes occur that would eliminate the cost effectiveness of the EPU**
14 **Projects?**

15 A. No. The estimation and tracking of costs at both EPU sites is an ongoing
16 process, but, as of January 2010, the company did not record any cost challenges
17 that would eliminate the cost effectiveness of the project. The EPU Projects
18 were subject to an annual feasibility analysis that included a review of the
19 continued cost effectiveness of the Projects. In addition, FPL has regularly
20 reviewed the cost effectiveness of the EPU Projects to ensure that they remain in
21 the interest of customers.

22 **Q. How did the EPU Projects track and identify risks to the project schedule?**

23 A. In 2009, the EPU Projects used a Risk Matrix to track challenges to the current
24 budgets and cost estimates and to provide a brief explanation of the reasons for

1 the challenges. According to EPPI-340, the risk identification process covered
2 identification, assessment and analysis, handling strategy, risk management,
3 categorization, reporting, and mitigation. The Company defined risks as issues
4 that affect nuclear quality, environment, project cost, schedule, safety, security,
5 legal, plant operations, regulatory, and reputation. While Concentric believes the
6 EPU Projects did not fully implement the process described in EPPI-340 during
7 2009 (as describe further in Exhibit JJR-EPU-5), it is my opinion that the EPU
8 Projects did not incur any costs imprudently in 2009.

9 **Q. Did FPL perform an internal assessment of its risk management process?**

10 A. Yes. With regard to the risk management process, the EPU Projects' assessment
11 of its own performance during this period, as presented to the Executive Steering
12 Committee ("ESC") on July 25, 2009, was that:

- 13 • It "underestimated the risk and costs associated with the fast track project,"
- 14 • It "did not assess [the] capacity of [the] organization and costs," and
- 15 • "Early warning[s] on cost overruns and undefined scope depletion were not
16 dealt with in a timely manner."¹²

17 Concentric concurs with these assessments, and notes that many of these
18 issues have been remedied through changes in procedures and the organizational
19 structure.¹³

20 **Q. Did Concentric review the process by which the EPU Projects made**
21 **certain that each plant modification or component replacement is**
22 **necessary for the completion of the EPU Projects?**

1 A. Yes, Concentric reviewed the process by which FPL made certain that the costs
2 being charged to the EPU Projects in 2009 are separate and apart from the
3 normal maintenance and operations of PSL and PTN, and, therefore eligible for
4 recovery through the NCRC. This process included a detailed engineering
5 analysis to determine if the component replacement or plant modification is
6 necessary for plant operations under updated conditions.

7 **Q. Has the Commission previously reviewed and approved this**
8 **methodology?**

9 A. Yes. In Commission Order PSC-09-0783-FOF-EI the Commission determined
10 that "FPL's separate and apart methodology is reasonable and appropriate for
11 identifying NCRC costs."¹⁴

12 **Q. Did Concentric have any observations related to the EPU Projects'**
13 **processes used to track cost performance in 2009?**

14 A. Yes. Concentric noted that the process as implemented in 2009 provides a
15 procedure for developing an initial target budget. However, the initial cost
16 estimate used to develop this budget became outdated. This initial scoping
17 estimate was completed in 2007 and represented an estimate of the EPU
18 Projects' scope of plant modifications. Since that time, the magnitude of
19 changes has consistently increased and it was necessary for the Company to
20 revisit this cost estimate.

21 Concentric also noted increased transparency in reporting both within
22 the project team and to the Company's senior management. Early in 2009, the
23 impact of project decisions on the EPU Projects' budgets was not clearly defined
24 in the Projects' reports. Between July 2009 and December 2009, the quantity

1 and quality of this information notably improved. Concentric concluded that as
2 of year-end 2009 further effort needed to be made to make sure project team
3 members clearly communicate throughout the EPU organization. This
4 improvement in communication should include the Projects' plans for addressing
5 current project challenges such as the availability of vendor and Company
6 resources.

7 Finally, Concentric previously provided recommendations regarding
8 budgeting and cost estimating management to the EPU Projects in 2010, as
9 detailed in Exhibit JJR-EPU-6. FPL has taken steps to address all of these
10 recommendations.

11

12 *Project Schedule Development and Management Process*

13 **Q. How did the EPU Projects monitor their schedule performance in 2009?**

14 A. In 2009, the EPU Projects team instituted several periodic reporting mechanisms
15 including daily, weekly, bi-weekly, and monthly conference calls. In addition, the
16 EPU Projects team issued a variety of reports, including a Daily Report. Exhibit
17 JJR-EPU-4 provides a listing of the meetings used in 2009 to monitor the EPU
18 Projects' schedule performance. A list of the reports used to monitor the EPU
19 Projects' schedule performance can be found in the testimony of FPL Witness
20 Jones as Exhibit TOJ-4. Many of these reports included a discussion of the EPU
21 Projects' schedule performance as compared to an initial target schedule.

22 **Q. Did the EPU Projects make any changes to these reports in 2009?**

23 A. Yes. In response to Concentric's recommendations presented to the Company
24 in 2009, FPL has added additional detail to the variance reports issued by the

1 EPU Projects. This additional detail has helped the project team to understand
2 the basis for any budget or schedule variance and to help minimize future
3 negative variances.

4 **Q. Did the EPU Projects use any other methods to monitor schedule**
5 **performance in 2009?**

6 A. Yes. FPL used an industry standard software package known as Primavera P-6 to
7 review the project schedule based on approved updates on an almost real-time
8 basis. Primavera provides Critical Path Method (“CPM”) Scheduling, which uses
9 the activity duration, relationships between activities, and calendars to calculate a
10 schedule for the project. CPM identifies the critical path of activities that affect
11 the completion date for the project or an intermediate deadline, and how these
12 activity schedules may affect the completion of the project. This software
13 package is used by many in the nuclear power industry to schedule refueling
14 outages and major capital projects.

15 **Q. What status reports did the EPU Projects’ key vendors provide to the**
16 **Company?**

17 A. In addition to monitoring the EPU Projects team’s efforts, the Company also
18 required that status reports be provided by its key vendors in 2009. At the
19 beginning of each vendor’s scope of work, FPL required the vendors to provide
20 a reasonable target schedule from which future progress would be measured.
21 The vendors were then responsible for providing monthly progress reports
22 regarding this schedule. The Company also received some insight regarding the
23 vendors’ progress by monitoring the number of work hours that were included

1 on each monthly invoice. This was done by comparing the number of work
2 hours expended during the prior month with a projection.

3 **Q. How did the EPU Projects track and identify risks to the project schedule?**

4 A. In 2009, the EPU Projects used the same Risk Matrix described earlier to track
5 challenges to the current schedule and to provide a brief explanation of the
6 reasons for the challenges.

7 **Q. What EPPI governs schedule creation and management?**

8 A. The processes for schedule creation and management was described in EPPI-
9 310: Project Instructions – Development, Maintenance and Update of Schedules.

10 **Q. What activities occurred in 2009 that altered the project schedule?**

11 A. The deadlines for completion of the LARs at both sites were changed to 2010.
12 Initially scheduled for completion in the fourth quarter of 2009, in January 2010
13 the Company expected the PSL Unit 1 LAR and the PTN LAR to be submitted
14 in the second quarter of 2010, and the PSL Unit 2 LAR to be submitted in fourth
15 quarter of 2010.

16 **Q. What outstanding challenges to the timely execution of the EPU Projects’
17 schedule existed in 2009?**

18 A. In 2009, there were unresolved challenges that posed threats to the then-current
19 EPU Projects’ schedule. On the regulatory front, progression of the EPU
20 Projects continued to hinge on the timely completion and submission of the
21 LARs to the NRC. The LARs remained a potential area for concern both
22 because of staffing and resource constraints, as well as the chance that additional
23 areas for modification will be discovered during the LAR analysis. Difficulties in
24 meeting staffing requirements continued to pose a challenge to the EPU

1 Projects' schedule in 2009, as well as to the broader nuclear industry in the
2 United States. FPL continued to respond to these challenges by allocating
3 additional Company and vendor resources to the EPU Projects and reassigning
4 company and vendor resources within the EPU Projects, and through continued
5 management vigilance.

6 **Q. Please describe these broader nuclear industry staffing challenges.**

7 A. The nuclear industry is facing a significant shortage of highly skilled labor,
8 primarily due to the amount of time that has elapsed since the United States last
9 completed construction of a commercial nuclear power plant, and the high skill
10 levels and regulatory criteria required to work within the nuclear power industry.
11 Over time, reduced interest amongst students in nuclear science and engineering
12 programs has forced universities to scale back or even close these departments.
13 The impact of these factors is exacerbated by the number of existing employees
14 who are expected to be retirement-eligible in the coming decade, and by a recent
15 upswing in demand for nuclear workers as more nuclear operators consider
16 uprating their existing units and constructing new nuclear power plants.

17 **Q. Please describe how many nuclear industry employees are expected to be
18 retirement eligible in coming years.**

19 A. According to NEI, approximately 38% of the 120,000 workers currently in the
20 nuclear work force may reach retirement eligibility within five years.¹⁵

21 **Q. Please describe Concentric's observations related to the EPU Projects'
22 schedule development and management in 2009.**

23 A. Foremost, Concentric noted that the EPU Projects' schedule as of January 2010
24 contained approximately four months of additional float before additional delays

1 in the review and approval of the LARs would affect the implementation date of
2 the higher plant capacities. The EPU Projects management stated that in the
3 case of delayed NRC approval of a LAR(s), the project will move forward with
4 the physical modifications to the plants and return the units to service at each
5 unit's then currently licensed output. Once the NRC approves the LAR, the
6 Company will then be able to increase output to the EPU levels. Concentric
7 believes this contingency plan is important since it will provide the EPU Projects
8 with additional schedule flexibility.

9 Further, Concentric has noted that the EPU Projects struggled to obtain
10 the resources necessary to complete the LARs during 2009. This resulted in
11 resource sharing between projects and a decision to prioritize certain LARs. This
12 concern appears to have affected both the EPU Projects staff and the EPU
13 Projects' vendors. In light of these constraints, FPL's management has
14 responded reasonably to these challenges by prioritizing activities and allocating
15 additional resources to the project.

16
17 *Contract Management and Administration Processes*

18 **Q. In 2009, what processes were used to ensure the EPU Projects were**
19 **prudently managing and administering the Company's procurement**
20 **functions?**

21 A. Several policies and procedures governed the procurement functions in 2009,
22 including General Operating ("GO") Procedure 705 and Nuclear Policy NP-
23 1100, Procurement Control. In 2009, these policies were administered through
24 the ISC organization and include a significant breadth and depth of procurement

1 processes, including a stated preference for competitive bidding wherever
2 possible, the proper means for conducting a comprehensive solicitation, initial
3 contract formation, and administration of the contract.

4 **Q. Were there cases in 2009 when contracts were executed without first**
5 **having gone through a competitive bidding process?**

6 A. Yes. Certain situations called for the use of single or sole source procurement
7 methods. The reasons for this included the fact that there were very few
8 suppliers qualified to handle the vast amount of proprietary technical
9 information relied upon when operating or working on a nuclear plant.
10 Additionally, single sourcing was appropriate in certain situations that involved
11 leveraging existing knowledge or expertise or otherwise capitalizing on synergies.

12 **Q. Please describe the procedures involved in the awarding of non-**
13 **competitively bid contracts.**

14 A. Single and sole source procurements required documented justification for using
15 a single or sole source procurement strategy and senior-level approval. The
16 recommendation of any vendor for a single or sole sourced contract necessitated
17 the completion of a Single/Sole Source Justification (“SSJ”) Memorandum.
18 This document must describe the conditions that have given rise to the need to
19 procure outside services, a justification for not seeking competitive bids, and an
20 explanation of the reasonableness of the vendor’s costs.

21 **Q. Were any contracts with a value in excess of \$100,000 awarded in 2009**
22 **under SSJ conditions?**

23 A. Yes, three contracts in excess of \$100,000 were single sourced in 2009 for
24 Absolute Consulting, High Bridge Associates, and Proto-Power Corporation.

1 These contracts, and their respective values, are listed on Schedule T-7 of the
2 Company's Nuclear Filing Requirements.

3 **Q. Did the Commission previously identify concerns with the Company's**
4 **SSJs?**

5 A. Yes. In Docket 080009-EI, the Commission identified a need for the Company
6 to improve the level of documentation and transparency provided by the SSJs
7 such that a third party could better understand the valid business reason for this
8 procurement strategy.

9 **Q. In 2009, how did the EPU Projects team respond to the Commission's**
10 **concerns?**

11 A. Throughout 2009, the EPU Projects team conducted training for all existing
12 project team members and for any new team member who joined the project.
13 This training was focused upon the level of detail required to adequately
14 complete an SSJ and provide sufficient transparency to third parties. Following
15 this training, FPL produced two additional SSJs for contracts greater than
16 \$100,000. Each of these SSJs provided additional details related to the process
17 for determining the valid business reason for the procurement strategy and an
18 explicit discussion of the reasonableness of the proposed cost as compared with
19 other vendors or previous projects within a similar expertise.

20 **Q. Please describe the Company's competitive bidding process in 2009.**

21 A. The competitive bidding process begins not with the solicitation of bids, but
22 with the creation of a purchase requisition. Pursuant to the creation of a
23 purchase requisition, the department that originated the request, in conjunction
24 with ISC, was required to develop a scope of work or technical specification and

1 develop a timeline to ensure it meets the schedule requirements. Once these
2 steps were complete, the originating department was required to provide the
3 purchase requisition to the Nuclear Supply Chain ("NSC") Sourcing Specialist
4 who was a member of ISC.

5 The NSC Sourcing Specialist, with assistance from the originating
6 department, was responsible for the creation and issuance of the request for
7 proposals ("RFP"), but worked in concert with the originating department when
8 identifying potential bidders and determining the base commercial terms and
9 conditions that were included in the RFP. What followed was the assembly of
10 the RFP package, which incorporated any special terms identified by the
11 originating department, an RFP transmittal letter providing the potential bidders
12 with all specific instructions and requirements, and any applicable attachments.

13 Upon receipt of proposals, the NSC Sourcing Specialist sorted and
14 distributed all submissions to subject matter experts for technical and
15 commercial analysis. If questions arose during this review process, written
16 requests for clarification or additional information were sent to the bidder for
17 commercial or technical clarifications. After this initial phase, the originating
18 department undertook a side-by-side comparison of the bids' technical
19 information, taking into consideration scope requirements, differences in
20 operational impacts, whether or not any technical exceptions were necessary, and
21 the potential for impacts to the scope of work. At the conclusion of this
22 process, the NSC Sourcing Specialist and the originating department together
23 determined the recommended supplier.

1 **Q. What process was used in 2009 to make certain that the Company and its**
2 **customers received the full value of the various contracts for services and**
3 **materials?**

4 A. FPL utilized an invoice review process to make certain that the Company and its
5 customers received the full value of the goods and services being procured for
6 the EPU Projects. The process required a review of each invoice by key project
7 team members who worked closely with the vendor on the goods and services
8 for which payment was requested to make certain that the costs being billed were
9 correct and appropriate. Each invoice review required approval by certain senior
10 project team members based upon the individuals' corporate approval authority.

11 **Q. Does Concentric have any observations and recommendations related to**
12 **the processes used to manage the EPU Projects' procurement functions in**
13 **2009?**

14 A. Yes. Overall, Concentric noted that the EPU Projects' procurement functions
15 performed quite well in 2009. Concentric noted that ISC personnel have
16 responded to Concentric's 2009 recommendations to make certain that all costs
17 are charged to the appropriate EPU project by vendors who have similar scopes
18 of work at both PTN and PSL, and the Company's affiliated Point Beach
19 Nuclear Plant in Two Rivers, Wisconsin. This effort included reminders of
20 proper cost reporting through informal discussions with vendors on a periodic
21 basis and a formal communication in November of each year. As an additional
22 review, Nuclear Business Operations performed a separate, independent review
23 of the cost being charged to the EPU Projects to help ensure the costs were
24 properly charged to the appropriate Company account.

1 Concentric concluded in 2010 that one further enhancement related to
2 the EPU Projects' procurement procedures could be made. Concentric believed
3 a need existed for a formal guideline related to procurements in excess of \$5
4 million. This guideline would state that any bids received in response to an RFP,
5 in excess of \$5 million, are reviewed by ISC roughly contemporaneously and
6 with at least two people participating in the review process. Similarly, when a
7 material delay is granted to one RFP respondent, all bidders should be notified of
8 an opportunity to further revise their bids. Concentric has not observed, and
9 does not believe there have been, any instances of impropriety in the EPU
10 Projects' RFP process in 2009 or prior years. This recommendation was made
11 solely with the intent to prevent future challenges or concerns before they occur.
12 FPL implemented a new Procurement Guideline in 2010 to address these
13 observations. This guideline, which defined contracts in excess of \$5 million as
14 "Critical Path Agreements," established procedures to be followed regarding
15 justification and bid review for such arrangements.¹⁶

16

17 *Internal Oversight Mechanisms*

18 **Q. What mechanisms exist for internal oversight and review of the EPU**
19 **Projects?**

20 A. There are three primary mechanisms used to make certain the EPU Projects
21 received adequate oversight in 2009. First, the Company has in place senior
22 oversight and management committees, including the Board of Directors, the
23 Nuclear Committee on the Board of Directors, the Company's Nuclear Review
24 Board, and On-Site Review Groups at both PSL and PTN. In addition, the

1 Company's senior management received a briefing of the EPU Projects on a
2 periodic basis. The Company's Chief Nuclear Officer also received a briefing on
3 an approximately bi-weekly basis.

4 Secondly, the EPU Projects were subject to an annual review by the FPL
5 Internal Audit Division. Lastly, the FPL QA/QC department was responsible
6 for making certain that the FPL QA program was being implemented by the
7 EPU Projects.

8 **Q. With the EPU Projects' management effort now decentralized, how was**
9 **information communicated from the site-level to the corporate-level in**
10 **2009?**

11 A. The centralized management staff that operated from the Company's
12 headquarters included director positions that were responsible for each business
13 function. For instance, the Director of Project Controls oversaw the project
14 controls managers at both sites. Communication between overall project
15 management and management at the sites was facilitated by a formal reporting
16 structure that emphasized the timely and comprehensive transfer of information.

17 **Q. Please describe the Internal Audit division and its functions.**

18 A. The Internal Audit process was a backstop to make certain the EPU Projects
19 complied with the Company's internal policies and procedures. The Internal
20 Audit Division did not report to any of the EPU Projects team members to
21 protect the Internal Audit employees' independence. Instead, Internal Audit
22 reported directly to the FPL Group (now NextEra Energy) Chairman and CEO.
23 Internal Audit's 2009 financial review of the EPU Projects (performed in 2010)

1 ensured that costs were being appropriately charged to the Projects and that the
2 Projects complied with the Company's accounting policies.

3 **Q. Did Internal Audit conduct a review of the EPU Projects costs charged in**
4 **2009?**

5 A. Yes. Costs incurred by the EPU Projects in 2009 were reviewed by the
6 Company's Internal Audit in Spring 2010, and a final report was issued by
7 Internal Audit in May 2010. The EPU Projects' controls were deemed to be
8 adequate by Internal Audit, and costs charged to the NCRC were deemed to be
9 appropriate. Any exceptions noted by Internal Audit, all of which were minor in
10 nature, either were remedied by the EPU Projects during the course of the audit,
11 or resulted in follow-up action items agreed to by management.

12 **Q. Please describe the FPL QA/QC division and its purpose.**

13 A. In 2009, the FPL QA/QC division was responsible for implementing the
14 Company's QA Program that was mandated by the NRC in 10 CFR 50,
15 Appendix B. The QA/QC division was separate from the EPU Projects and
16 reported to the Company's Chief Nuclear Officer through the Director of
17 Nuclear Assurance. Federal regulations define eighteen criteria for a NRC
18 licensee's QA program. It was the responsibility of the QA/QC division to
19 ensure that FPL's QA program met these criteria.

20 **Q. What quality assurance activities, related to the EPU Projects, took place**
21 **in 2009?**

22 A. Throughout 2009 the QA/QC department prepared for the implementation
23 phase of the EPU Projects. As the EPU Projects commenced the early stages of
24 the implementation phase, QA inspectors were assigned to both PTN and PSL.

1 The QA/QC division was also responsible for reviewing certain activities by the
2 EPU Projects' vendors, both at the EPU project sites as well as at certain
3 vendors' manufacturing facilities. These activities included multiple in-person
4 reviews of the project vendors' methodologies, qualifications and QA programs.
5 Finally, the QA/QC division monitored NRC QA activities and suggested
6 changes to the EPU Projects to respond to the NRC's findings at other power
7 uprate projects.

8 **Q. What practice did the Company implement in 2009 to help provide the**
9 **EPU Projects with additional internal control and cost management?**

10 A. FPL began producing EPU Projects Whitepapers in response to Concentric's
11 recommendations in 2009. These documents were produced by the project team
12 when a significant decision was made that might impact the Projects. The
13 memoranda included a discussion of the information that was known at the time
14 of the decision, what decision was made and the basis for that decision. The first
15 of these Whitepapers was completed in October 2009 and related to the
16 Company's decision to proceed with the replacement of the condensers at PTN.

17 **Q. Please provide Concentric's observations related to the internal oversight**
18 **and review mechanisms utilized in 2009.**

19 A. Concentric recognized that in mid-2009 FPL's senior management team
20 increased its oversight of the EPU Projects. This increased oversight included
21 more frequent meetings with certain members of senior management and a
22 greater depth of reporting to senior management. In addition, the EPU Projects
23 were reviewed by Internal Audit to address the EPU Projects' compliance with
24 the Company's financial and accounting controls. Similarly, Concentric noted

1 that the Company's QA/QC department was actively preparing for the
2 implementation of the EPU Projects by conducting surveillance activities and
3 preparing its team for upcoming implementation activities. Nevertheless,
4 Concentric noted a potential need to reinforce the QA/QC department with an
5 individual with design engineering experience, discussed in Exhibit JJR-EPU-5.

6 Additionally, Concentric noted that a potential challenge to the EPU
7 Projects implementation may have existed with the turbine rotors being procured
8 from Siemens. The manufacturing process of these turbines was being
9 adequately monitored by the Company's QA/QC department, and additional
10 management oversight has occurred since our review procedures were completed
11 in 2010.

12

13 External Oversight Mechanisms

14 **Q. What external oversight mechanisms did the Company utilize in 2009 to**
15 **ensure the EPU Projects had adequate internal controls and were**
16 **prudently incurring costs?**

17 A. There were several external oversight and review mechanisms in place for the
18 EPU Projects, including the retention of my firm, Concentric, to assess the EPU
19 Projects' internal control mechanisms, the engagement of High Bridge
20 Associates to provide third-party cost estimation guidance, ongoing contact with
21 the Projects' major vendors' quality oversight functions, industry contacts, and
22 the FPSC Staff's financial and internal controls audits. Additionally, as a publicly
23 traded company, NextEra Energy must undergo an annual company-wide audit

1 of its financial and internal controls. As discussed by FPL Witness Powers, these
2 reviews were conducted by Deloitte & Touche, LLP in 2009.

3 **Q. Please expand on Concentric's role vis-à-vis external oversight and**
4 **review.**

5 A. Concentric conducted a review of the EPU Projects, their procedures, and the
6 various mechanisms in place to ensure compliance with these procedures in
7 2009. Concentric focused on ensuring that these internal controls were
8 implemented, and as a result, that the EPU Projects prudently incurred costs
9 during 2009.

10 **Q. Please describe the scope of work performed by High Bridge Associates.**

11 A. The Company engaged High Bridge Associates, a project management and
12 consulting services company, to develop a detailed, bottom-up cost estimate for
13 the EPU activities taking place at PTN Unit 3.

14 **Q. In 2009, did industry contacts provide a form of external oversight and**
15 **review?**

16 A. Yes. FPL was a member of industry groups that provided further guidance
17 about uprate projects. These groups include the Institute of Nuclear Power
18 Operations, the World Association of Nuclear Operators, the Electric Power
19 Research Institute and NEI, among others. Each of these groups provided the
20 EPU Projects team access to a wide breadth and depth of information that was
21 used to enhance the project team's effectiveness. Additionally, the EPU Projects
22 team members maintained close relationships with their counterparts at other
23 nuclear power plants around the country. These valuable relationships allowed

1 the EPU Projects team to monitor developments or challenges at other plants
2 and leverage those experiences at PSL and PTN.

3 **Q. Did Concentric have any observations related to external oversight and**
4 **review of the Projects in 2009?**

5 A. During its review, Concentric noted that FPL appeared to have taken reasonable
6 steps to obtain and implement lessons learned from outside sources in 2009.
7 These lessons learned are vital to the successful execution of the Projects.

8 **Q. Did Concentric note any other observations related to the EPU Projects**
9 **performance in 2009?**

10 A. Yes, Concentric noted an instance where the information provided by FPL to
11 the FPSC did not reflect the most up-to-date information as of the time it was
12 provided to the FPSC in September 2009. In order to address this concern, and
13 to improve the flow of the EPU Projects' information to the Commission,
14 Concentric has provided the below recommendations to the Company.

- 15 • Concentric recommends that the process for providing updated information
16 to regulatory affairs be changed in order to provide timely and ongoing
17 information within the NCRC docket team throughout each NCRC review
18 cycle. This will help to ensure that any updated information is fully discussed
19 within the NCRC docket team and prevent future concerns related to flow of
20 information to the FPSC. Concentric has been informed that this change has
21 already been implemented.
- 22 • Similar to the recommendation above, FPL and the FPSC staff should revisit
23 the issue of intra/inter-cycle document production. The ongoing production
24 of a limited number of key project documents could enhance the FPSC

1 staff's understanding of the Projects and how they are developing on an on-
2 going basis.

- 3 • The NCRC docket team included some first time witnesses or witnesses with
4 limited experience serving in this role. As a result, it is vitally important that
5 FPL's Law and Regulatory Affairs Departments continue to provide explicit
6 instruction and guidance to these individuals. FPL has implemented
7 procedures that stress the importance of providing timely and accurate
8 information to the Commission and the parties in the NCRC proceedings.
- 9 • As part of our review Concentric reviewed the list of invitees to the ESC
10 presentations. Noticeably absent from these lists of invitees in 2009 was a
11 representative from FPL's Regulatory Affairs and Law Departments. It is
12 our understanding that this procedure has been changed to include these
13 groups.

14 As I stated earlier, however, it is my opinion that all of FPL's 2009
15 expenditures on the EPU Projects have been prudently incurred.

16

17 **Section VII: Conclusions**

18 **Q. Please summarize your conclusions.**

19 A. It is my conclusion that there were no imprudently incurred costs or project
20 management deficiencies that led to imprudently incurred costs during
21 Concentric's review periods for the Projects. Based on Concentric's review of
22 the Projects, we also have made a number of recommendations and observations
23 related to the Projects that are detailed in Section VI and Exhibits JJR-5 and JJR-
24 6 of my testimony. These recommendations and observations are intended to

1 enhance the effectiveness of FPL's management of the Projects. In addition, it is
 2 important to note that for over three decades nuclear power has provided a
 3 number of substantial benefits to utility customers in Florida. These benefits
 4 include electric generation with virtually no GHG emissions, fuel cost savings,
 5 fuel diversity, reduced exposure to fuel price volatility and more efficient land
 6 use. As a result, it is prudent for FPL to develop additional nuclear capacity for
 7 the benefit of its customers. In order to do so, FPL is carefully managing the
 8 EPU Projects through capable project managers and directors who are guided by
 9 detailed company procedures and appropriate management oversight.

10 **Q. Does this conclude your testimony?**

11 **A. Yes, it does.**

1 Environmental Protection Agency, eGRIDweb online application.
<http://cfpub.epa.gov/eGRIDweb/view.cfm>

2 Broder, John. *E.P.A. Clears Way for Greenhouse Gas Rules*. New York Times, April 17, 2009.

3 Gardner, Timothy, and Richard Cowan. *Senate Defeats Move to Stop EPA CO₂ Regulation*. Reuters, June 10, 2010.

4 *Florida Nuclear Profile* (last updated September, 2010). Department of Energy, Energy Information Administration.

5 Production cost is equal to operating and maintenance costs plus fuel costs.

6 Separate, concurring opinion of Justice Louis Brandeis, *Missouri ex. Rel. Southwestern Bell Telephone Co. v. Public Service Commission*, 262 U.S. 276 (1923). Clarification added.

7 *West Ohio Gas Co. v. Public Utilities Commission of Ohio* (No.1), 249 U.S. 63, (1935), Opinion.

8 Staff recommendation in Docket no. 060658-EI – Petition on behalf of Citizens of the State of Florida to require Progress Energy Florida, Inc to refund customers \$143 million, citing.

9 Docket No. 820001-EU-A, In Re: Investigation of Fuel Cost Recovery Clauses of Electric Utilities (Gulf Power Company – Maxine Mine).

10 FL PSC Order No. PSC-07-0816-FOF-EI, at 4.

11 Sears, Keoki S., Glenn A. Sears, and Richard H. Clough, Construction Project Management: A Practical Guide to Field Construction Management. 5th Edition, John Wiley & Sons, Hoboken, NJ, 2008, at 20.

12 Turkey Point Executive Steering Committee Presentation, July 25, 2009. Clarification added.

13 EPU Lessons Learned Response Document, April 2010.

14 Florida Public Service Commission Order No. PSC-090783-FOF-EI

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- ¹⁵ *Nuclear Industry's Comprehensive Approach Develops Skilled Work Force for the Future.* Nuclear Energy Institute, September 2010.
- ¹⁶ *See, New Nuclear Projects Procurement Guideline, "Award of Critical Project Agreements,"* Draft November 12, 2010.

1 **BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**
2 **FLORIDA POWER & LIGHT COMPANY**
3 **DIRECT TESTIMONY OF JOHN J. REED**

4 **DOCKET NO. 110009**

5 **March 1, 2011**

6
7 **Section I: Introduction**

8 **Q. Please state your name and business address.**

9 A. My name is John J. Reed. My business address is 293 Boston Post Road West,
10 Marlborough, Massachusetts 01752.

11 **Q. By whom are you employed and what is your position?**

12 A. I am the Chairman and Chief Executive Officer of Concentric Energy Advisors,
13 Inc. ("Concentric").

14 **Q. Please describe Concentric.**

15 A. Concentric is an economic advisory and management consulting firm,
16 headquartered in Marlborough, Massachusetts, which provides consulting
17 services related to energy industry transactions, energy market analysis, litigation,
18 and regulatory support.

19 **Q. Please describe your educational background and professional experience.**

20 A. I have more than 30 years of experience in the energy industry, having served as
21 an executive in energy consulting firms, including the position of Co-Chief
22 Executive Officer of the largest publicly-traded management consulting firm in
23 the United States and as Chief Economist for the largest gas utility in the United
24 States. I have provided expert testimony on a wide variety of economic and

1 financial issues related to the energy and utility industry on numerous occasions
 2 before administrative agencies, utility commissions, courts, arbitration panels and
 3 elected bodies across North America. A summary of my educational background
 4 can be found on Exhibit JJR-NNP-1.

5 **Q. Are you sponsoring any exhibits in this case?**

6 A. Yes. I am sponsoring Exhibits JJR-NNP-1 through JJR-NNP-5, which are
 7 attached to my direct testimony.

8	Exhibit JJR-NNP-1	Curriculum Vitae
9	Exhibit JJR-NNP-2	Testimony of John J. Reed 1998 – 2011
10	Exhibit JJR-NNP-3	Total Production Cost of Electricity
11	Exhibit JJR-NNP-4	PTN 6 & 7 Project Organizational Chart
12	Exhibit JJR-NNP-5	Concentric Observations Regarding PTN
13		6 & 7's Activities

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

15 A. The purpose of my testimony is to review the benefits of nuclear power and the
 16 appropriate prudence standard to be applied to Florida Power & Light's ("FPL"
 17 or the "Company") decision-making processes in this Nuclear Cost Recovery
 18 Clause ("NCRC") proceeding before the Florida Public Service Commission (the
 19 "FPSC" or the "Commission"). In addition, I provide a review of the system of
 20 internal controls used by the Company in 2009 and 2010 to develop and
 21 maintain the option to construct two new nuclear generating units ("PTN 6 & 7"
 22 or the "Project") at FPL's existing Turkey Point site ("PTN").

1 Q. Please describe your experience with nuclear power plants, and
 2 specifically your experience with major construction programs at these
 3 plants.

4 A. My consulting experience with nuclear power plants spans more than 25 years.
 5 My clients have retained me for assignments relating to the construction of
 6 nuclear plants; the purchase, sale and valuation of nuclear plants, power uprates
 7 and major capital improvement projects at nuclear plants; and the
 8 decommissioning of nuclear plants. In addition to my work at FPL's plants, I
 9 have had significant experience with these activities at the following plants:

- | | | |
|----|-------------------|------------------|
| 10 | • Big Rock Point | • Oyster Creek |
| 11 | • Callaway | • Palisades |
| 12 | • Duane Arnold | • Peach Bottom |
| 13 | • Fermi | • Pilgrim |
| 14 | • Ginna | • Point Beach |
| 15 | • Hope Creek | • Prairie Island |
| 16 | • Indian Point | • Salem |
| 17 | • Limerick | • Seabrook |
| 18 | • Millstone | • Vermont Yankee |
| 19 | • Monticello | • Wolf Creek |
| 20 | • Nine Mile Point | • Vogtle |

21 I have recently been active on behalf of a number of clients in pre-construction
 22 activities for new nuclear plants across the United States. These activities include
 23 state and Federal regulatory processes, raising debt and equity financing for new
 24 projects and evaluating the costs schedules and economics of new nuclear
 25 facilities. These activities have included detailed reviews of cost estimation and
 26 construction project management activities of other new nuclear project
 27 developers.

28

1 **Q. Please summarize your testimony.**

2 A. The remainder of my testimony covers three main topic areas: (1) the benefits of
3 nuclear power to Florida; (2) the prudence standard; and (3) Concentric's review
4 of the Project. Each of these topics is summarized below.

5 The five existing nuclear reactors in Florida have provided, and continue
6 to provide, substantial benefits to Florida customers. These benefits include
7 virtually no air emissions, increased fuel diversity, reduced exposure to fuel price
8 volatility, fuel cost savings, highly reliable base load capacity, and efficient land
9 use. Similarly, additional nuclear capacity is expected to provide more of these
10 same benefits to Florida.

11 The rule that governs the Commission's review of FPL's nuclear projects
12 calls for an annual prudence determination. The prudence standard encapsulates
13 three main elements. First, prudence relates to decisions and actions and not
14 costs incurred by a utility. Second, the prudence standard includes a
15 presumption of prudence with regard to the utility's actions. Absent evidence to
16 the contrary, a utility is assumed to have acted prudently. Third, the prudence
17 standard excludes hindsight. Thus the prudence of a utility's actions must be
18 evaluated on the basis of information that was known or could have been known
19 at the time the decision was made.

20 Finally, Concentric has reviewed the processes and procedures that are
21 used to manage and implement the Project. This review has focused on the
22 Company's internal controls that are in place to provide assurance that the
23 Company meets its strategic, financial, and regulatory objectives related to the
24 Project. Our review is premised on a framework developed by Concentric when

1 advising potential investors in new nuclear development projects and our recent
2 regulatory experience. Based upon our review, it is my conclusion that FPL
3 management's actions did not result in any imprudently incurred costs during the
4 review period, and the Company's costs should all be allowed in rates. For the
5 Project, FPL has continued its stepwise, methodical approach to managing PTN
6 6 & 7 that provides it with flexibility regarding future decision making. In 2009,
7 this included responding appropriately to perceived shifts in PTN 6 & 7's
8 permitting that resulted in the deferral of certain major contracts and the
9 submittal of the PTN 6 & 7 Combined Operating License Application
10 ("COLA") to the Nuclear Regulatory Commission ("NRC") and Site
11 Certification Application ("SCA") to the Florida Department of Environmental
12 Protection ("FDEP"). In 2010, FPL made the important decision to decouple
13 the licensing phase of PTN 6 & 7 from the construction phase, allowing the
14 Company to maintain its option with regards to new nuclear while allowing for
15 protracted licensing and permitting activities and greater uncertainty with regards
16 to external risk factors such as carbon regulation. Concentric's observations
17 related to our review are described throughout the remainder of my testimony.

18 **Q. Please describe how the remainder of your testimony is organized.**

19 A. The remainder of my testimony is organized into six sections. Section II
20 provides an overview of the potential benefits of additional nuclear power for
21 FPL's customers, and Section III discusses the appropriate prudence standard
22 for evaluating FPL's management of the Project. Section IV describes the
23 framework that guided Concentric's review. Sections V and VI describe PTN 6
24 & 7 activities in 2009 and 2010 and Concentric's review of and observations

1 relating to PTN 6 & 7 project controls in 2009 and 2010. Finally, Section VII
2 presents my conclusions.

3

4 **Section II: Potential Benefits of Nuclear to Florida**

5 **Q. Has nuclear power benefited FPL customers?**

6 A. Yes. Nuclear power has a long and successful history of operation in FPL's
7 power generating fleet. The four reactors at FPL's existing Saint Lucie site
8 ("PSL") and PTN have been generating power for an average of over 34 years.
9 Throughout the last three decades, these units have benefited Florida customers
10 by reliably producing emissions-free energy, decreasing total fuel costs,
11 enhancing the diversity of fuels used to generate power and insulating customers
12 from commodity price spikes.

13 **Q. Is it prudent to continue the development of additional nuclear capacity in**
14 **Florida?**

15 A. Yes, whenever that capacity can be developed on an economic basis over its
16 useful life. One of the most compelling advantages to additional nuclear power is
17 that it emits virtually no carbon dioxide. Whereas the alternative base load
18 power sources in Florida are carbon intensive, nuclear power emits no
19 greenhouse gases ("GHG"). Based upon FPL's 2009 generation and the
20 Environmental Protection Agency's ("EPA") eGrid tool, the four nuclear units
21 FPL operates in Florida avoid between 11 and 12 million tons of CO₂ emissions
22 per year compared to an average natural gas-fired, combined cycle generating
23 station.¹ The magnitude of avoided emissions would increase further if

1 compared with a coal-fired plant that is capable of producing the same amount
2 of energy, rather than a natural gas-fired power plant.

3 Legislation to address the problems associated with anthropomorphic
4 GHG emissions has been introduced on several occasions. These efforts are
5 currently stalled in Congress, but Federal regulation of the point sources of
6 emissions is poised to proceed nevertheless. In 2009, the EPA declared CO₂ and
7 several other GHGs to be dangerous to public health and welfare, and began a
8 process to enact Federal regulations for the emission of these gases.² At the
9 moment, the prospects for this type of regulation are unclear. The current
10 administration has made it clear that it would like to move forward with GHG
11 regulation through executive agencies if Congressional action does not produce a
12 satisfactory bill, and the Senate rejected a bill that would strip the EPA of the
13 authority to regulate CO₂.³ However, opposition to regulations, which could
14 affect factories, utilities and automobiles, remains strong in the House of
15 Representatives. Independent of progress at the Federal level, State and regional
16 programs such as the Regional Greenhouse Gas Initiative in the northeast and
17 the Western Climate Initiative in the northwest continue to move forward with
18 programs to regulate emissions.

19 While the stringency and form that GHG regulations will ultimately take
20 remains uncertain, there is a very real likelihood that industrial emitters, including
21 utilities, will be faced with regulations addressing GHG emissions within the next
22 several years.

23 Moreover, the diversification of the electric generation mix is an
24 important source of benefits to customers. In recent years, Florida has become

1 increasingly dependent on natural gas as a fuel source for electric generating
2 facilities.⁴ Unless the State's utilities continue to develop alternatively fueled
3 facilities, Florida's generation mix is likely to become extraordinarily dependent
4 on natural gas-fired generation. As a result, Florida will become even more
5 susceptible to natural gas price spikes and acutely vulnerable to natural gas supply
6 disruptions. Furthermore, the State would fall short of achieving any meaningful
7 reductions in GHG emissions levels.

8 **Q. How does the current price of natural gas compare with recent trends in**
9 **natural gas prices?**

10 A. While the wholesale price of natural gas is currently below levels that have been
11 observed for the past several years, the long-term outlook for the price of natural
12 gas is an increasingly important concept to consider when evaluating the benefits
13 of resource diversity. While the price of natural gas is currently on the low end
14 of what we have observed in recent years, the price has also been subject to
15 significant swings, and reasonably can be expected to revert to more traditional
16 cross-fuel price relationships over the likely 60 year life of a nuclear facility.

17 **Q. How do trends in the production cost of natural gas-fired generation**
18 **compare with trends in the price of nuclear power?**

19 A. The cost of nuclear power has been stable due to the fact that fuel represents a
20 comparatively small portion of the operating costs of nuclear power facilities.
21 According to the Nuclear Energy Institute ("NEI"), fuel accounts for
22 approximately 90% of the total production cost of energy from natural gas,
23 whereas fuel costs of nuclear power are only 25-30% of the total production
24 cost.⁵

1 As shown in Exhibit JJR-NNP-3, the production cost of energy from
2 nuclear power is substantially lower than other sources of base load energy. The
3 electric bills of Florida residents are and have been lower and much less subject
4 to fuel price volatility as a result of the lower production costs of nuclear power.

5 **Q. Is it appropriate for the Commission to continue to allow recovery of**
6 **certain pre-construction costs and construction carrying costs prior to the**
7 **units entering into service?**

8 A. Yes. Given the magnitude of the potential benefits of additional nuclear
9 capacity, it is absolutely appropriate to allow for cost recovery through the
10 annual NCRC process. The NCRC is important for both the Company and its
11 customers. With respect to the Company, the NCRC provides FPL's debt and
12 equity investors with some measure of assurance of cost recovery if their
13 investments are used to prudently incur costs. In addition, by allowing recovery
14 of carrying costs during construction, the NCRC eliminates the effect of
15 compound interest on the total project costs, which will reduce customer bills if
16 and when the facilities are constructed.

17 **Q. Have other utilities considering nuclear development activities noted the**
18 **necessity of NCRC-like recovery mechanisms?**

19 A. Yes. Utilities such as Duke, SCANA, Georgia Power, Progress Energy and
20 Ameren have publicly acknowledged the benefits and the necessity of cost
21 recovery mechanisms like the NCRC.

22 **Q. Are there benefits of nuclear power other than those that quantitatively**
23 **affect the price of electricity?**

1 A. Yes. The comparatively small footprint of a nuclear powered generating station
2 compared to alternative clean, emissions-free technologies is often overlooked.
3 By requiring less land, nuclear power plants limit the degree of forest clearing,
4 wetlands encroachments, and other environmental impacts associated with siting
5 a generating facility.

6

7 **Section III: The Prudence Standard**

8 **Q. Please generally describe the prudence standard as you understand it.**

9 A. The prudence standard is captured by three key features. First, prudence relates
10 to actions and decisions; costs themselves are not prudent or imprudent. It is the
11 decision or action that must be reviewed and assessed, not simply whether the
12 costs are above or below expectations. The second feature is that the standard
13 incorporates a presumption of prudence, which is often referred to as a
14 rebuttable presumption. The burden of showing that a decision is outside of the
15 reasonable bounds falls, at least initially, on the party challenging the utility's
16 actions. The final feature is the total exclusion of hindsight. A utility's decisions
17 must be judged based upon what was known or knowable at the time the
18 decision was made by the utility. The prudence of a utility's decisions cannot be
19 judged based upon the result of the decision or information that was not
20 available for several weeks, months or even years after the decision was made.
21 This feature would preclude a finding that identifies a decision as potentially
22 imprudent dependent upon the future outcome. Such a finding would create an
23 unachievable standard for utility managers.

24

1 Q. Are there historical precedents for the prudence standard?

2 A. Yes. The original standard of prudence was expressed by Supreme Court Justice
3 Louis Brandeis in 1923 as a means of guiding regulators conducting reviews of
4 utility capital investments. Since that time, substantial jurisprudence has been
5 developed to refine the Prudent Investment Test. Much of this was developed in
6 the 1980s following the nuclear construction programs of the previous two
7 decades. As originally proffered, the test provides a basis for establishing a
8 utility's investment or rate base based on the cost of such investment:

9 There should not be excluded from the finding of the base,
10 investments which, under ordinary circumstances, would be deemed
11 reasonable. The term is applied for the purpose of excluding what
12 might be found to be dishonest or obviously wasteful or imprudent
13 expenditures. Every investment may be assumed to have been made
14 in the exercise of reasonable judgment, unless the contrary is
15 shown... adoption of the amount prudently invested as the rate base
16 and the amount of the capital charge as the measure of the rate of
17 return ... [would provide] a basis for decision which is certain and
18 stable. The rate base would be ascertained as a fact, not determined
19 as a matter of opinion.⁶

20 The position of Justice Brandeis was endorsed in 1935 when Supreme Court

21 Justice Benjamin N. Cardozo stated:

22 Good faith is to be presumed on the part of managers of a
23 business. In the absence of a showing of inefficiency or
24 improvidence, a court will not substitute its judgment for theirs
25 as to the measure of a prudent outlay.⁷

26 The Prudent Investment Test offered by Justice Brandeis was applied sparingly
27 for the first four decades following its pronouncement. It was not until the
28 nuclear construction projects of the 1970s and 1980s that the Prudent
29 Investment Test, at least in name, was applied frequently in various electric utility
30 rate cases.

31

1 **Q. Please further describe the Prudent Investment Test.**

2 A. The Prudent Investment Test closely follows the traditional standard established
3 by Justice Brandeis. Under this standard, regulators must utilize a balanced,
4 retrospective review based upon the information that was known or knowable at
5 the time of the decision. In addition, the Prudent Investment Test considers a
6 range of reasonable behavior given the circumstances, rather than requiring
7 perfection or even consistently above-average performance.

8 The National Regulatory Research Institute (“NRRI”) advocated for
9 similar principles in a 1984 research paper entitled The Prudent Investment Test
10 in the 1980s. In this paper the NRRI stated that the prudent investment
11 standard should include the following four guidelines:

- 12 • “...a presumption that the investment decisions of the utilities
13 are prudent...”
- 14 • “...the standard of reasonableness under the circumstances...”
- 15 • “...a proscription against the use of hindsight in determining
16 prudence...”
- 17 • “...determine prudence in a retrospective, factual inquiry.
18 Testimony must present facts, not merely opinion, about the
19 elements that did or could have entered into the decision at
20 the time.”

21 **Q. What test for prudence has been adopted by the Commission?**

22 A. The traditional interpretation of the Prudent Investment Test, as described
23 above, has been used by the Commission in several recent orders:

1 Prudence has been defined as “what a reasonable utility manager
2 would have done in light of conditions and circumstances which
3 were known or reasonably should have been known at the time
4 the decision was made.”⁸

5 A utility should not be charged with knowledge of facts which
6 cannot be foreseen or be expected to comply with future
7 regulatory policies. Expectations are not always borne out. The
8 prudence of decision making should be viewed from the
9 perspective of the decision maker at the time of the decision.
10 Contract administration must be viewed at a point in time which
11 takes into consideration the facts which were known or which
12 should have been known at the time the contract is entered into
13 or amended...

14 We have not sought to retroactively apply new policies to Gulf's
15 prior actions and we have recognized that a utility cannot foresee
16 the future.⁹

17 We must avoid impermissibly applying hindsight review, which is
18 the application of facts that are known today to decisions made in
19 the past (i.e., Monday morning quarterbacking). As we consider
20 whether PEF acted prudently, we must ask ourselves, did PEF
21 know or should PEF have known about a particular set of
22 circumstances.¹⁰

23 As can be seen from these statements, the Commission has generally prohibited
24 the use of hindsight when reviewing utility management decisions. Instead, the
25 Commission has chosen to strictly follow the traditional standard by developing
26 a range of reasonable behaviors based on the circumstances that were known at
27 the time of the decision or action. The Commission's order in the 2009 Nuclear
28 Cost Recovery docket adopted a similar position. Further, the Commission has
29 noted a need to apply a consistent standard to reviewing utility decisions.
30

1 **Section IV: Framework of Internal Controls Review**

2 **Q. What is meant by the term “internal control” and what does it intend to**
3 **achieve?**

4 A. The Committee of Sponsoring Organizations of the Treadway Commission
5 (“COSO”) is a global industry organization that provides guidance as to the
6 development, implementation and assessment of systems of internal control.
7 COSO has defined internal control as a process that provides reasonable
8 assurance of the effectiveness of operations, reliability of financial reporting and
9 compliance with applicable laws and regulations. This definition has been
10 further expanded to reflect four critical concepts. First amongst these is that
11 internal control is a process. While internal control may be assessed at specific
12 moments in time, a system of internal control can only be effective if it responds
13 to the dynamic nature of organizations and projects over time. Second, internal
14 control is created by people, and thus the effectiveness of an internal control
15 system is dependent on the individuals in an organization. Third, internal
16 control is specifically directed at the achievement of an entity’s goals. Thus, risks
17 that present the greatest challenge to the achievement of those objectives must
18 take priority. Finally, internal control can provide only reasonable assurance.
19 Expectations of absolute assurance cannot be achieved.

20 **Q. Please describe the framework Concentric used to review the Company’s**
21 **system of internal control as implemented by PTN 6 & 7 in 2009 and 2010.**

22 A. In order to review and assess the Company’s internal controls, Concentric
23 utilized a similar framework to that which it has used previously for FPL’s
24 NCRC proceedings. That framework is based upon Concentric’s

1 contemporaneous experience advising prospective investors in new nuclear
2 projects and Concentric's regulatory experience.

3 In summary, the framework has focused on six elements of the
4 Company's internal controls, including:

- 5 • Defined corporate procedures
- 6 • Written project execution plans
- 7 • Involvement of key internal stakeholders
- 8 • Reporting and oversight requirements
- 9 • Corrective action mechanisms
- 10 • Reliance on a viable technology

11 Each of these elements was reviewed for five processes including:

- 12 • Project estimating and budgeting processes
- 13 • Project schedule development and management processes
- 14 • Contract management and administration processes
- 15 • Internal oversight mechanisms
- 16 • External oversight mechanisms

17 Concentric's work in 2010 and 2011 is additive to our work reviewing the Project
18 in 2008 and 2009. In other words, Concentric's efforts in 2010 and 2011 reflect
19 the information and understanding of the Project gained during Concentric's
20 reviews in prior years.

21 **Q. Please describe how Concentric performed this review.**

22 A. Concentric's review was performed over two distinct periods. In the first quarter
23 of 2010, we performed the review described below with a focus on 2009

1 activities. Subsequently, in January and February 2011, we supplemented our
2 prior year's review with a focus on 2010 activities for PTN 6 & 7. Concentric
3 began in both periods by reviewing the Company's policies, procedures and
4 instructions with particular emphasis placed on those policies, procedures or
5 instructions that may have been revised since the time of Concentric's review in
6 the previous year. In addition, Concentric reviewed the current project
7 organizational structures and key project milestones that were achieved in 2009
8 and 2010. Concentric then reviewed other documents and conducted several in-
9 person interviews to make certain PTN 6 & 7's policies, procedures and
10 instructions were known by the project teams, were being implemented by the
11 Project and have resulted in prudent decisions based on the information that was
12 available at the time of each decision.

13 Concentric's in person interviews included representatives from each of the
14 following functional areas:

- 15 • Project Management
- 16 • Project Controls
- 17 • Integrated Supply Chain Management ("ISC")
- 18 • Employee Concerns Program
- 19 • Quality Assurance/Quality Control ("QA/QC")
- 20 • Transmission
- 21 • Environmental Services
- 22 • State Regulatory Affairs
- 23 • NRC Regulatory Interface

1 **Q. Please describe why you believe it is important for FPL to have defined**
2 **corporate procedures in place throughout the development of the Project.**

3 A. Defined corporate procedures are critical to any project development process as
4 they detail the methodology with which the project will be completed and make
5 certain that business processes are consistently applied to the project. To be
6 effective, these procedures should be documented with sufficient detail to allow
7 project teams to implement the procedures, and they should be clear enough to
8 allow project teams to easily comprehend the procedures. It is also important to
9 assess whether the procedures are known by the project teams and adopted into
10 the Company's culture, including a process that allows employees to openly
11 challenge and seek to improve the existing procedures and to incorporate lessons
12 learned from other projects into the Company's procedures. Within PTN 6 & 7,
13 the Project Controls staff is primarily responsible for ensuring the Company's
14 corporate procedures are applied consistently by the various FPL and contractor
15 staff members who are working on the Project. However, it is acknowledged
16 that this is a shared responsibility held by all project team members, including the
17 project managers.

18 **Q. Please explain the importance of written project execution plans.**

19 A. Written project execution plans are necessary to prudently develop a project.
20 These plans lay out the resource needs of the project, the scope of the project,
21 key project milestones or activities and the objectives of the project. These
22 documents are critical as they provide a "roadmap" for completing the project as
23 well as a "yardstick" by which overall performance can be monitored and
24 managed. It is also important for the project sponsor to require its large-value

1 contract vendors to provide similar execution plans. Such plans allow the project
2 sponsor to accurately monitor the performance of these vendors and make
3 certain at an early stage of the project that each vendor's approach to achieving
4 key project milestones is consistent with the project sponsor's needs. These
5 project plans must be updated to reflect changes to the project scope and
6 schedule as warranted by project developments.

7 **Q. Why is it important that key internal stakeholders are involved in the**
8 **project development process?**

9 A. One of the most challenging aspects of prudently developing a large project is
10 the ability to balance the needs of all stakeholders, including various Company
11 representatives and the Company's customers. This balance is necessary to make
12 certain that the maximum value of the project is realized. By including these
13 stakeholders in a transparent project development process, the project sponsor
14 will be better positioned to deliver on these high-value projects.

15 **Q. Why is it important to have established reporting and oversight**
16 **requirements?**

17 A. Effective internal and external communications enable an organization to meet
18 its key objectives, and allow employees to effectively discharge their
19 responsibilities. By having an established reporting structure and periodic
20 reporting requirements, the project sponsor's senior management will be well
21 informed on the status of the project's various activities. Reporting requirements
22 give senior management the information it needs to leverage its background and
23 previous experience to prudently direct the many facets of the project. In
24 addition, established reporting requirements ensure that senior management is

1 fully aware of the activities of the respective project teams so management can
2 effectively control the overall project risks. In the case of PTN 6 & 7, this level
3 of project administration by senior management is prudent considering the large
4 expenditures that will be required to complete the Project and the potential
5 impact of the Project on the Company overall.

6 In order to be considered robust, these reporting requirements should be
7 frequent and periodic (*i.e.*, established daily, weekly and monthly reporting
8 requirements) and should include varying levels of detail based on the frequency
9 of the report. The need for timely and effective project reporting is well
10 recognized in the industry. To that point, a field guide for construction
11 managers notes:

12 Cost and time control information must be timely with little delay
13 between field work and management review of performance.
14 This timely information gives the project manager a chance to
15 evaluate alternatives and take corrective action while an
16 opportunity still exists to rectify the problem areas.¹¹

17 **Q. What is the purpose of corrective action mechanisms and why are they**
18 **important to ensure the Company is prudently incurring costs?**

19 A. A corrective action mechanism is a defined process whereby a learning culture is
20 implemented and nurtured throughout an organization to help eliminate
21 concerns that can interfere with the successful completion of the project.
22 Corrective action mechanisms help identify the root cause of issues, such as an
23 activity that is trending behind schedule, and provide the opportunity to adopt
24 mechanisms that mitigate and correct the negative impact from these issues. A
25 robust corrective action mechanism assigns responsibility for implementing the
26 corrective actions and a means by which these activities are managed. In

1 addition, a corrective action mechanism educates the project team in such a
2 manner as to ensure project risks are prudently managed in the future.

3 **Q. Are there any other elements of the Company's internal controls included**
4 **in your review?**

5 A. No. There were no other elements of the Company's internal controls included
6 in my review.

7

8 **Section V: PTN 6 & 7 Project Activities in 2009 and 2010**

9 **Q. Please generally describe PTN 6 & 7.**

10 A. PTN 6 & 7 is currently focused on obtaining the necessary licenses and permits
11 so as to provide FPL and its customers the option to construct two nuclear units
12 at the existing PTN site. Specifically, through PTN 6 & 7, FPL is seeking to
13 develop the option to deploy approximately 2,200 megawatts of additional
14 nuclear capacity for the benefit of its customers. These benefits include fuel
15 savings, reliability improvements, and reduced emissions. The Company's
16 project management strategy is focused on preserving appropriate flexibility and
17 multiple hold points and off-ramps during which PTN 6 & 7's progress can be
18 delayed for further analysis or progressed to meet certain schedule expectations.
19 If the licenses and approvals PTN 6 & 7 is seeking are approved, they will not
20 require FPL to immediately begin construction of the new nuclear facility.
21 Indeed, FPL will have the option to begin construction for a period lasting at
22 least 20 years from the date of issuance.

23

24

1 **Q. How was PTN 6 & 7 organized in 2009 and 2010?**

2 A. Since 2008, few changes have occurred in the PTN 6 & 7 project organization
3 depicted in Exhibit JJR-NNP-4. The project organizational structure has been
4 developed around two separate, but collaborative business units: Project
5 Development and New Nuclear Projects. While both organizations ultimately
6 report up to NextEra Energy's Chief Operating Officer, their objectives are tied
7 to each group's respective capabilities. This approach allows FPL to ensure the
8 most qualified group is utilized to accomplish the project's objectives. The first
9 of these organizations is the Project Development organization, which was
10 responsible for all aspects of the project that do not relate to the NRC during
11 2009 and 2010. In contrast, the New Nuclear Projects organization is
12 responsible for submitting and defending the PTN 6 & 7 COLA. This
13 organization will also be responsible for the engineering, procurement,
14 construction, and subsequent start-up of the project if a decision to proceed is
15 made.

16 **Q. In 2009 and 2010, who was responsible for the New Nuclear Projects**
17 **organization?**

18 A. The New Nuclear Projects organization was under the leadership of the Vice
19 President of New Nuclear Projects who was supported directly by a Project
20 Director, a Licensing Director, and a Business Manager. By mid-2009, the
21 Project Director was placed on loan to FPL's ongoing extended uprate projects.
22 The Licensing Director was supported by multiple Licensing Engineers and
23 Document Control personnel. The Business Manager was supported by an
24 Estimator and Budget and Cost Analysts.

1 **Q. Who was responsible for the Project Development organization in 2009**
2 **and 2010?**

3 A. The Project Development organization was headed by FPL's Chief Development
4 Officer who was supported by the Project Director. The Project Director was
5 directly supported by a Project Director in charge of communications and
6 project coordination and a Project Manager who interfaced with the New
7 Nuclear Projects organization.

8 **Q. Did either of the organizations receive support from other FPL**
9 **departments in 2009 and 2010?**

10 A. Yes, both organizations received support from FPL's Juno Environmental
11 Services, Law Department, and ISC, among others.

12 **Q. Did Concentric have any observations related to the PTN 6 & 7**
13 **organizational structure in 2009 and 2010?**

14 A. Yes. Concentric believes the organizational structure appropriately assigned
15 responsibility to those employees best equipped to respond to the project needs.
16 Similarly, once a change in PTN 6 & 7's pace of development was identified,
17 FPL took adequate steps to modify the organizational structure to respond to
18 these changes.

19 **Q. What major milestones were achieved by PTN 6 & 7 in 2009 and 2010?**

20 A. The major achievement of PTN 6 & 7 in 2009 was the submission of the COLA
21 and SCA to the NRC and the FDEP, respectively. These applications required
22 thousands of man-hours and more than a year to complete. However, as the
23 pace of the Federal and State agencies' reviews of these applications slowed

1 during 2009, the PTN 6 & 7 project team made the appropriate decision to
2 reduce its construction related expenditures and commitments.

3 The main focus of the Project in 2010 was the facilitation of the Federal
4 and State licensing reviews. To that end, PTN 6 & 7 received a review schedule
5 from the NRC for the COLA that targets the completion of Safety and
6 Environmental reviews by end of 2012,¹² and the transmission portion of the
7 project achieved a completion determination of the SCA, while the non-
8 transmission portion reduced the number of open areas of review.¹³ In 2010,
9 PTN 6 & 7 also completed the revised schedule and cost estimate based upon
10 the new commercial operations dates for the units (*i.e.*, 2022 and 2023), and
11 confirmed the cost estimate range.

12 PTN 6 & 7 also achieved several key licensing and permitting milestones
13 in 2010, including: (1) the approval of the Comprehensive Development Master
14 Plan ("CDMP") Amendment, allowing temporary construction access roadways;
15 (2) receipt of the Prevention of Significant Deterioration air permit from the
16 FDEP; (3) receipt of a permit for the construction of an exploratory
17 Underground Injection Control and Dual Zone Monitoring Well system; and (4)
18 approval of a reclaimed water Joint Participation Agreement with Miami-Dade
19 County.¹⁴

20 Finally, the PTN 6 & 7 project team completed certain construction
21 planning activities that are necessary should it prove advantageous to FPL's
22 customers to construct the PTN 6 & 7 facilities.

23 **Q. Please describe what key decisions related to PTN 6 & 7 were made in**
24 **2009 and 2010.**

1 A. Consistent with FPL's stepwise approach to managing PTN 6 & 7, a number of
2 decision points were addressed in 2009 and 2010. In 2009, these decisions
3 include the decision to withdraw PTN 6 & 7's request for a Limited Work
4 Authorization ("LWA") from the NRC COLA, the decision to preserve future
5 project flexibility and not execute a definitive engineering and procurement
6 ("EP") or engineering, procurement, and construction ("EPC") agreement, and
7 the decision to extend PTN 6 & 7's reservation agreement with the
8 Westinghouse Electric Company ("WEC") for the forging of certain ultra-heavy
9 forgings ("Reservation Agreement"). In 2010, as described above, PTN 6 & 7
10 decided to decouple the licensing phase of the project from the construction
11 phase, and move the expected commercial operations dates to 2022 and 2023,
12 for units 6 and 7, respectively. Each of these decisions is more fully described in
13 the testimony of FPL Witness Scroggs.

14 **Q. How have these decisions affected PTN 6 & 7?**

15 A. Foremost among the impacts of these decisions is the potential impact on the
16 overall project schedule. The decision to withdraw the Company's request for a
17 LWA is not likely to impact the overall project schedule as it was unlikely that
18 much of this scope of work could be completed in advance of the NRC's
19 issuance of the COLA. Similarly, the decision to extend the Reservation
20 Agreement is not likely to impact the project schedule or cost estimate, although
21 FPL continues to negotiate this agreement and monitor global developments
22 with regard to expected demand for ultra-heavy forgings. The extension of the
23 agreement allows FPL to maintain its current position in line for these forgings
24 at no additional cost to the company. Further resolution regarding the

1 Reservation Agreement is expected in 2011. The decision not to enter into an
2 EPC or EP agreement in 2009 or 2010, however, could lead to changes in the
3 current PTN 6 & 7 deployment dates. As discussed by FPL Witness Scroggs,
4 this decision resulted from extensive commercial negotiations, which have not
5 produced a commercial agreement that would appropriately manage the risk and
6 cost for FPL's customers.

7 The decision to decouple licensing from construction obviously has
8 ramifications on the schedule of the project, which was extended by FPL in
9 2010. However, in the light of the protracted regulatory reviews and uncertainty
10 regarding many of external drivers of the need and value of new nuclear (*e.g.*,
11 carbon regulation), in my opinion FPL's approach to managing the project
12 continues to be conservative, while maintaining FPL's future option to develop
13 the Project.

14 **Q. Was PTN 6 & 7 deemed feasible by the Company during the period of**
15 **your review?**

16 A. Yes. In the second fiscal quarter of 2010, the Company performed a feasibility
17 analysis regarding PTN 6 & 7, concluding that the project was feasible. FPL
18 revisits its feasibility analysis annually, and will do so again in the second quarter
19 of 2011.

20

21 **Section VI: Review and Observations Relating to PTN 6 & 7 in 2009 and 2010**

22 **Q. How is this section of your testimony organized?**

23 A. This section describes my review of the five key processes (*i.e.*, project estimating
24 and budgeting, project schedule development and management, contract

1 management and administration, internal oversight mechanisms, and external
2 oversight mechanisms), described above. This section of my testimony also
3 describes certain recommendations related to these processes, and Exhibit JJR-
4 NNP-5 contains some observations related to information obtained as part of
5 our review.

6 **Q. As a preliminary matter, what did your review lead you to conclude with
7 regard to the prudence of FPL's actions in 2009 and 2010 as they related to
8 PTN 6 & 7?**

9 A. FPL's decision to continue pursuing PTN 6 & 7 in 2009 and 2010 was prudent
10 and was expected to be beneficial to FPL's customers. In reaction to protracted
11 licensing and permitting processes, as well as uncertainty related to external risk
12 factors, FPL properly revised its schedule for PTN 6 & 7, and decoupled the
13 licensing phase from the construction phase of the project. In addition, our
14 review has not identified any imprudently incurred costs for PTN 6 & 7 in 2009
15 or 2010, and has found no significant procedural concerns with the project. The
16 recommendations included below and the observations included in Exhibit JJR-
17 NNP-5 are offered solely to further enhance the effectiveness of FPL's policies
18 and procedures.

19

20 *Project Estimating and Budgeting Processes*

21 **Q. Please describe how the 2009 and 2010 project budgets were developed for
22 PTN 6 & 7.**

23 A. The 2009 and 2010 PTN 6 & 7 budgets were developed based on feedback from
24 each department supporting PTN 6 & 7. These budgets included a bottom-up

1 analysis that assessed the resource needs of each department during the year, and
2 included an adequate contingency for undefined scope or project uncertainties.
3 Typically, this contingency is equal to 15% of the project budget, but may be
4 increased or decreased based upon discussions with each business unit lead. For
5 instance, the licensing contingency was reduced in 2009 due to greater certainty
6 in the scope of the COLA preparations. In 2010, contingency levels were set at
7 approximately 15% for the Project.¹⁵

8 **Q. Was the process used by PTN 6 & 7 to develop its 2009 and 2010 budgets**
9 **consistent with the Company's policies and procedures that existed at that**
10 **time?**

11 A. Yes, the process utilized by PTN 6 & 7 to develop its 2009 and 2010 budgets
12 was consistent with FPL's corporate procedures, which outline the process to be
13 used by each business unit when developing its annual budgets.

14 **Q. What mechanisms did the PTN 6 & 7 project team use to monitor budget**
15 **performance in 2009 and 2010?**

16 A. The PTN 6 & 7 project team used numerous reports to manage PTN 6 & 7's
17 budget performance. These reports are more fully described by FPL Witness
18 Scroggs on Exhibit SDS-9. On a monthly basis, the PTN 6 & 7 project
19 management received several reports that detailed budget variances by
20 department and provided explanations of those variances. In addition, these
21 reports included a description of all costs expended in the current month and
22 quarter as well as year-to-date and total cumulative spending. The PTN 6 & 7
23 project team published quarterly Due Diligence reports for the Company's senior
24 executives. Further, the project management periodically (usually monthly),

1 presented a status update to FPL's senior management. These presentations
2 included a description and explanation of any budget variances or significant
3 project challenges.

4 **Q. Are these reporting mechanisms consistent with the PTN 6 & 7 Project**
5 **Execution Plan?**

6 A. Yes these reporting mechanisms are consistent with the PTN 6 & 7 Project
7 Execution Plan, which was revised in March 2010.¹⁶

8 **Q. Within the PTN 6 & 7 project team, who was responsible for tracking and**
9 **reporting project expenditures?**

10 A. Responsibility for tracking and reporting project expenditures was held by the
11 PTN 6 & 7 Business Manager. This individual worked with his team of Cost and
12 Budget Analysts to review and approve significant vendor invoices, and to track
13 the Project's expenditures relative to PTN 6 & 7's annual budget. The processes
14 for both approving invoices and tracking project expenditures are well
15 documented within PTN 6 & 7.

16 **Q. Did Concentric have observations related to the PTN 6 & 7 budget**
17 **processes?**

18 A. Concentric has found that the PTN 6 & 7 project team acted prudently when
19 developing its annual budget and in tracking its performance relative to the
20 annual budget. The PTN 6 & 7 project team developed multiple reports that
21 track budget performance on a cumulative and periodic basis, along with a
22 process for describing variances in actual expenditures relative to the budget. In
23 addition, Concentric found that the PTN 6 & 7 budget processes include
24 multiple overlapping mechanisms that helped ensure that the Project's

1 management and the Company's senior management are well informed of the
2 Project's performance.

3 Concentric has noted in past reviews a need to revisit the PTN 6 & 7
4 Monthly Dashboard Report and specifically the Key Performance Indicators
5 ("KPIs") which are presented in that report. Specifically, these KPIs were
6 mainly focused on metrics that were relevant to the engineering, procurement
7 and construction of the proposed PTN 6 & 7 facilities. Thus these KPIs
8 provided little insight into the current pace and performance of the Project. FPL
9 addressed this observation with a two step process: (1) the Company instituted a
10 quarterly risk assessment in 2010 to develop a project specific means to identify,
11 mitigate and track project risks; (2) the Monthly Dashboard Report is to be
12 revised in 2011 to become more aligned with the current phase of the PTN 6 &
13 7 development project.

14 **Q. What are your observations regarding the Company's Quarterly Risk**
15 **Assessments?**

16 A. The Quarterly Risk Assessments, which contain an assessment of key issues in
17 six areas (*i.e.*, NRC License, Army Corps of Engineers Section 404b and Section
18 10 Permits, State Cite Certification, Underground Injection Control Permit,
19 Miami Dade County Zoning and Land Use, and Development Agreements),
20 along with FPL's mitigation strategy, are an important tool to assist the Company
21 in analyzing, monitoring, and mitigating risks. The Quarterly Risk Assessments
22 also allow the Company to track trends in key issues facing the Project, as well as
23 the potential impacts to implementation, cost, and schedule.

1 While I believe the Quarterly Risk Assessments represent an important
2 step, and support the prudence of FPL's actions with regards to PTN 6 & 7, I
3 believe there are opportunities for the Company to further enhance the
4 usefulness of these reports. The first opportunity to enhance the usefulness of
5 the reports would be to identify "fall back" or "Plan B" options with regards to
6 certain of the identified risks. The reason why this is important is that many of
7 the drivers of key risks are outside of FPL's control. Thus, while FPL's stated
8 mitigation strategies often involve effective project management and
9 communications, there are circumstances in which there is only so much FPL
10 can do internally to mitigate risk, and different options may need to be explored.
11 As an example, in its Q3 2010 Risk Assessment, FPL identified the risk that the
12 "UIC Disposal Method is not acceptable under federal review," with the
13 mitigation strategy involving NRC education, deployment of significant subject
14 matter expertise, and close communications with state agencies involved in the
15 review.¹⁷ While this is certainly the primary approach the Company should take
16 to mitigate the stated risk, a portion of the risk is out of FPL's control, and thus
17 alternatives should be identified and vetted as part of FPL's plan.

18 **Q. Has FPL developed a cost estimate that is sufficiently detailed for the**
19 **current phase of the project?**

20 **A.** Yes. However, it is important to note that FPL's cost estimate is currently
21 indicative in nature and will need to be more definitive before FPL commits to
22 the construction phase of the project. It is my understanding that the Company
23 has plans to obtain a more definitive cost estimate as the project progresses.

24

1 Project Schedule Development and Management Processes

2 **Q. Please describe how the PTN 6 & 7 project team produced and managed**
3 **the PTN 6 & 7 schedule in 2009 and 2010.**

4 A. The initial PTN 6 & 7 project schedule was developed earlier in PTN 6 & 7's life
5 cycle. This schedule continues to be refined and managed using an industry
6 standard software package developed by Primavera Systems, Inc. Primavera
7 provides Critical Path Method ("CPM") Scheduling, which uses the activity
8 duration, relationships between activities, and calendars to calculate a schedule
9 for the Project. CPM identifies the critical path of activities that affect the
10 completion date for the Project or an intermediate deadline, and how these
11 activity schedules may affect the completion of the Project. This software
12 package is used by many in the nuclear power industry to schedule refueling
13 outages and major capital projects.

14 One major change to the schedule that occurred in 2010 was the revision
15 to the commercial operations dates of the two units, which were moved to 2022
16 for Unit 6 and 2023 for Unit 7. This revision to the schedule involved the
17 decoupling of the licensing and construction phases of PTN 6 & 7 due to a lack
18 of clarity on national, State, and project-specific issues. This schedule revision is
19 described in greater detail in the testimony of FPL Witness Scroggs.

20 The method for updating the PTN 6 & 7 schedule, including the proper
21 electronic format, was documented, and was communicated to project vendors
22 to make certain that PTN 6 & 7's expectations are clear. This process also
23 facilitated the process by which FPL incorporates the feedback of project
24 vendors into the project schedule.

1 **Q. What procedures or project instructions existed in 2009 and 2010 to govern**
2 **the development and refinement of the PTN 6 & 7 schedule?**

3 A. New Nuclear Project, Project Instruction 100 governs the development,
4 refinement and configuration of the project schedule.

5 **Q. What mechanisms were in place to ensure that the PTN 6 & 7 project**
6 **team prudently managed its schedule performance?**

7 A. The PTN 6 & 7 project team proactively monitored and managed its schedule
8 performance on a weekly and monthly basis. In 2009, until the submittal of the
9 COLA and SCA, a "Six Week Look-Ahead Report" was issued on a weekly basis
10 to provide an update on the activities that were projected to start during the next
11 six weeks. This report gave the PTN 6 & 7 project team adequate notice of
12 upcoming activities and allowed the team members to plan their time
13 accordingly. The PTN 6 & 7 project team has incorporated similar reporting
14 requirements into its contracts with key vendors such as Bechtel. As a result,
15 Bechtel was required to submit monthly progress reports detailing its progress to
16 date, including any projected delays.

17 **Q. Did Concentric have any observations related to how the PTN 6 & 7**
18 **project team managed and reported its schedule performance in 2009 and**
19 **2010?**

20 A. Yes. Similar to FPL's management of the PTN 6 & 7 budget, Concentric
21 believes PTN 6 & 7 has taken adequate steps to prudently manage and report on
22 its schedule performance. In addition, as with budget management, FPL has
23 taken steps in response to Concentric recommendations regarding risk

1 assessments and the Monthly Dashboard Reports, discussed earlier in this
2 section of my testimony.

3

4 Contract Management and Administration Processes

5 **Q. Did PTN 6 & 7 require the use of outside vendors in 2009 or 2010?**

6 A. Yes. In order to avoid the need to recruit, train and retain the significant number
7 of employees required to complete the COLA, SCA and other project activities,
8 and respond to interrogatories from Federal, State, and local agencies, FPL used,
9 and will continue to use, a number of outside vendors. These vendors were
10 utilized to produce the COLA and SCA and provide ongoing post-submittal
11 support, amongst other tasks. In addition, a limited number of individual
12 contractors were utilized to augment the project staff and fill vacancies where
13 appropriate. FPL's use of outside vendors and contractors is consistent with
14 general industry trends and was clearly anticipated by the PTN 6 & 7 Project
15 Execution Plan.¹⁸

16 **Q. How did the PTN 6 & 7 project team make certain that it is prudently
17 managing and administering its procurement processes?**

18 A. FPL has a number of General Operating ("GO") Procedures related to the
19 procurement function. In addition, ISC, which has overall responsibility for
20 managing FPL's commercial interactions with vendors, produced a desktop
21 Procurement Process Manual that provides more detailed instructions for
22 implementing the GOs, while also containing nuclear-specific procurement
23 procedures. The GOs, along with the Procurement Process Manual, are
24 sufficiently detailed to ensure that ISC prudently manages the vast number of

1 procurement activities that must take place to support an endeavor such as PTN
2 6 & 7. Additionally, these procedures clearly state a preference for competitive
3 bidding except in instances where no other supplier can be identified, in cases of
4 emergencies or when a compelling business reason not to seek competitive bids
5 exists.

6 **Q. Did Concentric review examples of how these processes were**
7 **implemented throughout 2009 and 2010?**

8 A. Yes. Concentric reviewed information related to each of the new contracts,
9 purchase orders and change orders listed on Schedule T-7A of the Company's
10 Nuclear Filing Requirements. Relative to 2007 and 2008, PTN 6 & 7 entered
11 into comparatively few new significant contracts. With the exception of one
12 contract, the contracts executed by PTN 6 & 7 in 2009 and 2010 related to
13 extensions or expansions of scope for PTN 6 & 7's existing vendors. Of the
14 twelve contracts executed in 2009, the ISC's Predetermined Sources ("PDS") list
15 was used four times. For the remaining eight contracts executed in 2009, FPL
16 utilized single or sole source justifications to acquire a specific skill or proprietary
17 technology. Of the 13 contracts executed in 2010, the ISC's PDS list was not
18 used. For these contracts, FPL utilized single or sole source justifications to
19 acquire a specific skill or proprietary technology for four of them, and used
20 competitive bidding for four of them. The remaining contracts were for less
21 than \$25,000.¹⁹

22 **Q. What is a Predetermined Source and how has it been used by PTN 6 & 7?**

23 A. In certain instances, FPL has identified a need to establish consistent and
24 preferred vendors for particular goods or services. These vendors have been

1 identified through prior competitive bidding or other evaluations of cost
2 effectiveness for a narrow and predefined scope of work. Following this
3 evaluation, ISC permits the use of these vendors for future projects within the
4 predetermined scope of work.

5 **Q. How many PDS were used by PTN 6 & 7 in 2009 and 2010?**

6 A. As it relates to the execution of PTN 6 & 7, four PTN 6 & 7 vendors were
7 authorized under the PDS process in 2009, and two additional vendors were
8 authorized under the PDS process in 2010.²⁰ These vendors are BVZ, WEC,
9 Bechtel Corporation ("Bechtel"), Environmental Consulting Technology
10 ("ECT"), Golder Associates, Inc., and McNabb Hydrogeologic Consulting, Inc.
11 In addition, PTN 6 & 7 utilized the PDS list for certain administrative needs
12 such as office supplies.

13 **Q. Does the PTN 6 & 7 project team expect the number of goods and
14 services procured on a single or sole source basis to grow or contract in
15 the future?**

16 A. Yes. This results from the fact that many of the future goods and services that
17 must be procured relate to proprietary design information that is specific to a
18 single vendor. Thus, it will often be impossible to locate another vendor that is
19 capable of providing these goods or services without re-creating thousands of
20 man-hours to replicate the initial plant designs.

21 **Q. What processes were in place to ensure that PTN 6 & 7 received the full
22 value for the goods and services that were procured in 2009 and 2010 and
23 that appropriate charges were invoiced to the Project?**

1 A. In order to ensure that the Company and its customers received the full value of
2 the goods and services that were procured, the PTN 6 & 7 Business Manager and
3 his staff were responsible for reviewing each invoice received from the major
4 PTN 6 & 7 project vendors including Bechtel, BVZ, McNabb Hydrogeologic
5 Consulting, Inc., Golder Associates and ECT. In aggregate, these contracts
6 represent a majority of the support received by PTN 6 & 7 from outside
7 vendors. To perform this review, the Business Manager's staff received the
8 invoices from each of these vendors. Upon receipt, an Invoice
9 Review/Verification Form that detailed what technical or functional
10 representative was responsible for reviewing each section of the invoice was
11 attached to the invoice. This form and the respective invoice were then sent to
12 each reviewer to verify that the appropriate charges were included in the invoice
13 and that the work product met PTN 6 & 7's needs and contractual provisions
14 prior to payment. When discrepancies were identified, FPL sought a credit on a
15 future invoice or deducted the amount from the current invoice depending on
16 discussions with the vendor. Similar processes are utilized by the departments
17 supporting PTN 6 & 7.

18 **Q. Were there instances in 2009 or 2010 where project vendors were found to**
19 **be including inappropriate charges in their invoices?**

20 A. Yes. For example, a vendor was noted to have included a small number of
21 markups to subcontractor billings since 2008. These charges were discovered by
22 the invoice review process and by an audit of the vendor's payments to
23 subcontractors in Spring 2009. Upon discovery of this item, FPL withheld
24 payment of this amount when completing payment of the next monthly invoice.

1 From time-to-time, FPL also discovered and challenged minor, inappropriate
2 expenses from other vendors.

3 **Q. Does Concentric have any observations related to FPL's management of**
4 **the contract management and administration processes?**

5 A. Yes, Concentric observed that while the contract management and
6 administration processes functioned appropriately in 2009 and 2010,
7 opportunities to further strengthen these controls for future procurements may
8 have existed. Specifically, Concentric believed a need existed for a formal
9 guideline related to procurements in excess of \$5 million. This guideline would
10 state that any bids received in response to an RFP, in excess of \$5 million, are
11 reviewed by ISC roughly contemporaneously and with at least two people
12 participating in the review process. Similarly, when a material delay is granted to
13 one RFP respondent, all bidders should be notified of an opportunity to further
14 revise their bid. Concentric has not observed, and does not believe there have
15 been, any instances of impropriety in the Project's RFP process in the review
16 period. This recommendation was made solely with the intent to prevent future
17 challenges or concerns before they occur. FPL implemented a new Procurement
18 Guideline in 2010 to address these observations. This guideline, which defined
19 contracts in excess of \$5 million as "Critical Path Agreements," established
20 procedures to be followed regarding justification and bid review for such
21 arrangements.²¹

22 Concentric has also observed potential enhancements to the invoice
23 review and approval process. Again, Concentric has not observed instances
24 where a deficiency exists in the current system, but believes further

1 enhancements are warranted to ensure continued adequacy of this control.
2 Concentric recommended to FPL that one manner of addressing this
3 observation might include developing a simple spreadsheet to track invoice
4 credits that are expected from project vendors. FPL took steps to address this
5 observation in 2010, as Project Controls created a spreadsheet to track credits
6 pending from invoices processed through Engineering and Construction and
7 Development, allowing for a more robust review of potential invoice credits and
8 assisting the Business Manager's staff in making certain that these invoice credits
9 are received on time and as expected.

10 Lastly, Concentric noted two opportunities to improve the transparency
11 of the invoice review and approval process. Observations on how to improve
12 this transparency included modifying the existing Invoice Review/Approval
13 Checklist to include the magnitude of each individual's approval authority and
14 modifying the Invoice Review/Approval Checklist to eliminate the column
15 whereby the technical representatives are asked to check a box to concur with
16 the invoice. Project Controls has implemented the two improvements. The
17 invoice Review/Approval Checklist now includes the approver's authority level,
18 not each individual reviewer's authority level. Additionally, the column (box) to
19 check for concurrence with the invoice has been eliminated. That change
20 created a more transparent audit trail. Additionally, the review process is now
21 modified such that the persons responsible for the invoice review do not execute
22 the Invoice Review/Approval Checklist unless they concur with the invoice.
23
24

1 Internal Oversight Mechanisms

2 **Q. What internal reporting mechanisms were used to inform the Company's**
3 **senior management of PTN 6 & 7's status and key decisions?**

4 A. The PTN 6 & 7 project team used a number of periodic reports to inform the
5 project management team and the Company's Executive Steering Committee.
6 These reports are detailed in the direct testimony of Company Witness Scroggs
7 and are used to make certain that the costs PTN 6 & 7 is incurring are the result
8 of prudent decision-making processes. These reports included monthly reports
9 that detailed key budget and schedule performance and solicited input for key
10 project decisions.

11 **Q. How did the PTN 6 & 7 project team solicit FPL's senior management's**
12 **guidance on each of these decisions?**

13 A. On a regular basis, PTN 6 & 7 project managers provided either a formal or
14 informal presentation of issues facing PTN 6 & 7 in 2009 and 2010. These
15 presentations focused on specific challenges and decision points such as the
16 decision to execute or not execute an EPC or EP agreement, the withdrawal of
17 the Company's application for a LWA, the decoupling of the licensing and
18 construction phases of the Project, and the status of issues related to licenses and
19 approvals. In these presentations the PTN 6 & 7 project team provided
20 recommendations to FPL's senior management team and then solicited senior
21 management's feedback and approval of the recommendations. In addition,
22 where significant decisions to take action occurred (*i.e.*, the withdrawal of the
23 Company's application for a LWA and the 2010 project schedule revision), the
24 PTN 6 & 7 project team produced a Project Memorandum that explicitly

1 discussed why this decision was made. These Project Memoranda are in
2 response to Concentric's recommendations in 2009.

3 **Q. Do you believe it was prudent for FPL to make these management**
4 **decisions in 2009 and 2010?**

5 A. Yes I do. These decisions clearly reflect a management philosophy that
6 maximizes FPL's, and its customers', flexibility in the near term. By decoupling
7 the licensing and construction work plans, and delaying the projected
8 deployment dates, FPL will likely receive greater certainty in the future with
9 regards to costs and external risk factors, and avoid committing FPL and its
10 customers to capital expenditures and major, long term agreements prematurely.
11 Such a management approach is clearly prudent in my opinion as it permits FPL
12 to preserve the option to deploy additional nuclear capacity in the future while
13 minimizing near term expenditures and risk.

14 **Q. What other internal oversight and review mechanisms exist for PTN 6 &**
15 **7?**

16 A. PTN 6 & 7 is subject to FPL's corporate GO procedures, but is being developed
17 external to the FPL Nuclear Division. Thus, PTN 6 & 7 is not automatically
18 subject to the Nuclear Division's policies. To address this condition, and to
19 remain in compliance with the NRC's QA requirements, the FPL QA/QC
20 department developed a procedure, QI-2-NNP-01, that identifies which FPL
21 Nuclear Division polices are applicable to PTN 6 & 7. In response to
22 Concentric's 2009 recommendation, QA/QC staff created a regular update
23 schedule to revise and update this procedure in order to adapt to the dynamic
24 nature of the Project.

1 Similarly, during 2009 and 2010, PTN 6 & 7 continued to develop its own set
2 of New Nuclear Project Instructions that relate to the following activities:

- 3 • Project instruction preparation
- 4 • Document retention
- 5 • NRC Correspondence
- 6 • COLA submittal
- 7 • Project management briefings
- 8 • COLA related document reviews
- 9 • Department training requirements
- 10 • Project schedule and configuration control

11 Additionally, there were two primary active internal oversight and review
12 mechanisms for PTN 6 & 7: the FPL Internal Audit Division and the FPL
13 QA/QC division.

14 **Q. Please describe the FPL Internal Audit Division and its function.**

15 A. FPL's Internal Audit Division performs regular audits of PTN 6 & 7, not only
16 focusing on the eligibility of the costs being recorded to the NCRC for recovery
17 from customers, but also considering internal controls as part of its procedures,
18 and commenting to PTN 6 & 7 if it finds areas for improvement. In both 2009
19 and 2010, the FPL Internal Audit Division performed an audit of the costs
20 recorded to the NCRC to test whether only appropriate charges were being
21 billed to the project and that these charges were being accounted for correctly.
22 The majority of Internal Audit's findings are resolved during the course of the

1 audit, and any unresolved items are tracked within a database to make sure they
2 are completed on schedule.

3 In 2010, PTN 6 & 7 received an audit rating of "Good," the highest
4 rating used by Internal Audit. Internal Audit presented its recommendations to
5 the PTN 6 & 7 project team in reports issued in November 2009, for the audit
6 conducted in 2009, and May 2010 for the audit conducted in 2010.

7 **Q. Please describe the FPL QA/QC division and its purpose.**

8 A. The FPL QA/QC division is responsible for implementing the Company's QA
9 Program, which is mandated by the NRC in 10 CFR 50, Appendix B QA
10 Program ("Appendix B"). The QA/QC division is separate from PTN 6 & 7
11 and reports to the Company's Chief Nuclear Officer through the Director of
12 Nuclear Assurance. Appendix B defines eighteen criteria for a NRC licensee's
13 QA program. It is the responsibility of the QA/QC division to ensure that
14 FPL's QA program meets these criteria and other regulatory guidance.

15 **Q. What quality assurance activities related to PTN 6 & 7 took place in 2009
16 and 2010?**

17 A. In 2010, QA/QC performed an annual audit of PTN 6 & 7, concluding that
18 PTN 6 & 7 was in compliance with the audited sections of Appendix B.²²
19 Deficiencies that were identified by the audit (*i.e.*, control of QA records,
20 outdated procedure practices, errors in procedures, control of software, and the
21 absence of a departmental Condition Report ("CR") trend analysis report) were
22 deemed to be found at an early stage of the project, and CR's were produced to
23 document the issues. In 2009 and 2010, the QA/QC division was also
24 responsible for witnessing certain activities by PTN 6 & 7's vendors. These

1 surveillance activities included multiple in-person reviews of the sufficiency of
2 the project vendors' analytical techniques, qualifications and QA programs, a
3 complete scope audit of Bechtel in 2010. Finally, the QA/QC division
4 monitored NRC QA activities and suggested changes to PTN 6 & 7 to respond
5 to the NRC's findings at other new nuclear projects. This is an example of how
6 lessons learned from other new nuclear developers were implemented by PTN 6
7 & 7 in 2009 and 2010.

8 **Q. Does Concentric have any recommendations regarding the results of the**
9 **QA/QC audit performed in 2010?**

10 A. Yes. Following the 2010 QA/QC audit, a CR was written to document the
11 findings regarding outdated or errors in procedures, leading to a full review of
12 PTN 6 & 7's procedures to update them, as needed. Concentric recommends
13 that such a review be formalized based on a regular (*i.e.*, annual, or semi-annual)
14 review cycle.

15 **Q. Does the Company maintain other internal oversight and review**
16 **mechanisms for PTN 6 & 7?**

17 A. Yes. The Company maintains other internal oversight mechanisms that ensure
18 that PTN 6 & 7 is prudently incurring costs. The first of these mechanisms is
19 the FPL Corporate Risk Committee ("RiskCom"). This committee consists of
20 FPL director-level and other senior employees, and is tasked with periodically
21 reviewing the Project and its associated risks. The PTN 6 & 7 project team met
22 with RiskCom twice in 2010.

23 **Q. Did Concentric have any observations related to PTN 6 & 7's internal**
24 **oversight mechanisms?**

1 A. Yes. Concentric believes it would be useful for each department providing
2 support to PTN 6 & 7 to consider maintaining its own list of project risks.
3 Concentric understands that the current process calls for each supporting
4 department to meet with PTN 6 & 7 project management to describe and discuss
5 project risk. A consolidated risk tracker is then maintained by PTN 6 & 7
6 project management. Concentric believes that by having the supporting
7 departments develop and maintain their own risk trackers that provide input to
8 the master project risk tracker, these supporting departments are more likely to
9 maintain a sense of ownership of each risk.

10

11 External Oversight Mechanisms

12 **Q. What external review mechanisms were used by the PTN 6 & 7 project**
13 **team in 2009 and 2010 to ensure that the Company is prudently incurring**
14 **costs?**

15 A. PTN 6 & 7 and FPL have been subject to several external reviews. These
16 reviews are utilized to make certain industry best practices are incorporated into
17 PTN 6 & 7 and to improve overall project and senior management performance.
18 These reviews include Concentric's review of the Company's activities and
19 project controls, and the FPSC Staff's financial and internal controls audits.
20 Additionally, as a publicly traded company, NextEra Energy must undergo an
21 annual company-wide audit of its financial and internal controls. As discussed by
22 FPL Witness Powers, these reviews were conducted by Deloitte & Touche, LLP
23 in 2009 and 2010.

1 **Q. Are there other external information sources relied upon by the PTN 6 & 7**
2 **project team?**

3 A. Yes. In 2009 and 2010, FPL maintained membership in several industry groups
4 that relate to the development of new nuclear projects. These groups include the
5 NuStart Consortium, APOG (the AP 1000 Owners Group), the Electric Power
6 Research Institute, and NEI, among others. Each of these groups provides the
7 PTN 6 & 7 project team with access to a breadth and depth of information that
8 can be used to enhance the PTN 6 & 7 project team's effectiveness. For
9 instance, these industry groups have been utilized during the preparation of the
10 PTN 6 & 7 COLA to identify and analyze potential areas of concern by the NRC
11 and the appropriate response to the NRC's Requests for Additional Information.
12 Similarly, certain members of the ISC organization that maintain a matrix
13 reporting relationship to PTN 6 & 7 are also members of the APOG – Supply
14 Chain Management Working Group. This is a collaborative group that is
15 working to enhance the supply chain management for all developers of the AP
16 1000 through information sharing and potential joint procurement initiatives.

17 **Q. Did Concentric have any observations related to the external oversight**
18 **mechanisms utilized by FPL in 2009 or 2010?**

19 A. Based on Concentric's review to date, Concentric believes the PTN 6 & 7 project
20 team is proactively seeking to incorporate best practices into the management of
21 PTN 6 & 7. This is being achieved by retaining outside experts to review and
22 comment on certain aspects of the project, and by soliciting external information
23 sources that can provide useful guidance to the project team.

1 **Q. Did Concentric identify any other observations related to PTN 6 & 7 in**
2 **2009 or 2010?**

3 A. No, we did not.
4

5 **Section VII: Conclusions**

6 **Q. Please summarize your conclusions.**

7 A. It is my conclusion that there were no imprudently incurred costs or project
8 management deficiencies that led to imprudently incurred costs during
9 Concentric's review periods for the Project. Based on Concentric's review of the
10 Project in 2010 and 2011, we have also made a number of recommendations and
11 observations related to the Project that are detailed in Section VI and Exhibit
12 JJR-NNP-5 of my testimony. These recommendations and observations are
13 intended to enhance the effectiveness of FPL's management of the Project. In
14 addition, it is important to note that for over three decades nuclear power has
15 provided a number of substantial benefits to utility customers in Florida. These
16 benefits include electric generation with virtually no GHG emissions, fuel cost
17 savings, fuel diversity, reduced exposure to fuel price volatility and more efficient
18 land use. As a result, it is prudent for FPL to develop additional nuclear capacity
19 for the benefit of its customers. In order to do so, FPL is carefully managing
20 PTN 6 & 7 through capable project managers and directors who are guided by
21 detailed company procedures and appropriate management oversight.

22 **Q. Does this conclude your testimony?**

23 A. Yes, it does.

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- 1 Environmental Protection Agency, eGRIDweb online application.
<http://cfpub.epa.gov/egridweb/view.cfm>
- 2 Broder, John . *E.P.A. Clears Way for Greenhouse Gas Rules*. New York Times, April 17, 2009.
- 3 Gardner, Timothy, and Richard Cowan. *Senate Defeats Move to Stop EPA CO₂ Regulation*. Reuters, June 10, 2010.
- 4 *Florida Nuclear Profile* (last updated September, 2010). Department of Energy, Energy Information Administration.
- 5 Production cost is equal to operating and maintenance costs plus fuel costs.
- 6 Separate, concurring opinion of Justice Louis Brandeis, *Missouri ex. Rel. Southwestern Bell Telephone Co. v. Public Service Commission*, 262 U.S. 276 (1923). Clarification added.
- 7 *West Ohio Gas Co. v. Public Utilities Commission of Ohio* (No.1), 249 U.S. 63, (1935), Opinion.
- 8 Staff recommendation in Docket no. 060658-EI – Petition on behalf of Citizens of the State of Florida to require Progress Energy Florida, Inc to refund customers \$143 million, citing.
- 9 Docket No. 820001-EU-A, In Re: Investigation of Fuel Cost Recovery Clauses of Electric Utilities (Gulf Power Company – Maxine Mine).
- 10 FL PSC Order No. PSC-07-0816-FOF-EI, at 4.
- 11 Sears, Keoki S., Glenn A. Sears, and Richard H. Clough, *Construction Project Management: A Practical Guide to Field Construction Management*. 5th Edition, John Wiley & Sons, Hoboken, NJ, 2008, at 20.
- 12 Note, as of January 27, 2011, the NRC has placed the PTN 6 & 7 schedule under review.
- 13 Remaining open areas of completion review include groundwater impacts related to construction of backup cooling water supply, changes to the proposed mitigation plan, and design features of the plant. *See*, Response to Staff New DR 1.1.
- 14 *See*, Response to Staff New DR 1.1.
- 15 *See*, Response to Concentric Data Request 3.3.
- 16 *See*, Response to Concentric Data Request 1.12, “Project Plan for Turkey Point Units 6 & 7,” Revision 1, March 15, 2010.
- 17 *See*, Response to Staff New DR1.11, “Q3 2010 Risk Assessment for Turkey Point 6 & 7 Licensing and Permitting.”
- 18 *See*, Response to Concentric Data Request 1.12, “New Nuclear Projects Project Plan,” Revision 1, March 15, 2010, at 15.
- 19 *See*, Response to Concentric Data Request 3.8.
- 20 *See*, Response to Concentric Data Request 2.20.
- 21 *See*, New Nuclear Projects Procurement Guideline, “Award of Critical Project Agreements,” Draft November 12, 2010.
- 22 *See*, Response to Concentric Data Request 1.10, “Turkey Point Nuclear Oversight Report,” May 17, 2010.

1 **BY MR. ROSS:**

2 Q. Mr. Reed, are you also sponsoring exhibits to
3 your direct testimony?

4 A. Yes, I am.

5 Q. And do those exhibits consist of documents
6 labeled JJR EPU-1 through JJR EPU 6 for the extended
7 power uprate 2009 testimony?

8 A. Yes.

9 Q. And do those exhibits consist of documents
10 labeled JJR NNP-1 through JJR NNP-5 for the Turkey Point
11 6 only 7 testimony?

12 A. That's correct.

13 **MR. ROSS:** Mr. Chairman, I would note that
14 those exhibits are marked as Exhibits 38 through 48 on
15 the Staff's Exhibit List.

16 **CHAIRMAN GRAHAM:** Okay.

17 **BY MR. ROSS:**

18 Q. Mr. Reed, have you prepared a summary of your
19 testimony for the Commission.

20 A. Yes, I have.

21 Q. Would you please provide that summary now?

22 A. Yes. Good afternoon. The purposes of my
23 testimony is to address the appropriate standard for the
24 Commission's review of FPL's costs in this proceeding
25 and to review the processes and procedures used by FPL

1 in 2009 to manage the EPU project, and in 2009 and 2010
2 to manage the development of an option to construct new
3 nuclear generating units at Turkey Point.

4 First, the prudent standard which is
5 applicable to this case asks what a reasonable manager
6 would do with the facts known or knowable at the time of
7 the decision. Prudence is defined by a range of
8 reasonable actions and not by a perfect performance.

9 Concentric reviewed key elements of FPL's internal
10 controls for each of the five processes that comprised
11 the company's project management approach.

12 Concentric found that during the first half of
13 2009, FPL did not satisfactorily comply with certain
14 project estimating and projecting processes for the EPU
15 project. In addition, we found that in the
16 September 2009 nuclear cost-recovery hearings, certain
17 out-of-date information regarding the EPU project was
18 provided by an FPL witness to the FPSC.

19 Notwithstanding these findings, we also
20 concluded that FPL's actions have not led to any
21 imprudently incurred costs or to any incorrect decisions
22 regarding the EPU project. In addition, Concentric made
23 recommendations and observations related to FPL's
24 policies and procedures that are intended to enhance the
25 effectiveness of FPL's management of the EPU project and

1 FPL has addressed nearly all of these recommendations.

2 First, with respect to the project estimating
3 and budgeting process, I found that FPL has
4 well-developed corporate procedures in place that
5 outline the process to be used by each business unit
6 when developing annual budgets. For the EPU project, we
7 confirmed that the use of several budget and cost
8 reporting mechanisms that were established to ensure
9 that key decisions related to the EPU project were
10 prudent and made at the appropriate level of FPL's
11 management.

12 For Turkey Point 6 and 7, we confirmed the use
13 of multiple reports that track budget performance on a
14 cumulative and periodic basis, along with a process for
15 describing budget variances. In addition, the new
16 nuclear budget processes include overlapping mechanisms
17 that help ensure that senior management is well-informed
18 of project performance.

19 Finally, FPL has developed a cost estimate for
20 Turkey Point 6 and 7 that is sufficiently detailed for
21 the current phase of the project. With respect to
22 project schedule development and management, I found
23 that FPL has clear corporate policies for developing
24 project schedules, and has complied with those
25 procedures to develop the schedules for the EPU and new

1 nuclear projects. These procedures utilize industry
2 standard critical path scheduling methods and software
3 to optimize project schedules. FPL has also taken
4 adequate steps to prudently manage and report on
5 schedule performance.

6 With respect to internal oversight mechanisms
7 and external oversight mechanisms, I found that FPL has
8 established both to gauge project performance and to
9 incorporate independent opinions on project controls and
10 cost estimation. This includes the use of periodic
11 executive reporting and external audit requirements.

12 My overall conclusions are that FPL's project
13 management practices and procedures for the EPU project
14 were reasonable, and as of December 31st, 2009, met
15 industry norms. I found the same for the new nuclear
16 project for calendar years 2009 and 2010. All 2009 EPU
17 costs for which FPL is seeking recovery were prudently
18 incurred, and all of the 2009 and 2010 new nuclear costs
19 for which FPL is seeking recovery were also prudently
20 incurred.

21 That concludes my testimony.

22 **MR. ROSS:** Mr. Chairman, Mr. Reed is available
23 for cross-examination.

24 **CHAIRMAN GRAHAM:** Thank you, sir. Who's
25 first?

1 **MR. McGLOTHLIN:** I'll go first.

2 **CHAIRMAN GRAHAM:** Mr. McGlothlin.

3 **CROSS EXAMINATION**

4 **BY MR. McGLOTHLIN:**

5 **Q.** Good afternoon, Mr. Reed. Good to see you
6 again.

7 **A.** Good afternoon.

8 **Q.** I believe that the portion of the testimony
9 and exhibits that corresponds to one of your points in
10 the summary is contained on what was originally marked
11 JJR-5. Would that be 42 at Observation 7? Can you turn
12 to that?

13 **A.** Are you talking about JJR EPU 5?

14 **Q.** Correct.

15 **A.** Just a moment. Yes, I have that. And which
16 observation did you want?

17 **Q.** Observation Number 7. Would you take a moment
18 and read that out loud, please?

19 **A.** I have that. And you want me to read it out
20 loud, you said?

21 **Q.** Yes, please.

22 **A.** "Concentric has noted an instance where the
23 information provided by FPL to the Florida Public
24 Service Commission did not reflect the most up-to-date
25 information as of the time it was provided to the FPSC

1 in September 2009."

2 Q. And you and your firm describe the basis for
3 that conclusion at some depth in the June 2010 report,
4 did you not?

5 A. Yes.

6 Q. Which has since then been marked and accepted
7 as Exhibit 197. Do you have a copy of that available to
8 you?

9 A. Yes. The June 21st, 2010, report?

10 Q. Yes.

11 A. And, I'm sorry, that was Exhibit 197?

12 Q. Correct.

13 A. Okay. I have that.

14 Q. Please turn to Page 20 of 23.

15 A. Go ahead.

16 Q. In the middle of that page you make some
17 observations about the risk management process, do you
18 not?

19 A. I do.

20 Q. At Page 20 of 23 as Concentric first labeled
21 the document on the very bottom.

22 A. That is correct.

23 Q. Would you please take a moment and read those
24 bullet points that appear underneath the reference to
25 the risk management process. Read them out loud, if you

1 would.

2 A. Oh, out loud. Okay. "It underestimated the
3 risk and costs associated with the fast-track project.
4 It did not assess the capacity of the organization and
5 costs, and early warning on cost overruns and undefined
6 scope depletion were not dealt with in a timely manner."

7 Q. Now, these assessments, as you describe them,
8 were portions of presentations made by the EPU project
9 managers to the executive steering committee, is that
10 correct?

11 A. Yes.

12 Q. And you indicate there that Concentric concurs
13 with these assessments. Does that include the first one
14 which says that FPL underestimated the risks and costs
15 associated with the fast-track project?

16 A. As of July 2009, yes.

17 Q. Okay. Those presentations by the project
18 managers to the executive steering committee include
19 other observations categorized as lessons learned, do
20 they not?

21 A. It did.

22 Q. Did you see any of those lessons learned with
23 which you did not agree?

24 A. I would have to go back to the document, and
25 there are actually two documents from July 25th, not

1 just one, in terms of the ESC presentations. Sitting
2 here today, I don't recall having any significant
3 disagreement with any of the conclusions, but to verify
4 that I would have to have the document in front of me.

5 MR. MCGLOTHLIN: I won't ask you to do that.
6 That's all my questions.

7 CHAIRMAN GRAHAM: Ms. Kaufman.

8 MS. KAUFMAN: Thank you, Mr. Chairman.

9 CROSS EXAMINATION

10 BY MS. KAUFMAN:

11 Q. Good afternoon, Mr. Reed.

12 A. Good afternoon.

13 Q. Vicki Kaufman on behalf of the Florida
14 Industrial Power Users Group. I want to talk to you a
15 little bit more about Exhibit 197, the Concentric
16 report. When you were involved in preparing the report,
17 I understand that you conducted -- you or your staff
18 conducted interviews with FPL personnel, is that right?

19 A. Yes, we did.

20 Q. And was everyone to whom you wished to talk
21 made available to you by FPL?

22 A. Yes. Everyone that we asked to speak to was
23 made available.

24 Q. And were the people you interviewed
25 cooperative and forthcoming?

1 A. Yes, I think they were.

2 Q. You also, you and your staff also reviewed
3 documents in regard to this report, is that right?

4 A. Yes, many thousands of pages of documents.

5 Q. And were all the documents that you requested
6 and you thought pertinent provided to you by FPL?

7 A. Everything we requested was provided to us,
8 yes.

9 Q. In your report, Exhibit Number 197, you have a
10 number of conclusions that you came to after your
11 interviews and investigations, is that correct?

12 A. Yes.

13 Q. When you prepared this report, did you prepare
14 it objectively based on the information that you had at
15 the time?

16 A. Yes, we did.

17 Q. Do you stand by the conclusions and
18 discussions in this report?

19 A. Yes. Our opinions have not changed from that
20 which were expressed in the report.

21 Q. Let me ask you if you would turn to Page 15 of
22 23 of Exhibit 197, the Concentric report.

23 A. Page 15. I have that.

24 Q. Yes. And about midway down the page, these
25 numbers are so little, after, I believe, Footnote 87,

1 you say Concentric also notes that the ESC, and that is
2 executive steering committee, is that correct?

3 A. The executive steering committee, yes.

4 Q. ESC was explicitly advised that the new cost
5 estimates were inconsistent with the May 2008 and May
6 2009 data that had been presented to the Florida Public
7 Service Commission. Is that your statement there?

8 A. Yes.

9 Q. So, is it your view that -- well, first of
10 all, can you tell us who is on the executive steering
11 committee and what their purpose is, if you know?

12 A. It is to provide guidance to the uprate
13 project. And the members of the steering committee
14 change from time to time, but it includes, for example,
15 the COO of NextEra Energy, it includes Mr. Olivera. Mr.
16 Jones attends those meetings. Terry Jones, that is. It
17 includes executives both within the parent company and
18 within the utility, as well as the senior members of the
19 uprate organization.

20 Q. So would you agree that the membership of the
21 ESC contains high level of FPL executives and employees?

22 A. Yes.

23 Q. And would it be your expectation that
24 information presented to these high-level employees and
25 executives would be developed at the time it was

1 presented?

2 A. I'm sorry, would be what?

3 Q. Would have been analyzed and reviewed before
4 being presented to the ESC?

5 A. Yes.

6 Q. Would it be your opinion that information
7 would be presented to this committee that was informal
8 and had not been the subject of review?

9 A. Well, the term informal is, I think, very
10 subjective. The material that was presented with regard
11 to the cost estimate, especially in the July 2009
12 meeting, had gone through substantial review.

13 Q. Now, on Page 16 of the Concentric report, the
14 second full paragraph, the sentence appears the new
15 estimates, the estimates we have just been discussing,
16 were the product of more than a dozen people working
17 extended hours for a month and had been reviewed by
18 every level of management in the EPU organization. Did
19 you find that to be the case from your review of the
20 documents and your interviews?

21 A. Yes, that statement is correct.

22 Q. Further down, Page 16, actually the second
23 paragraph from the bottom, you say -- or your report
24 says we believe that a \$300 million, or 27 percent
25 increase in the projected cost of the EPU project should

1 have been discussed in the live testimony on
2 September 8th, 2009. Do you see that?

3 A. I see that.

4 Q. Is that still your view?

5 A. Yes. I wouldn't want that statement taken out
6 of context, but in the full context of that page that
7 continues to be my view.

8 Q. Mr. Reed, do you think that it's important in
9 the regulatory process that regulators be provided with
10 the most accurate and correct information at the time
11 they are making their decision?

12 A. To the extent that is possible, yes.

13 Q. And would you agree with me, based on some of
14 the findings that you have reviewed, that that did not
15 occur in the case of the information presented in the
16 2009 nuclear hearing related to the uprate?

17 A. Just to be clear, it is my view as expressed
18 in this report that all of the information, but for one
19 piece of information was accurate, complete, and
20 truthful. One piece of information regarding the cost
21 estimate, in my opinion, was not the best information
22 available at the time.

23 Q. And that was the information concerning the
24 \$300 million, or the 27 percent increase we just
25 discussed on Page 16?

1 A. It is the information underlying that fact,
2 yes.

3 **MS. KAUFMAN:** That's all I have, Mr. Chairman.
4 Thank you.

5 **CHAIRMAN GRAHAM:** Thank you.

6 SACE.

7 **MR. WHITLOCK:** Thank you, Mr. Chairman.

8 **CROSS EXAMINATION**

9 **BY MR. WHITLOCK:**

10 Q. Good afternoon, Mr. Reed.

11 A. Good afternoon.

12 Q. I'd like to ask you to look at your testimony
13 dated March 1st of this year regarding Turkey Point
14 6 and 7, 2009 and 2010?

15 A. Okay. Give me just a moment.

16 Q. Page 20, when you get there. You're like me,
17 too many notebooks.

18 A. Yes. Turkey Point, March 2011, you said?

19 Q. No -- right, yes, I'm sorry, March 1st, 2011,
20 testimony.

21 A. And Page 20?

22 Q. Page 20.

23 A. Go ahead.

24 Q. Okay. On Line 9 you were asked to please
25 generally describe Turkey Point 6 and 7?

1 A. Yes.

2 Q. Would you mind reading out loud just the first
3 sentence of your answer there?

4 A. PTN 6 and 7 is currently focused on obtaining
5 the necessary licenses and permits so as to provide FPL
6 and its customers the option to construct two nuclear
7 units at the existing PTN site.

8 Q. And I believe I heard you, and correct me if
9 I'm wrong, in your summary also reference FPL's
10 activities related to Turkey Point 6 and 7 as pursuing
11 an option, is that correct?

12 A. Yes. At this time I think that's the best
13 description.

14 Q. Okay. And were you are in here for Mr.
15 Olivera's testimony a few minutes ago?

16 A. Only a portion of it.

17 MR. WHITLOCK: Okay. No further questions.
18 Thank you.

19 CHAIRMAN GRAHAM: Any other intervenors?
20 Seeing none. Staff.

21 MR. YOUNG: No questions.

22 CHAIRMAN GRAHAM: Board members?

23 Redirect.

24 MR. ROSS: Very briefly.

25 **REDIRECT EXAMINATION**

1 BY MR. ROSS:

2 Q. Mr. Reed, would you turn to Page 20 of your
3 report identified here as Exhibit 197?

4 A. Yes, I have that.

5 Q. To follow up on some questions that Ms.
6 Kaufman asked you, the items in the middle of the page,
7 these were characterized as lessons learned, is that
8 correct?

9 A. That's correct.

10 Q. And what did you interpret that to be in terms
11 of the company's perspective on these issues, having
12 read the ESC presentation?

13 A. I'm sorry, could you ask that question again?

14 Q. Yes. In terms of -- in your interpretation,
15 what were the lessons learned? What was the company
16 getting at it in discussing lessons learned?

17 A. This is part of a process that I actually
18 applaud within FPL. It is a self-critical organization.
19 And whenever new information comes in, they look at it
20 and ask is there anything that we now know that we can
21 use to evaluate our past performance. These are lessons
22 learned that they generated. These are not conclusions
23 that I generated, and they presented those lessons
24 learned to the management team executive steering
25 committee along with the new cost estimate.

1 Q. In reviewing the lessons learned, either
2 individually or in the aggregate, do you believe that
3 those lessons learned were evidence of imprudence on the
4 part of Florida Power and Light Company?

5 A. Not at all. Again, it's a process that I
6 applaud. It's an organization that is seeking to learn
7 and to improve continuously its processes going forward.

8 **MR. ROSS:** No further questions, Mr. Chairman.

9 **CHAIRMAN GRAHAM:** Okay. Do we need to move
10 some exhibits into the record?

11 **MR. ROSS:** Mr. Chairman, we would move
12 admission of Exhibits 38 through 48.

13 **CHAIRMAN GRAHAM:** We will move Exhibits 38
14 through 48 into the record. And there was no other
15 exhibits added, I take it? No. Okay.

16 (Exhibits 38 through 48 admitted into
17 evidence.)

18 **CHAIRMAN GRAHAM:** Are we finished with this
19 witness?

20 **MR. ROSS:** Yes. Mr. Reed will return for
21 rebuttal. We are ready for the next witness.

22 **CHAIRMAN GRAHAM:** Okay. Mr. Reed, thank you
23 very much for your testimony.

24 (Transcripts continues in sequence in
25 Volume 5.)

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STATE OF FLORIDA)
 : CERTIFICATE OF REPORTER
COUNTY OF LEON)

I, JANE FAUROT, RPR, Chief, Hearing Reporter Services Section, FPSC Division of Commission Clerk, do hereby certify that the foregoing proceeding was heard at the time and place herein stated.

IT IS FURTHER CERTIFIED that I stenographically reported the said proceedings; that the same has been transcribed under my direct supervision; and that this transcript constitutes a true transcription of my notes of said proceedings.

I FURTHER CERTIFY that I am not a relative, employee, attorney or counsel of any of the parties, nor am I a relative or employee of any of the parties' attorney or counsel connected with the action, nor am I financially interested in the action.

DATED THIS 15th day of August, 2011.



JANE FAUROT, RPR
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