

BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 120009-EI

In the Matter of:
NUCLEAR COST RECOVERY CLAUSE.

COMMISSION
CLERK

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PROCEEDINGS: HEARING

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

DATE: Tuesday, September 11, 2012

TIME: Commenced at 9:35 a.m.
Concluded at 11:41 a.m.

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

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APPEARANCES: (As heretofore noted.)

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P R O C E E D I N G S

1
2 (Transcript follows in sequence from
3 Volume 4.)

4 **CHAIRMAN BRISÉ:** All right. Good morning.

5 Before we -- well, let's convene this morning
6 first. And before we get into taking up witnesses,
7 today is September 11th, and I think it is appropriate
8 for us to remember what happened on September 11, 2001.

9 It's a day in my mind that has changed the
10 trajectory of our country in terms of how we view
11 certain things, but it's also a day that I think brought
12 us all together in a way that we haven't been brought
13 together in a long time. And there are families that
14 grieve every year on this day.

15 And I know that I remember clearly what I was
16 doing on that day, and I had a lot of explaining to do
17 to a classroom full of 10th graders after they
18 understood what happened, and I could just see in their
19 faces the, the, the confusion.

20 But, with all of that, I think it is
21 appropriate for us to spend some time in remembrance of
22 those who lost their lives, lost their lives innocently,
23 and those who lost their lives trying to protect those
24 who were in the process of either getting removed from
25 the building and so forth.

1 So if you would join me in standing for a
2 moment of silence as we spend some time in remembrance.

3 (Moment of silence observed.)

4 Thank you. All right. At this time we will
5 move into opening statements. As we did for the
6 Progress portion, as was designed by our Prehearing
7 Officer, FPL has ten minutes and the Intervenors have 20
8 minutes, which is to be divided among the Intervenors.
9 So the clock will run, we'll start at 20, and it will
10 run down to zero, and you all will decide how you spend
11 that time.

12 So at this time, FPL, Mr. Anderson.

13 **MR. ANDERSON:** Chairman Brisé, thank you very
14 much for the very, very thoughtful way of starting this
15 morning. And we all, I know everyone in the room is
16 right there together as we think about those things.
17 And now, as the time has come, we'll turn to the
18 business of this morning. But thank you.

19 Good morning, Chairman Brisé and
20 Commissioners. FPL is here today to request approval of
21 the company's 2012 nuclear cost recovery amount for
22 collection during 2013. FPL's investment in nuclear
23 energy for customers is a major reason why our typical
24 residential customer bill is the lowest of Florida's
25 55 electric utilities. Nuclear power produces clean,

1 reliable electricity around the clock all year long with
2 low fuel costs, saving our customers money every day.

3 Florida enacted a law in 2006 encouraging the
4 development of more nuclear generation to help provide
5 fuel diversity for our state, which does not have
6 natural gas, coal, or oil fields, or hydropower like
7 other parts of the country to support large amounts of
8 baseload generation.

9 So responding to that policy direction, FPL
10 applied for need determinations for the Turkey Point
11 6 and 7 projects, the extended power uprate projects,
12 and this Commission issued the need determination orders
13 for those in 2008.

14 As provided under the statute and the rule,
15 FPL requests to recover the preconstruction costs for
16 Turkey Point 6 and 7, which enables the future
17 construction of 2,200 megawatts of additional nuclear
18 generation. And we also, for the extended power
19 uprates, request to recover financing costs for the
20 amounts of money we've spent during construction.

21 Our cost recovery request this year is about
22 \$151 million. It equates to \$1.65 on a typical
23 1,000-kilowatt-hour monthly residential bill. This is a
24 reduction of 55 cents, and a reduction that's 25% less
25 than FPL's currently approved nuclear cost recovery

1 amount. A small fraction of these costs are for Turkey
2 Point 6 and 7 licensing; about 90% is the carrying cost
3 for the uprate project.

4 FPL's 2011 decisions and costs are subject to
5 prudence review in this proceeding. Today we have our
6 Senior Director of Project Development, Steve Scroggs,
7 is returning to explain where that project is at and
8 what the decisions have been and the actions that have
9 been taken. We also have former NRC Chairman Nils Diaz,
10 who has appeared before you before, to testify
11 supporting the prudence of FPL's management approach to
12 the project and licensing.

13 No party filed any testimony challenging the
14 prudence or reasonableness of any of the Turkey Point
15 management decisions or costs. Nevertheless, one
16 Intervenor that has filed no testimony claims that our
17 new nuclear project costs should not be subject to cost
18 recovery. This same claim by the same Intervenors was
19 last rejected just ten months ago in the Commission's
20 November 2011 nuclear cost recovery order.

21 So we'll be asking you based on the record
22 evidence you see here today, the clear language of the
23 statute and the rule, your prior decisions, to find that
24 those costs are appropriately included in nuclear cost
25 recovery.

1 Turning to the extended power uprate, the
2 uprate project is rapidly nearing completion, something
3 you just approved in 2008. The project is currently
4 expected to produce a total of 522 to 532 megawatts of
5 additional nuclear generation, 16% more than we expected
6 this time last year, about 33% more nuclear capacity
7 than we thought possible back at the time of the need
8 determination.

9 About 400 of those megawatts are projected to
10 be in service by the end of 2012, this year, just in the
11 next few months, with the balance in service by the
12 first part of 2013. The project is already providing
13 millions of dollars of fossil fuel cost savings to FPL
14 customers.

15 It's truly remarkable that the entire project,
16 up to 532 megawatts of additional nuclear generation on
17 existing sites from existing plants, will have been
18 fully engineered, procured, constructed, employing about
19 21 million hours of labor performed by thousands of
20 workers here in Florida, all since 2008.

21 An average day during 2012, 3,400 workers are
22 working in Florida full time on the uprate project.
23 That's about a million manhours of Florida employment
24 per month, provides a much needed economic boost while
25 building valuable energy infrastructure that this year's

1 feasibility analysis projects will save FPL's customers
2 more than \$3.8 billion, while also improving fuel
3 diversity, improving electric system reliability,
4 providing a hedge against natural gas price changes, all
5 with zero greenhouse gas emissions. It's a strong value
6 proposition that will serve FPL's customers well for
7 decades.

8 FPL's nonbinding cost estimate for the project
9 was revised in April 2012. That estimate is higher than
10 last year, but the project is also expected to produce
11 about 16% more megawatts compared to last year.

12 As explained by FPL EPU Vice President Terry
13 Jones, the nonbinding cost that's been filed in April
14 increased from last year because project engineering as
15 of the time of the estimate showed additional hours of
16 work by engineers, construction workers, other project
17 support workers as needed to safely install and
18 construct the nuclear plant modifications and meet
19 current NRC requirements.

20 Public Counsel repeats its claim from last
21 year that the uprate project should be broken up for
22 economic analysis and asserts the Commission should
23 order a hard cost cap that could disallow costs that
24 have not even been incurred yet. Public Counsel does
25 not challenge a single specific dollar or a single

1 specific decision that was made during 2011. Public
2 Counsel's claims are premised on impermissible hindsight
3 and incorrect factual assertions and should be rejected.

4 As a legal matter, it's useful to reflect that
5 Public Counsel's claims do not address the proper legal
6 standard. Florida law limits disallowance of costs to a
7 showing by a preponderance of the evidence that certain
8 specific costs were imprudently incurred. As in past
9 years, Public Counsel has not chosen to undertake that
10 burden and instead has these very broad stroke hindsight
11 claims.

12 Just ten months ago the Commission denied
13 Public Counsel's claim to break up the project for
14 economic analysis. The Commission's order entered last
15 November states that a separate economic analysis for
16 each of the EPU project plans is unnecessary and would
17 be difficult to calculate. The record will show in this
18 year's proceeding that the EPU feasibility analysis
19 should be accepted again this year on the total project
20 base that was, that was proposed by FPL, approved by the
21 Commission, and managed every day.

22 Public Counsel's cost cap claim is also a
23 repackaging of rejected claims from prior dockets. In
24 2010, the Commission ruled that it did not have
25 authority to order a risk sharing mechanism for nuclear

1 projects which Public Counsel had asked for. In the
2 2011 docket, your order rejected Public Counsel's claim
3 that a breakeven analysis should be applied to assess
4 recoverability of project costs rather than a prudence
5 standard.

6 So this is just a new flavor of old arguments
7 which are not consistent with Florida law, not
8 consistent with the evidentiary record, and should be
9 rejected.

10 This year Public Counsel claims that FPL
11 should have at some time in the past canceled the Turkey
12 Point uprate project, the work of that plant, based on a
13 draft preliminary estimate prepared by High Bridge, a
14 consultant, as part of FPL's management of Bechtel's
15 work on the project.

16 That's -- this is old news. The consultant
17 document they would point to is provided to FPL --
18 provided by FPL to Public Counsel in 2010. That
19 consultant's work product has been extensively described
20 in past cases. It was undertaken to better enable the
21 company to manage Bechtel project costs and negotiate
22 and reduce costs for project work, and as an input to
23 the nonbinding cost estimate process.

24 Public Counsel is taking a document, they're
25 misusing it, it's out of context, and their position

1 would have the illogical result of having canceled a
2 valuable part of an up to 532-megawatt project for which
3 completion has been solidly cost-effective.

4 The feasibility analysis this year again shows
5 that completing the projects is solidly cost-effective.
6 The 2012 feasibility analysis results show projected
7 fuel cost savings of about 58 billion from completing
8 Turkey Point 6 and 7 and 3.8 billion from completing the
9 extended power uprate project, among other important
10 benefits.

11 To conclude, Commissioners, there is no doubt
12 that FPL's customers receive lower electricity costs,
13 better reliability, greater environmental benefits every
14 day because of nuclear generation investment decisions
15 made 40 years ago. The Florida nuclear cost recovery
16 framework is essential to FPL's continued investment in
17 additional nuclear generation to provide more of these
18 benefits to FPL's customers.

19 And from the Commission's perspective, I think
20 the state can look with some pride at the implementation
21 of a policy and the carrying out of that policy on this
22 expedited basis for a state that really doesn't have
23 other good baseload alternatives to natural gas.

24 FPL asks that the Commission enter 2011
25 prudence findings, 2012 and 2013 reasonableness

1 findings, accept the company's feasibility analysis,
2 consistent with the FPL positions stated in the
3 Prehearing Order.

4 Thank you for your time this morning.

5 **CHAIRMAN BRISÉ:** Thank you.

6 Mr. McGlothlin.

7 **MR. McGLOTHLIN:** Yes, Commissioners. Good
8 morning.

9 The Intervenors have conferred and, as the
10 party who is sponsoring witnesses, OPC will begin, and I
11 anticipate that I will use nine or 10 minutes of the
12 time allotted to us.

13 Commissioners, OPC's involvement in this
14 year's cycle focuses on the uprate activity. And as a
15 starting point for my opening statement, I want to ask
16 you to recall the August 2011 hearing during which FPL
17 witness Mr. Jones, the uprate project manager, assured
18 the Commission that the estimate FPL was sponsoring at
19 that time was, in his words, and I quote, highly
20 informed. That must have been important to the
21 Commission because it quoted that language in the order
22 that it entered last year.

23 Now, with that background in mind, I want to
24 ask you to think to yourselves of a number, the number
25 that is the size of the year over year increase to that

1 highly informed estimate that would cause you to say,
2 how can this be? If that number is less than
3 \$671 million, which is FPL's value, you will react to
4 the new 2012 estimate as our office did and as I suspect
5 customers will react.

6 Now I want to ask you to think of another
7 number. This time, of the \$671 million increase, what
8 portion of that attributable to the single plant site,
9 Turkey Point, would cause you to say something is amiss
10 here and I want to get to the bottom of it? If that
11 number is less than \$555 million, or roughly 82% of the
12 year over year increase attributable to Turkey Point
13 only, then you'll be very interested in hearing what
14 OPC's witnesses are going to tell you.

15 First, Brian Smith of GDS Associates will tell
16 you that on the basis of a standalone feasibility
17 analysis that employs FPL's preferred sunk cost
18 methodology and involves conservative assumptions that
19 actually tilt the analysis in the direction of and to
20 the advantage of Turkey Point at the level of the 2012
21 estimate, the Turkey Point uprate is already headed for
22 net costs, not net benefits to customers.

23 Now, what do I mean by a conservative
24 assumption? I've got a little illustration that will
25 convey it to you.

1 Assume there's a contest to see which of two
2 nuclear units produces more fuel savings to a utility's
3 system. There is no material difference in heat rate,
4 fuel costs, or capacity factor. The two units operate
5 side by side, producing fuel savings for the system for
6 40 years. Then one unit shuts down, the other continues
7 operation at that level for another 14 years. What is
8 the likelihood that the referee would look at the
9 situation, announce it's a tie?

10 Well, Mr. Smith did something very similar to
11 that in his analysis, because despite the fact that the
12 St. Lucie units have 14 unit years more to operate on
13 their licenses than the Turkey Point units, he
14 attributed 50% of the overall fuel savings to the Turkey
15 Point. A less conservative allocation would have moved
16 savings from the Turkey Point column to the St. Lucie
17 column, making the cost-effectiveness of the Turkey
18 Point project far worse.

19 This lopsidedly conservative assumption means
20 the Commission can have confidence in the conclusion to
21 which Mr. Smith's analysis points, and that conclusion
22 is the Turkey Point uprate is under water now.

23 Our second witness, Dr. Jacobs, also of GDS
24 Associates, will testify that FPL should not have
25 allowed this situation to reach this point. High

1 Bridge, the consultant that FPL hired expressly for its
2 expertise in estimating, alerted FPL as early as 2010
3 that Turkey Point costs could reach the levels it is now
4 projecting.

5 FPL should have acted on that information and
6 intercepted the situation in 2011. Instead, FPL made
7 the poor management decision to ignore the High Bridge
8 red flag and push ahead. It embarked on a frenzy of
9 spending, relying on a consolidated feasibility study to
10 obscure the poor economics of the Turkey Point uprate.

11 FPL witness Reed said it well when he
12 testified that costs are not prudent or imprudent.
13 Decisions are prudent or imprudent. But imprudent
14 decisions can lead to excessive or unreasonable costs.
15 That's what the term imprudently incurred means.

16 How does one measure the costs associated with
17 FPL's imprudent inaction? Bear in mind, the objective
18 is to have a cost-effective project, a project that is
19 cost-effective to customers. That's why you review the
20 economics of the uprate projects annually.

21 Placing the 2012 estimate into a lopsidedly
22 conservative in FPL's favor economic analysis of Turkey
23 Point shows that the level -- at this level customers
24 will be burdened with net costs, not benefits. That's
25 the basis on which Dr. Jacobs recommends that they use

1 the 2012 estimate as a calculus with which to identify
2 the excessive costs associated with the poor decision to
3 continue the Turkey Point uprate.

4 FPL will complain repeatedly during this
5 proceeding that we're seeking to modify the consolidated
6 feasibility approach again, but the law remains that the
7 Commission can modify a decision based on changed
8 circumstances. Neither the statute or the Commission
9 rule had the effect of writing FPL a blank check. And
10 the purpose of the feasibility analysis is, after all,
11 to project -- to protect customers, not the utility. I
12 have a quick illustration for that point as well.

13 Assume a utility has uprates, uprate projects
14 at two different plant sites. Assume the first is
15 strongly cost-effective. It's a good deal for customers
16 and customers will benefit if it's completed. Assume
17 the second is so weak in term of economics that it
18 causes the feasibility to be negative when measured on a
19 composite overall basis.

20 In that example, should the utility cancel
21 both sites or should it proceed with a good project and
22 cancel the poor one? I think this illustration makes
23 the point that the purpose of the feasibility analysis
24 is to deliver maximum value to the customers, not
25 maximize the utility's investment.

1 I think that's what the Commission had in mind
2 when it said in the last order, quoting, we find that we
3 are not limited to a specific form of economic analysis,
4 breakeven or otherwise. We may require any form of
5 analysis we believe would provide insight into the
6 long-term feasibility of completing the EPU project.
7 That's at page 39 of your order.

8 Our witnesses will provide such insight, in
9 light of the \$555 million increase in the Turkey Point
10 estimate. Nothing in past decisions gave away your
11 authority to identify imprudence and protect customers
12 from its consequences. In the last order the Commission
13 said a standalone study was unnecessary. There are
14 555 million reasons for you to exercise your authority
15 in this case and review the economics of Turkey Point on
16 a standalone basis.

17 FPL's astounding new estimate overwhelms any
18 rationale that FPL may have offered in the past to
19 support the consolidated approach.

20 FPL will assert that the 2010 High Bridge
21 estimate for Turkey Point 3 and 4 was conceptual and
22 lacked detail. The High Bridge estimate addressed the
23 uncertainty of the Turkey Point project, something that
24 FPL talks about often but unfortunately failed to
25 provide for in its own estimate.

1 FPL will complain that we are imposing a,
2 quote, hard cap on the amount to be recovered. Hard
3 cap? A hard cap is something that FPL customers should
4 wear whenever FPL updates its Turkey Point uprate
5 estimate.

6 FPL will claim that OPC's recommendation would
7 prevent FPL from recovering otherwise prudently incurred
8 costs, but this begs the essential question that we've
9 raised by Dr. Jacobs' testimony. The essential question
10 is whether, as OPC contends, FPL was imprudent when it
11 ignored the High Bridge 2010 estimate.

12 FPL will contend that OPC is revisiting
13 decisions about methodology or a risk sharing mechanism.
14 Again, in this case, Mr. Smith has employed FPL's sunk
15 cost methodology. We aren't disputing that this time.
16 And with respect to the risk sharing mechanism, you
17 remember the term "skin in the game"? The risk sharing
18 mechanism contemplated that a utility would be called
19 upon to absorb costs whether or not it had done anything
20 imprudent. That's not the situation here.

21 Dr. Jacobs testifies that FPL's inaction in
22 the face of the High Bridge estimate constituted a poor
23 management decision. So the claim that we are asking
24 the Commission to revisit its risk sharing mechanism
25 decision is simply not true.

1 The basis for our recommendation is that FPL
2 was imprudent when it ignored its expert's estimate at a
3 time when it could have acted to avoid the onerous to
4 customers price tag it's reporting now. OPC believes
5 that it's too late at this point to do anything other
6 than complete the Turkey Point project, but it's not too
7 late to prevent customers from bearing imprudently
8 incurred costs.

9 Thank you.

10 **CHAIRMAN BRISÉ:** FIPUG.

11 **MR. MOYLE:** How -- just an estimate of the
12 time would be helpful.

13 **CHAIRMAN BRISÉ:** We are at about nine minutes.
14 There's nine minutes left.

15 **MR. MOYLE:** Okay. I'll try to be, try to be
16 brief.

17 For the record, Jon Moyle on behalf of the
18 Florida Industrial Power Users Group. And we support
19 the position and the statements of, of OPC in this
20 matter. And I just want to make, make three quick
21 points.

22 One is on the issue of prudence. You know, if
23 I, if I understood FPL's position, you know, they would
24 say, well, because the, you know, Intervenors haven't
25 said this particular widget was imprudent, you know, we

1 should, we should get every dollar. And that's not how,
2 how I understand the statutes to exist. I think none of
3 these Intervenors could be here and FPL still has a
4 burden to come forward, and this Commission has an
5 independent duty and obligation to review the facts and
6 make a judgment. And your staff is engaged.

7 And so to the extent that, that the issues and
8 the money all, all pivots on prudence, it's the burden
9 of the company to prove that they were prudent. And we
10 think in certain situations, particularly as it relates
11 to this \$500 million overshoot of the budgeted amount on
12 Turkey Point, that not all of those \$500 million were
13 prudently incurred, and we think some evidence will,
14 will show that.

15 You know, briefly on that point. 500 million
16 is a lot of money. And we, FIPUG is wanting to explore,
17 some of the testimony suggests, well, it really, really
18 is not our fault, and they, you know, shift blame to, to
19 some others. You know, our cross may have been less
20 rigorous if, if the testimony had said, you know, we'll
21 step up and take responsibility for a portion of this,
22 but they, they didn't.

23 Everything has been shifted and has been
24 suggested, at least in part, that some of this is caused
25 by natural disasters. And we hear a lot about

1 hurricanes and natural disasters, but the natural
2 disasters that Power & Light is saying is causing this
3 is, is a seismic event in Virginia last year and in the
4 event in Japan, and that that had an impact and that the
5 NRC staff couldn't review things as quickly. We think
6 that is a bit of a stretch and are going to get into
7 that and ask some questions about, about the rationale
8 and the connection that the extra, extra money is
9 associated with these two events.

10 And then finally, to the point about, about
11 looking at St. Lucie and, and Turkey Point, the uprates
12 separately, you know, logically that seems to flow and
13 make sense. I mean, if you mush everything together, it
14 makes it harder to, you know, divine what's going on at
15 this project, what's going on at that project. You
16 know, they're different projects.

17 You know, as you all know, one is in south
18 Dade County and one's up in Martin or St. Lucie County,
19 and they're, you know, different staffs. I mean, it
20 just logically makes sense for there to be a
21 disassociation with the two projects when, when you're
22 looking at it for making, making determinations.

23 I think today you're going to hear a lot about
24 the, you know, the half-a-billion-dollar cost over,
25 overrun or the projected cost overrun, and that just

1 sort of underlies the point. We should look at these
2 two separately. So those are the points we wanted to
3 make.

4 Thank you for, for the time.

5 **CHAIRMAN BRISÉ:** All right. There's about
6 six minutes left. FEA.

7 **LIEUTENANT COLONEL FIKE:** Thank you, Mr.
8 Chairman.

9 The Federal Executive Agencies agree with the
10 positions of OPC and FIPUG, so I'm going to yield the
11 time to other Intervenors.

12 I just want to reemphasize, though, that we
13 also believe very strongly that the Commission should
14 adopt a separate analysis of the Turkey Point uprate
15 project. The \$555 million overrun far overshadows the
16 project as a whole, and we think it's much more prudent
17 for the Commission to do that and you have the authority
18 to do that. It's not inconsistent with law to do so.
19 So we would want to just chime in with that.

20 Thank you.

21 **CHAIRMAN BRISÉ:** Thank you.

22 SACE.

23 **MR. WHITLOCK:** Thank you, Mr. Chairman. Good
24 morning, Commissioners.

25 As I stated in my opening remarks yesterday in

1 regards to Progress's Levy Nuclear Project, it's
2 essentially been business as usual again this year as
3 well for FPL in its proposed Turkey Point 6 and 7
4 project. I want to shift the focus to the new
5 generation.

6 As they have the past several years, FPL
7 remains solely focused on obtaining an operating license
8 for the NRC so it can, in the words of its own
9 consultant, Mr. Reed, who has previously testified
10 already before the Commission, develop the option for
11 new nuclear generation.

12 However, as Mr. Reed also testified, FPL has
13 not actually committed to constructing Turkey Point 6
14 and 7 at this point. And this raises serious questions
15 about FPL's compliance with the cost recovery statute
16 and, moreover, Commission precedent.

17 So while FPL actually touts that it has only
18 spent \$200 million of its ratepayer money to date on
19 Turkey Point 6 and 7, I think the ratepayers would like
20 to know what they have to show for their \$200 million
21 investment and what will they have to show in the
22 future.

23 Additionally, even with the singular focus on
24 licensing, the company is not doing a very good job of
25 that either. In a blistering May letter, the NRC

1 informed FPL that it cannot and will not continue review
2 of the safety and environmental portions of its combined
3 operating license application until, until substantial
4 modifications are made to FPL's application. And
5 that -- amongst other things, and we'll talk about that
6 later.

7 So in closing, I would ask the Commission this
8 year to take a close look at FPL's activities relating
9 to Turkey Point 6 and 7 and ask the simple question: Do
10 they really intend to build it or are they just
11 speculating?

12 And I think the answer will be apparent, and I
13 would ask that the Commission find FPL is not eligible
14 for cost recovery pursuant to, as Mr. Anderson said, the
15 clear language of the statute and rules, and, moreover,
16 the Commission's interpretation of the same.

17 Thank you.

18 **CHAIRMAN BRISÉ:** Mr. Wright, you have three
19 minutes.

20 **MR. WRIGHT:** Thank you very much, Mr.
21 Chairman. I don't think I'll use all of them.

22 Again, Schef Wright on behalf of the Florida
23 Retail Federation, thousands of whose members take
24 electric service from Florida Power & Light Company.

25 We share the concerns articulated by our

1 consumer representatives and by the Southern Alliance
2 for Clean Energy with respect to FPL's nuclear project.
3 As I said yesterday, the Retail Federation and our
4 members are strongly in favor of nuclear power as a fuel
5 diversifying component of Florida's electric generating
6 fleet. However, we are profoundly concerned that we see
7 no firm commitment by the utilities to their original or
8 current cost estimates. In other words, we continue to
9 be concerned that costs will continue to escalate even
10 more than they already have.

11 The validity of our concern is demonstrated
12 amply by the cost overruns experienced by FPL at its
13 Turkey Point EPU project. Essentially what you've got
14 here is FPL is asking you to lump the St. Lucie project,
15 which probably wasn't too much over budget, with the
16 Turkey Point project, which is, what, \$555 million over
17 budget from last year, and probably more than that as
18 compared to where it was at the get-go.

19 Lumping certain purchases like a batch of
20 poles or a batch of meters or several thousand feet of
21 conductor bought in different batches at different
22 prices is one thing. But lumping a project that has
23 cost hundreds of millions of dollars more than another
24 project would be like, like trying to lump together two
25 power plants, one that came in at a reasonable cost and

1 one that didn't, in order to bring the average down.

2 You wouldn't do this, and you shouldn't do it
3 here. You should treat these separately and hold
4 FPL's -- hold FPL strictly accountable for these cost
5 overruns. That is our plea to you, Commissioners.

6 Thank you very much.

7 **CHAIRMAN BRISÉ:** All right. Thank you very
8 much.

9 So at this time, FPL, you may call your first
10 witness. Your second witness, that is.

11 **MR. ANDERSON:** May we suggest that all the
12 witnesses be sworn. I believe we, we have a bunch in
13 the room.

14 **CHAIRMAN BRISÉ:** That have not been sworn.

15 All right. If you have not been sworn, please
16 stand at this time so you can be sworn.

17 (Witnesses collectively sworn.)

18 All right. Thank you. You may be seated.

19 **MS. CANO:** Thank you. FPL calls as its first
20 witness Mr. Steven Scroggs.

21 Whereupon,

22 **STEVEN D. SCROGGS**

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

DIRECT EXAMINATION

1
2 BY MS. CANO:

3 Q Good morning.

4 A Good morning.

5 Q You were just sworn; correct?

6 A That's correct.

7 Q Would you please state your name and business
8 address for the record.

9 A Yes. My name is Steve Scroggs. I am, work
10 for Florida Power & Light at 700 Universe Boulevard in
11 Juno Beach, Florida.

12 Q And by whom are you employed and in what
13 capacity?

14 A Florida Power & Light corporation as their
15 senior director of business -- of project development.

16 Q Did you prepare and cause to be filed 41 pages
17 of prefiled direct testimony on March 1st, 2012, and 40
18 pages of prefiled direct testimony on April 27th, 2012,
19 in this proceeding?

20 A Yes, I have.

21 Q Do you have any changes or revisions to your
22 prefiled testimony?

23 A Yes. There's two areas that have transpired
24 over the past several months that require an update.

25 In the April 27th testimony at page 22, lines

1 4 through 6, the language talks about a separate land
2 use hearing and a site certification hearing. On
3 August 15th, the DEP and the administrative law judge
4 approved a change to the SCA schedule that now
5 consolidates those two hearings into a single hearing in
6 July of 2013.

7 The second update would be on page 27 of the
8 April 27th testimony, at lines 12 to 13. That passage
9 indicates that the current extension for the forging
10 reservation agreement expired June 1st, 2012. That's
11 been since renegotiated to expire October 1st, 2012.

12 Q With those updates, if I asked you the same
13 questions contained in your prefiled testimony today,
14 would your answers be the same?

15 A Yes, they would.

16 MS. CANO: Chairman Brisé, FPL asks that the
17 prefiled direct testimony of Steven Scroggs, with those
18 updates, be entered into the record as though read.

19 CHAIRMAN BRISÉ: Okay. We will enter Steven
20 Scroggs' testimony, direct testimony into the record as
21 though read, seeing no objections.

22 BY MS. CANO:

23 Q Did you also sponsor exhibits to your direct
24 testimony?

25 A Yes, I have.

1 **Q** And do those consist of Exhibits SDS-1 through
2 SDS-10?

3 **A** Yes.

4 **Q** And those are corrected by errata filed
5 June 11th, 2012?

6 **A** That's correct.

7 **MS. CANO:** Mr. Chairman, I would note that
8 these exhibits have been premarked for identification on
9 the Composite Exhibit List as Numbers 33 through 42.
10 And I would also ask that the errata sheet filed
11 June 11th be premarked at this time, and I believe the
12 next number is 129.

13 **CHAIRMAN BRISÉ:** That is correct. 129.

14 (Exhibit 129 marked for identification.)
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1 **BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**
2 **FLORIDA POWER & LIGHT COMPANY**
3 **DIRECT TESTIMONY OF STEVEN D. SCROGGS**
4 **DOCKET NO. 120009-EI**
5 **MARCH 1, 2012**
6

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

8 A. My name is Steven D. Scroggs and my business address is 700 Universe
9 Boulevard, Juno Beach, FL 33408.

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

11 A. I am employed by Florida Power & Light Company (FPL) as Senior Director,
12 Project Development. In this position I have responsibility for the
13 development of power generation projects.

14 **Q. Please describe your duties and responsibilities with regard to the
15 development of new nuclear generation to meet FPL customer needs.**

16 A. Commencing in the summer of 2006, I was assigned the responsibility for
17 leading the investigation into the potential of adding new nuclear generation
18 to FPL's system, and the subsequent development of new nuclear generation
19 additions to FPL's power generation fleet. I currently lead the development of
20 FPL's Turkey Point Nuclear Units 6 and 7 (Turkey Point 6 & 7).

21 **Q. Please describe your educational background and professional
22 experience.**

1 A. I graduated from the University of Missouri – Columbia in 1984 with a
2 Bachelor of Science Degree in Mechanical Engineering. From 1984 until
3 1994, I served in the United States Navy as a Nuclear Submarine Officer.
4 From 1994 to 1996, I was a research associate at The Pennsylvania State
5 University, where I earned a Masters Degree in Mechanical Engineering. I
6 provided consulting and management services to the regulated and
7 unregulated power generation industry through a number of positions until
8 2003, when I joined FPL as Manager, Resource Assessment and Planning.

9 **Q. Are you sponsoring any exhibits in this proceeding?**

10 A. Yes, I am sponsoring co-sponsoring the following exhibits:

- 11 • SDS-1, consisting of schedules T-1 through T-7 covering the 2011 actual
12 period for Turkey Point 6 & 7 Site Selection and Pre-Construction costs.
13 Page 2 of SDS-1 contains a table of contents listing the T schedules
14 sponsored and co-sponsored by FPL Witness Powers and by me,
15 respectively.
- 16 • SDS-2, consisting of a table listing all licenses, permits and approvals FPL
17 is preparing to support the Turkey Point 6 & 7 project.
- 18 • SDS-3, consisting of a comprehensive list of procedures and work
19 instructions that govern the internal controls processes.
- 20 • SDS-4, providing a list describing various project reports, their periodicity
21 and target audience.
- 22 • SDS-5, providing a comprehensive list of project instructions and forms.
- 23 • SDS-6, providing summary tables of the 2011 expenditures.

- 1 • SDS-7, providing a summary of Site Certification Application (SCA)
2 schedule changes in 2011.

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

4 A. The purpose of my testimony is to describe the activities and costs incurred in
5 relation to the Turkey Point 6 & 7 project throughout 2011. My testimony
6 will describe the deliberate, stepwise process FPL continues to manage so that
7 FPL will have the opportunity to add new nuclear generation capacity for its
8 customers. Specifically, I will include a discussion of project internal controls
9 and how those controls, supported by internal and external oversight, provide
10 for diligent and professional project execution. I will also discuss key issues
11 the project has faced in 2011 and how those issues were evaluated. Further,
12 my testimony will discuss the actual expenditures made related to the project
13 and compare those expenditures to the actual/estimated values provided in
14 May 2011. Collectively, my testimony will provide the information necessary
15 to demonstrate FPL's management decisions with respect to the Turkey Point
16 6 & 7 project are the product of properly qualified, well-informed FPL
17 management following appropriate procedures and internal controls, and the
18 costs for the project are reasonable and were prudently incurred.

19 **Q. Please describe how your testimony is organized.**

- 20 A. My testimony includes the following sections:
- 21 1. High Level Project Summary and Issues
 - 22 2. Project Management Internal Controls
 - 23 3. Procurement Processes and Controls

- 1 4. Internal/External Audits and Reviews
- 2 5. 2011 Project Activities and Results
- 3 6. 2011 Key Management Decisions
- 4 7. 2011 Preconstruction and Site Selection Costs

5 **Q. Please summarize your testimony.**

6 A. During 2011, the Turkey Point 6 & 7 project continued to make progress with
7 licensing and permitting activities, and maintained costs well within the
8 annual budget. FPL continued its disciplined pursuit of the approvals and
9 authorizations necessary to create the opportunity to add the benefits of new
10 nuclear generation for its customers. The project achieved key milestones in
11 the SCA process by achieving completeness and moving on to the agency
12 review stage. In the Nuclear Regulatory Commission (NRC) licensing
13 process, significant progress was made responding to Requests for Additional
14 Information (RAI) and updating the Combined Operating License Application
15 (COLA) with Revision 3. This should allow the federal review to move
16 forward in 2012. The project execution has maintained FPL's disciplined and
17 steady approach while displaying a willingness to adapt project timelines to
18 ensure an inclusive and complete review.

19
20 The project is being managed by a professional team of engineers, analysts,
21 and managers to ensure process controls are maintained and activities comply
22 with applicable corporate procedures and project-specific instructions. The
23 project management process is being conducted in a well-informed,

1 transparent and organized manner enabling executive oversight and
2 facilitating reviews by internal and external parties. The Turkey Point 6 & 7
3 project team has the skills, experience, and executive oversight to guide the
4 project through critical decisions using the best available information. This
5 disciplined application of good business process by well-qualified FPL
6 managers and their staff resulted in prudent decisions with respect to project
7 activities and expenditures.

8 9 **HIGH LEVEL PROJECT SUMMARY & ISSUES**

10
11 **Q. Please summarize the Turkey Point 6 & 7 project in 2011.**

12 A. The project made measurable progress in all regulatory processes towards
13 obtaining all necessary licenses, permits, and approvals. The three key
14 processes include the Combined Operating License (COL) process
15 administered by the NRC, wetland permits under the jurisdiction of the US
16 Army Corps of Engineers (USACOE), and the SCA process, coordinated by
17 the Florida Department of Environmental Protection (FDEP). In general,
18 2011 was another year of information exchange with agencies to ensure all
19 relevant and required information necessary for agency evaluations has been
20 provided.

21
22 During 2011, FPL continued to respond to NRC questions through the RAI
23 process. In late October 2011, the NRC revised the Turkey Point 6 & 7

1 COLA review schedule, providing their revised estimates of milestones. In
2 summary, the NRC's review and production of the principal written studies of
3 the COLA (the Final Safety Evaluation Report (SER) and the Final
4 Environmental Impact Statement (FEIS)) will require more time, while the
5 expectation of time needed for the hearings that follow has been reduced. The
6 current Project Schedule (Rev 5A) targeted completion of the COL process by
7 November 30, 2014. Based on the revised review schedule, the NRC
8 estimates that the COL could be granted by June 2014. A project schedule
9 review is underway to estimate the net impact to the overall project schedule
10 and is expected to be complete in mid-2012. FPL's licensing team
11 incorporated information from the Reference COLA process, and numerous
12 RAI responses and changes into Revision 3 of the COLA, submitted in
13 December 2011.

14
15 Additional information was also exchanged with the USACOE to support its
16 reviews. Two studies addressing alternative site analysis and the western
17 transmission line corridor selection process were produced and provided for
18 review.

19
20 In the state Site Certification process, several key milestones were achieved.
21 In the Transmission area, following a determination of completeness in
22 December 2010, the project worked with individual agencies to review the
23 application and develop agency reports. Reports have been received from all

1 agencies. The FDEP will now review all project information and develop its
2 Project Analysis Report on FPL's proposed corridors. Two alternative
3 corridors were submitted by interested parties and are going through the
4 statutory review process. Additionally, the project team has maintained an
5 ongoing interaction with Everglades National Park (ENP) staff providing
6 information to support the federally authorized land exchange.

7
8 In the Plant and Non-Transmission areas of the SCA process, project staff
9 responded to significant requests for information resulting in a finding in
10 September 2011 that the application was complete. Following that
11 determination, the project team coordinated with agencies and local
12 governments as they began to develop plant agency reports, due in the first
13 half of 2012.

14
15 The project also continued to respond to RAIs as the NRC Staff develops the
16 NRC Environmental Impact Statement (EIS) and SER; two reports that will
17 be the subject of NRC hearings in 2014.

18
19 Project staff continued to monitor industry milestones and events to identify
20 potential impacts to the overall Turkey Point 6 & 7 project cost and schedule
21 and provide indicators as to when Preparation phase activities are warranted.
22 Review and approval of an amendment to the Design Certification (DC) for
23 the Westinghouse Electric Company's (WEC) AP1000 reactor design, the

1 design that has been selected by FPL for reference in its COLA, was
2 accomplished in 2011. This is a pre-requisite approval for the Turkey Point 6
3 & 7 project and was achieved on a timeline consistent with FPL's needs.

4 **Q. What are the customer benefits that justify the continued pursuit of new
5 nuclear generation?**

6 A. The benefits to FPL customers offered by additional nuclear generation are
7 numerous. The key benefits relate to FPL's core mission of providing reliable
8 electric service at reasonable rates. The fuel required for nuclear generation is
9 not dependent on natural gas pipelines, railroad or maritime distribution
10 systems or subject to volatile energy markets. Therefore, nuclear generation
11 greatly adds to the reliability of a system by increasing fuel diversity, fuel
12 supply reliability and energy security. The stability of nuclear fuel markets
13 provides a stable cost input reducing the impact to monthly customer bills that
14 result from fuel price volatility. In addition, the location of 2,200 MW of
15 baseload generation in the Miami-Dade County helps to maintain a balance of
16 generation and load in Southeastern Florida. The feasibility analyses
17 approved by the Commission in 2008, 2009, 2010, and 2011 demonstrate the
18 robust cost-effective nature of nuclear generation when compared to other
19 baseload generation alternatives. Finally, nuclear generation is recognized as
20 an important component of meeting state and national energy goals in
21 addressing greenhouse gas reduction. By employing an approach that
22 maintains progress, even through dynamic and demanding times, FPL is

1 creating the opportunity to deliver those benefits on the most practicable
2 schedule.

3 **Q. Please expand on the value of FPL's approach to developing new nuclear**
4 **generation.**

5 A. Without the approvals, licenses, and permits needed to construct and operate a
6 new nuclear facility, the opportunity and timeline for customers to benefit
7 from this valuable generation source is remote and uncertain. By taking the
8 steps to obtain the licenses and approvals, further defining the specific project,
9 FPL is accomplishing several key objectives. First, the uncertainties around
10 the approval process and the final definition of the project are significantly
11 reduced. Second, the market for providing the equipment and services needed
12 to construct the project is allowed to more fully mature, leveraging
13 observations from first wave projects. Lastly, a shorter time span between the
14 decision to initiate construction activities and the commercial operation dates
15 will reduce uncertainties in the underlying feasibility analysis and provide the
16 best decision basis available.

17

18 By applying this deliberate approach FPL is able to maximize progress and
19 the collection of information necessary to make subsequent decisions in the
20 process, while minimizing the current cost exposure of customers.

21 **Q. What key events occurred in 2011 that impacted the national and**
22 **international nuclear industry?**

1 A. In March of 2011 the northeastern coast of Japan experienced an extreme
2 earthquake event and subsequent tsunami. The tsunami came ashore in the
3 vicinity of the Fukushima Dai-Ichi nuclear power facility. The tsunami
4 created a complete and prolonged loss of electric power at the site and thus
5 prevented the operator from adequately cooling the reactors and associated
6 used fuel storage pools. Significant damage to the units occurred. Through
7 the balance of 2011, U.S. and international nuclear agencies have begun the
8 process of understanding what improvements to nuclear plant design,
9 operations and emergency preparations can be made to avoid or minimize the
10 impact of other beyond-design basis accidents.

11

12 During 2011, FPL closely monitored the public and regulatory responses to
13 this event for potential impacts on the Turkey Point 6 & 7 project.
14 Immediately following the event the NRC commissioned a review, resulting
15 in recommendations currently being addressed by the NRC and the U.S.
16 nuclear industry. No near term regulatory changes are indicated that will
17 affect the pace of the AP1000 certification, the R-COLA certification, or the
18 Turkey Point 6 & 7 COLA. In fact, the NRC rejected numerous requests to
19 suspend its COLA review processes in light of the Fukushima accident, and
20 has proceeded with the COLA review process expressing confidence that any
21 necessary changes can be appropriately addressed as future Commission
22 findings are made.

1 **Q. What other national level issues are being monitored for the potential**
2 **impact to cost and schedule of the Turkey Point 6 & 7 project?**

3 A. Developments in 1) the economy, 2) energy policy (at national and regional
4 levels), and 3) the progress of international and domestic projects have the
5 potential to affect the project.

6

7 The downturn in the economy and its rate of recovery has the potential to
8 impact facets of the project, including: access to and cost of financing,
9 material and labor cost indices, and the development of national and
10 international supply chains for new nuclear projects. The annual feasibility
11 analyses address these issues in a disciplined and consistent manner each year.
12 During 2011, a general improvement in the economy was observed and
13 continued positive progress was demonstrated in supply chain development as
14 two domestic new nuclear projects prepared to move into full scale
15 construction activities in 2012 and 2013.

16

17 National energy policy continues to be supportive of nuclear energy in
18 general, and new nuclear energy development specifically, even following the
19 Japanese tsunami and subsequent Fukushima accident in March 2011.

20

21 Domestic and international nuclear construction projects using the AP1000
22 design have continued to make progress in 2011. In China, the Sanmen and
23 Haiyang AP1000 projects are on schedule, projecting operation in 2013 and

1 2015, respectively. Observations from these projects include lessons
2 regarding logistics and crane design and placement. Significant differences in
3 labor and regulatory schemes limit the transferability of the full construction
4 experience to U.S. projects. Georgia Power's Vogtle project in Georgia and
5 the South Carolina Electric & Gas Summer project in South Carolina have
6 continued to keep pace with their published schedules. FPL monitors
7 information shared by the Westinghouse/Shaw consortium, publicly available
8 reports, and industry groups and journals to stay up to date on these projects.

9 **Q. What project specific issues were monitored in 2011 for the potential
10 impact to cost and schedule of the Turkey Point 6 & 7 project?**

11 A. Project specific issues include 1) FPL system and regional economic
12 developments influencing the annual feasibility analysis, 2) the pace and
13 outcome of permit and license application reviews, and 3) the development of
14 commercial agreements supporting the Preparation and Construction phases of
15 the project. The economic impact of these factors on the project feasibility is
16 reviewed annually.

17

18 With respect to transmission line siting, during 2011 several municipalities
19 provided agency reports providing comments and recommending conditions
20 of certification along FPL's Eastern Preferred Corridor. Suggestions included
21 a call for placing this segment of the transmission infrastructure improvements
22 underground for aesthetic purposes, as opposed to the more standard overhead

1 alignment. FPL continues to work with the community and local governments
2 to explore alternatives and means of addressing concerns.

3

4 **PROJECT MANAGEMENT INTERNAL CONTROLS**

5

6 **Q. Please describe the project management structure responsible for the**
7 **Turkey Point 6 & 7 project.**

8 A. The management structure for Turkey Point 6 & 7 reflects the dual nature of
9 the project relying on a working combination of two key groups: Project
10 Development and New Nuclear Projects. The organization of the project into
11 these two key groups helps maintain a consistent management and reporting
12 structure with specific focus and areas of responsibility, while allowing the
13 project the flexibility to grow and adapt over time. During 2011, the reporting
14 structure for the Nuclear Project Development team was consolidated to be
15 the same as that for the New Nuclear Project team. William Maher (Director
16 of Licensing – New Nuclear Projects) and I now report to Robert McGrath,
17 Sr. Vice President of Engineering, Construction and Corporate Services
18 (ECCS).

19

20 Project Development, which I lead, has the primary responsibility for the
21 execution of development and licensing activities not within the purview of
22 the NRC, as well as all project communication activities and Florida Public
23 Service Commission (FPSC) interface. Similar to the way other generation
24 development projects are executed within FPL, Project Development utilizes

1 matrix relationships with key business units in the Company to provide
2 essential support. For example, legal and environmental services are provided
3 by those business units through assigned personnel.

4
5 Recognizing the need for specific nuclear-based skills and experience, FPL
6 established the New Nuclear Project team within ECCS to manage the
7 complex and specialized nature of the COLA process and the engineering,
8 procurement and construction activities. This team is managed by Mr. Maher.
9 The New Nuclear Project team has direct responsibility for the production and
10 management of the COLA as well as the engineering, procurement, site
11 preparation, construction, and start-up aspects of the project. The Project
12 team will adjust staffing as the project evolves, ensuring access to the
13 necessary skill sets are maintained to accomplish project objectives in the
14 most cost-effective manner.

15 **Q. Please describe the project management and staffing approach employed**
16 **on the Turkey Point 6 & 7 project.**

17 A. The project is staffed by a combination of employees fully dedicated to the
18 project, employees from FPL business units who devote a portion of their time
19 to the project, and a select group of contractors and subcontractors whose
20 subject matter expertise and skills are required to complete the considerable
21 tasks related to this undertaking. Leading the staff is a project management
22 team charged with monitoring the day-to-day execution and strategic direction
23 of the project. The project management team provides routine, dedicated

1 oversight of the project including a determination of the timing and content of
2 external reviews. The project management team is supported by project
3 controls professionals that execute the day-to-day project activities and
4 provide direct oversight of procedural compliance. The project also benefits
5 from routine review, supervision, and direction provided by FPL executive
6 management.

7 **Q. What are the key elements of the project management process used to**
8 **manage the Turkey Point 6 & 7 project?**

9 A. FPL routinely and methodically evaluates the risks, costs, and issues
10 associated with the Turkey Point 6 & 7 project using a system of internal
11 controls, routine project meetings and communication tools, management
12 reports and reviews, internal and external audits, and an annual feasibility
13 analysis.

14 **Q. Please describe the system of internal controls applicable to the project.**

15 A. The project internal controls are comprised of various financial systems,
16 department procedures, work/desktop instructions and best practices providing
17 governance and oversight of project cost and schedule processes.

18

19 FPL converted to SAP software for its financial recording system in 2011.
20 The Electronic Approval Database (EAD) system used by ECCS up to the
21 time of this conversion was consolidated into SAP. SAP now is the sole
22 system to initiate and record the management approval process for the
23 commitment of project funds.

1 Exhibit SDS-3 provides a list of procedures and work instructions that govern
2 the internal controls processes and expectations. These procedures and work
3 instructions are employed by dedicated and experienced project controls
4 personnel who functionally report through ECCS Project Controls and provide
5 project oversight and analysis. The Project Controls organization helps to
6 ensure appropriate management decisions are made based upon assessment of
7 available information leading to reasonable costs. Accountability is clear and
8 understood throughout the controls organization and is a cornerstone of the
9 services they provide.

10 **Q. Please describe the specific reports generated to monitor the project and**
11 **the periodicity and audience for those reports.**

12 A. The project relies on a series of weekly or monthly reports and has standing
13 meetings to review forward looking analysis with project managers. Exhibit
14 SDS-4 provides a list describing the reports, and their periodicity and target
15 audience.

16 **Q. Please describe the staff responsible for administering these internal**
17 **controls and their specific responsibilities.**

18 A. The internal controls staffing for the project is comprised of four personnel.
19 A Project Controls Director provides functional leadership, governance, and
20 oversight. A Project Controls manager provides cost and schedule direction
21 and analysis, coordinates internal and external audit requests, holds meetings
22 with project management to review cost and schedule performance, and
23 reviews all cost, scope changes, schedules and performance indicators. A

1 Project Controls Analyst participates in meetings with project management to
2 review cost and schedule performance, provides information regarding cost,
3 scope changes, schedules and performance indicators, maintains cost
4 templates, supports the production of documents and responses to information
5 requests, and meets monthly or as required with department heads on
6 forecasting and commitments. A Construction Capital Cost Estimator
7 manages the master schedule and maintains the master project estimate
8 template.

9 **Q. How were the internal controls developed?**

10 A. Many of the internal controls procedures, processes or work instructions were
11 pre-existing FPL company or department processes. However, due to the
12 unique characteristics of the Turkey Point 6 & 7 project, cost templates were
13 specifically developed for monitoring expenditures to support FPSC filing
14 requirements and to facilitate associated reviews. FPL has contractually
15 placed significant reporting requirements on contractors by requiring trend,
16 tracking and performance indicators. This allows the internal controls team to
17 monitor events and trends on a forward-looking basis. As the project evolves,
18 additional controls will be developed as necessary.

19 **Q. What are Project Instructions and why are they needed?**

20 A. In the course of project development, FPL identified a need to develop some
21 business processes unique to new nuclear deployment. These processes
22 generally involve conducting business in compliance with FPL General
23 Operating procedures, but also recognize project-specific requirements. For

1 example, specific instructions are needed to ensure compliance with additional
2 NRC requirements for quality control and document retention. Direction for
3 such specific areas of focus is provided to project staff through a set of FPL's
4 New Nuclear Project - Project Instructions (NNP-PI). These project
5 instructions establish a standard for the project team which provides guidance,
6 sets expectations and drives consistency. Exhibit SDS-5 provides FPL's
7 comprehensive list of project instructions and forms.

8 **Q. What processes are used to manage project risk?**

9 Cost and schedule risk is managed by ensuring the project team recognizes
10 and understands the issues facing different sub-teams that comprise the overall
11 project. A mix of weekly meetings with small teams, monthly meetings with
12 select members of the project team, and routine executive briefings ensure the
13 project benefits from sufficient and timely communication. Further, the
14 information flow begins at the working level and is integrated as it moves to
15 the project management team to ensure the issues are adequately captured and
16 the interaction with other portions of the project is properly assessed. These
17 meetings result in several reports identified in Exhibit SDS-4. These routine
18 meetings allow project management to obtain updates from key project team
19 members, provide direction on the conduct of the project activities and
20 maintain tight control over project progress, expenditures, and key decisions.

21

22 Each week the project team holds multiple status meetings. These meetings,
23 held by teams within the project, track project activities at a level that allows

1 most issues to be identified, discussed, and resolved at the working team level.
2 Examples include the COLA team, SCA team consisting of plant and
3 transmission sub-teams, among others. For those issues that cannot be
4 resolved at the working team level, project management has provided a multi-
5 step process to elevate the issue to the appropriate level for resolution.
6 Contractor performance is also tracked on a weekly basis. Schedule and cost
7 metrics are monitored and reported in standard format reports to allow close
8 monitoring of contractor performance.

9
10 The project team meets monthly to review project schedule, budget
11 performance, and key project issues. Project risk is specifically tracked and
12 reviewed. The monthly Cost Report meeting provides an opportunity to drill
13 down on project cost issues and expectations. Project management also
14 provides a routine update to FPL executive management. Normally once per
15 month, this update provides the opportunity for robust dialogue between the
16 project management team, Business Unit leaders and executive management.
17 While the executive team is always available for consultation on developing
18 issues and opportunities, the routine meetings ensure a broad range of topics
19 are regularly reviewed and discussed.

20
21 The project utilizes a quarterly risk assessment tool to identify, characterize and
22 track project risks. Six areas are assessed to identify key issues, estimate
23 probability or likelihood of occurrence (high, medium, and low), and the

1 magnitude of potential consequences (high, medium, and low). Further,
2 mitigation actions or strategies to be employed to manage the risk are described.
3 In 2011 a monthly project dashboard report was created to complement the
4 Quarterly Risk Analysis. This document allows for monthly trending of project
5 risk areas unique to the Turkey Point 6 & 7 project.

6 **Q. What other periodic reviews are conducted to ensure the project is**
7 **appropriately reviewed and analyzed?**

8 A. Internal and external audits occur during the course of the project to ensure
9 the project adheres to all corporate guidelines for financial accounting as well
10 as employing best management and internal controls practices. When a
11 deficiency is identified in an audit, an analysis is conducted to determine the
12 cause of the deficiency and corrective actions are implemented to ensure the
13 deficiencies are mitigated going forward.

14
15 The project is reviewed annually to determine its continued economic
16 feasibility. This analysis is conducted in the same framework as the analysis
17 accepted during the Need Determination proceeding, but is updated to reflect
18 what is currently known regarding project cost, project schedule, and the cost
19 and viability of alternative generation technologies. The analyses presented in
20 the May 2008, May 2009, May 2010 and May 2011 Nuclear Cost Recovery
21 (NCR) filings demonstrate the project remains feasible. An updated
22 feasibility study will be filed on May 1, 2012.

1 **Q. What other activities has FPL undertaken to ensure its decision processes**
2 **are informed by the most current national and international industry**
3 **information?**

4 A. FPL is an industry leader in nuclear generation, and as such, has the
5 experience, contacts, and industry presence to engage in many forums for
6 exploration of nuclear industry issues. Nonetheless, the specific challenges of
7 new nuclear deployment have created focus areas requiring additional
8 coordination between entities involved in new plant licensing, construction,
9 and operation. FPL participates in four key industry groups providing value
10 to the Turkey Point 6 & 7 project. For several years, the NuStart Consortium
11 has provided FPL access to the reference COLA (Southern Nuclear's Vogtle
12 Plant) and associated information developed by other AP1000 applicants
13 necessary to maintain the Turkey Point 6 & 7 COLA. NuStart is also
14 responsible for supporting the design finalization of the AP1000 technology.
15 This involvement was essential in supporting the federal licensing process,
16 which has resulted in the successful NRC authorization of the issuance of a
17 COL for the Vogtle 3 and 4 project. In addition, the Design Centered
18 Working Group was formed to provide coordination among owners, vendors,
19 and the NRC related to design modifications of the AP1000. This critical
20 activity is necessary to ensure design changes for the AP1000 are made
21 through a consensus process with the involvement of the NRC to preserve
22 standardization of design, a cornerstone of new nuclear development. FPL
23 also is a member of APOG (a consortium of owners of the AP1000 design)

1 and of the Advanced Nuclear Technology group organized by the Electric
2 Power Research Institute (EPRI). These groups are primarily forums to
3 identify and resolve issues that are of primary interest to owners, such as
4 staffing, training and maintenance activities. For example, programs such as
5 Procurement Specification Development, Equipment and Nuclear Fuel
6 Reliability improvements, Advancing Welding Practices, and Modular
7 Equipment Testing and Benchmarking allow FPL increased efficiency in
8 program development and implementation resulting in future cost savings.
9 The principle of standardization through operations and maintenance requires
10 this level of industry coordination and dialogue. These different groups have
11 unique and important roles in the successful execution of new nuclear
12 deployment in the United States. Achieving the goal of industry
13 standardization and realizing the associated economic and operational
14 efficiencies requires active participation by industry participants in these
15 venues.

16 **Q. What steps are taken to ensure project expenditures are properly**
17 **authorized?**

18 A. For Initial Commitments, an approved request directs ISC to formally contract
19 with the selected supplier. Initial Commitments require appropriate
20 authorizations including all documentation required by Corporate Procedures.
21 This includes contracts, purchase orders, notice to proceed, and, if required, a
22 single or sole source justification. For Contract Change Orders (CCOs), the
23 request must be authorized at the appropriate level and the CCOs executed

1 prior to releasing the supplier to perform the requested scope of work.
2 Tracking systems and processes are used to document and record procurement
3 activities and to obtain the appropriate level of management authorization for
4 expenditures.

5 **Q. How would you summarize FPL's overall approach to project**
6 **management in relation to Turkey Point 6 & 7?**

7 A. FPL has robust project planning, management, and execution processes in
8 place to manage the Turkey Point 6 & 7 project. These efforts are led by
9 personnel with significant experience in project management and development
10 supported by project management professionals trained in the deliberate
11 execution of critical infrastructure projects through a comprehensive set of
12 internal controls. Additionally, FPL is able to capitalize on the experience of
13 its other power generation development projects by implementing lessons
14 learned by those project teams. Finally, FPL implements an ongoing internal
15 auditing and quality assurance process to continuously monitor compliance
16 with the controls discussed above. In summary, FPL has the right people with
17 the right tools and oversight making decisions with the best available
18 information. For all of these reasons, FPL is confident that its Turkey Point 6
19 & 7 management decisions are well-founded and reasonable. Further, FPL
20 recognizes the unique nature of new nuclear deployment demanding a
21 continuous watch be maintained to monitor developments in policy,
22 regulatory and economic arenas. An ongoing analysis and incorporation of
23 these events is necessary to ensure the appropriate actions are taken at the

1 right time to create the option for new nuclear generation. The application of
2 sound project management fundamentals and critical questioning provides the
3 best results.

4

5 **PROCUREMENT PROCESSES AND CONTROLS**

6

7 **Q. What is FPL's preferred method of procurement and when might it be in**
8 **the best interest of the project to use another method?**

9 A. The preferred approach for the procurement of materials or services is to use
10 competitive bidding. FPL maintains a strong market presence allowing it to
11 leverage corporate-wide procurement activities to the specific benefit of
12 individual project procurement activities. Maintaining a relationship with a
13 range of service providers offers the opportunity to assess capabilities,
14 respond to changing resource loads and remain knowledgeable of current
15 market trends and cost of service.

16

17 However, in certain situations the use of single or sole source procurement is
18 in the best interest of the company and its customers. In some cases there is a
19 limited pool of qualified entities to perform specific services or provide
20 certain goods and materials. In other cases a service provider is engaged to
21 conduct a specific scope of work based on a competitive bid or other analysis
22 and additional scope is identified that the vendor can efficiently provide.
23 Circumstances such as the above examples are common in the nuclear

1 industry, and especially on complex long-term projects such as the Turkey
2 Point 6 & 7 project.

3 **Q. Do you anticipate the use of single or sole source procurement practices**
4 **will change over the course of the project?**

5 A. Yes. As the project moves through various phases, the proportion of single
6 source procurement will shift based on the nature of the major expenditures
7 associated with each phase. During the licensing phase, the majority of the
8 costs are expended on the federal licensing activities, which have been or will
9 be competitively bid. In contrast, the next phase of the project will involve
10 proprietary engineering and procurement activity that FPL must contract from
11 the equipment provider, a sole source of these goods and services. Then, as
12 the project moves to construction, FPL is taking steps to develop credible
13 providers who can competitively bid specific scopes of the construction work.
14 Developing a set of credible competitors, especially for the very large and
15 complex construction phase, requires a concerted effort, but is expected to
16 result in reduced costs regardless of which vendor is selected.

17 **Q. Please describe the single and sole source procurement procedures that**
18 **apply to the Turkey Point 6 & 7 project.**

19 A. General Operations (GO) Procedure 705.3 requires proper documentation and
20 senior-level approval of single or sole source procurement. The procedure
21 calls for a review of the business interests associated with recommending a
22 single or sole source procurement contract and a validation that the costs are

1 reasonable. Throughout 2011, FPL maintained its vigilance in creating
2 adequate single or sole source documentation consistent with GO 705.3.

3 **Q. What is a Pre-Determined Source (PDS) and how has FPL used this type**
4 **of source to ensure procurement decisions are prudent and costs are**
5 **reasonable?**

6 A. A PDS is a source that has demonstrated through a competitive evaluation
7 and/or other documented economic analysis to be the preferred source for
8 particular goods or services. A PDS is designated by the FPL ISC in
9 accordance with the Predetermined Sources section of the FPL Procurement
10 Process Manual. The New Nuclear Project sourcing team determined PDS
11 designations would be appropriate for certain project sources, primarily to
12 streamline the process being used for CCOs. Previously, all CCOs were
13 handled as single or sole source justifications, even if the underlying initial
14 commitment was competitively bid. Such procurement management is a
15 standard trade practice used to increase procurement efficiency.

16

17 For additional work beyond authorized limits, the full FPL requisition and
18 procurement process requirements must be met in order to increase the limits
19 as required by additional work scope being authorized. Other work awarded
20 to the same supplier for different scopes of work are still subject to the full
21 FPL procurement process requirements.

22

1 In 2011, FPL had six vendors under PDS status for the New Nuclear Project.
2 Bechtel, Westinghouse, Black & Veatch/Zachry (BVZ), Environmental and
3 Consulting Technology, Inc. (ECT), Golder Associates, Inc., and McNabb
4 Hydrogeologic Consulting, Inc. provide specific scope services to the project.
5 Because of their specific expertise and the evolving nature of the services
6 provided, these vendors remain good candidates for PDS selection.

7

8

INTERNAL/EXTERNAL AUDITS AND REVIEWS

9

10 **Q. What internal audits or reviews have been conducted to ensure the**
11 **project controls are adequate and costs are reasonable?**

12 A. Several audits have been conducted to ensure FPL's standards for project
13 internal controls and cost reasonableness have been demonstrated. Annual
14 FPL internal audits focus on the project financials and related controls.

15

16 The 2010 internal audit (conducted in early 2011) focused on whether costs
17 charged to the project are actually for Turkey Point 6&7 related activities and
18 are recorded in accordance with Rule 25-6.0423. Independent testing of
19 expenses (\$24.7M) charged to the project for the period January 1, 2010 to
20 December 31, 2010 was conducted. The results of this audit revealed that the
21 costs charged in accordance with the Nuclear Cost Recovery Rule are
22 appropriate and controls over the project are good. A similar audit will

1 commence in early 2012 to review the project for the period January 1, 2011
2 to December 31, 2011.

3 **Q. What external audits or reviews have been conducted to ensure the**
4 **project controls are adequate and costs are reasonable?**

5 A. Concentric Energy Advisors (Concentric) has been engaged to conduct a
6 review of the project internal controls, with a focus on management processes
7 as was conducted in 2008, 2009 and 2010. FPL has addressed all of
8 Concentric's recommendations from prior year reviews. Concentric's 2011
9 review is discussed by Witness Reed.

10

11 The FPSC Staff conducts a financial audit of the project ledger and accounts
12 and an internal controls audit annually. The 2011 audits are currently
13 underway.

14

15 **2011 PROJECT ACTIVITIES AND RESULTS**

16

17 **Q. What were the major activities for the Turkey Point 6 & 7 project during**
18 **2011?**

19 A. The major activities centered around supporting the additional information
20 requested by regulatory agencies related to the federal and state applications
21 and activities supporting installation of the Underground Injection Control
22 (UIC) exploratory well at the project site.

1 **Q. What were the specific activities and results associated with federal**
2 **licensing processes for the Turkey Point 6 & 7 project in 2011?**

3 A. Early in 2011 the NRC reviewed 28 proposed contentions and determined that
4 three contentions should be allowed into the COLA process. The three
5 contentions were related to whether the application appropriately addresses
6 the safety and environmental impacts of the storage of low level radioactive
7 waste and certain constituents from municipal wastewater in the project
8 discharge stream. In its Revision 3 to the COLA, FPL addressed these items
9 and has subsequently filed motions requesting the NRC's Atomic Safety and
10 Licensing Board to dismiss these contentions.

11

12 Throughout 2011 the project responded to a steady series of RAIs from the
13 NRC. As of December 31, 2011 FPL had responded to 474 specific RAIs,
14 resulting in an additional 2,619 pages of application material.

15

16 The NRC conducted a review of the Turkey Point 6 & 7 COLA milestone
17 schedule during 2011. The review experienced some delays as a result of
18 NRC resource constraints and demands caused by three external events: the
19 federal budgeting process, the initial assessment of the Fukushima Dai-Ichi
20 nuclear incident in March, and the earthquake near the North Anna Nuclear
21 Plant in Virginia. The results of the review, published in October 27, 2011,
22 added 11 months to the FSER completion date and 16 months to the FEIS
23 completion date. The NRC also took the additional step of providing June

1 2014 as a target date for completion of the COL process, some five months
2 earlier than FPL's current project schedule (Rev 5A). The Rev 5A schedule
3 included additional time for review and a longer period for the hearing
4 process. However, because interim dates for FSER and FEIS were moved, a
5 re-evaluation of affected downstream milestones has been initiated and will be
6 provided in FPL's May 1, 2012 filing along with the updated feasibility
7 analysis.

8

9 The USACOE continued its review of the project as a cooperating agency
10 with the NRC. In support of the USACOE review, specific additional
11 information is required to evaluate the Alternative Sites and address focus
12 areas through RAIs. One such area relates to the process applied and
13 alternatives FPL considered when selecting its western Preferred Corridor.
14 FPL maintained a continuous dialogue with the USACOE to provide this
15 information.

16 **Q. What were the specific activities and results associated with state Site
17 Certification and permitting of the Turkey Point 6 & 7 project in 2011?**

18 A. The state Site Certification process is generally managed in two tracks;
19 transmission and plant focus areas.

20

21 During 2011 the transmission track moved forward in several areas. Agency
22 reviews were conducted on FPL's Preferred corridors leading to agency
23 reports being submitted to the FDEP. Two alternative corridors were

1 submitted and are now being reviewed for completeness and acceptance into
2 the review process. Once accepted, agencies will have the opportunity to
3 provide agency reports on these proposed alternative corridors.

4

5 The significant exchange of information on the Plant track of the SCA
6 concluded in October as the FDEP determined that the plant portion was
7 complete. Agencies have now begun the review process with the goal of
8 providing agency reports in March 2012. In total, approximately 2,200
9 completeness responses were provided, totaling an additional 42,753 pages of
10 application material.

11

12 Within the SCA process the local government authority provides a
13 determination regarding the consistency of the site with zoning and land use
14 policies. Statutorily, the Land Use determination is scheduled to occur early
15 in the review process. Miami-Dade County, FDEP, and FPL agreed to allow
16 the deadline for the Land Use determination to follow the completeness
17 determination. During the course of the review process it became clear that
18 FPL and Miami-Dade County held different views on the scope of the land
19 use determination. FPL and FDEP filed a joint motion requesting the SCA
20 Administrative Law Judge (ALJ) to define the scope of the Land Use
21 determination in December. The ALJ denied the motion indicating it was
22 premature. FPL will prepare for a broad scope Land Use hearing, but will

1 continue to work directly with Miami-Dade County to resolve outstanding
2 issues.

3 **Q. Please describe the results of the 2011 annual feasibility analysis**
4 **presented in the NCRC docket.**

5 A. A complete feasibility analysis was conducted to review the economics of the
6 project given updated assumptions for system demand, alternative fuel
7 forecasts and revised alternative generation costs. The analysis is a two-step
8 process, consistent with the original analysis leading to the 2008 Need Order.
9 The first step takes the form of developing a system analysis based “break-
10 even” cost to determine what the nuclear project could cost and remain
11 economically competitive with alternative baseload generation sources. That
12 “break-even” cost is compared to the high end of the project cost estimate
13 range. The results of the analysis confirmed that the estimated project costs
14 are below the “break-even” costs in 6 of 7 fuel and environmental cost
15 scenarios and at the high end of the range in the remaining scenario. These
16 results continue to demonstrate that the new nuclear project remains the best
17 economic alternative for FPL’s customers. An updated feasibility analysis
18 will be submitted May 1, 2012.

19 **Q. Please describe the specific activities and results associated with installing**
20 **the UIC exploratory well for the Turkey Point 6 & 7 project in 2011.**

21 A. The UIC program is a federally delegated program administered in Florida by
22 the FDEP resulting in permits to inject non-hazardous waste water into a
23 confined aquifer approximately 3,000 feet below the surface. The process

1 requires an exploratory well that demonstrates the necessary geological
2 requirements. Following initial reviews, the FDEP authorized FPL to move
3 forward with the exploratory well. The construction crews mobilized in mid-
4 2011 and began drilling the well. Steady progress was made through 2011.

5 **Q. Please describe any activities associated with commercial or development**
6 **agreements supporting the Turkey Point 6 & 7 project in 2011.**

7 A. During 2011, the Forging Reservation Agreement was the focus of continued
8 negotiation between FPL and WEC. The original agreement was based on the
9 original project schedule. The agreement was revisited following the 2010
10 project schedule revision, moving unit COD's to 2022 and 2023. FPL has re-
11 engaged with WEC to determine what options were available and how value
12 could be maintained. While progress was made, a new agreement was not
13 developed. The term of the current agreement has been extended to March
14 31, 2012.

15

16 In support of its western Preferred Corridor, FPL has been engaged in
17 negotiations with multiple state and federal agencies to exchange its current
18 owned transmission line corridor in the eastern Everglades for a combination
19 of easements and property that would provide a continuous transmission right-
20 of-way between north and south Miami-Dade County that would not be in
21 ENP. Collectively, these efforts are referred to as the ENP land exchange.
22 These negotiations are captured in participation agreements, authorized by
23 federal legislation and are undergoing final environmental review by the

1 National Park Service (NPS). In 2011, NPS began developing an EIS to
2 review the impact of the proposed land exchange. In June 2011 NPS held a
3 public scoping meeting and took comments from interested parties. FPL has
4 been responsive to NPS staff data requests and will continue to support
5 preparation of the EIS. The Draft EIS is expected to be available in 2012 with
6 the Final EIS and Record of Decision available in 2013.

7

8

2011 KEY MANAGEMENT DECISIONS

9

10 **Q. What were the key matters addressed by FPL project management in**
11 **2011?**

12 **A.** Decisions were primarily related to managing the regulatory review process.
13 In response to RAIs, decisions were required to ensure that the depth of
14 analysis provided met the regulatory requirement and provided a complete
15 response. In the state process several scheduling decisions were made to
16 accommodate resource and timing concerns expressed by various parties to
17 maximize the level of participation. As a part of its overall project
18 management, FPL once again considered the appropriateness and timing
19 associated with initiating the next phase of project activities; namely those
20 related to engineering design, procurement of long lead equipment, and
21 initiation of preliminary construction activities.

22 **Q. Please provide examples of decisions related to the content of response to**
23 **requests for additional information.**

1 A. The range of possible responses can vary from simple clarifications of
2 previously provided information to new detailed engineering models and
3 studies. When requests are received, the technical team assesses each request
4 to determine if the information requested has been provided in some form, or
5 in another regulatory process. Clarifications are obtained from the requesting
6 agency, when appropriate to aid in the assessment. Once assessed, a plan of
7 action and milestones are developed and scheduled to meet the response time
8 requirements. In 2010 it was determined that the best way to address a host of
9 questions regarding groundwater issues was to revise the project groundwater
10 model with input from multiple agencies and reissue the results. This was
11 completed in early 2011 and assisted in obtaining completeness in the SCA
12 process in September 2011.

13 **Q. What were the scheduling decisions made in 2011 related to the SCA**
14 **schedule?**

15 A. Exhibit SDS-7 provides a summary of changes made to the SCA schedule
16 during 2011. Some of these changes were requested by FPL while some were
17 requested by other parties. Because the SCA process is not currently on the
18 critical path for the overall project, accommodations can be made without
19 impacting the overall project schedule.

20 **Q. Please describe the key decisions related to the appropriateness of**
21 **initiating certain pre-construction activities and the implications of those**
22 **decisions.**

1 A. In early 2011, FPL prepared its projections for expenditures in 2012.
2 According to the current project schedule (Rev. 5A) certain pre-construction
3 activities were due to be initiated in 2012. These activities support early stage
4 contracting and design work that precedes actual construction activities onsite.
5 The decision in early 2011 was to defer these activities into 2013 given the
6 perceived pace of the regulatory reviews. Based on the NRC schedule
7 revision of October 2011, it became clear the USACOE wetland permits
8 would be granted no earlier than February 2014. None of the onsite
9 construction activities related to these preconstruction activities can be
10 conducted prior to receipt of both the Site Certification and the USACOE
11 wetland permits.

12

13 Deferral of these preconstruction activities does not necessarily result in a
14 downstream impact to the project's ultimate completion dates. Opportunities
15 to accomplish tasks in parallel, or apply lessons learned at preceding
16 construction projects will be reviewed as a part of the project schedule review
17 underway in early 2012.

18

19 **2011 PRECONSTRUCTION AND SITE SELECTION COSTS**

20

21 **Q. Describe the preconstruction costs incurred for the Turkey Point 6 & 7**
22 **project in 2011.**

1 A. As represented in Exhibit SDS-6 and Exhibit SDS-1, Schedule T-6, FPL
2 incurred a total of \$23,150,978 in pre-construction costs. This is \$14,804,558
3 less than the May 2, 2011 Actual/Estimated costs of \$37,955,536. The costs
4 are broken down into the following categories: 1) Licensing \$19,339,343; 2)
5 Permitting \$679,397; 3) Engineering and Design \$3,132,238; 4) Long Lead
6 Procurement advanced payments \$0; and 5) Power Block Engineering and
7 Procurement \$0.

8 **Q. Please describe the costs incurred in the Licensing subcategory.**

9 A. In 2011, Licensing costs were \$19,339,343 as shown in Exhibit SDS-6 Table
10 2 and Exhibit SDS-1, Schedule T-6, Line 3. Licensing costs consist primarily
11 of FPL employee, contractor labor, and specialty consulting services
12 necessary to develop the COLA required for construction and operation of the
13 Turkey Point 6 & 7 project and the state SCA providing state certification of
14 the project.

15
16 The largest portion of these expenditures, \$8,943,896, was a result of costs
17 incurred supporting the COLA process. This value is a combination of COLA
18 Team Costs and Bechtel COLA contract payments. The permit and license
19 applications contain project specific information, assessments and studies
20 required by the NRC, FDEP, and other federal, state, and local entities to
21 support the reviews leading to decisions on the technical, environmental and
22 social acceptability of the project. Some activities are common between
23 applications, and therefore offer opportunities to coordinate efforts and

1 manage costs. However, each application analyzes each issue from a unique
2 perspective and may require differing levels of detail.

3 **Q. Please explain the reasons behind the variances between the actual**
4 **Licensing costs and the costs projected in the 2011 Nuclear Cost Recovery**
5 **filing in Docket No. 110009-EI.**

6 A. The primary reason for the positive variance is related to the fact that NRC
7 and NuStart fees were significantly less than anticipated. The NRC did not
8 progress at the originally expected pace, and therefore FPL incurred fewer
9 costs than estimated. NuStart achieved its objectives and will be dissolved in
10 June, 2012. Originally estimated NuStart fees for 2011 were not required.
11 Higher than expected costs were incurred in support of the Safety Analysis
12 review, which were largely offset by the lower than expected costs of
13 supporting the NRC's environmental review of the COLA.

14 **Q. Please describe the costs incurred in the Permitting subcategory.**

15 A. In 2011, Permitting costs were \$679,397 as shown in Exhibit SDS-6 Table 3
16 and Exhibit SDS-1, Schedule T-6, Line 4. Permitting costs consist primarily
17 of FPL employees, communications, and legal services necessary to support
18 the various license and permit applications required by the Turkey Point 6 & 7
19 project. Exhibit SDS-6, Table 3 provides a detailed breakdown of the
20 Permitting subcategory costs in 2011, including a description of items
21 included within each category.

22 **Q. Please explain any variance between the actual Permitting costs and the**
23 **costs provided in the 2011 Nuclear Cost Recovery filing.**

1 A. The project spent \$1,737,480 below plan in 2011 in the Permitting
2 subcategory, due to reduced staffing requirements and communications
3 support related to the revised schedule.

4 **Q. Please describe the costs incurred in the Engineering and Design**
5 **subcategory.**

6 A. In 2011, Engineering and Design costs were \$3,132,238 as shown in Exhibit
7 SDS-6 Table 4 and Exhibit SDS-1, Schedule T-6, Line 5. Engineering and
8 Design costs consist primarily of FPL employee services and/or engineering
9 consulting services necessary to develop the construction execution plan for
10 the Turkey Point 6 & 7 project. Exhibit SDS-6 Table 4 provides a detailed
11 breakdown of the Engineering and Design subcategory costs in 2011,
12 including a description of items included within each category.

13

14 In 2011, the majority of costs in the Engineering and Design subcategory were
15 related to the installation of the Underground Injection Control (UIC)
16 exploratory well. Costs associated with EPRI's Advanced Nuclear
17 Technology working group and membership in the APOG industry group are
18 also included in the Engineering and Design category.

19 **Q. Please explain any variance between the actual Engineering and Design**
20 **costs and the costs provided in the 2011 Nuclear Cost Recovery filing.**

21 A. Overall, the project incurred costs were \$3,616,435 below plan in 2011 in the
22 Engineering and Design subcategory. The variance was created by a decision

1 to hold the start of the UIC exploratory well while various regulatory agencies
2 were consulted.

3 **Q. Please describe the costs incurred in the Long Lead Procurement**
4 **subcategory.**

5 A. In 2011 there were no Long Lead Procurement costs.

6 **Q. Please describe the costs incurred in the Power Block Engineering and**
7 **Procurement subcategory.**

8 A. In 2011, Power Block Engineering and Procurement costs were \$0 as shown
9 in Exhibit SDS-6 Table 5 and Exhibit SDS-1, Schedule T-6, Line 7.

10 **Q. Was there a variance between the actual Long Lead Procurement or**
11 **Power Block Engineering and Procurement costs and the costs provided**
12 **in the 2011 Nuclear Cost Recovery filing?**

13 A. No.

14 **Q. Were any costs expended in the Transmission category prior to or during**
15 **2011?**

16 A. No.

17 **Q. Please describe the Site Selection costs incurred in 2011.**

18 A. FPL's Site Selection work completed in October 2007 with the filing of the
19 Need Petition. The cost of \$171,052 in this category relates to carrying
20 charges. FPL Witness Powers supports the calculation of carrying charges.

21 **Q. Were the 2011 project activities prudent and were the related costs**
22 **reasonable?**

1 A. Yes. All costs were incurred as a result of the deliberately managed process at
2 the direction of a well-informed, properly qualified management team. The
3 costs were incurred in the process of conducting the necessary pre-
4 construction activities such as obtaining the necessary licenses and permits for
5 the Turkey Point 6 & 7 project. All costs were reviewed and approved under
6 the direction of the Turkey Point 6 & 7 management team and were made
7 fully subject to project internal controls. Costs were processed using FPL
8 standard procurement procedures and authorization processes, are reasonable
9 and were prudently incurred.

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

11 A. Yes.

1 **BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**

2 **FLORIDA POWER & LIGHT COMPANY**

3 **DIRECT TESTIMONY OF STEVEN D. SCROGGS**

4 **DOCKET NO. 120009-EI**

5 **APRIL 27, 2012**

6

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

8 A. My name is Steven D. Scroggs. My business address is 700 Universe
9 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 Senior Director, Project Development. In this position I have responsibility
13 for the development of power generation projects to meet the needs of FPL's
14 customers.

15 **Q. Have you previously provided testimony in this docket?**

16 A. Yes.

17 **Q. Are you sponsoring or co-sponsoring any exhibits in this case?**

18 A. Yes. I am sponsoring or co-sponsoring the following exhibits:

- 19 • Exhibit SDS-8, Turkey Point 6 & 7 Site Selection and Preconstruction
20 Nuclear Filing Requirement Schedules (NFRs) consisting of the 2012
21 Actual/Estimated (AE) Schedules, the 2013 Projection (P) Schedules
22 and the 2013 True-up to Original (TOR) Schedules. The NFR

1 Schedules contain a table of contents listing the schedules sponsored
2 and co-sponsored by FPL Witness Powers and me, respectively.

3 • Exhibit SDS-9, consisting of summary tables presenting the 2012
4 actual/ estimated and 2013 projected preconstruction costs for the
5 Turkey Point 6 & 7 project.

6 • Exhibit SDS-10, Turkey Point 6 & 7 Project Benefits at a Glance.

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

8 A. The purpose of my testimony is to provide a description of how the Turkey
9 Point 6 & 7 project is being managed and controlled. The project undertakes
10 the steps necessary to license, construct, and operate two Westinghouse
11 designed AP1000 nuclear reactors and associated transmission and ancillary
12 facilities at the Turkey Point site near the existing Turkey Point 3 & 4 nuclear
13 power plants in southern Miami-Dade County. My testimony will provide
14 insight into how project activities are managed given the near term focus on
15 obtaining all licenses, authorizations, and approvals needed and the factors
16 influencing key decisions affecting the nature, cost and pace of that effort. I
17 will also describe the projected expenditures for 2012 and 2013 allowing FPL
18 to support and defend the applications requesting the required licenses and
19 permits. FPL's 2013 cost recovery request, as in past years, includes only
20 amounts that are associated with the licensing and preparation activities
21 currently underway. Notably, the request does not include any construction
22 costs for the Turkey Point 6 & 7 project. No such costs are being incurred,

1 and such costs are not permitted to be recovered pursuant to the Nuclear Cost
2 Recovery Rule.

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

4 A. FPL continues to carefully and methodically create the opportunity for
5 additional reliable, cost-effective and fuel diverse nuclear generation to
6 benefit FPL customers. The approach applied to the management of the
7 Turkey Point 6 & 7 project provides control of cost risks while maintaining
8 progress towards delivery of new nuclear generation under the earliest
9 practicable deployment schedule. The unique qualitative benefits of fuel
10 diversity, energy security and zero greenhouse gas emissions offered by
11 nuclear generation continue to provide incentive for this effort. Further, the
12 resilience of the project economics to the current, unprecedented natural gas
13 market and economic downturn (as demonstrated in the annual feasibility
14 analysis) demonstrates that the quantitative benefits of the project are robust.
15 Progress in other nuclear industry milestones (AP1000 Design Certification
16 and Combined Licenses for two AP1000 projects) continues to illustrate a
17 stable economic and regulatory environment for new nuclear plant
18 deployment.

19

20 In 2012 and 2013 the project is scheduled to continue its progress in much the
21 same manner as it has in past years, responding to regulatory requirements as
22 various steps in the application processes are completed. Expenses requested
23 are primarily related to obtaining the licenses and permits, with a portion

1 covering planning and design studies needed to support the project schedule.
2 Delays in the regulatory review process have been accommodated allowing
3 the projected commercial operation dates (CODs) of 2022 for Unit 6 and 2023
4 for Unit 7 to be maintained, however delays are possible. Recognizing that
5 the experience to date is a likely indicator of the remainder of the licensing
6 phase, FPL's stepwise approach continues to provide FPL customers with the
7 best opportunity to make steady progress on the project.

8 **Q. Would you please provide an overview of the expected benefits of the**
9 **Turkey Point 6 & 7 project for FPL customers?**

10 A. Yes. Taking into account the updated project information provided in this
11 testimony, FPL expects the Turkey Point 6 & 7 project will:

- 12 • Provide estimated fuel cost savings for FPL's customers of
13 approximately \$892 million (nominal) in the first full year of operation
14 based on a Medium Fuel Cost forecast;
- 15 • Provide estimated fuel cost savings for FPL's customers over the life
16 of the project of approximately \$58 billion (nominal) based on a
17 Medium Fuel Cost forecast;
- 18 • Diversify FPL's fuel sources by decreasing reliance on natural gas by
19 approximately 13% beginning in the first full year of operation;
- 20 • Reduce annual fossil fuel usage by the equivalent of 28 million barrels
21 of oil or 177 million mm BTU of natural gas; and

- 1 • Reduce CO2 emissions by an estimated 255 million tons over the life
- 2 of the project, which is the equivalent of operating FPL’s entire
- 3 generating system with zero CO2 emissions for 6 years.

4 These quantifications are based on the April 2012 project feasibility analysis
 5 set forth in FPL Witness Sim’s testimony and Exhibit SRS-1.

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

7 **A.** My testimony includes the following sections:

- 8 1. Project Approach
- 9 2. Process and Risk Management
- 10 3. Procurement
- 11 4. Issues Potentially Affecting Project
- 12 5. Key Decisions and Milestones
- 13 6. Project Cost and Feasibility
- 14 7. Preconstruction Cost Request

15

16 **PROJECT APPROACH**

17

18 **Q. What is FPL’s overall approach to developing Turkey Point 6 & 7?**

19 **A.** FPL continues to develop Turkey Point 6 & 7 through a deliberate and careful
 20 process navigating through the four phases of project development:
 21 Exploratory, Licensing, Preparation, and Construction. The project has
 22 completed the Exploratory phase, and is currently focused on the Licensing
 23 phase prior to initiating Preparation phase activities. The approach allows

1 FPL to make progress on obtaining licenses and approvals without taking on
2 the risks of committing to a specific construction schedule and the associated
3 expenditures. For example, through 2013, FPL projects it will have spent
4 (and recovered through this Nuclear Cost Recovery process) a total of \$206
5 million on the Turkey Point 6 & 7 project – approximately 1% of the total
6 estimated project cost.

7

8 FPL's approach has been developed as a step-wise process. Routine
9 monitoring of a wide range of factors and events is accomplished to help
10 resolve uncertainty and increase predictability, informing each subsequent
11 step.

12 **Q. Please expand on the concept of the step-wise process and how the risks**
13 **related to the Turkey Point 6 & 7 project are controlled by key decisions.**

14 A. The project team monitors a host of issues at local, state, and federal levels
15 and across technical, commercial, economic, and regulatory areas of interest.
16 The impact on cost, schedule, and quality are routinely assessed through a set
17 of tools and reviews. If review indicates the potential for a considerable cost
18 or schedule impact, mitigation actions are identified and are designed to
19 eliminate, reduce, or defer the impact. If the magnitude of the impact
20 materially affects cost or schedule, or changes the feasibility of the project, a
21 decision is made as to whether such impact is acceptable in light of all current
22 information. Annually the Commission reviews the results of these changes.
23 Alternative courses of action include continuing with a modified budget and

1 schedule along with available mitigation actions, or halting a portion of the
2 project temporarily while the issue is further assessed or resolved. The
3 alternative of slowing or halting a portion of the project in response to
4 significant events or uncertainties offers a high level of risk control for FPL
5 and its customers.

6 **Q. How has this project approach specifically been applied to the activities**
7 **planned for the Turkey Point 6 & 7 project in 2012 and 2013?**

8 A. The project approach has proven valuable as unanticipated events external to
9 the project have occurred to affect the overall pace of the project. For
10 example, federal budget issues and the events of Fukushima in March 2011
11 placed a significant unexpected burden on the resources of the Nuclear
12 Regulatory Commission (NRC). By placing the emphasis on obtaining the
13 licenses, permits, and approvals and deciding not to initiate Preparation phase
14 activities until they are absolutely necessary, FPL continues to make progress
15 on the project and minimize costs to FPL customers. This disciplined
16 approach provides the best opportunity to deliver the benefits of the project on
17 the earliest practicable schedule.

18

19 PROCESS AND RISK MANAGEMENT

20

21 **Q. How is the Turkey Point 6 & 7 project management organized to**
22 **maintain an on-going risk management focus?**

1 A. The Turkey Point 6 & 7 project requires a wide range of skilled team
2 members with experience in the development, design, construction and
3 licensing of nuclear generation. There is also a significant volume of
4 information generated as issues unique to new nuclear generation deployment
5 are identified and evaluated. The project management structure of the Turkey
6 Point 6 & 7 project provides for dedicated teams with the requisite subject
7 matter expertise to be coordinated at all levels. This is accomplished through
8 a project organization and reporting structure that effectively identifies and
9 applies resources to issues while maintaining transparent and open
10 communications. As described in my March 1, 2012 testimony, the project
11 organization relies on two principal organizations jointly responsible for the
12 integrated execution of the project. William Maher manages the New Nuclear
13 Plant (NNP) organization with responsibility for NRC licensing and project
14 engineering and construction. I lead the Development organization for all
15 other facets of project development, such as state Site Certification, local
16 zoning approvals, public relations, and Commission regulatory issues. Each
17 organization is supported by FPL business units with specific, recent success
18 in the certification, NRC re-licensing, and permitting of multiple power
19 generation units in Florida and is complemented by our national operating
20 experience with renewable, natural gas, and nuclear generation assets.

21

22 FPL also gives careful consideration to how it contracts for support of the
23 many license and permit applications. A combination of competitive bidding

1 and single/sole source procurement is used, in compliance with FPL policies,
2 to manage augmentation of FPL staff with qualified and experienced specialty
3 contractors and service providers.

4 **Q. What process and risk management tools does FPL apply to manage cost,
5 risk and schedule objectives?**

6 A. FPL uses industry accepted project controls, systems, and practices to obtain a
7 high level of control over the expenditures incurred and projected for all
8 projects. The primary means of control are 1) the project budgeting and
9 reporting process, 2) project schedule and activity reporting processes, 3) the
10 contract management process for external service providers, and 4) internal
11 and external oversight processes. These processes were fully described in my
12 direct testimony provided in the March 1, 2012 true-up filing and continue to
13 be utilized in the oversight of the project.

14 **Q. How are these tools reviewed over time and what new tools are being
15 employed as a result of these reviews?**

16 A. Effectiveness measures are included within some mechanisms and provided
17 by external review processes for all. As an example, the Engineering &
18 Construction Division Project Dashboard presents issues and the current
19 trends for those issues. Over time, if a problematic issue continues to trend
20 down or remains neutral, the effectiveness of the project management controls
21 are investigated to determine if changes in approach can create improvement,
22 or if mitigation measures are adequate. This tool is being employed to

1 spotlight and trend issues presented by the Turkey Point 6 & 7 licensing
2 project.

3

4 Project Memoranda, describing the background and analysis considered in
5 project decisions, are an example of a tool developed to ensure a higher level
6 of documentation and transparency in the management of the project. These
7 memoranda document decisions made with respect to project features,
8 contracts, cost estimates, and schedules.

9

10 Additionally, a quarterly risk summary tracks the assessment of project risks
11 over time. This summary qualitatively gauges the probability of occurrence
12 and impacts to implementation, cost, and schedule aspects of the project.

13 **Q. What audit and review activities are planned and what are the objectives**
14 **of these audits?**

15 A. FPL employs a suite of audit activities to evaluate and document the conduct
16 of project activities. Standard annual financial audits provide a
17 comprehensive review of project expenditures to support prudence
18 determination in the subsequent years. Annual internal controls reviews and
19 financial audits are conducted to ensure FPL is appropriately applying all
20 project controls and is adopting the appropriate techniques and tools learned
21 from other projects in the industry. Topical audits are developed as necessary
22 to complement specific areas of key interest at each stage of the project.
23 Examples of topical audits include quality control audits focusing on specific

1 processes and training audits to verify personnel are receiving required
2 instruction.

3 **Q. What other activities are employed by the project to address industry**
4 **issues affecting the long term success and execution of the project?**

5 A. FPL is involved in a number of areas to address issues relevant to new nuclear
6 deployment. FPL participates in three specific groups comprised of new
7 nuclear industry owners and design vendor(s). These include the Design
8 Centered Working Group (DCWG), the AP1000 Owners Group (APOG), and
9 the Advanced Nuclear Technology group. The collective purpose of these
10 groups is to identify and resolve issues potentially affecting the licensing,
11 design, construction, operation, and maintenance of the AP1000 design.
12 Individually, each group provides a collaborative forum for owners to work
13 with each other, the design vendor and the NRC to achieve standardized
14 solutions to the issues facing all owners. This enables the industry to maintain
15 a high level of standardization from the earliest stages of new nuclear
16 deployment. Standardization of designs and processes provides benefits to
17 FPL customers in terms of efficiency and cost control.

18

19 **PROCUREMENT**

20

21 **Q. Please summarize the results of the procurement activities supporting**
22 **Turkey Point 6 & 7 project to date.**

1 A. The project activities and expenditures are related to the development of the
2 detailed studies and analyses required to support and defend federal, state, and
3 local licensing and permitting applications for the project. FPL has used
4 competitive bidding for the majority of total project expenditures and used
5 single or sole source procurement when appropriate or where no alternative
6 exists.

7 **Q. What key procurement activities are being addressed by the project in**
8 **2012 and 2013?**

9 A. Procurement activities in 2012 and 2013 continue to focus on the licensing
10 and permitting process. Professional services are required from technical and
11 environmental consultants, legal service firms, and subject matter experts to
12 respond to the inquiries of intervenors and the reviewing agencies during the
13 application review process or subsequent hearings. Additionally, some
14 planning studies and early site preparation design activities are scheduled for
15 2013.

16

17 **ISSUES POTENTIALLY AFFECTING PROJECT**

18

19 **Q. What are the international, national and regional indicators being**
20 **monitored for their effect on the Turkey Point 6 & 7 project?**

21 A. These can be generally grouped into four areas. First, the events surrounding
22 the Japanese nuclear industry in the wake of the March 2011 earthquakes and
23 tsunami are as significant as any faced by the nuclear industry in recent years.

1 The impacts of these events will likely have operational, regulatory, and
2 political ramifications for the U.S. nuclear industry. Second, progress of
3 international and domestic new nuclear projects, specifically in the wake of
4 the Japanese events, will be important inputs to inform management decision-
5 making for the Turkey Point 6 & 7 project. Third, developments in regional
6 and national economy and energy policy have potential to affect the project.
7 Finally, there are several project specific issues that may impact the project.

8 **Q. Has there been some clarity gained over the past year regarding how the**
9 **events of Fukushima may impact new nuclear generation development in**
10 **the United States?**

11 **A.** Yes. The NRC has taken actions and communicated plans that provide insight
12 into how they plan to respond and therefore how the events may impact new
13 nuclear deployment. In the first several months following the events in Japan
14 the NRC convened a task force that reviewed the circumstances and made
15 recommendations for industry response in the U.S. Further, the NRC has
16 made long range plans for review and rulemaking of additional safety
17 enhancements to existing and new nuclear facilities. Most importantly, the
18 NRC was able to maintain its focus on reviewing the AP1000 Design
19 Certification Document and the Reference Combined Operating License
20 (COL) for the AP1000 design, Southern's Vogtle Units 3 and 4 project. The
21 NRC indicated any future recommendations relevant to new reactor designs
22 and owners/applicants could be capably integrated through existing NRC
23 processes. By continuing to address these critical approvals, the NRC was

1 able to maintain the new nuclear deployment timeline anticipated prior to the
2 Fukushima events.

3 **Q. What do recent developments related to the progress of international and**
4 **domestic new nuclear energy projects indicate with respect to the**
5 **continued pursuit of the Turkey Point 6 & 7 project?**

6 A. FPL is monitoring several AP1000 projects to capture issues and challenges
7 and to learn from the experiences of these projects. Internationally, FPL is
8 monitoring progress on the Sanmen 1 & 2 (China, AP1000) and Haiyang 1 &
9 2 (China, AP1000) projects. The Sanmen and Haiyang projects represent the
10 lead units for the AP1000 technology. These projects have completed site
11 preparation, poured their concrete foundations, accepted deliveries of major
12 components and have started module assembly and placement. At present,
13 they are on schedule and within the original cost estimates.

14

15 In the United States, multiple projects are underway. The NRC is currently
16 reviewing several AP1000 projects, including FPL's Turkey Point 6 & 7.
17 Three of these projects (Southern Vogtle, South Carolina Electric & Gas
18 Summer and Progress Levy) are considered the first wave of AP1000 projects.
19 The Vogtle and Summer COLs were issued in early 2012, allowing the
20 projects to begin safety related construction.

21

22 The collective status of international and domestic projects continues to
23 demonstrate substantial and consistent progress is being made on the next

1 generation of nuclear projects. Time will be necessary to gather lessons
2 learned and strategies that best apply to Turkey Point 6 & 7 project. In
3 general, the pace of these projects are positive, but the milestones to be
4 achieved in the next two years affirms FPL's choice to initiate Preparation
5 phase activities as late as possible as a way to control implementation risks
6 and incorporate lessons learned.

7 **Q. What are the specific milestones FPL will monitor on leading U.S.**
8 **projects in 2012 and 2013?**

9 A. On the licensing front, the NRC is expected to hold hearings for the Levy
10 Combined Operating License Application (COLA) in 2012 and 2013.
11 Continued timely processing of license applications that precede the Turkey
12 Point Units 6 & 7 project is an important indicator of the regulatory
13 environment. Additionally, Southern Company should be completing
14 negotiations with DOE on the Loan Guarantee for construction of the Vogtle
15 project. If consummated, the results of this initial loan guarantee are expected
16 to set the standard for any future federal loan guarantees.

17

18 The initiation of safety related construction at Vogtle and Summer will
19 generate important information regarding construction planning logistic, labor
20 and supply chain elements in the U.S. This information will be important to
21 guide the development of the construction execution plan for Turkey Point
22 Units 6 & 7.

1 **Q. What is the status of FPL's interest in a Department of Energy (DOE)**
2 **Loan Guarantee for the Turkey Point Units 6 & 7 project?**

3 A. FPL continues to monitor developments associated with the DOE Loan
4 Guarantee program and will consider all opportunities that may provide
5 demonstrable benefits to our customers. With the pending Vogtle loan
6 guarantee, more information with respect to costs, benefits, and structure is
7 expected to emerge to allow for a better estimation of the costs and benefits
8 for FPL. The initial program was set at \$18 billion and the Vogtle project is
9 expected to utilize less than 50% of that amount, meaning the balance of the
10 funds may be available through a future solicitation. FPL is in
11 communication with the DOE Loan Guarantee office and will consider all
12 opportunities related to loan guarantees.

13 **Q. What do recent developments related to the national and regional**
14 **economy indicate with respect to the continued pursuit of the Turkey**
15 **Point 6 & 7 project?**

16 A. The economic downturn affected forward demand and fuel price forecasts.
17 The pace of recovery is expected to be steady but remain below historic
18 growth rates for the near term. Additionally, the significant shift in supply
19 relative to demand in the natural gas industry has created a near term
20 reduction in natural gas prices and has reduced long range forecasts for price
21 levels. FPL Witness Sim addresses the effect of changes in FPL demand
22 forecasts and natural gas price forecasts on the economic feasibility of Turkey

1 Point 6 & 7 and the fact that the project continues to be projected as both
2 economically feasible and beneficial for customers.

3 **Q. What do recent developments related to national and regional energy**
4 **policy indicate with respect to the continued pursuit of the Turkey Point 6**
5 **& 7 project?**

6 A. National energy policy, as proposed by the current administration, is
7 supportive of nuclear energy in general, and new nuclear energy development
8 in specific. The administration has reaffirmed its support for new nuclear
9 power following the events of Fukushima. In general, while cautious,
10 policymakers continue to recognize the long term value of and need for new
11 nuclear generation capacity.

12

13 Regionally, the legislature continues to address questions related to Florida's
14 energy mix, affirming many of the policies implemented in the Florida Energy
15 Act of 2006. Issues cited as important in the Commission's Need Order of
16 April 2008 have not changed. Reliability, cost-effectiveness, fuel diversity,
17 fuel supply reliability, and price stability are still benefits to be delivered by
18 increasing nuclear generation capacity and are still needed by FPL's
19 customers. A future plan not including new nuclear capacity prolongs
20 reliance on fossil fuels, maintains exposure to fuel supply reliability and price
21 volatility, and is not as effective at reducing system emissions, including
22 greenhouse gas emissions, as a plan including new nuclear generation
23 capacity.

1 **Q. What project specific areas does FPL monitor that may affect objectives**
2 **for 2012 and 2013?**

3 A. There are two important areas that may impact the cost, schedule, and ultimate
4 success of the Turkey Point Units 6 & 7 project.

5

6 The pace of license and application review is subject to many influences.
7 These include budget constraints and resource allocation of the agencies
8 involved, timely participation and response of agencies and stakeholders and
9 the political environment surrounding the agencies and governing bodies
10 involved in key aspects of the project. Maintaining the active participation of
11 these various parties over the course of the project is one of the unique
12 challenges of new nuclear deployment.

13

14 During 2012 FPL is scheduled to receive agency reports on the plant and non-
15 linear facilities in the Site Certification Application (SCA) process. In 2013
16 FPL expects to proceed to the SCA hearing and receive the draft NRC Safety
17 Evaluation Report and draft NRC Environmental Impact Statement in the
18 COLA process. These reports will provide critical feedback regarding the
19 impacts or potential impacts of the project and conditions proposed by
20 agencies to address those impacts. Accommodation of these conditions may
21 impact project cost, schedule, and execution risk. Moreover, certain
22 restrictions may place operating constraints on the project that influence the
23 nature of the project construction or operation. The combined effect of these

1 significantly influence how FPL can go about executing the project once
2 approved, and provides another factor that recommends a disciplined step-
3 wise approach.

4 **Q. Does FPL anticipate other potential factors that may result in revisions to**
5 **the NRC COLA Review Schedule for Turkey Point Units 6 & 7?**

6 A. Yes. Following the events at Fukushima FPL received additional Requests for
7 Information (RAIs) from NRC staff in safety-related areas focusing on
8 seismic issues and flooding events. These recent RAIs have generated
9 discussion and will require analysis and modeling to develop the responses.
10 FPL also continues to receive RAIs in connection with NRC's environmental
11 review. FPL is in the process of discussing these RAIs and potential impacts
12 to schedule with the NRC.

13 **Q. What is the status of the U.S. Army Corps of Engineers (USACE) wetland**
14 **permits and how is the pace of review linked to the NRC COLA**
15 **schedule?**

16 A. The USACE wetland permits are processed in coordination with the
17 development of the Final Environmental Impact Statement (FEIS) in the NRC
18 COLA process (currently scheduled in February 2014). FPL continues to
19 work with the USACE staff to answer their specific questions; however any
20 final action is expected to be linked to the timeline of the NRC FEIS.

21 **Q. Please describe the pace of the state SCA review and factors affecting the**
22 **pace of the review.**

1 A. Considerable interest has been expressed by multiple agencies related to the
2 physical environment surrounding Turkey Point and the complexity of
3 groundwater features in the region. Additionally, the complexity of siting
4 approximately 80 miles of new transmission lines, necessary to interconnect
5 the project to the FPL system in Florida's most populous county is requiring
6 significant review. The result has been a longer than statutorily prescribed
7 process to achieve completeness determinations on the SCA. FPL has made a
8 conscious decision to allow additional time, when warranted, to ensure this
9 important review process is as accessible and participatory as possible. FPL
10 continues to work with all agencies to address the technical issues associated
11 with SCA review to ensure all legitimate issues have been fully addressed
12 prior to proceeding to the SCA Hearing (expected Spring 2013) and
13 subsequent decision by the Power Plant Siting Board (expected Summer
14 2013).

15

16 **KEY DECISIONS AND MILESTONES**

17

18 **Q. What will be the focus of the project in 2012 and 2013?**

19 A. The focus remains on obtaining the licenses, permits, and approvals necessary
20 to construct and operate the Turkey Point Units 6 & 7 project. In 2012 and
21 2013, FPL will continue dialogue with federal, state, and local regulators to
22 fully answer all questions and identify the appropriate conditions that allow
23 the project to meet regulatory requirements and the needs of FPL customers.

1 **Q. What milestones are expected in relation to the NRC licensing process in**
2 **2012 and 2013?**

3 A. In 2012, FPL will work with NRC and USACE staff to complete all RAIs and
4 any other outstanding information needed to support production of the draft
5 safety and environmental reports. Also in 2012, a final decision is expected
6 on whether any outstanding contentions will be allowed to remain in the NRC
7 process. Several rounds of review have occurred in 2011 and 2012 that have
8 resulted in the dismissal of all but one proposed contention. In 2013 the NRC
9 and USACE processes will be driven by reviewing the draft staff reports and
10 providing comments to those reports.

11 **Q. What types of decisions are made in support of the NRC staff reviews?**

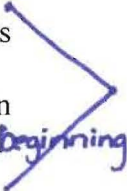
12 A. The NRC staff may request additional analyses and studies to augment the
13 initial submittal. These analyses can range from short topical studies to
14 significant field studies and/or modeling. Project management will be making
15 decisions on the necessity, scope, and execution of any additional work scope.
16 Similarly, NRC staff review may highlight opportunities for revisions to the
17 project and commitments the company may be asked to make regarding
18 conditions of licensing. Revisions and commitments may result in additional
19 project cost or schedule impact.

20 **Q. What milestones will be experienced related to the state Site Certification**
21 **process in 2012 and 2013?**

22 A. In late 2012 and 2013 FPL will be in discussions with the Florida Department
23 of Environmental Protection and other agencies as they finalize their agency

1 reports where they comment on FPL’s project plans and recommend
 2 conditions of certification. When completed, these comments and conditions
 3 will be considered by the Administrative Law Judge, who will make a
 4 recommendation to the Siting Board for final certification. The project is
 5 scheduled to begin hearings in the state process with the Land Use Hearing in
 6 2012 followed by the Site Certification Hearing in 2013.

See comments beginning
 in Vol. 5, Page
 759, Line 25



7 **Q. Please provide examples of decisions that may be made associated with**
 8 **the state Site Certification process, and how those decisions may affect**
 9 **the project cost and schedule estimate.**

10 A. During the review of the SCA, agencies assess the potential impacts and
 11 necessary mitigation associated with executing the proposed project. Through
 12 the course of that exchange, revisions or conditions of certification are often
 13 proposed that minimize impacts or assist project features to more closely
 14 conform to current regulatory policy. These revisions and conditions can
 15 impact the cost and schedule for project execution. In some instances, the
 16 revisions may result in considerable costs or execution risks to the project.
 17 FPL will make decisions regarding what level of revisions to make, what
 18 conditions can be accepted, and assess the impact of these changes to project
 19 cost and schedule. Additionally, the project will be preparing to defend the
 20 applications at hearing and making decisions regarding the nature of that
 21 defense and the experts needed to support the case.

1 **Q. Will the project decisions regarding the Everglades National Park**
2 **Environmental Impact Statement (EIS) and land exchange be similar to**
3 **those made in the NRC and SCA processes?**

4 A. Yes. The EIS process results in observations and recommendations. The
5 Secretary of the Interior may choose to place conditions on the land exchange
6 as a result of these observations and recommendations. FPL will assess the
7 nature of these conditions and determine the impact to project cost and
8 schedule. It is expected that the draft EIS will be provided for public
9 comment in 2012. Comments are collected on the draft EIS and a final EIS
10 developed in 2013.

11 **Q. What decisions and milestones are being addressed related to the overall**
12 **project schedule?**

13 A. In late October 2011 the NRC provided a revised milestone schedule for
14 review of the Turkey Point 6 & 7 COLA. The revision set new dates for the
15 production of staff reports and clarified the expected timeline following
16 completion of those reports. In summary the revision established June 2014
17 as the expected date for receiving the COL. This compares well to FPL's
18 then-current project schedule (Rev 5A) which targeted November 2014 for
19 receiving the COL, as FPL had anticipated some delays. However, dates for
20 the interim milestones were extended from their original dates. Specifically,
21 the Final Safety Evaluation Report (FSER) was moved from December 2012
22 to November 2013 and the FEIS was moved from October 2012 to February
23 2014. In essence, the estimated date to receive the COL had moved earlier by

1 4 months although the FSER and FEIS internal milestones had been moved
2 later by 11 and 16 months, respectively.

3 **Q. Was there a specific aspect of the NRC schedule revision that was in**
4 **conflict with the Rev 5A schedule?**

5 A. Yes. In order to begin site preparation and construction, both the Site
6 Certification and the USACE wetland permits are required. The USACE
7 permit process is linked to the completion of the FEIS and is expected
8 approximately 4 months after the FEIS. With the revised schedule, the
9 earliest date for the USACE permits, and therefore the first opportunity to
10 initiate site preparation, had moved from May 2013 to June 2014. As a result
11 of this shift, the project conducted a schedule review to determine what
12 impacts the revision presents to the overall project schedule and what
13 mitigating strategies could be employed.

14 **Q. What was the focus of the review, and what resources were consulted?**

15 A. The review focused on the critical path items of early site preparation and
16 civil works; activities that precede the safety-related construction of the main
17 power plant. These Preparation phase activities include design and planning
18 studies, establishing roadways and installing bridges, clearing and de-mucking
19 the site, and installing the backfill that provides the foundation for the power
20 plant site. FPL construction and scheduling professionals collected
21 information from site visits to other projects, industry meetings and FPL
22 experience. The project team also referred to the 2009 study conducted by
23 Black & Veatch/Zachry that identified different options for early stage

1 construction. Finally, Shaw/Stone and Webster was asked to review FPL's
2 plans and share lessons learned from current AP1000 construction projects
3 they are involved with at Vogtle and Summer, as well as other relevant
4 projects.

5
6 The focus of the review was to ensure that the sequence of construction
7 activities for the early site preparation and civil works was complete and to
8 identify constraints and mitigation strategies. The review also examined if the
9 early construction work could be reorganized in a way that maintains the 2022
10 and 2023 commercial operating dates and if not, what dates are recommended.

11 **Q. What were the key observations and results of the review?**

12 A. The review concluded that the current 2022/2023 commercial operation dates
13 could be achieved. This was accomplished by removing an 8 month assumed
14 delay that was built into the Rev 5A schedule and revising the sequence of
15 specific Preparation phase activities. Importantly, the review confirmed that
16 the planning conducted to date had identified the appropriate activities and
17 potential conflicts consistent with the experience in other projects. With this
18 information the project team revisited the project schedule and developed a
19 new project schedule (Revision 6) to capture these revisions and sequences of
20 events.

21 **Q. Are there other NRC review items that could impact the COLA review**
22 **schedule?**

1 A. Yes. The October 27, 2011 COLA schedule revision targeted completion of
2 all safety related RAIs for March 2012. This did not occur. As identified
3 above, additional RAIs have been received or are anticipated in relation to
4 seismic modeling, post Fukushima reviews, and certain environmental
5 analyses. FPL continues to discuss the manner and timing of processing the
6 remaining RAIs with the NRC. These discussions lead to a more specific
7 understanding of the future COLA schedule.

8 **Q. Based on the Revision 6 schedule, what engineering work is anticipated in**
9 **2012 and 2013?**

10 A. The revised schedule assumes that bid and evaluation activities related to
11 early site preparation design and planning begin in late 2012 and continue
12 through 2013. Approximately \$1.25 million has been included for 2013 to
13 undertake targeted planning studies related to early site preparation and
14 logistics.

15 **Q. Does FPL intend to pursue completion of the Turkey Point 6 & 7 project?**

16 A. Yes. The most important near term activity is creating the opportunity by
17 obtaining the licenses and approvals necessary to construct and operate
18 Turkey Point 6 & 7. Once the project is closer to obtaining the approvals,
19 FPL will be able to refine the economic assumptions and incorporate the
20 experience of other new nuclear projects as well as how state and federal
21 energy policies have evolved. The Commission will continue to have the
22 opportunity to review FPL's plans through the Nuclear Cost Recovery Clause
23 (NCRC) process.

1

2 FPL's decision to carefully manage the risk of inefficient expenditures will
3 allow the project to proceed to a later stage where risks can be better
4 quantified and mitigated. Considering all project specific and industry factors,
5 this is a responsible and prudent course of action to continue progress in
6 creating the opportunity for new nuclear generation for our customers.

7 **Q. Are there other decisions that are expected in 2012 or 2013?**

8 A. Yes. FPL executed a Forging Reservation Agreement with Westinghouse in
9 2008 to secure manufacturing capacity for ultra-heavy forgings to support the
10 project's original schedule. The agreement has been extended several times to
11 allow FPL and Westinghouse to monitor industry developments and
12 determine the best disposition of the existing reservation agreement. The
13 current extension expires ~~June 1, 2012.~~ *October 1, 2012.*

14

15 PROJECT COST AND FEASIBILITY

16

17 **Q. What is the current non-binding cost estimate range for the project?**

18 A. The overnight capital cost estimate range is \$3,570/kW to \$5,190/kW. When
19 time-related costs such as inflation and carrying costs are included, and FPL's
20 earliest practicable commercial operation dates of 2022 and 2023 are
21 assumed, the total project cost ranges from \$12.8 to \$18.7 billion.

22 **Q. Please explain how the overnight cost estimate is constructed and how it**
23 **is used to help evaluate the feasibility of the project each year.**

- 1 A. An overnight cost is developed using the most current information available.
2 An overnight cost provides an estimate of the total project costs assuming all
3 costs occur at one point in time (“overnight”) and time-related costs
4 (escalation, interest during construction) are not included. Further,
5 recognizing many things could influence the overnight cost, additional
6 analysis is conducted on each component of the overnight cost to explore how
7 much it could vary, resulting in a cost estimate range. The overnight cost
8 provides an indication of the cost per kilowatt (\$/kW) for the project in a
9 given year reference. The 2011 cost estimate range was \$3,482/kW to
10 \$5,063/kW in 2011 dollars. Updating the cost estimate range to 2012 dollars
11 provides a cost estimate range of \$3,570/kW to \$5,190/kW in 2012 dollars.
12 The cost estimate range has been adjusted to current year dollars by assuming
13 a 2.5% escalation over the years between 2007 and present. While the actual
14 escalation experienced has been lower, retaining this simple assumption is
15 conservative and consistent with past year evaluations.
16
- 17 A breakeven cost analysis is developed by FPL’s Resource Assessment and
18 Planning department, and is further discussed by FPL Witness Sim. This
19 breakeven cost is provided as an overnight cost and is directly compared to
20 the cost estimate range to assess the economic feasibility of the project.
- 21 **Q. Have there been any revisions to project features or design or any**
22 **industry-wide developments in the past year that suggest a revision to the**
23 **overnight capital cost estimate range?**

1 A. No. A review was conducted to capture any potential changes and estimate
2 the potential cost impact. No significant changes or developments have
3 occurred in the past year that indicates any revisions are necessary to the
4 project cost estimate range.

5 **Q. Does FPL's cost estimate range continue to be reasonable?**

6 A. Yes. The FPL cost estimate range continues to be reasonable based on the
7 annual review of the Turkey Point 6 & 7 capital cost estimate and a
8 comparison to other U.S. AP1000 project overnight capital cost estimates.

9 **Q. What future activities are anticipated that will provide information to
10 revise the overnight capital cost estimate range?**

11 A. Negotiations on the Engineering, Procurement and Construction contract will
12 provide more information including price, terms and schedules to support an
13 execution plan for project construction. That information will be integrated
14 with continued observations of the progress of preceding U.S. projects.

15 **Q. What factors may impact the overall project cost estimate, including
16 time-related costs such as price escalation and carrying costs?**

17 A. The primary factors affecting the total project cost will be the actual labor and
18 materials costs experienced during the Preparation and Construction periods.
19 The uncertainty around these costs will be reduced as preceding projects move
20 through the early stages of construction and as FPL negotiates the principal
21 contracts for engineering, procurement, and construction of the project. The
22 pace of expenditures is also a critical factor that will impact total project costs.
23 Escalation of future costs and carrying costs on expended funds are time

1 related factors. This is why it is critical to have a fully vetted project
2 execution plan, including a high level of design completion, before significant
3 expenditures are made so that a higher level of predictability in total project
4 cost can be developed prior to initiating construction.

5 **Q. What is the estimate of the total project costs based on the current**
6 **project schedule?**

7 A. As described above, there are a number of assumptions made to arrive at this
8 estimate. Under the current 2022/2023 in-service date schedule, and using the
9 2012 overnight cost estimate range, the total project cost range becomes \$12.8
10 billion to \$18.7 billion for the 2,200 MW project.

11 **Q. What are the most current Turkey Point 6 & 7 economic feasibility**
12 **analysis results?**

13 A. Through the economic downturn and following a substantial shift in the
14 market supply and prices of natural gas fuel, the overall economic feasibility
15 of new nuclear generation demonstrates noteworthy robustness.

16
17 As discussed by FPL Witness Sim, the most current feasibility analysis
18 affirms the projected cost effectiveness and benefits associated with the
19 Turkey Point 6 & 7 project using the same basic analytical approach applied
20 in the Need Determination Proceeding for the project and the three prior
21 NCRC filings. The analysis calculated a projected “break-even” cost for new
22 nuclear; a cost that results in the same life cycle costs (or cumulative present
23 value of revenue requirements) as an alternative plan relying on natural gas

1 combined cycle units. The analysis was conducted for seven scenarios
2 comprised of combinations of three fuel and three emission cost forecasts.
3 The projected break-even costs were higher than FPL's non-binding cost
4 estimate range in five of seven scenarios, and within range for the other two.
5 This result indicates that the Turkey Point 6 & 7 project was quantitatively
6 and qualitatively superior to the combined cycle gas alternative plan in five
7 scenarios. In the other two scenarios, which assume either continued low
8 environmental costs for 50 years, or continued low costs for both natural gas
9 and environmental compliance for 50 years, the combined cycle alternative
10 showed equivalent or slightly favorable economics. However, that alternative
11 would not deliver the qualitative benefits of fuel diversity, energy security and
12 zero greenhouse gas emissions that are offered by new nuclear generation.

13 **Q. Does the implementation of the NCRC provide savings for FPL**
14 **customers?**

15 A. Yes. The NCRC enables customers to avoid paying for compounded interest
16 during the approximately eight year construction period and reduces the
17 overall amount that would be recovered from customers under normal rate
18 base treatment.

19 **Q. In February 2010, FPSC Staff provided a list of factors for consideration**
20 **in the Feasibility Analysis. Have those factors been considered?**

21 A. Yes. FPL Witness Sim discusses the economic factors and I discuss the non-
22 economic factors.

23 **Q. What non-economic factors affect the projects long term feasibility?**

1 A. Non-economic factors include the feasibility of obtaining all necessary
2 approvals (permits, licenses, etc.), the ability to obtain financing for the
3 project at a reasonable cost, and supportive state and federal energy policy.

4

5 Significant federal, state, and local approvals are required to allow for the
6 construction and operation of the project. Due diligence activities and
7 ongoing agency reviews continue to affirm the long-term feasibility of the
8 project. The thorough review process currently underway will result in each
9 agency identifying its perspective on the project and describing conditions
10 upon which the project approvals may be granted. While the review process
11 has taken longer than originally anticipated, the process is proceeding
12 substantively as expected.

13

14 Financing will be determined as the project proceeds through approvals to
15 construction. Activity on other U.S. projects shows a strong interest in the
16 investment community to participate in new nuclear financing. For instance,
17 Municipal Electric Authority of Georgia conducted a successful solicitation in
18 2010 for \$2.7 billion of project bonds for its share of the Vogtle Units 3 & 4
19 AP1000 project. The syndication that provided financing included Goldman
20 Sachs & Co., Citi, Barclays Capital, First Southwest, Morgan Stanley, BMO
21 Capital Markets, J.P. Morgan, Bank of America, Merrill Lynch, and Wells
22 Fargo Securities.

23

1 As discussed earlier in this testimony, state and federal energy policy
2 continues to be supportive of new nuclear generation for a host of reasons.
3 The high reliability, low and stable cost and zero greenhouse gas emission
4 profile of the technology is highly compatible with key energy policy
5 objectives.

6

7

2012 & 2013 PRE-CONSTRUCTION COSTS

8

9 **Q. How are the 2012 actual/estimated costs and the 2013 projected costs**
10 **developed?**

11 A. As described earlier, FPL has a disciplined ground-up process to develop
12 project budgets. This process was used in the initial project budgeting activity
13 and is routinely reviewed and evaluated for adequacy and accuracy as
14 additional information becomes available. The estimates of the 2012
15 actual/estimated and 2013 projected costs were completed in accordance with
16 FPL's budget and accounting guidelines and policies. Where services are
17 contracted, rate sheets are provided by the contractor and reviewed to verify
18 the charged rates are consistent with FPL's experience in the broader industry.
19 The cost estimates were compared to other costs being incurred by the
20 company for similar activities and found to be reasonable.

21 **Q. Please provide a high level summary of the 2012 actual/estimated and the**
22 **2013 projected costs presented in this filing.**

1 A. The costs associated with the Turkey Point Units 6 & 7 project in 2012 and
2 2013 are focused on supporting the licensing and permit application reviews
3 underway. Additional costs are incurred in the Engineering & Design
4 category associated with completing the Underground Injection Control (UIC)
5 Exploratory Well, a necessary step towards approval of that process.

6 **Q. What changes may occur that could affect these cost projections?**

7 A. The pace and content of the application reviews may impact the actual costs in
8 2012 and 2013. The NRC COLA process may include an expanded review of
9 seismic and flooding issues, in response to the Fukushima event in Japan in
10 March of 2011. Additionally, the project anticipates several hearings in the
11 state certification process in 2012 and early 2013. The extent to which these
12 hearings are contested and the breadth of issues allowed within the scope of
13 the hearings by the Administrative Law Judge may impact the costs
14 experienced.

15 **Q. Please summarize the costs included in this filing for Turkey Point 6 & 7**
16 **Pre-Construction activities.**

17 A. Schedule AE-6 of SDS-8 presents the 2012 actual/estimated costs in the
18 following categories: 1) Licensing \$27,805,569; 2) Permitting \$1,463,969; 3)
19 Engineering and Design \$5,637,888; 4) Long Lead Procurement advance
20 payments \$0; 5) Power Block Engineering and Procurement \$0; and 6)
21 Transmission Engineering \$0. Schedule P-6 of SDS-8 presents the 2013
22 projected costs in the following categories: 1) Licensing \$26,743,630; 2)
23 Permitting \$1,231,506; 3) Engineering and Design \$1,236,250; 4) Long Lead

1 Procurement \$0; 5) Power Block Engineering and Procurement \$0; and 6)
2 Transmission Engineering \$0. Table 1 of Exhibit SDS-9 provides a summary
3 of the actual/estimated 2012 and projected 2013 Preconstruction costs. The
4 descriptions in Exhibit SDS-9 tables are illustrative and do not provide full
5 line item detail.

6 **Q. What are the major differences and similarities noted for the 2012 and**
7 **2013 project budget when compared to FPL's prior filings?**

8 A. The major differences are primarily based on the specific activities required as
9 the applications proceed from one stage to the next. For instance, in 2012 and
10 2013 increased legal and hearing preparation costs in the state process are
11 scheduled to occur. The major similarities are the nature of the activities and,
12 in many cases, the vendors providing the services.

13 **Q. Please describe the activities included in the Licensing category for the**
14 **2012 actual/estimated costs and the 2013 projected costs.**

15 A. For the period ending December 31, 2012, Licensing costs are projected to be
16 \$27,805,569 as shown on Line 3 of Schedule AE-6 of SDS-8. For the period
17 ending December 31, 2013, Licensing costs are projected to be \$26,743,630
18 as shown on Line 3 of Schedule P-6 of SDS-8. Table 2 of Exhibit SDS-9
19 provides a detailed breakdown of the Licensing subcategory costs.

20
21 Licensing costs consist primarily of FPL employee and contractor labor and
22 specialty consulting services necessary to support the various license and
23 permit applications required by the Turkey Point 6 & 7 project. The majority

1 of the licensing expenditures are a result of the federal COLA process. This
2 value is a combination of NNP team costs and Bechtel COLA team costs.
3 The license and permit applications contain project specific information,
4 assessments and studies requested by various regulatory authorities to support
5 the reviews leading to decisions on the technical, environmental and social
6 acceptability of the project. Other licensing activities include costs associated
7 with the SCA, USACE permits and delegated programs such as Prevention of
8 Significant Deterioration and UIC. In 2012 and 2013 these costs will
9 increasingly be related to preparation activities for hearings that include legal
10 briefs and expert witness testimony. License and permitting costs are
11 developed in accordance with budget and accounting guidelines and policies.
12 Some activities are common between applications, and therefore offer
13 opportunities to coordinate efforts and manage costs. Further, these cost
14 estimates were compared to FPL's extensive experience with the development
15 and permitting of new generation projects in Florida and found to be
16 reasonable.

17 **Q. What are the major differences between the 2012 actual/estimated values**
18 **and those projected in the May 2011 filing for the Licensing category?**

19 A. On balance there was very little difference in the overall amount projected for
20 the Licensing category. However, lower support costs from the COLA/SCA
21 vendor Bechtel are anticipated in 2012 due to the schedule revision provided
22 by the NRC in October 2011.

1 **Q. Please describe the activities in the Permitting category for the 2012**
2 **actual/estimated costs and the 2013 projected costs.**

3 A. For the period ending December 31, 2012, Permitting costs are projected to be
4 \$1,463,969 as shown on Line 4 of Schedule AE-6 of SDS-8. For the period
5 ending December 31, 2013, Permitting costs are projected to be \$1,231,506 as
6 shown on Line 4 of Schedule P-6 of SDS-8. Table 3 of Exhibit SDS-9
7 provides a detailed breakdown of the Permitting subcategory costs, including
8 a description of items included within each category. Permitting costs include
9 costs for the Development team, in-house legal support, and resources from
10 Marketing and Communications to conduct necessary outreach educating
11 stakeholders about the project.

12 **Q. What are the major differences between the 2012 actual/estimated values**
13 **and those projected in the May 2011 filing for the Permitting category?**

14 A. The major difference is a reduction in the contingency carried in this category.
15 Communication and Development costs were reduced; however, these were
16 offset by increased expenditures anticipated in legal areas as preparation for
17 hearings begin in 2012.

18 **Q. Please describe the activities in the Engineering and Design category for**
19 **the 2012 actual/estimated costs and the 2013 projected costs.**

20 A. The Engineering and Design activities performed in 2012 and 2013 are
21 primarily related to supporting the permitting effort for the UIC well system.
22 For the period ending December 31, 2012, Engineering and Design costs are
23 projected to be \$5,637,888 as shown on Line 5 of Schedule AE-6 of SDS-8.

1 For the period ending December 31, 2013, Engineering and Design costs
2 associated with preliminary engineering activities are projected to be
3 \$1,236,250 as shown on Line 5 of Schedule P-6 of SDS-8. Table 4 of Exhibit
4 SDS-9 provides a detailed breakdown of the Engineering and Design
5 subcategory costs, including a description of items included within each
6 category.

7

8 Costs for participation in industry groups include the Electric Power Research
9 Institute Advanced Nuclear Technology working group (with annual fees of
10 \$275,000) and the DCWG (no external charge to participate in this group).
11 The 2011 APOG fee was paid in December 2010, and the 2012 APOG fee of
12 \$1,448,000 was paid in January 2012. These costs are necessary to obtain the
13 benefits of membership described earlier in this testimony.

14 **Q. What are the major differences between the 2012 actual/estimated values**
15 **and those projected in the May 2011 filing for the Engineering and**
16 **Design category?**

17 A. The major difference is a carryover of costs that were not spent in 2011 on the
18 UIC exploratory well. Approximately half of the expected activity costs were
19 carried into 2012 due to a delay in the execution of that work. Timing of
20 group membership fees account for the other variances.

21 **Q. Please describe the activities in the Long Lead Procurement category for**
22 **the 2012 actual/estimated costs and the 2013 projected costs.**

1 A. For the period ending December 31, 2012, Long Lead Procurement costs are
2 projected to be \$0 as shown on Line 6 of Schedule AE-6 of SDS-8. Future
3 Long Lead Procurement costs are anticipated to be included in the Power
4 Block Engineering and Design cost category.

5 **Q. Please describe the activities in the Power Block Engineering and**
6 **Procurement category for the 2012 actual/estimated costs and the 2013**
7 **projected costs.**

8 A. For the period ending December 31, 2012, Power Block Engineering and
9 Procurement costs are projected to be \$0 as shown on Line 7 of Schedule AE-
10 6 of SDS-8. For the period ending December 31, 2013, Power Block
11 Engineering and Procurement costs are projected to be \$0 as shown on Line 7
12 of Schedule P-6 of SDS-8.

13 **Q. Please describe the activities in the Transmission Engineering category**
14 **for the 2012 actual/estimated costs and the 2013 projected costs.**

15 A. For the period ending December 31, 2012, Transmission Engineering
16 expenditures are projected to be \$0 as shown on Line 25 of Schedule AE-6 of
17 SDS-8. For the period ending December 31, 2013, Transmission Engineering
18 expenditures are projected to be \$0 as shown on Line 25 of Schedule P-6 of
19 SDS-8.

20

21 All 2012 and 2013 costs associated with Transmission planning are related to
22 the licensing and permitting activities, and therefore are appropriately
23 included in those categories, described above.

1 **Q. Does this conclude your direct testimony?**

2 **A. Yes.**

3

1 **BY MS. CANO:**

2 **Q** Have you prepared a summary of your testimony?

3 **A** I have.

4 **Q** Would you please provide that to the
5 Commission.

6 **A** Thank you. Chairman and Commissioners, the
7 purpose of my testimony is to describe the activities
8 and managerial decisions associated with the Turkey
9 Point Unit 6 and 7 project from January 2011 to present
10 and our plans for the project through 2013.

11 The Turkey Point project was developed in
12 response to state policies that sought to promote
13 utility investment in nuclear energy for the benefit of
14 customers. FPL responded by initiating the steps to add
15 new nuclear capacity in 2006. The issues that prompted
16 our decision at that point are as important today as
17 they were six years ago, and that is supply reliability
18 through fuel diversity, reasonableness of costs by
19 putting in more low cost, stably priced generation, and
20 achieving meaningful greenhouse gas reductions by using
21 a technology that produces no emissions and is a
22 baseload technology.

23 Throughout the history of the project, FPL's
24 maintained a disciplined stepwise approach focusing on
25 obtaining all necessary licenses and approvals for

1 construction and operation while we monitor the
2 proceeding first wave projects as they go through the
3 licensing phase and on into the construction phase.

4 Developments observed in the past year
5 illustrate the value of such an approach. In the wake
6 of the events of Fukushima of March 2011, the industry
7 and regulatory response has been thorough and stable.
8 Key milestones in U.S. deployment of the AP1000
9 technology have been achieved with the approval of the
10 design certification and the issuance of the first two
11 combined operating licenses for projects in Georgia and
12 South Carolina.

13 The content of my testimony and the
14 accompanying exhibits and nuclear filing requirements I
15 sponsor will provide the Commission with the information
16 necessary to determine that FPL's actual costs in 2011
17 were reasonably and prudently incurred and that the
18 actual estimated costs for 2012 and the projected costs
19 for 2013 are reasonable.

20 My testimony also supports the conclusions of
21 the annual feasibility analysis. That analysis
22 indicates that the project continues to be
23 cost-effective for customers, as discussed by FPL
24 witness Sim, and offer the benefits of fuel diversity
25 and emission-free generation that led to the

1 Commission's original affirmative need order.

2 I look forward to your questions. That
3 completes my summary.

4 **MS. CANO:** The witness is available for
5 cross-examination.

6 **CHAIRMAN BRISÉ:** OPC?

7 **MR. McGLOTHLIN:** No questions.

8 **CHAIRMAN BRISÉ:** FIPUG?

9 **MR. MOYLE:** We have, we have some questions,
10 Mr. Chairman.

11 **CROSS EXAMINATION**

12 **BY MR. MOYLE:**

13 **Q** Good morning.

14 **A** Good morning.

15 **Q** Just by way of recap, can you tell us -- your
16 testimony has nothing to do with the uprate projects;
17 correct?

18 **A** That's correct.

19 **Q** Okay. And can you tell us where we are today
20 with respect to the anticipated commercial operation
21 date for Turkey Point 6 and 7, which is new nuclear;
22 right?

23 **A** That's correct.

24 **Q** Okay. Where we are with the, when we expect
25 those power plants to be online, as compared to when you

1 filed your, your need determination, both in terms of
2 timing and cost.

3 **A** Let me answer your question as precisely as I
4 can.

5 **Q** Okay. It's a little compound. I can restate
6 it, if you need to. But I'm essentially trying to find
7 out, you know, when you filed it, when did you say it
8 was going to be on, online, and how much was it going to
9 cost, and as we sit here today, when is it going to be
10 online and how much is it going to cost?

11 **A** Right. The original need order had a
12 commissioning date of 2018 for Unit 6 and 2020 for Unit
13 7. In 2010 we revised those dates based on the pace of
14 the regulatory process for licensing to 2022 for Unit 6
15 and 2023 for Unit 7. So a four-year move for Unit 6 and
16 a three-year move for Unit 7.

17 As we revised the COD dates, that revised the
18 construction timeline, and that resulted in an increase
19 to the cost, as you assume a little bit more escalation
20 costs, using a simple 2.5% per year escalation
21 assumption. So that resulted in the current cost
22 estimate of 12.8 million to 18.7 -- excuse me --
23 12.8 billion to 18.7 billion is our nonbinding cost
24 estimate range.

25 **Q** Okay. Thank you. And with respect to, I

1 think you answered it, but to, you didn't go out and do
2 a hard look at the costs. You just added an escalator;
3 is that right?

4 **A** In 2010 we did do a review of the costs to a
5 Westinghouse provided pricing sheet. And we found that
6 that cost range that we initially projected encompassed
7 the updated cost as it would be compared to the
8 Westinghouse cost estimate range. So we've retained the
9 cost estimate range that we started with, but through
10 the course of time we validated that back against
11 current data.

12 **Q** Okay. Would you agree as a general
13 proposition that the, that new nuclear, that trend lines
14 in new nuclear, you know, from a 10,000-foot level, that
15 the trend lines typically suggest that the nuclear power
16 plants will take longer than, than originally projected?

17 **A** Yes and no. No in construction terms. They
18 seem to be on track with the original construction
19 timelines. In the overall timeline, yes. And we've
20 experienced that in our project, that the regulatory
21 process up front is taking longer than originally
22 expected.

23 **Q** And the same question with respect to cost.

24 **A** I'd say -- I guess I would say no. In general
25 we're seeing -- at FPL we've stayed with the original,

1 essentially the original overnight cost estimate that we
2 started with. We think that we were pretty encompassing
3 when we developed that. Recent reports out of the
4 Vogtle project indicate that while there's opportunity
5 for price increases, they've maintained their expected
6 cost estimate. So in general we're seeing prices hold
7 close to estimates.

8 Q And as we, as we sit here today, your
9 in-service dates are 2022 and 2023; is that right?

10 A That's correct.

11 Q Do you have those nailed down to a quarter or
12 a month?

13 A I believe it's in August of 2023, 2022 and
14 2023.

15 Q August for both of them?

16 A Yes.

17 Q And have you done or can you tell us what the
18 date by which you need to give a notice to proceed on
19 construction is in order to meet those time frames?

20 A In general, it would be in early 2015.

21 Q For the one that comes online in 2022 or --

22 A Yes.

23 Q So you would add an additional year to the, to
24 the second one?

25 A Correct. But we would approach the projects

1 as a combined project.

2 Q One notice to proceed for both units?

3 A In all likelihood that's how we would contract
4 for the projects.

5 Q Okay. I have just a few questions about some
6 of your, your, your testimony. In one you talked about,
7 in response to my question about delays, about the
8 regulatory process. Have you done an analysis as to
9 whether your projected time frame is going to be
10 affected by this recent federal court ruling on the
11 waste competency issue?

12 A No. We've not done a specific project
13 analysis on that.

14 Q Okay. Are you -- you are aware that the
15 Nuclear Regulatory Commission has directed their staff
16 to look into it and given them a couple-year time frame
17 to do that?

18 A Yes, I'm aware of that.

19 Q It's safe to say it's not going to speed it
20 up?

21 A To be specific, our current revision 6 COLA
22 schedule has us needing a final licensing decision by
23 the NRC by October of 2014. The current guidance
24 provided by the NRC to staff is to complete the
25 rulemaking and complete the EIS by September of 2014.

1 So if you matched them up right now, it looks like it
2 matches up. Is there an opportunity for additional
3 delays? Certainly.

4 Q And in the overall regulatory licensing
5 process, you would agree that's a pretty, pretty tight
6 time frame, correct, as to when they're supposed to be
7 done with the rulemaking and when you're supposed to get
8 your license?

9 A Again, it is a tight timeline. There's
10 opportunities for delays in regulatory processes.

11 Q All right. So let me refer you to your March
12 1, 2012, testimony, on page 9, line 13.

13 A I'm there.

14 Q And actually you start, this is a -- I want to
15 ask you about that one sentence. But up at the top
16 you're talking about the incident in Japan, right, the
17 Fukushima nuclear incident?

18 A I'm not in the same place you are, I don't
19 think.

20 MS. CANO: May I ask which direct testimony
21 you're referring to?

22 MR. MOYLE: March 1, 2012.

23 BY MR. MOYLE:

24 Q I'm sorry. It's page 10.

25 A Okay.

1 Q The question started on page 9. The question
2 was: What key events occurred in 2011 that impacted the
3 national and international nuclear industry?

4 A Yes, I'm with you.

5 Q And then you answer in reference to Fukushima;
6 right?

7 A Yes, as one item.

8 Q All right. And I guess what I wanted to
9 explore with you is on line 16, you say that, quote, no
10 near-term regulatory changes are indicated that will
11 affect the pace of the AP1000 certification, the R-COLA
12 certification, or the Turkey Point 6 and 7 COLA. And I
13 think you go on to say that the NRC rejected numerous
14 requests to suspend the COLA review process in light of
15 the Fukushima accident?

16 A That's correct. That's my testimony.

17 Q Okay. So based on your testimony, I would, I
18 would conclude that while Fukushima was significant, it
19 hasn't, it hasn't had a material negative impact with
20 respect to licensing; is that fair?

21 A For the Turkey Point 6 and 7 project that's on
22 a longer timeline, that's correct, as compared to Vogtle
23 or South Carolina.

24 Q And on, on page 9, line 13. I'm sorry I got
25 you out of order a little bit. You make a comment on

1 page [sic] 13, you're talking about the value of FPL's
2 approach to developing nuclear generation. That was the
3 question. And you say, quote, Lastly, a shorter time
4 span between the decision to initiate construction
5 activities and the commercial operation dates will
6 reduce uncertainties in the underlying feasibility
7 analysis and provide the best decision basis available.

8 **A** That's correct.

9 **Q** Are you suggesting that, that, that the Turkey
10 Point 6 and 7 will have a shorter construction time
11 frame?

12 **A** No, not at all. What I'm saying in the
13 testimony is that by having a shorter time span between
14 when FPL negotiates a construction contract and
15 initiates that construction contract will have less
16 uncertainty as to the price of that. So similar to
17 buying a car, if you're buying a car in a certain day,
18 you have a pretty good idea what that cost is. If
19 you're buying a car five years ahead of time, you may
20 not have as much certainty about the price of that car.

21 **Q** Your point simply is is that you plan, your
22 plan is to execute an EPC contract pretty close to the
23 time you're going to begin construction.

24 **A** That's correct.

25 **Q** Okay. All right. And then the final portion

1 of your testimony I had a question about is on page 38,
2 line 6.

3 A Still in the March testimony?

4 Q That's right.

5 A Okay. I'm there.

6 Q Okay. And, and this relates to your actual
7 licensing cost; is that right?

8 A A portion of the cost, yes.

9 Q All right. And on line 7 you say that the NRC
10 did not progress at the originally expected pace, and
11 therefore FPL incurred fewer costs than estimated. Am I
12 reading that correctly to suggest that in this context,
13 with your NRC licensing, that because they delayed, that
14 it actually resulted in, in savings?

15 A I wouldn't call them savings. They resulted
16 in deferred costs. The costs were originally, as this
17 testimony deals with 2011, expected to be extended in
18 2011. Because the pace of the review was slower than
19 expected, those reviews actually occurred in 2012, some
20 of them. So there was less review activity in 2011 than
21 expected, and therefore the fees were lower than
22 expected.

23 Q Okay. So, so essentially your testimony is,
24 is that the fees just shifted from one year into the
25 next?

1 **A** That's correct.

2 **Q** Okay. But there wasn't any increase in the
3 fees, were there? It's just a timing matter?

4 **A** For our knowledge, no, no increase.

5 **Q** Okay. So the fact that the NRC delayed their
6 activity on licensing did not increase the, the cost to
7 you; correct?

8 **A** Correct, with one clarification. We don't
9 receive a budget from the NRC as to what they expect to
10 spend. We estimate that, so.

11 **MR. MOYLE:** Okay. That's all I have. Thank
12 you.

13 **CHAIRMAN BRISÉ:** Okay. FEA.

14 **LIEUTENANT COLONEL FIKE:** Just one question,
15 Mr. Chairman.

16 **CROSS EXAMINATION**

17 **BY LIEUTENANT COLONEL FIKE:**

18 **Q** Just out of curiosity, the schedule that you
19 put forth for the plants, how much in your planning do
20 you allow for, like, unexpected, I wouldn't say black
21 swan events, but unexpected, like, typical delays from
22 licensing approvals, those kind, how much in your
23 planning do you allow for that, and so how confident are
24 you in the estimate of 2022?

25 **A** Well, in your, in the testimony, particularly

1 my April testimony, I talk about we received a new NRC
2 revised schedule in October of 2011, and we did a
3 wholesale review of the project schedule based on that
4 new revised schedule. A number of interim milestones
5 shifted but the end date didn't need to shift.

6 One of the reasons that end date didn't need
7 to shift is we subsumed some margin that we had in the
8 schedule. So the schedule is flexible, the schedule
9 assumes some margin between activities, but the schedule
10 today has less margin than the schedule this time last
11 year.

12 Q So you do, you do have margin as part of your
13 planning. I mean, did that margin include things like a
14 Fukushima, I mean, kind of event in the interim between
15 now and 2022?

16 A No. That would not be something that we would
17 plan for.

18 **LIEUTENANT COLONEL FIKE:** All right. Thanks.

19 **CHAIRMAN BRISÉ:** SACE.

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

21 **CROSS EXAMINATION**

22 **BY MR. WHITLOCK:**

23 Q Good morning, Mr. Scroggs.

24 A Good morning.

25 Q I guess FPL finds itself in a bit of a

1 different position this year with projected in-service
2 dates falling before those of Levy, doesn't it?

3 A That's a fact, yes.

4 Q Now I'm a bit, I'm a bit confused, so perhaps
5 you can help me here. Were you present for Mr. Reed's
6 testimony last week before the Commission?

7 A No, I was not.

8 Q Have you -- did you view the testimony or have
9 you reviewed it?

10 A I have reviewed it, yes.

11 Q Okay. I believe Mr. Reed testified that
12 certain dates, including the, the anticipated, the date
13 for the anticipated receipt of the combined operating
14 license, was going to be pushed out; is that accurate?

15 A I believe he made a statement that he thought
16 that was likely. But there's been no revision to the
17 COLA schedule on which to base that, so.

18 Q So Mr. Reed was incorrect?

19 A No. I'm saying my, my recollection was that
20 Mr. Reed indicated he thought it would be likely that
21 the COLA dates would shift out. But, again, there is no
22 published schedule from the NRC, so.

23 Q Okay. Well, in your April 27th testimony at
24 page 23 you say that the COLA is expected in June of
25 2014; correct?

1 **A** Can you point me to the line, please?

2 **Q** Line 16.

3 **A** Well, that was the October 2011 NRC letter.
4 That's their scheduled date for the COLA in June 2014.
5 The testimony goes on to describe that our project
6 schedule review resulted in us indicating October 2014
7 as, as the date.

8 **Q** Can you point me where your testimony says
9 that, Mr. Scroggs?

10 **A** Well, you're right. I don't mention the
11 specific date of October 2014. But on 23, page 23, line
12 16, the June 2014 date is speaking to what the NRC
13 published as their expected date.

14 **Q** But your expected date is October of 2014?

15 **A** Correct.

16 **Q** Okay. Now, Mr. Reed also testified that other
17 COLA related dates were going to be pushed out. I think
18 the final EIS, the NRC hearings, and the final safety
19 evaluation report; is that accurate?

20 **MS. CANO:** I object. If he's going to ask
21 Mr. Scroggs about Mr. Reed's testimony, we would simply
22 ask that he put a copy of the transcript in front of
23 him.

24 **MR. WHITLOCK:** Mr. Chairman, he said he's
25 reviewed the testimony. I don't have a transcript of

1 Mr. Reed's testimony.

2 **MS. CANO:** Yeah. I'm sorry. Without the
3 transcript we're all sort of relying on his memory and
4 characterization here.

5 **MR. WHITLOCK:** He said he's reviewed it. I
6 think, I think y'all, the Commission probably remembers
7 Mr. Reed's testimony. It was a week ago.

8 **CHAIRMAN BRISÉ:** All right. I think that if,
9 if he recalls, then he answer. If he doesn't recall,
10 you know, he can say that he doesn't recall.

11 **BY MR. WHITLOCK:**

12 **Q** Mr. Scroggs, I'll ask you, do you recall that
13 Mr. Reed testified that other COLA related dates were
14 going to be pushed out into the future?

15 **A** I don't specifically recall, but I can
16 identify in my testimony, page 23, line 20, where I talk
17 specifically about the dates shifted for the final
18 safety evaluation report and the final EIS.

19 **Q** And Mr. Reed testified those dates were going
20 to be pushed out further; is that accurate?

21 **A** I don't recall that he spoke about specific
22 interim dates.

23 **Q** Mr. Scroggs, when Mr. Reed testified, he
24 referenced page 48 on his testimony, and referenced
25 lines 14, 19, and 22, saying that those dates were going

1 to be pushed out. Do you recall that?

2 A No, I don't.

3 Q So I guess the conclusion the Commission can
4 take on this is that you and Mr. Reed are certainly not
5 on the same page in regards to the COLA schedule;
6 correct?

7 A No, I don't agree with that at all.

8 Q It certainly sounds like it.

9 I believe on page 4 of your April 27 testimony
10 you talk about delays in projected in-service dates
11 being possible; is that correct?

12 A That's correct.

13 Q And you've testified that as we sit here today
14 the projected in-service dates are 2022 and 2023?

15 A That's correct.

16 Q Would delays in those dates be more accurately
17 characterized as likely?

18 A No.

19 Q Just possible?

20 A It is possible, yeah.

21 Q But more likely than not there won't be any
22 delays in those dates; is that your testimony today?

23 A No.

24 Q Okay. Well, I asked you would it be more
25 properly characterized as likely as opposed to possible.

1 You said no; correct?

2 A That's correct.

3 Q Okay. So more likely than not there will not
4 be delays.

5 MS. CANO: Objection. Asked and answered
6 several times, and becoming somewhat argumentative.

7 CHAIRMAN BRISÉ: I agree.

8 MR. WHITLOCK: Sorry, Mr. Chairman. Thank
9 you.

10 Mr. Chairman, at this time I'd like to show
11 the witness an exhibit that's already been entered into
12 the record. It's Exhibit 116. I know that staff has
13 very kindly already placed a copy over there for the
14 witness to look at, and I'd be happy to distribute
15 copies again if the Commission prefer I do that.

16 CHAIRMAN BRISÉ: Okay. Let's make sure that
17 116, Exhibit 116.

18 BY MR. WHITLOCK:

19 Q Mr. Scroggs, do you have a copy of Exhibit 116
20 there?

21 A Yes, I do.

22 Q Okay. I'll give you a second to review it.

23 A I'm familiar with it.

24 Q Okay. Okay.

25 MR. WHITLOCK: Mr. Chairman, for the record I

1 would note this is a letter from the NRC to FPL, the
2 subject being Turkey Point's Units 6 and 7 combined
3 license application review schedule.

4 **BY MR. WHITLOCK:**

5 Q Mr. Scroggs, I believe you stated you've seen
6 this letter before?

7 A That's correct.

8 Q You're familiar with it?

9 A Yes.

10 Q Okay. If you would, would you read the first
11 sentence of the letter out loud?

12 A The U.S. Nuclear Regulatory Commission staff
13 has identified two significant issues that are affecting
14 the staff's ability to complete its safety and
15 environmental reviews of Florida Power & Light's
16 application for combined licenses for new Units 6 and
17 7 at the Turkey Point site.

18 Q Okay. And what are the two significant issues
19 this letter addresses?

20 A Essentially they're talking about the very
21 technical geological seismic issues related to the
22 characterization of the site that support the safety
23 analysis, and the manner in which we conducted an
24 alternative site analysis, looking for other potential
25 sites in FPL's service territory for a nuclear plant for

1 the environmental portion of the NRC license
2 application.

3 Q So it would be fair to say that this letter
4 addresses the safety and the environmental portions of
5 your combined license application?

6 A It addresses portions of it. There's
7 obviously other aspects of the project that continue on
8 at pace.

9 Q Sure. Okay. And there under the heading
10 Geology, Seismology, and Geotechnical Engineering, which
11 I believe you said was the first, the first issue, do
12 you see there the second sentence starting with Many?
13 Would you read that sentence into the record, please,
14 sir.

15 A Yes. Many of the RAI responses are either
16 unclear, incomplete, or based on conclusions that are
17 not supported by the references provided.

18 Q Would you go on, please?

19 A How far?

20 Q Two more sentences, please.

21 A Okay. Further, in some cases FPL responses
22 reflect a reinterpretation of the data and results of
23 peer-reviewed publications which has resulted in
24 dismissal of certain geologically recent deformations.
25 Dismissal of such information could result in minimizing

1 the potential seismic hazard in the region without
2 providing sufficient justification.

3 Q Now, following the Fukushima disaster in
4 Japan, would it be accurate to say that seismic hazards
5 are of utmost importance right now to the NRC?

6 A Seismic hazards are always a very high level
7 of importance to the NRC, but it does appear that
8 they've taken on an added interest since the Fukushima
9 events.

10 Q Okay. And so the letter goes on to say, based
11 on the technical information provided to date,
12 significant technical issues remain. Is that accurate?

13 A That's correct.

14 Q Okay. And in the second paragraph I believe
15 the NRC staff requested that FPL conduct an internal
16 audit of its quality assurance processes and management
17 oversight processes, and also conduct, conduct -- excuse
18 me -- an extent of condition quality assurance audit of
19 FPL's contractor. Have, have those activities occurred
20 to date?

21 A Yes, they have.

22 Q Okay. And have you informed the NRC of the
23 findings, as referenced there at the end of that
24 paragraph?

25 A Yes, we have.

1 Q Okay. And turning over to page 2, it notes
2 the NRC will issue a new schedule following staff
3 evaluation of the revised FSAR sections. Have those
4 sections been revised?

5 A The -- no, they have not. The expected time
6 frame for revising those sections is late October or
7 early November of this year.

8 Q So you, I trust you have not received a new
9 schedule from the NRC?

10 A That's correct.

11 Q Okay. And, again, so the second part -- the
12 first part dealt with safety. The second part where it
13 says alternative sites, that deals with the
14 environmental review; correct?

15 A That's correct.

16 Q Okay. And going on over to page 3, would you
17 read the second paragraph into the record, starting with
18 In summary, please, sir.

19 A In summary, the NRC cannot continue to make
20 progress in its reviews of the areas identified above
21 until FPL makes substantial modifications to its COL
22 application. The NRC will reassess FPL's overall review
23 schedule following receipt of the necessary information.

24 Q So as it pertains to the substantial
25 modifications, you've stated that the company expects to

1 have those to the NRC late this year essentially?

2 A That's correct.

3 Q Okay. And at that point the NRC will reassess
4 the overall review schedule; is that your understanding?

5 A Correct.

6 Q Okay. And how will that affect the overall
7 review schedule?

8 A It's hard to predict. Base -- this is a
9 similar situation to last year. If you'll recall, at
10 this time last year our schedule was under review by the
11 NRC and they revised the schedule in October of 2011,
12 and then we were able to conduct a more complete review.
13 That review slipped some interim dates within the
14 regulatory time frame but didn't affect the overall COD.
15 That's possible here as well.

16 Q Do you, do you think it's likely to affect the
17 October 2014 COL anticipated receipt date?

18 A I think it might by a couple of months. But,
19 again, it's really hard to understand all the factors
20 until we receive a revised schedule from the COL.

21 Q But you do believe it'll push out the
22 anticipated receipt date of the COL?

23 A It might by some small period of time.

24 Q Okay. Would that then affect the projected
25 in-service dates of 2022 and 2023?

1 **A** Again, we'd want to go through a full project
2 schedule review, as we did last year. But based on the
3 results of last year, I would say a couple months' slip
4 would not necessarily affect the COD dates.

5 **Q** But if it was more than a couple months, it's
6 possible?

7 **A** It's certainly possible.

8 **Q** Okay. Okay. I believe you testified that the
9 estimated project costs, in response to a question from
10 Mr. Moyle, 12.85 billion to 18.75 billion; is that
11 correct?

12 **A** That's correct. I think that's on page 23.

13 **Q** Okay.

14 **A** Of my -- or excuse me. That would be page 27
15 of my testimony.

16 **Q** Does that, does that estimate include AFUDC?

17 **A** Yes, it does.

18 **Q** Okay. And is that stated in terms of
19 overnight costs?

20 **A** No, it's not.

21 **Q** Okay.

22 **A** They're as-spent, as-spent dollars.

23 **Q** Okay. As we sit here today, can you guarantee
24 to the Commission that the final cost of the project
25 will fall within that range?

1 **A** No.

2 **Q** Okay. And, in fact, in Mr. Reed's testimony,
3 I believe he stated that this estimate was indicative in
4 nature. Are you familiar with that?

5 **A** I'm not familiar with that specific phrase in
6 Mr. Reed's testimony, but I understand the nuclear cost
7 recovery rule doesn't require us to provide a binding
8 cost estimate, specifically envisions a nonbinding cost
9 estimate.

10 **Q** Mr. Reed also said that that estimate would
11 need to be, quote, much more definitive in nature before
12 FPL commits to the construction phase of the project.
13 Would you agree with Mr. Reed's assessment of the
14 current cost estimate?

15 **A** Yes. In fact, I think Mr. Moyle and I
16 discussed that specifically earlier, that it would be
17 our objective to make sure we have a very sharp cost
18 estimate before we would initiate the construction
19 phase.

20 **Q** And, in fact, before you would commit to the
21 construction phase; correct?

22 **A** Your words.

23 **Q** Well, I'm just -- those are Mr. Reed's words,
24 not mine.

25 **A** I'm, again, not familiar with specific words

1 from Mr. Reed.

2 **MR. WHITLOCK:** Mr. Chairman, can I give the
3 witness a copy of Mr. Reed's testimony?

4 **CHAIRMAN BRISÉ:** Sure.

5 **MR. WHITLOCK:** Would that be okay? Thank you.
6 If I could just have a second.

7 **MS. CANO:** Does counsel happen to have another
8 copy available for us?

9 **MR. WHITLOCK:** I do not, Mr. Chairman.

10 **MS. CANO:** Okay. If you'd give us one second,
11 please, we may be able to wrestle down our own copy.

12 **CHAIRMAN BRISÉ:** Sure. No problem.

13 (Pause.)

14 **MS. CANO:** And just to be clear, which file
15 date testimony are we looking at?

16 **MR. WHITLOCK:** I believe Mr. Reed only -- not
17 his rebuttal. His direct testimony, March 1st, 2012.

18 **MS. CANO:** Thank you.

19 **MR. WHITLOCK:** Sure.

20 **BY MR. WHITLOCK:**

21 **Q** Mr. Scroggs, I would direct you to page 54,
22 the question at line 3 and the answer at line 5.

23 **A** Yes, I'm there.

24 **Q** Okay. The question was: Has FPL developed a
25 cost estimate that is sufficiently detailed for the

1 current phase of the project?

2 The answer reads: Yes. However, it is
3 important to know that FPL -- to note that FPL's cost
4 estimate is currently indicative in nature and will need
5 to be much more definitive before FPL commits to the
6 construction phase of the project.

7 Do you see that?

8 **A** Yes, I do.

9 **Q** And I'd ask you again, do you agree with
10 Mr. Reed's assessment of the cost estimate?

11 **A** Yes, with one caveat. I'm not sure what
12 others view in terms of the word indicative. For me
13 it's the best available information that we have at this
14 point in time. So if that's indicative in Mr. Reed's
15 assessment, I'll accept that.

16 **Q** Okay. And I believe you testified that, and I
17 think -- and I apologize. You and Mr. Moyle did say
18 that that estimate would need to be more definitive
19 before you commit to the construction phase?

20 **A** Absolutely.

21 **Q** Okay. And it's more likely to increase than
22 it is to decrease; correct?

23 **A** I wouldn't say that.

24 **Q** Okay. Mr. Scroggs, when do you think FPL will
25 commit to the construction phase of the project?

1 **A** At the appropriate time. In the current
2 schedule, you know, the timeline for entering into the
3 substantive contracts would be early 2015.

4 **Q** Will it be after receipt of the combined
5 operating license, assume, assuming that that license is
6 received?

7 **A** Again, there's no sharp linkage between the
8 two. We've pretty much set the process up for that,
9 though, yes.

10 **Q** Regarding your March 1st testimony, I don't
11 have many questions. Just I guess in general would it
12 be fair to say that in 2011 FPL's activities relating to
13 Turkey Point 6 and 7 focused exclusively on licensing
14 efforts?

15 **A** Licensing, permitting, other approvals, yes,
16 sir.

17 **Q** I'm sorry. And by licensing, I was, I meant
18 all of those things, but I didn't say it with such --

19 **A** Sorry. I was cutting it a little finer.
20 Sorry.

21 **Q** Sure. Sure. Thank you. And moving, moving
22 on to your April 27th testimony at page 2, line 19, I
23 believe you note that FPL's 2013 cost recovery request,
24 as in past years, includes only amounts associated with
25 license and preparation activities; correct?

1 **A** Correct.

2 **Q** Okay. And moving on over to page 3, line 4,
3 where you were asked to summarize your testimony.

4 **A** I'm there.

5 **Q** I believe you characterize the activities
6 relating to Turkey Point 6 and 7 as creating the
7 opportunity for additional reliable, cost-effective, and
8 fuel diverse nuclear generation to benefit FPL
9 customers; is that correct?

10 **A** Yes. It certainly does that.

11 **Q** And is that still an accurate characterization
12 of FPL's activities and intent today?

13 **A** Yes.

14 **Q** Okay. Moving on over to page 4 -- line, let's
15 see, about -- the bullet point starting at line 15,
16 going over to line 16, I believe that the company now
17 estimates fuel savings for FPL's customers over the life
18 of the project at approximately 58 billion; is that
19 correct?

20 **A** That's correct.

21 **Q** Okay. And correct me if I'm wrong, but in
22 2010 wasn't that number 90 billion?

23 **A** I don't have my testimony in front of me, but
24 subject to check, I'd agree it's about that.

25 **Q** Subject to -- I'm sorry?

1 **A** Subject to check, I would agree that it's in,
2 in that range.

3 **Q** I believe there was an interrogatory that you
4 might have been the sponsor of the response to that
5 stated as much.

6 So there's been a decrease of over 30 billion
7 in projected fuel savings since 2010; is that an
8 accurate statement?

9 **A** Yeah. And that's a reflection of natural gas
10 prices that we compare ourselves to as the best
11 alternative to nuclear.

12 **Q** In regards to gas prices, would you agree with
13 me that gas prices are at or near historical lows?

14 **A** Yes.

15 **Q** And, furthermore, that long-range forecasts
16 show they're going to continue to be depressed?

17 **A** We use a range of forecasts. I don't know how
18 far out that goes, but the feasibility analysis, using a
19 range of forecasts, still shows the project to be
20 cost-effective for customers.

21 **Q** Do you know which range of forecasts is more
22 likely than any other one?

23 **A** No. In fact, that's why we use a range of
24 forecasts.

25 **Q** Moving on, I believe it's page 26 of your

1 testimony, line 15. Are you there?

2 A Yes.

3 Q You were asked, does FPL intend to pursue
4 completion of Turkey Point 6 and 7?

5 A Yes.

6 Q And you responded in the affirmative, yes; is
7 that accurate?

8 A That is correct and that is accurate.

9 Q Okay. I'm sorry?

10 A That is correct and accurate.

11 Q Okay. Thank you. I interrupted you. I
12 apologize.

13 Were you present last year when Commissioner
14 Edgar asked the same question to the then CEO of FPL,
15 Mr. Olivera?

16 A I don't know if I was in the room, but I was
17 in the area.

18 Q Okay. Do you recall what his response was?

19 A Not verbatim.

20 **MR. WHITLOCK:** Okay. Mr. Chairman, I'd like
21 to mark an exhibit, if I could.

22 **CHAIRMAN BRISÉ:** Sure. We're at 130.

23 (Exhibit 130 marked for identification.)

24 **MR. WHITLOCK:** Mr. Chairman, for the record,
25 Exhibit 130 will be a transcript excerpt from Docket

1 110009-EI.

2 **CHAIRMAN BRISÉ:** Okay.

3 **BY MR. WHITLOCK:**

4 **Q** And, Mr. Scroggs, I direct you first to
5 transcript page 527, and this is Commissioner Edgar's --

6 **CHAIRMAN BRISÉ:** If you would wait one second.
7 I don't think, I don't think the counsel for FPL has
8 seen the document as of yet.

9 **MR. WHITLOCK:** Okay.

10 **CHAIRMAN BRISÉ:** All right. I think you may
11 proceed.

12 **MR. WHITLOCK:** Thank you.

13 **BY MR. WHITLOCK:**

14 **Q** On 527, Mr. Scroggs -- Commissioner Edgar's
15 question actually starts on page 526 -- but on 527,
16 around line 5, she stated: We have heard in opening
17 arguments and in some of the testimony and responses and
18 questions today the position of SACE that regarding
19 Turkey Point 6 and 7 there is no real and demonstrated
20 intent to actually construct the reactors. I recognize
21 that the receipt of a COL is a necessary step in the
22 longer process, but from your perspective what things is
23 the company doing or not doing that represent an intent
24 or commitment to move forward on construction?

25 Do you see that?

1 A I see.

2 Q Okay. And on page 14 Mr. Olivera starts his
3 response. And if you could go over to page 528, line 3.
4 Do you see where it starts with, And if I may?

5 A Yes.

6 Q Would you read Mr. Olivera's response, please,
7 into the record.

8 A Would it be okay if I can read his entire
9 response first?

10 Q Sure. Absolutely. Absolutely.

11 A Thanks.

12 (Pause.)

13 Okay. I'm ready.

14 Q Would you -- I asked you to read it into the
15 record, please, sir.

16 A And if I just, and if I may just hit quickly
17 this issue of, you know, what our intentions are.

18 Q Keep going, please, sir.

19 A Our intentions are to go through the licensing
20 process.

21 Q Two more sentences.

22 A How far down? Okay. Thanks.

23 When we have the COLA application approved, I
24 think we will look at, you know, what is happening, what
25 do we think is the most likely demand outlook for the

1 state, you know, does this project, is the project
2 needed.

3 Q Thank you. So in your prefiled testimony this
4 year and today in front of this Commission under oath
5 you've tested that, you've testified that FPL intends to
6 pursue completion; correct?

7 A That's correct.

8 Q And whereas last year Mr. Olivera stated that
9 the intention was to go through the licensing process
10 and then to reassess, reassess economics, things like
11 that. Would that be an accurate characterization?

12 A Yes, it would.

13 Q Okay. So do you dispute Mr. Olivera's
14 statement from last year?

15 A No. I think there's a difference in, in how
16 you're interpreting it and how I'm interpreting it. If
17 I'd be allowed to explain.

18 Q Sure. Sure.

19 A I think what Mr. Olivera is actually just
20 being very frank with the Commission about the same
21 things that I've said. We're committed to go forward
22 with the project. We wouldn't have initiated the need
23 order, we wouldn't be here every year in nuclear cost
24 recovery and pursuing the licenses if we didn't intend
25 to go through with the project.

1 That said, it doesn't mean that we would
2 blindly make a commitment at a very far time from when
3 all the information is in, that we would go through a
4 project with, without regard to the results of what an
5 economic analysis may show one year from now, two years
6 from now. So I would do the annual feasibility analysis
7 every year.

8 So I don't see any inconsistency in how I as a
9 project manager am looking at stepwise decision-making
10 through each phase and how Mr. Olivera explained it last
11 year.

12 **Q** So the main difference was Mr. Olivera was
13 being frank with the Commission and you're not?

14 **A** No.

15 **CHAIRMAN BRISÉ:** I think that that's a little
16 bit argumentative there.

17 **MR. WHITLOCK:** I apologize, Mr. Chairman.

18 **BY MR. WHITLOCK:**

19 **Q** Mr. Scroggs, you'd certainly agree with me
20 there's, there's a difference in your testimony this
21 year and in Mr. Olivera's testimony before this
22 Commission last year.

23 **A** I do not think there's a difference, no.

24 **Q** You also just stated in your attempt to
25 explain your answer that y'all are committed to go

1 forward, but we've already established y'all have not
2 committed to construction; correct?

3 A Yes. And, again, I think that's a difference
4 of looking at the project as a whole. We would not have
5 initiated the project if we weren't ready to move
6 forward with it. That said, these projects are highly
7 complex, they span years. The fundamental inputs change
8 over those years, which is why we review them annually
9 and make the decision that is merited at the time of the
10 information.

11 Q But you have -- you've, you've initiated the
12 project but you have not committed to build it; correct?

13 A We have not committed to go to the
14 construction phase. That's a correct statement.

15 Q Thank you.

16 Moving on to page 27 of your testimony. And I
17 think you might have addressed this with Ms. Cano before
18 your, before your testimony in regards to the forging
19 reservation agreement, the questions on line 7, and I
20 think on line 12 you stated the current extension
21 expires June 1st, 2012, and I believe you've stated
22 that's now October 1st?

23 A That's correct.

24 Q Okay. So was another extension negotiated?

25 A Yes. That's correct.

1 Q Okay. And how many extensions have there been
2 now; do you know?

3 A I'd say on the order of eight or nine.

4 Q Eight or nine?

5 A Yeah.

6 Q Okay. If you intend to build, as you state,
7 why doesn't the company just go ahead and negotiate a
8 binding reservation agreement?

9 A Again, every contract negotiation is based on
10 the merits of what's going on with the contract. It's
11 been to our advantage and our customers' advantage to
12 keep extending this contract rather than accept terms
13 that we didn't want to accept. So given the opportunity
14 or the option of a bad contract or extending a contract,
15 I'd extend, and that's what we've done.

16 Q So in October do you anticipate another
17 extension or --

18 A No. The reason that we extend in short
19 increments is to keep both parties focused on the
20 urgency of resolving the issue. So I'm hopeful that we
21 can resolve it.

22 Q With a binding agreement?

23 A I'm hopeful that we can resolve it.

24 Q I believe you testified earlier in response to
25 a question from Mr. Moyle that, and correct me if I'm

1 wrong, of course, that construction would have to be
2 commenced in early 2015 to meet the 2022 and 2023
3 in-service dates; is that accurate?

4 **A** No, with a slight change.

5 **Q** Okay.

6 **A** He asked me about a contract for the project,
7 and that contract would have to be initiated in early
8 2015.

9 **Q** Okay. And when would construction have to be
10 commenced to --

11 **A** We have --

12 **Q** I'm sorry.

13 **A** It just depends on your definition. Our
14 current schedule looks at some bid evaluate analysis,
15 contract award activity in late 2013, with actual
16 activities on site moving dirt as early as I think July
17 or August of 2014. So that's preliminary work,
18 preliminary site preparation type work.

19 **Q** And so as we sit here today, the company does
20 not have an EPC or an EPANC (phonetic) agreement;
21 correct?

22 **A** That's correct.

23 **Q** Okay. And I'm sorry if I might have missed it
24 embedded in your last answer. Did you give a time when
25 you expect to have such a contract?

1 **A** Yes. That was the response I gave to
2 Mr. Moyle's question of early 2015.

3 **Q** Early 2015. Thank you. Thank you.

4 **MR. WHITLOCK:** Mr. Chairman, if I can just
5 have a quick second. I think I'm almost finished.

6 **CHAIRMAN BRISÉ:** Sure. Sure.

7 (Pause.)

8 **MR. WHITLOCK:** I believe those are all my
9 questions. Thank you, Mr. Scroggs.

10 **THE WITNESS:** Thank you.

11 **CHAIRMAN BRISÉ:** Thank you.

12 Mr. Wright.

13 **MR. WRIGHT:** Thank you, Mr. Chairman. I just
14 have a few questions.

15 **CHAIRMAN BRISÉ:** Sure.

16 **CROSS EXAMINATION**

17 **BY MR. WRIGHT:**

18 **Q** Good morning, Mr. Scroggs.

19 **A** Good morning.

20 **Q** It's nice to see you again.

21 **A** Good to see you.

22 **Q** I just have perhaps two, three, four
23 questions, following up on a question that Mr. Whitlock
24 asked you.

25 I think he asked you whether you would agree

1 that the cost estimate, the ultimate cost of Turkey
2 Point 6 and 7 is more likely to increase than it is to
3 decrease. Do you remember him asking you that question?

4 **A** Yes.

5 **Q** I honestly didn't catch your answer. You kind
6 of leaned away from the mike. Did you say you would not
7 agree with that, or what did you say?

8 **A** I would not agree that it's more likely to
9 increase than decrease. I agree that -- or I don't have
10 a perspective as to whether it's more likely or less
11 likely.

12 **Q** Are you aware of any, any current nuclear
13 plant under development in the United States where,
14 where the cost has decreased?

15 **A** Well, no. I'm also aware that over the last
16 several years we've seen indices for steel and other
17 materials vary widely with the economy, so.

18 **MR. WRIGHT:** Okay. Thank you.

19 **CHAIRMAN BRISÉ:** Thank you.

20 Staff? Ms. Bennett?

21 **MS. BENNETT:** No questions.

22 **CHAIRMAN BRISÉ:** All right. Commissioners?

23 Commissioner Brown.

24 **COMMISSIONER BROWN:** Thank you.

25 Referring to your April testimony, Exhibit

1 SDS-9, page 2 of 4.

2 **THE WITNESS:** I'm there.

3 **COMMISSIONER BROWN:** Okay. Is there -- this
4 is the licensing cost for 2012 and 2013. Is there any
5 overlap, do you see in these categories, for example,
6 the NNP team costs, it suggests that it also includes
7 FPL licensing, and then you've got other categories
8 throughout there, like licensing legal, power systems
9 includes some licensing support. Is there any overlap
10 in those costs?

11 **THE WITNESS:** No, there isn't any overlap in
12 these costs. This table is kind of a roll-up summary of
13 a very detailed line item budget, and that detailed line
14 item budget is probably two or three hundred line items.
15 So each of these line items are very specific and don't
16 overlap.

17 **COMMISSIONER BROWN:** Okay. And then the
18 contingency then category, what is that exactly?

19 **THE WITNESS:** Contingency is a project
20 estimating methodology that anticipates the potential
21 for costs beyond what you can identify, either scope
22 that you didn't expect, such as if we're, for next year
23 in hearings and we have intervention that challenges a
24 certain aspect of our project, we may need to hire an
25 expert to speak on that.

1 So contingency basically is a project
2 estimating methodology to account for those specific
3 items that can't be specifically anticipated in advance.

4 **COMMISSIONER BROWN:** Okay. Thank you. That
5 helps.

6 For the 2012 actual contingency costs, can you
7 accurately reflect that in that 3.3 million figure? Do
8 you know what the actual costs were for contingency in
9 2012?

10 **THE WITNESS:** That is, that is our current
11 estimate as of the filing of this. We have not used
12 that contingency at all this year. I think at present,
13 as of last, as of the end of July, we had about \$2.2
14 million in unused contingency that would likely carry
15 over into 2013. It would not be spent in 2012.

16 **COMMISSIONER BROWN:** Okay. Good. All right.
17 That's all. Thank you.

18 **CHAIRMAN BRISÉ:** Commissioner Balbis.

19 **COMMISSIONER BALBIS:** Thank you, Mr. Chairman.

20 Staying on that SDS-9, page 2, the payroll and
21 other expenses that are projected for 2012 and 2013, are
22 those using, say, payroll amounts that are included in
23 FPL's rate case filing, or the rates that are in effect
24 now, or salaries that are in effect now?

25 **THE WITNESS:** They would be consistent with

1 what was used in the rate case filing, I believe. But
2 they're essentially a reflection of our current
3 commitments to the contractors and employees that are on
4 the project.

5 **COMMISSIONER BALBIS:** Okay. So any changes
6 this Commission may make on the 2012 rate filing would
7 be trued up on what the actuals would be in the
8 subsequent year's NCRC proceedings?

9 **THE WITNESS:** Yeah. Any direction that we
10 receive from the Public Service Commission that's
11 applicable to this project would certainly be applied.

12 **COMMISSIONER BALBIS:** Okay. And then very
13 quickly on the forging reservation agreements. You
14 indicated there have been several extensions of that
15 agreement. Are there any risks associated with not
16 entering into a long-term reservation agreement?

17 **THE WITNESS:** There are some risks that the
18 market would turn around dramatically and that the
19 queues for the limited manufacturing space for these
20 forgings would fill up and therefore, you know, kind of
21 push you out of a window of opportunity. That's not our
22 current assessment of the market.

23 **COMMISSIONER BALBIS:** Okay. Because the
24 current agreement, when does that expire?

25 **THE WITNESS:** It's actually expired several

1 times. We, we have it extended to October 1st, working
2 with Westinghouse to see if we can reach an agreement on
3 how to resolve the multiple extensions that we've had.

4 **COMMISSIONER BALBIS:** And what happens if
5 Westinghouse does not agree to an extension?

6 **THE WITNESS:** Well, the current language would
7 have FPL essentially forfeit 100% of the reservation
8 fee.

9 **COMMISSIONER BALBIS:** And is the forging
10 process, I assume that's on the critical path for the
11 in-service dates?

12 **THE WITNESS:** It's actually, the timeline of
13 the forging agreement was set up for the original 2018
14 and 2022 -- or 2020 dates. In one of the extensions
15 those were adjusted. But at this point, yeah, we need
16 to make a decision by, I'd say by the end of next year.

17 **COMMISSIONER BALBIS:** Make what decision by
18 next year?

19 **THE WITNESS:** It would be the forging dates
20 associated with the agreement would have to be acted on
21 by the end of next year.

22 **COMMISSIONER BALBIS:** Okay. And then my final
23 question. In your April 27th testimony, you mention
24 several international, national, and regional indicators
25 that I believe, you know, to paraphrase your testimony,

1 indicate that the project is still feasible. Is that
2 correct?

3 **THE WITNESS:** That's correct.

4 **COMMISSIONER BALBIS:** And the delays in the
5 project from the original in-service dates of 2018 and
6 2020, you indicated in answering an Intervenor question
7 that that's due to the licensing time frame.

8 **THE WITNESS:** Correct.

9 **COMMISSIONER BALBIS:** So FPL, based on those
10 other indicators, didn't voluntarily delay the project;
11 is that correct?

12 **THE WITNESS:** That's correct.

13 **COMMISSIONER BALBIS:** Okay.

14 **THE WITNESS:** In fact, our annual feasibility
15 analysis continues to show if they were brought in on
16 the current timeline of 2022 and '23, it would be
17 beneficial for our customers.

18 **COMMISSIONER BALBIS:** Okay. And the last line
19 of questioning is in the Exhibit 116, which is the NRC
20 letter. And I'm not too familiar with RAI letters from
21 the NRC, so I'm going to ask you a few questions about
22 this.

23 Would you say that the deficiencies listed in
24 this letter are significant, or is it something that's
25 usually expected in the licensing process?

1 **THE WITNESS:** Well, let me answer your
2 question this way. We were two years into the project
3 before we got -- you know, we supplied an application in
4 2009. The events of Fukushima happened in March of
5 2011. We met with the NRC in May of 2011, and in August
6 of 2011 we received a larger set of RAIs around it.

7 So the attention to detail has gone up a
8 little bit with the NRC. And it's important to
9 understand the NRC's process. They rely on information
10 provided from the applicant wholly to make their
11 decision. So if they have thoughts, information that
12 they want to see brought in, the only way they can do
13 that is to ask the applicant to respond with that new
14 information through the RAI process.

15 So these, these are very complex, very
16 detailed, and reflect areas that the NRC wanted to make
17 sure we explore and provide them the information so they
18 can use that information in their analysis.

19 **COMMISSIONER BALBIS:** So in your opinion, you
20 know, for example, the geologic and seismology questions
21 that were brought up, they weren't from a lack of
22 performance from FPL's subcontractor or a lack of
23 information provided that's normally expected. It's
24 additional information that really wasn't expected at
25 the time?

1 **THE WITNESS:** I think it runs the range. You
2 know, you have -- it's a very highly technical and
3 complex subject area, and you have very well-versed
4 academics who have studied the area and they have
5 certain opinions.

6 So when our experts answered original
7 questions and they didn't put a lot of weight on a
8 certain survey or a certain piece of information, but
9 the NRC wanted to see more information on that, maybe
10 they would put more weight on it, that's what they're
11 asking to provide more information.

12 So when you see questions that, you know, not
13 supported by the references provided in the, in the
14 first paragraph, I think they're saying that, you know,
15 you need to provide more information, more support for
16 the conclusions that your experts have come to.

17 **COMMISSIONER BALBIS:** Okay. So then the, the
18 recommendations or the requests about, for FPL to
19 conduct audits of its own quality assurance processes,
20 et cetera, do you feel that FPL has the appropriate
21 quality assurance processes for its sub-consultants or
22 its own work, or is it implementing the recommendations
23 of the NRC?

24 **THE WITNESS:** We, we did go through the audits
25 for both FPL and our contractor. We're using programs

1 that meet the NRC's requirements. We're hiring
2 contractors and personnel that are qualified. That
3 doesn't mean that those processes and those personnel
4 are infallible. And through the process we identified
5 areas where we could do better and meet the NRC's high
6 standards more quickly, so that's what we've done.

7 **COMMISSIONER BALBIS:** Okay. Thank you.
8 That's all I had.

9 **CHAIRMAN BRISÉ:** All right. Redirect.

10 **MS. CANO:** Thank you. Two brief lines.

11 **REDIRECT EXAMINATION**

12 **BY MS. CANO:**

13 **Q** Mr. Scroggs, staying on this Exhibit 116,
14 which is the NRC letter, Mr. Whitlock asked you whether
15 this letter addresses the safety and environmental
16 sections of the application, and you responded that it
17 addresses portions of those sections. Do you recall
18 that exchange?

19 **A** Yes, I do.

20 **Q** Okay. Could you please clarify your response
21 by putting the sections discussed in this letter in
22 context with respect to the overall application?

23 **A** Yes. The section on the seismic and
24 geological is essentially Section 2.5 of the combined
25 operating application. That's one of 20 -- that's one

1 section in one chapter of 20 chapters of a four-part
2 application. Alternatively on the alternative sites
3 that speaks to Section 9.3. Again, one section of one
4 chapter of 20 chapters of a much larger document. So in
5 context, it's, it's important portions of the
6 application, but by no means the entire application.

7 Q Thank you. And could you now please turn to
8 Exhibit 130, which was the transcript from the 2010
9 docket that Mr. Whitlock provided.

10 A I have it.

11 Q And Mr. Whitlock asked you to read a portion
12 of this transcript into the record. Do you recall that?

13 A Yes, I do.

14 Q Okay. Would you please also read lines 17
15 through 24 on that same page, transcript page 528.

16 A Okay. At 17: You know, right now life is
17 good because gas has been cheap and very stable in the
18 \$4 range, but I think you were on this Commission when
19 gas hit \$14 per MMBtu, which is not that far away. It
20 was October of 2005. So I have lived through all of
21 those things and I fundamentally believe that our
22 customers in our state are better served by a balanced
23 or a more balanced fuel portfolio.

24 **MS. CANO:** Thank you. That's all I have.

25 **CHAIRMAN BRISÉ:** All right. At this time we

1 will deal with exhibits.

2 **MS. CANO:** Yes. FPL would like to move
3 Exhibits 33 through 42 and 129 into the record.

4 **CHAIRMAN BRISÉ:** Okay. Seeing no objections,
5 we will move Exhibits 33 through 42 and 129 into the
6 record.

7 (Exhibits 33 through 42 and 129 admitted into
8 the record.)

9 **MR. WHITLOCK:** Mr. Chairman, SACE would like
10 to move Exhibit 130 into the record, and I believe 116
11 was previously.

12 **CHAIRMAN BRISÉ:** Has been moved already.

13 **MR. WHITLOCK:** Thank you.

14 **CHAIRMAN BRISÉ:** All right. So we will move
15 Exhibit 130 into the record, seeing no objections.

16 (Exhibit 130 admitted into the record.)

17 All right. Thank you. We're going to go
18 ahead and move to the next witness.

19 **MS. CANO:** Yes. I'd just note that
20 Mr. Scroggs has no rebuttal, so I ask that he be excused
21 for the remainder of the hearing.

22 **CHAIRMAN BRISÉ:** Sure. You may be excused.

23 Before we go to the next witness, we'll go
24 ahead and take our five-minute break at this time for
25 our court reporter. All right. So we will recess at

1 this time.

2 (Recess taken.)

3 FPL, you may proceed with your next witness.

4 **MR. ROSS:** Good morning, Mr. Chairman. The
5 company calls Dr. Nils Diaz. He is on the stand and he
6 has been sworn.

7 Whereupon,

8 **NILS J. DIAZ**

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

12 **DIRECT EXAMINATION**

13 **BY MR. ROSS:**

14 **Q** Would you please state your name and business
15 address.

16 **A** Nils J. Diaz, Managing Director of The
17 ND2 Group.

18 **Q** Dr. Diaz, have you prepared and caused to be
19 filed five pages of prefiled direct testimony in this
20 proceeding on April 27th, 2012?

21 **A** Yes.

22 **Q** Do you have any changes or revisions to your
23 prefiled direct testimony?

24 **A** No, I don't.

25 **Q** If I asked you the same questions contained in

1 your prefiled direct testimony today, would your answers
2 be the same?

3 **A** Yes.

4 **MR. ROSS:** Mr. Chairman, I request that the
5 prefiled direct testimony of Dr. Nils Diaz be inserted
6 into the record as though read.

7 **CHAIRMAN BRISÉ:** Okay. We will insert the
8 testimony of Dr. Diaz into the record as though read,
9 seeing no objections.

10 **BY MR. ROSS:**

11 **Q** Dr. Diaz, are you sponsoring exhibits to your
12 prefiled testimony?

13 **A** Yes, I have.

14 **Q** And are those exhibits labeled NJD-1 and
15 NJD -- NDJ-2 [sic]?

16 **A** Yes.

17 **MR. ROSS:** Mr. Chairman, I would note that
18 Dr. Diaz' exhibits have been premarked as Exhibits 42
19 and 43 for identification.

20 **CHAIRMAN BRISÉ:** Perfect. Thank you.
21
22
23
24
25

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

FLORIDA POWER & LIGHT COMPANY

DIRECT TESTIMONY OF NILS J. DIAZ

DOCKET NO. 120009-EI

April 27, 2012

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Q. Please state your name and business address.

A. My name is Nils J. Diaz. My business address is 2508 Sunset Way, St. Petersburg Beach, Florida, 33706.

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

A. I am the Managing Director of The ND2 Group (ND2). ND2 is a consulting group with a strong focus on nuclear energy matters. ND2 presently provides advice for clients in the areas of nuclear power deployment and licensing, high level radioactive waste issues, and advanced security systems development.

Q. Please describe your other industry experience and affiliations.

A. I presently hold policy advising and lead consulting positions in government and industry, board memberships in private institutions, and Chair the American Society of Mechanical Engineers Presidential Task Force on Response to Japan Nuclear Power Plant Events. I previously served as the Chairman of the United States Nuclear Regulatory Commission (NRC) from 2003 to 2006, after serving as a Commissioner of the NRC from 1996 to 2003. Prior to my appointment to the NRC, I was the Director of the Innovative Nuclear Space Power and Propulsion Institute for the Ballistic Missile Defense Organization of the U.S. Department of Defense, and Professor of Nuclear

1 Engineering Sciences at the University of Florida. I have also consulted on nuclear
2 energy and energy policy development for private industries in the United States and
3 abroad, as well as the U.S. Government and other governments. I have testified as an
4 expert witness to the U.S. Senate and House of Representatives on multiple occasions
5 over the last 30 years. I also served as a Commissioner on Florida's Energy and Climate
6 Commission from 2008 to 2010. Additional details on my background and experience are
7 provided in my Resume, which is attached as Exhibit NJD-1.

8 **Q. Are you sponsoring any Exhibits in this case?**

9 A. Yes. I am sponsoring the following Exhibits:

- 10 • NJD-1 - Summary Resume of Nils J. Diaz, PhD; and,
- 11 • NJD-2 - NRC Requirements for Mitigation Strategies for Beyond-Design-Basis
12 External Events at COL Holder Reactor Sites (from NRC Combined License
13 Issued for Vogtle Units 3 and 4).

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

15 A. The purpose of my testimony is to review the reasonableness of Florida Power & Light
16 Company (FPL) continuing its pursuit of a combined operating license (COL) for the
17 Turkey Point 6 and 7 project.

18 **Q. Please describe your review of FPL's approach to the licensing of the Turkey Point
19 6 and 7 project.**

20 A. I am familiar with FPL's Combined Operating License Application (COLA) for the
21 Turkey Point 6 and 7 project. I am knowledgeable regarding the Westinghouse AP1000
22 new nuclear plant design referenced by FPL in its COLA, having worked on the
23 certification of that design when I was on the NRC. I have also reviewed FPL's project

1 approach, as described in detail in the Direct Testimony of Steven Scroggs, FPL's Senior
2 Director for Project Development for the Turkey Point 6 and 7 project, filed with the
3 Commission on March 1, 2012, and on this date. I have also considered the NRC review
4 schedule for the project. Finally, I am familiar with the past and ongoing NRC reviews
5 of other COL applications.

6 **Q. Is FPL's approach to the continued pursuit of a COL for the Turkey Point 6 and 7**
7 **project reasonable?**

8 A. Yes. Based on my review, the decisions and management approaches used by FPL are
9 consistent with a reasonable strategy to establish the licensing and construction of the
10 proposed Turkey Point 6 and 7 project. FPL's scheduling and management approach of
11 pursuing the NRC license for the project at this time is reasonable and should prove
12 beneficial to FPL's customers.

13 **Q. Are there external factors that could impact FPL's COL application for Turkey**
14 **Point 6 and 7?**

15 A. Yes. Several key positive factors now exist that are favorable to a timely review and
16 successful resolution of the Turkey Point 6 and 7 COLA. These factors include:

- 17 ● A successfully completed rulemaking for the AP 1000 Design Certification.
- 18 ● The NRC's issuance of COLs for the Vogtle 3 and 4 project in Georgia and the
19 Summer 2 and 3 project in South Carolina.
- 20 ● The successful demonstration of the referenced design and licensing pathway from
21 the Vogtle and Summer projects.
- 22 ● The current NRC COLA review schedule shows that there are only three AP 1000
23 COL applications with active schedules and two other non-AP 1000 applications

1 active. While this review schedule is subject to change, the NRC's review for FPL's
2 Turkey Point 6 and 7 COLA should result in timely completion of application review.

- 3 • The rejection of all third party contentions except for one by the NRC's Atomic
4 Safety and Licensing Board presiding over the Turkey Point 6 and 7 licensing
5 proceeding. This should limit the scope of the contested hearing on the Turkey Point
6 6 and 7 licensing proceeding. FPL has requested that the remaining contention in this
7 proceeding be dismissed. If this effort is successful, the contested hearing could be
8 eliminated in its entirety.

9 **Q. What do you expect to be the effects of the 2011 Fukushima events in Japan on the**
10 **licensing of the Turkey Point 6 and 7 project?**

11 A. There should be no long term impacts from the Fukushima events on new nuclear plant
12 licensing or on the licensing of the Turkey Point 6 and 7 project.

13
14 With respect to new reactors, the NRC has recognized the significant safety
15 enhancements already built-in to reactors with passive safety systems, such as the AP
16 1000 reactor selected for the Turkey Point 6 and 7 project. The NRC has stated that "all
17 of the current COL and design certification applicants are addressing new seismic and
18 flooding requirements adequately in the context of updated NRC guidance." The NRC
19 Staff also concluded that: "By nature of their passive design and inherent 72-hour coping
20 capability for core, containment and spent fuel cooling with no operator action required,
21 the ...AP 1000 design [has] many of the design features and attributes necessary to
22 address the Task Force recommendations."
23

1 As documented in Exhibit NJD-2, there are specific areas that new reactor licensees will
2 have to incorporate into their licensing basis, including integration of accident
3 management procedures for controlling accident decision-making, pre-staging equipment
4 needed for safety actions beyond 72 hours, improvements to emergency preparedness and
5 the expansion of equipment and severe accident management guidelines, that were
6 established after the 9/11 terrorist attacks to protect plants from large fires and
7 explosions, regardless of the origin. However, it is apparent that the certified AP 1000
8 reactor referenced in the Turkey Point 6 and 7 COLA is very close to satisfying the
9 majority of the post-Fukushima changes under consideration by the NRC.

10 **Q. What is your overall conclusion with respect to FPL's efforts to pursue the Turkey**
11 **Point Units 6 and 7 project?**

12 I believe that FPL's strategy to pursue licensing for the Turkey Point 6 and 7 project
13 continues to be reasonable. Assuming that all NRC requirements are met, the NRC
14 should approve the license application for this project.

15 **Q. Does this conclude your direct testimony?**

16 A. Yes.

1 **BY MR. ROSS:**

2 Q Dr. Diaz, have you prepared a summary of your
3 direct testimony?

4 A Yes, I have.

5 Q Would you please provide that to the
6 Commission now.

7 A Thank you. Good morning, Mr. Chairman and
8 Commissioners. Good to be here again.

9 I have reviewed FPL's continuing pursuit of
10 the combined operating license for the Turkey Point
11 Units 6 and 7 project. I have extensive experience with
12 the NRC regulatory processes and scheduling and with the
13 Westinghouse AP1000 design and design certification, the
14 reactor that FPL intends to build at Turkey Point. I'm
15 also cognizant of the licensing and project management
16 approach used by FPL for this project.

17 While there is some uncertainty over a few
18 regulatory issues for new reactors emerging from the
19 events of Fukushima, the NRC is continuing to resolve
20 issues with a phase approach, with due consideration of
21 the major safety advances incorporated into the AP1000,
22 and I do not expect significant long-term impacts or
23 delays on the Turkey Point 6 and 7 COLA licensing
24 schedule from these considerations.

25 The NRC continues to recognize that the

1 certified AP1000 reactor design referenced in the Turkey
2 Point 6 and 7 COLA is very close to satisfying the
3 majority of the post Fukushima changes, including the
4 fact that new seismic and flooding requirements have
5 been adequately addressed in their design certification.

6 Moreover, several key positive factors now
7 exist that are favorable to a timely review and
8 successful resolution of the Turkey Point Units 6 and 7
9 COLA, including the now very fine new licensing process,
10 the successful completion of the rulemaking for the
11 AP1000 design certification, the NRC's issuance of COLAs
12 for the Vogtle 3 and 4 project in Georgia, and the
13 Summer 2 and 3 project in South Carolina.

14 In addition, the current NRC COLA review
15 schedule shows that there are only three additional
16 AP1000 COL applications with active schedules and two
17 other non AP1000 applications active that were in
18 completion (phonetic) of NRC reviews on schedule.

19 As should be expected, after the major safety
20 regulatory review conducted after the Fukushima
21 accident, there are specific areas outside the design
22 that new reactor licenses will have to incorporate into
23 their licensing basis, including integration of accident
24 management procedures, prestaging equipment needed for
25 safety actions beyond 72 hours, improvement to emergency

1 preparedness, and expansion of post 9/11 equipment and
2 severe accident management guidelines.

3 The Turkey Point 6 and 7 project will benefit
4 from the previously mentioned improvements which are
5 being made in these areas for the FPL nuclear units.

6 In conclusion, FPL's strategy to pursue
7 licensing for Turkey Point Units 6 and 7 continues to be
8 reasonable and consistent with sound management
9 practice, and the NRC should approve the license
10 application for this project as scheduled.

11 This concludes my summary.

12 **MR. ROSS:** Dr. Diaz is available for
13 cross-examination.

14 **CHAIRMAN BRISÉ:** Thank you.

15 OPC?

16 **MR. McGLOTHLIN:** No questions for this
17 witness, Mr. Chairman.

18 **CHAIRMAN BRISÉ:** Okay.

19 FIPUG?

20 **MR. MOYLE:** I have a few. Thank you.

21 **CROSS EXAMINATION**

22 **BY MR. MOYLE:**

23 **Q** Good morning, sir.

24 **A** Good morning.

25 **Q** So you, you served either as a Commissioner or

1 as Chairman of the Nuclear Regular -- Nuclear Regulatory
2 Commission for ten years; is that right?

3 A Ten years. That's correct.

4 Q And you've been in the room this morning?

5 A Yes, I have.

6 Q Okay. Based on your history and your
7 expertise, do you believe it is not common, not typical
8 for the NRC, when dealing with an applicant, to ask that
9 the applicant conduct an internal audit of its quality
10 assurance processes and management oversight that was in
11 place when certain work was performed as part of the
12 COLA application?

13 A I consider it as common and very frequent.

14 Q So that that, if you would go and make a
15 public records request, typically you would, you would
16 see an indication to say, please, in addition to the
17 information you sent, you know, do an audit. Can you
18 tell me why, why, why an audit is asked for like that?

19 A Well, audits are required when there is a
20 question on the processes that were followed to ensure
21 that the, you know, proper quality assurance was
22 instituted from the beginning of the project was
23 followed and was continued.

24 If I may add, you know, many of these requests
25 actually, you know, come in many different phases of the

1 project. Sometimes they're actually, you know, come at
2 any one time, and the reason is the staff has very
3 strict guidelines and they want to make sure that
4 they're followed. And so from design certifications to
5 applications, it is very common to find what the staff
6 consider a deficiency or a need for additional
7 information, and that's how the communication is
8 established.

9 Q Okay. I just want to make sure that we're
10 clear. But my sense of an audit, whether it's being
11 done by the IRS or somebody else, is that usually it's
12 prompted by a bit of a red flag or a concern. Is that
13 not your understanding as it relates to the NRC?

14 A Let me -- yes and no. The reality is that
15 audits are a part of what we call our quality assurance
16 nuclear programs, so they actually are instituted and
17 normally established as part of the processes. In
18 addition, the NRC can require, request, or ask whether
19 you, you know, have conducted or should conduct an
20 additional inspection of your quality assurance program.
21 Very, very normal.

22 Q Okay. And I just want to make clear, because
23 in response to my question I think you mentioned an RAI,
24 like a request for additional information.

25 A Uh-huh.

1 Q Which we could agree is commonplace, that in a
2 licensing process RAIs are commonplace; correct?

3 A Very common.

4 Q Okay. But with respect to a request that you
5 do an internal audit, it's your testimony that that also
6 is commonplace at the Nuclear Regulatory Commission?

7 A Well, it's not as common as RAIs. But RAIs in
8 many occasions are used to prompt the applicant to
9 conduct an analysis. So it's, you know, it is not as
10 common as RAIs, which are the everyday way in which the
11 staff tries to communicate with an applicant, but it is
12 common, yes.

13 Q Okay. And I want to ask you just a couple of
14 questions about seismic review.

15 A Sure.

16 Q And earthquakes I guess is sort of a common
17 term. But, but -- and I think Mr. Scroggs said this,
18 that the NRC has always had a very high level of concern
19 as it relates to seismic activity and earthquakes;
20 correct?

21 A Correct.

22 Q All right. And the events of Fukushima, I
23 think you just testified, maybe highlighted a couple of
24 things for improvement, a 72-hour issue, but they
25 haven't materially changed how the NRC looks at seismic

1 activity; correct?

2 **A** Well, actually, it is ongoing. There are two,
3 two things that actually play into the, let's call it
4 additional interest of the staff on this.

5 One is the relatively recent findings that
6 earthquakes in the east central region of the United
7 States, although they do not have increasing magnitude,
8 they are part of what we call the effects of the
9 earthquake that are being reviewed. That started about
10 three years ago. And they're reflected in the fact that
11 people are using more and more of this -- at least
12 opinion panels.

13 The other thing was Fukushima, that in many
14 ways, yes, created a new awareness and a new desire to
15 find out whether the plants were allowing the proper,
16 you know, seismic responses to be considered in their
17 design.

18 **Q** I had asked Mr. Scroggs a quote from his
19 testimony, where he kind of indicated that he didn't
20 expect any great regulatory -- these are my words --
21 great regulatory change resulting from the events of
22 Fukushima. Do you agree with that?

23 **A** Well --

24 **Q** If you could answer yes, no, and then explain,
25 I'd appreciate it.

1 **A** Yes, no, and --

2 (Laughter.)

3 I'm just quoting what you said. New nuclear
4 power plants have a complete different initial base
5 scheme for the design basis than older plants. They
6 actually have a PRA conducted, they conform to the new
7 requirements of the NRC. They have, you know, a seismic
8 envelope, which is higher than what the older plants is.
9 So in that respect they are better positioned to be able
10 to respond to questions from Fukushima.

11 I do believe that in the case of Turkey Point
12 6 and 7 this will be actually the case, that they will
13 be falling well within the, what we call the
14 .3 acceleration envelope, and that there will be no
15 significant additional actions required regarding the
16 seismic, once they complete their work from the --

17 **Q** And not to, you know, it's a serious topic
18 that needs to be seriously considered.

19 **A** Sure.

20 **Q** But as a general proposition, you're aware
21 that Florida hasn't had an earthquake in, in decades, if
22 not hundred of years?

23 **A** Well, it's correct that there's a low
24 seismic -- we are in low seismic activity. However,
25 there is a preoccupation (phonetic) that I think is

1 being very well reflected by the NRC in what we call
2 rare events. And so what the NRC is looking at this
3 area and making sure that protection of public health
4 and safety continues to be their number one priority,
5 whether it's seismic or anything else.

6 **MR. MOYLE:** Okay. Thank you. That's all I
7 have.

8 **CHAIRMAN BRISÉ:** FEA?

9 **LIEUTENANT COLONEL FIKE:** No questions, Mr.
10 Chairman.

11 **CHAIRMAN BRISÉ:** SACE?

12 **MR. WHITLOCK:** No questions, Mr. Chairman.
13 Thank you.

14 **CHAIRMAN BRISÉ:** FRF?

15 **MR. LAVIA:** No questions.

16 **CHAIRMAN BRISÉ:** Okay. Staff?

17 **MR. LAWSON:** No questions.

18 **CHAIRMAN BRISÉ:** Commissioners?

19 All right. No questions.

20 Redirect?

21 **MR. ROSS:** We have no redirect.

22 **CHAIRMAN BRISÉ:** Okay.

23 **MR. ROSS:** Mr. Chairman, we'd move admission
24 of Exhibits 43 and 44. I think I misspoke when I
25 identified the exhibit numbers. So we'd move 43 and 44.

1 **CHAIRMAN BRISÉ:** Okay. We will move 43 and 44
2 into the record, seeing no objections.

3 (Exhibits 43 and 44 admitted into the record.)

4 **MR. ROSS:** We would request, since Dr. Diaz,
5 we're not submitting his rebuttal testimony, that he be
6 excused.

7 **CHAIRMAN BRISÉ:** Sure.

8 Dr. Diaz, you may be excused.

9 **THE WITNESS:** Thank you very much.

10 **CHAIRMAN BRISÉ:** All right.

11 **THE WITNESS:** Good to see you.

12 (Transcript continues in sequence in Volume
13 6.)

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1 STATE OF FLORIDA)
2 : CERTIFICATE OF REPORTER
3 COUNTY OF LEON)

4 I, LINDA BOLES, RPR, CRR, Official Commission
5 Reporter, do hereby certify that the foregoing
6 proceeding was heard at the time and place herein
7 stated.

8 IT IS FURTHER CERTIFIED that I
9 stenographically reported the said proceedings; that the
10 same has been transcribed under my direct supervision;
11 and that this transcript constitutes a true
12 transcription of my notes of said proceedings.

13 I FURTHER CERTIFY that I am not a relative,
14 employee, attorney or counsel of any of the parties, nor
15 am I a relative or employee of any of the parties'
16 attorneys or counsel connected with the action, nor am I
17 financially interested in the action.

18 DATED THIS 19th day of September,
19 2012.

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