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	BEFORE THE DRIDA PUBLIC SERVICE COMMISSION
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In the Matter of	DOCKET NO. 060038-EI
	UANCE OF A STORM
RECOVERY FINANCI	NG ORDER, BY FLORIDA
POWER & LIGHT CO	MPANI/
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	RONIC VERSIONS OF THIS TRANSCRIPT ARE CONVENIENCE COPY ONLY AND ARE NOT
THE	OFFICIAL TRANSCRIPT OF THE HEARING,
THE .PD	F VERSION INCLUDES PREFILED TESTIMONY.
	VOLUME 10
	Pages 1222 through 1378
PROCEEDINGS:	HEARING
BEFORE:	CHAIRMAN LISA POLAK EDGAR
	COMMISSIONER J. TERRY DEASON COMMISSIONER ISILIO ARRIAGA
	COMMISSIONER MATTHEW M. CARTER, II COMMISSIONER KATRINA J. TEW
DATE:	Friday, April 21, 2006
-	Commenced at 9:15 a.m.
TIME:	
PLACE:	Betty Easley Conference Center Room 148
	4075 Esplanade Way Tallahassee, Florida
	LINDA BOLES, RPR, CCR
REPORTED BY:	JANE FAUROT, RPR
	Official FPSC Hearings Reporters (850)413-6734/(850)413-6732
APPEARANCES :	(As heretofore noted.)
	DOCUMENT NUMBER-DATE
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	1225
1	PROCEEDINGS
2	(Transcript follows in sequence from Volume 9.)
3	MR. KEATING: Staff would call Ms. Rebecca Klein.
4	Oh, and I believe we do need to swear in Ms. Klein.
5	CHAIRMAN EDGAR: Ms. Klein. Thank you.
6	REBECCA KLEIN
7	was called as a witness on behalf of the staff of the Florida
8	Public Service Commission and, having been duly sworn,
9	testified as follows:
10	DIRECT EXAMINATION
11	BY MR. KEATING:
12	Q Ms. Klein, would you state your name and business
13	address for the record.
14	A Rebecca Klein, 1001 Congress Avenue, Austin, Texas.
15	Q Okay. And are you the same Rebecca Klein who
16	prepared testimony comprised of ten pages that was prefiled in
17	this docket?
18	A Iam.
19	Q If I were to ask you today the questions presented in
20	your prefiled testimony, would your answers be the same?
21	A They would.
22	Q Do you have any corrections to make to your prefiled
23	testimony?
24	A I do not.
25	Q Okay.
	FLORIDA PUBLIC SERVICE COMMISSION

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1	MR. KEATING: Madam Chair, staff would ask that
2	Ms. Klein's prefiled testimony be moved into the record as
3	though read.
4	CHAIRMAN EDGAR: The prefiled testimony will be
5	entered into the record as though read.
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2 Q. Please state your name and business address.

- A. Rebecca Klein, The Loeffler Group, 1001 Congress Avenue, Suite 350, Austin,
  Texas 78701
- 5 Q. By whom are you employed and what is your position?
- A. I am a Managing Partner for The Loeffler Group, which specializes in corporate
  legal representation and government affairs.

#### 8 Q. Briefly provide an overview of your education and professional experience?

9 I am a graduate of Stanford University with a Bachelor of Arts degree in Human Α. 10 Biology. I received my Masters degree in National Security Studies at 11 Georgetown University, and earned a Juris Doctorate at St. Mary's University in San Antonio, Texas. I am admitted to practice law in Texas. I am also a Major in 12 13 the U.S. Air Force Reserve. I was awarded the National Defense and Southwest 14 Asia Service Ribbons for service in Saudi Arabia during Desert Shield/Desert Storm. 15

16 I have served as a Commissioner and also as Chairman 17 of the Public Utility Commission of Texas (PUCT) for almost three years. Prior 18 to my appointment to the PUCT in 2001, I served as a Policy Director for then-19 Governor George W. Bush, engaging in a variety of statewide issues and projects 20 in the areas of telecommunications; energy, housing, technology, and banking. 21 My federal experience stretches back to 1988, when I worked for the Secretary of 22 the Air Force as a Legislative Liaison Action Officer. From 1989-1991, I served 23 in the White House of President George H.W. Bush as Associate Director, Office

of Presidential Personnel, where I recommended and recruited for the President's
 approval candidates for sub-cabinet level appointments at national security related
 agencies, as well as ambassadorial appointments. From 1991 to 1993, I was the
 Associate Director of the U.S. Trade and Development Agency during which time
 I oversaw agency accounts in various multi-lateral banks.

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6 Q. Please describe the nature of your relationship with Saber Partners.

A. I am a member of the Advisory Board of Saber Partners, LLC. Members make
themselves available to Saber's senior management from time to time to give their
perspective on issues in which Saber is involved. Members have no management
or operational responsibility for Saber Partners, LLC. I often share my
knowledge with Saber management on regulation and energy issues from a public
policy point of view and from the perspective both from the state and federal level
based on my extensive experience in those areas.

#### 14 Q. Who else serves with you on the Advisory Board?

15 A. The Board is comprised of eight members. Mr. Alan S. Blinder is the current 16 Chairman of the Advisory Board. Mr. Blinder is a Professor of Economics at 17 Princeton University, former Vice Chairman of the Federal Reserve Board in 18 Washington, and a former member of the President's Council of Economic 19 Advisors. Stuart Eizenstat, a partner at Covington and Burling and former 20 Undersecretary of the Department of State for Economic Affairs is also a 21 member.

## Q. During your term with Public Utility Commission of Texas, were any utility securitization transactions completed?

1 A. Three transactions were completed with active Commission oversight Yes. 2 during my tenure at the PUCT. Two transactions were done pursuant to financing 3 orders issued by my predecessors and one from a financing order that I approved 4 as a member of the Commission. These transactions involved the issuance of 5 bonds referred to as "transition bonds." Approximately \$747 million in bonds 6 were issued for Reliant Energy in 2001, \$797 million in bonds were issued for 7 Central Power and Light in 2002, and \$1.3 billion in bonds were issued for Texas 8 Utilities in 2003. Like Florida Power & Light Company's proposed stormrecovery bonds, these bonds required ratepayers to bear the full economic burden 9 10 of the bonds.

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11 Q. Prior to these transactions, did the Texas Commission specifically approve
12 any other types of financings for utilities under its jurisdiction?

A. No. Financings and financing costs were under the company's general cost of capital and subject to a retrospective prudence review process by the Commission in general rate cases. The utilities and their shareholders were directly accountable for all their debt costs and their capital structure under the general review process. If either item (debt level or cost of debt) was found to be imprudent, an adjustment would be made to the cost of capital.

Q. Were the ratepayer-backed securitization bonds treated differently by the
Texas Commission? If so, why?

A. Yes. The normal incentives to minimize waste and inefficiencies are absent with ratepayer-backed bonds, and the PUCT's authority to correct problems it discovered was limited. The Commission was required by law to issue an irrevocable financing order in which the utility is insulated from any and all costs

associated with the financing.<sup>1</sup> The Commission was also required to approve a process called a "true-up mechanism" that committed the Commission to periodically raise the charge that supports the bonds to whatever level is necessary to pay the bonds' principal and interest on time.<sup>2</sup> In addition, the State and the Commission were required to pledge to the bondholders never to take or permit any action to be taken that would interfere with their right to payment.<sup>3</sup> This regulatory guarantee is an extraordinary use of the powers of state regulation.

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### 8 Q. Why was an irrevocable financing order required with a true-up 9 mechanism?

A. The Texas legislature required it because the Texas utilities that sponsored the
Texas securitization legislation advised that a true-up mechanism was necessary
to allow the bonds to be rated by the credit rating agencies at the highest category,
"AAA", and make the bonds more attractive to investors. The PUCT's financial
advisor, Saber Partners, advised the PUCT that this was a correct analysis.

### Q. Why did the Texas legislature and the PUCT believe that a "AAA" rating was necessary?

A. The Texas utilities advised the Texas legislature and the PUCT that a "AAA" bond rating would result in the lowest possible interest rate on the bonds. The PUCT's financial advisor, Saber Partners, advised the PUCT that this was a correct analysis. This rating demonstrates to potential investors that the bonds are not very risky. The lower the risk, the lower the interest rate demanded by

- <sup>1</sup> PURA 39.303.
- <sup>2</sup> PURA 39.307.

<sup>&</sup>lt;sup>3</sup> PURA 39.310.

underwriters and investors. Consequently, it is an important factor that should allow the bonds to be sold to investors at the lowest possible cost to ratepayers.

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- Q. Did the PUCT impose other conditions or provisions in its financing orders
  to improve the marketability of Texas transition bonds and lower the cost to
  ratepayers?
- A. Yes. Joseph Fichera and Michael Noel of Saber Partners, a former underwriter
  and a former Chief Financial Officer, respectively, have outlined in their
  testimony many of the conditions and provisions that were adopted and
  implemented in connection with the Texas transition bonds to lower costs to
  ratepayers.
- Q. In your opinion, should these other conditions or provisions be imposed to
  improve the marketability of Florida storm-recovery bonds and lower the
  cost to Florida ratepayers?

14 A. Yes.

1

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- Q. Did the Texas statute which authorized utility securitizations direct the
   PUCT to apply a standard to ensure that benefits from the legislation and the
   financing order to Texas ratepayers would be maximized?
- A. Yes. Texas. Utility Code Ann. § 39.301 stated that "The commission shall
  ensure that the structuring and pricing of the transition bonds results in the lowest
  transition bond charges consistent with market conditions and the terms of the
  financing order."
- Q. In the absence of that specific mandate, what would you have done as aCommissioner?

1 A. The same thing. I would have pursued the lowest cost to ratepayers for the very 2 simple reason that this was our fundamental responsibility as regulators to 3 ratepayers under our authority as a Commission, particularly in a situation where 4 their interests are not otherwise represented. We were sworn to protect the public 5 interest and the interests of ratepavers. In this instance, the utility was to receive 6 hundreds of millions of dollars but without any direct or indirect obligation to pay 7 The utility's interests were already protected by the nature of the it back. 8 transaction. While the utility had a general interest in keeping overall customer 9 rates low, they had another, more immediate and compelling interest in getting the 10 money as quickly as possible without regard to cost. In this type of financing, it 11 becomes imperative that the regulator stand with the issuer and oversee the costs 12 of the transaction from the perspective of those who have the responsibility for 13 bearing those costs, the ratepayers.

14

#### Q. Why was a "lowest cost" standard important?

A. It sets the appropriate benchmark. Every dollar is a dollar, and in this case, every
dollar is a ratepayer dollar. There is no reason to pay more for some dollars
versus others.

### 18 Q. How did the Texas Commission protect the public interest and assure itself 19 that it met its legislative duty?

A. We established a process of active and involved oversight throughout the transaction lifecycle. The Commission was a joint decision maker with the sponsoring utility in all matters relating to the structuring, marketing, and pricing of the bonds. We expected the utility to work on a collaborative basis with the Commission to ensure a successful transaction at the lowest cost to ratepayers.

1 The Commission also participated actively and was a joint decision maker with 2 the utility in the process of pricing the bonds. In addition, we required a detailed 3 issuance advice process and certifications of what was done during the 4 transaction, the choices made and the efforts expended, explaining how these 5 efforts led to the lowest cost to ratepayers.

Q. Do you believe the utility securitization transactions which you oversaw as
 Chairman of the PUCT were successful in maximizing benefits to Texas
 ratepayers?

9 A. Yes.

10 **Q.** 

#### What is the basis for your belief?

11 A. The Texas financing orders required the utility to file a detailed set of analyses and representations called an "issuance advice letter" upon the pricing of the 12 13 bonds documenting the benefits of the transaction to ratepayers. The Commission 14 also established a detailed procedure of active due diligence on the part of its staff 15 and expert advisors. These staff and expert advisors were assigned to present to 16 the Commission their review of the issuance advice letter once filed, as well as 17 their assessment of whether the structuring, marketing, and pricing of the bonds 18 achieved the lowest costs to ratepayers consistent with market conditions and the 19 terms of the applicable financing order. For each transaction, the Commission 20 noticed a hearing within two business days after pricing for the purpose of issuing 21 a stop order if the Commission was not convinced that the lowest cost objective in 22 fact had been achieved. Throughout the period leading up to pricing and 23 continuing for two business days after pricing, the Commission reviewed this 24 information with staff and decided whether to issue a stop order. The due

1 diligence review was both in real time and after-the-fact, so that the 2 Commission's hands would not be tied as a practical matter. The Commission 3 also reviewed specific lowest cost certifications as to the structure, marketing, and 4 pricing of the bonds from the utility, as well as from the underwriters and from independent experts without any potential conflicts of interest. The factors we 5 6 considered included comparing the pricing relative to an independent benchmark 7 versus other similar securities historically and at the time of pricing, the amount 8 of orders received and from whom, and a number of other factors that staff and 9 our advisors considered in their expert and independent judgment to be necessary. 10 I have attached the most recent issuance advice letter used in Texas which is 11 similar to the letters used during my tenure with the PUCT. See EXH RK-1. I also have attached a supplemental certificate from the utility in that most recent 12 13 Texas transaction. See EXH RK-2.

## 14 Q. Did the PUCT use outside advisors in connection with those utility 15 securitization transactions?

16 A. Yes. The Commission realized it did not have the expertise on staff for this 17 assignment, so we brought in an expert financial advisor without any potential for 18 conflicts of interest. As part of this engagement, the Commission also had the 19 benefit of outside legal counsel. We acted by and through these advisors to 20 ensure that the ratepayers' interests were protected.

- Q. Did the Commission and the PUCT's financial advisor play an active role in
  structuring, marketing, and pricing the securitized bonds?
- 23 A. Yes.

24 Q. Did the Commission require a certification from the financial advisor?

8

1 Yes. In the open meeting on February 25, 2000, the PUCT discussed the need for A. 2 an independent financial advisor to provide a fully accountable opinion as to the 3 lowest cost of funds as one item the Commission would examine in deciding 4 whether or not to approve the transaction immediately after pricing. The 5 Commission understood that the work required to give that opinion was 6 substantial and could add to the cost of the transaction. • However, the 7 Commission believed the benefits would exceed the costs and that the 8 certification, like an insurance policy, would provide protection that our 9 legislative mandate would be met.

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Q. Are you aware that the Florida statute authorizing securitization of storm recovery costs does not have an expressly stated lowest-cost requirement?

A. Yes. But the Florida statute specifically authorizes the Commission to specify the
degree of flexibility afforded to utilities in establishing the terms and conditions
of storm-recovery bonds and to add whatever conditions it considers appropriate.
It also authorizes the Commission to employ an advisor and counsel to assist in
the performance of its responsibilities.

Q. Given your experiences in Texas, would you recommend to the Florida
Commission the "lowest cost" standard for guiding the financial advisor and
FPL to minimize the burden on ratepayers resulting from this transaction?

20 A. Yes.

~

Q. Given your experiences in Texas, would you recommend that the Florida
Commission require its financial advisor to play an active role in connection
with the structuring, marketing, and pricing of storm-recovery bonds?

1 A. Yes.

# Q. In your opinion, what other items should the Florida Commission consider in deciding to approve this irrevocable financing order?

A. The Florida Commission should also consider how the pricing process will be
pursued to maintain the public's trust in the integrity of the process itself.
Ratepayers need to be assured that this is not a "friends and family" plan for the
utility. How the bonds are sold through underwriters is important. Millions of
dollars are at stake in the structuring, marketing and pricing of the bonds. So, I
believe there should be transparency and accountability in the issuance process.
As President Reagan once said, "Trust but verify."

- 11 Q. Does that conclude your testimony?
- 12 A. Yes.

- .....

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1	BY MR. KEATING:
2	Q And, Ms. Klein, did you prepare or cause to be
3	prepared two exhibits to your prefiled testimony labeled
4	exhibits RK-1 and RK-2?
5	A I did.
6	Q Do you have any corrections to make to those
7	exhibits?
8	A I do not.
9	MR. KEATING: And, again, these exhibits have been
10	marked and admitted into the record previously.
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	FLORIDA PUBLIC SERVICE COMMISSION

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1	BY MR. KEATING:
2	Q Ms. Klein, did you prepare a summary of your
3	testimony?
4	A I did.
5	Q If you could present that summary.
6	A Madam Chair, Commissioner, good afternoon. My name
7	is Rebecca Klein, former chairman of the Texas Public Utility
8	commission and currently the managing partner of the
9	Texas-based law firm, Loeffler, Tuggey, Pauerstein and
10	Rosenthal.
11	I certainly am pleased to be here to testify before
12	you, and I come before you today as a member of the advisory
13	board of Saber Partners, but also as a former regulator to
14	share with you my observations and experiences as we undertook
15	the role of the securitization transaction process and how we
16	undertook that.
17	I served on the Texas Commission from 2001 to 2004 as
18	we prepared and undertook the opening of a restructured market
19	in the electricity industry. A critical facet of our
20	deregulatory process during those years was ensuring that our
21	consumers were benefited to the greatest extent possible, as we
22	undertook the unprecedented steps to transition to that
23	competitive market, and securitization financing was one was
24	important process of this process.
25	In Texas, the legislation included a specific lowest

1 cost standard for us to achieve in the securitization. But
2 even if it were not in the statute, I would have pursued the
3 lowest cost to ratepayers because of the unique characteristics
4 of this type of financing. As Mr. Noel and Mr. Fichera pointed
5 out, a ratepayer-backed bond like a stranded cost or a storm
6 recovery bond is unlike any other type of bond previously
7 associated with the utility.

And as you've heard, the full economic burden rests 8 on the ratepayers and not the shareholders, and our duty during 9 that time in the process of securitization financing was to 10 ensure the ratepayer interests would be adequately addressed. 11 During the transaction process that I was familiar with in 12 stranded cost securitization, and looking back now in hindsight 13 of those processes, I'm particularly glad that we worked with 14 15 the financial advisor to ensure that my Commission was fully prepared, fully armed and diligent with respect to the 16 17 securitization transaction.

Moreover, it was most beneficial that we worked with 18 an earnest and proactive financial advisor who was assisting us 19 through our staff on behalf of the ratepayers of the state. Ιt 20 so happens that not only did the Commission work with a 21 22 financial advisor during my chairmanship, but so too did the Commission prior and subsequent to my tenure work with a 23 financial advisor and outside legal counsel. And in each 24 separate instance, the principles of Saber Partners won the 25

engagement through a competitive process. And over the course of these Texas transactions and now as applied to other state commissions, Saber Partners has established a benchmark for best practices, as Mr. Fichera had referred to, to help achieve the lowest possible cost of funds under prevailing market conditions.

7 But at no point within these best practices did we cede authority to the financial advisor. Rather, we undertook 8 a dynamic and interactive process in discussing, at times 9 10 formally and at other times informally, various issues that lent themselves to achieving a bond issuance that was 11 advantageous to the consumer. This process was demanding at 12 times on the utility and also on the underwriters, but always 13 we strove for collaboration. 14

15 I can characterize that the outcome was a success, and I call it that with all faith and confidence because we 16 achieved unprecedented narrow credit spreads when measured 17 against benchmark securities at that point in time. This is 18 then reflected in a lower interest rate and less cost to the 19 ratepayer. And I can call it a success because our financial 20 advisor was able to advise and guide the Commission staff in 21 areas in which we may have had some aptitude, but not nearly 22 23 any experience. I can call it a success because the financial 24 advisor was able to act as an additional set of expert eyes in 25 a relatively short period of time, trying to cull through a

significant amount of detailed financial documents relating to
 the financing.

I can call it a success because our financial advisor was able to work with the utility collaboratively in gaining certifications of lowest possible costs from the utility and the underwriters. I can call it a success because I saw that the financial advisor consistently left no stones unturned in helping us achieve the lowest possible cost to the ratepayer.

9 I'm confident we met our goal of achieving those 10 lowest possible costs under the prevailing market conditions. 11 And the Texas Commission ensured that ratepayer interests were 12 pursued at all times by an active staff, as well as by the 13 independent, experienced and active advisors. This gave us confidence in the issuance advice letter and the written 14 certifications delivered by the utility, by the lead 15 16 underwriter and by our independent financial advisor that the transaction, in fact, achieved the lowest all in cost of funds. 17

As the then Chair of the Texas Commission, I felt that I would much rather be accused of doing too much on behalf of the ratepayer rather than too little, and I feel that we undertook all the due diligence and activities that we could have that lent itself to a lowest cost under the prevailing market conditions at that time.

24 So that concludes my summary. I look forward to any 25 questions that you may have on our role that we undertook with

1 the financial advisor previously.

CHAIRMAN EDGAR: Thank you. Commissioner Arriaga.
COMMISSIONER ARRIAGA: Ms. Klein, welcome. And let
me say that I am extremely happy to see you here basically for
several reasons. One, you come from Texas, which is my second
favorite state after Florida. But not only that, you told me
you lived in Caracas, Venezuela, so I have to say (speaking
Spanish).

9

THE WITNESS: Gracias.

10 COMMISSIONER ARRIAGA: I just spoke Spanish, by the 11 way.

12 Ms. Klein, one quick question. There have been two 13 positions here regarding one lump storm reserve fund or several small funds that can be securitized as the storms arrive in 14 15 Florida, if they're ever going to arrive. I hope not, but that's what's predicted. Your experience in Texas, when you 16 17 were securitizing in Texas, did you find it more appropriate to 18 securitize one lump sum or several small ones? What would you 19 think would be the most appropriate procedure to follow?

THE WITNESS: Commissioner, at the time, before, during, and since my tenure at that Commission, we didn't address the issue. And the reason why we didn't address it was because our securitizations were in the context of stranded costs. So we went through a valuation process of what those costs were that was stranded by a then deregulated market. And

we never had the context of potential prospective reoccurring 1 episode that would cause more costs. So that's why when we 2 undertook these transactions they were always one lump sum. 3 And we did do one of them where they were in two different 4 tranches, but otherwise they were always in one lump sum and we 5 didn't approach them in any other perspective because we didn't 6 7 see any other recurring future sited episodes that would cause that. 8

9 COMMISSIONER ARRIAGA: Let me take advantage of your 10 experience. Assume you're sitting in this chair now and the 11 issue was posed to you, what would your recommendation be? 12 That we look at one lump sum or that we look at the possibility 13 of several securitizations, several bond offerings?

14 THE WITNESS: I think had you had the opportunity 15 previously to look at something other than one lump sum and do 16 a serial transaction, I think that would have been advantageous 17 to evaluate a cost benefit comparison between one lump sum and 18 a serial transaction.

But as Mr. Fichera had indicated that, you know, the timing has already come and gone for that. And so perhaps in the future, as you approach another transaction with another utility, you know, that's an analysis that you can undertake. Because, you know, as reality may dictate, you're going to see hurricanes in the future over a course of whatever period of time is forecasted, and it would be good to prepare for that.

COMMISSIONER ARRIAGA: Madam Chair, help me with a 1 little bit of procedure because I'm confused. It has been said 2 twice that it is too late to consider that possibility of a 3 serial transaction. Why is it too late in this proceeding? 4 5 Maybe --THE WITNESS: Well, Commissioner, if I can take a 6 stab at that, and that is because the filing by the utility has 7 8 already been made, and the filing has been made and requested 9 in terms of a one lump sum. 10 COMMISSIONER ARRIAGA: Okay. And we cannot modify that? 11 THE WITNESS: Unless you ask the utility to retract 12 its filing. 13 COMMISSIONER ARRIAGA: Okay. Thank you. 14 CHAIRMAN EDGAR: Commissioner Carter. 15 COMMISSIONER CARTER: Thank you, Madam Chairman. 16 17 Ms. Klein, in Texas did y'all have a specific statute 18 that required you to have a financial advisor from the Commission? 19 THE WITNESS: We weren't mandated to have a financial 20 advisor. We were given the flexibility to do that, and so we 21 22 chose to do that. And the Commission previous to my tenure and then after has also done that as well. 23 And so it has worked out well and differently. 24 Every 25 Commission, I know, tends to have their relationship with a

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l	financial advisor that is separate and apart from another
2	Commission. And it's just a matter of to what extent that
3	Commission wants to get involved in the process, whether as a
4	single Commissioner, as a Commission body as a whole, or
5	through its staff.
6	Speaking in reference to my experience specifically,
7	I was very engaged in that I communicated often with my staff
8	in charge and also with Mr. Fichera, both by email and often in
9	person, to understand what was going on, to make guiding
10	decisions and to give some structure to what the Commission
11	itself wanted. And there were times where the Commission, the
12	three of us Commissioners would sit together in an open meeting
13	and make some decisions.
14	COMMISSIONER CARTER: Follow-up, Madam Chair?
15	CHAIRMAN EDGAR: Commissioner Carter.
16	COMMISSIONER CARTER: Thank you. You mentioned, I
17	believe, three different incidents of an issuance in Texas. In
18	terms of the did you have an occasion to have an advisor on
19	each one of those and then a follow-up, please, Madam
20	Chairman on each one of those transactions?
21	THE WITNESS: Yes.
22	COMMISSIONER CARTER: And you said that the results
23	were positive; right?
24	THE WITNESS: They were positive.
25	COMMISSIONER CARTER: And let me ask you this.

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Excuse me for interrupting you, but sometimes once you get 1 beyond 50, sometimes you lose stuff. But what was the value, 2 the aggregate value of those bond issues? 3 THE WITNESS: I can refer to it in a couple of ways. 4 Number one, it was valuable to us in that the advisor was able, 5 had the experience that my staff didn't have in particular 6 areas, so they were able to give us some guidance as to what we 7 want to watch out for, to lay out the advantages and 8 disadvantages of a particular issue, and give us options. So 9 that was a huge benefit. 10 Number two, we felt that our financial advisor was 11 very proactive on our behalf in making sure that the ratepayer 12 interest was present in the room at the table. Otherwise, 13 there was no formal structure to provide for that to the extent 14 that a financial advisor could. 15 And I think the other way that I can refer to the 16 tangible benefits was looking at the savings that the financial 17 advisor was able to get on behalf of the ratepayers. And that 18 is measured, you know, in hindsight and, you know, Saber 19 20 Partners so happens, you know, has a track record of that and that was very appealing to us. 21 COMMISSIONER CARTER: Thank you, Madam Chairman. 22 CHAIRMAN EDGAR: Commissioners? Mr. Keating. 23 MR. KEATING: I believe we would need to mark 24 Ms. Klein's deposition transcript per agreement of the parties 25

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1 it's too late to do anything different. And I respectfully 2 request an opportunity to clarify that because I think that 3 there, again, at least in the mind of the Attorney General, is some confusion as opposed to whether securitization is the only 4 5 route versus could you impose a surcharge. And --6 CHAIRMAN EDGAR: Mr. Kise, and I'm sorry to interrupt. I want to make sure I'm clear. Are you requesting 7 to be recognized to pose a question to the witness? 8 9 MR. KISE: Yes. 10 CHAIRMAN EDGAR: Mr. Litchfield? 11 MR. LITCHFIELD: I would think a stipulation is a 12 stipulation, Madam Chairman. 13 CHAIRMAN EDGAR: Mr. Harris? 14 MR. HARRIS: I tend to agree with FPL. I think the parties had agreed. The agreement was that they would be 15 limited to Commissioner questions. We've only had Commissioner 16 17 questions. 18 MR. KISE: Can I briefly respond? 19 CHAIRMAN EDGAR: Mr. Kise, briefly. 20 MR. KISE: Just for the record. Again, I think it's 21 important to clarify the record. This is a subject that's not 22 covered in Ms. Klein's deposition. This does relate to a 23 substantive matter before the Commission. I think there is some confusion on the record as to whether or not the 24 Commission, based on this witness's testimony, can impose a 25

1249 surcharge, not just limit it to securitization, and I think 1 this witness's testimony was to securitization. And in 2 responding to Commissioner Arriaga's question, at least from 3 the viewpoint of the Attorney General, there is some confusion 4 as to whether or not the Commission is free to impose, to take 5 one of the two alternatives. 6 7 The petition before you is not just for securitization, it encompasses both, and so I'm trying, 8 apparently not successfully, to get an opportunity to attempt 9 to clarify that with the witness. But I leave it with the 10 Chair. I've given my position for the record. 11 CHAIRMAN EDGAR: Thank you, Mr. Kise. 12 Mr. Litchfield, briefly. 13 14 MR. LITCHFIELD: Thank you. I think that there is no confusion here. I think Mr. Kise indicated that FPL's petition 15 does indeed ask for, as a primary recommendation, the 16 17 securitization of the amounts requested, but in the alternative a surcharge along the lines of what is currently in place with 18 respect to the 2004 costs. So if that's the, the point of 19 confusion, I don't believe that there is one based on the 20 pleadings filed in this docket. So I don't think any question 21 22 is necessary. MR. KISE: If FPL, if that's FPL's position, and I do 23 24 agree with it, that's satisfactory. Thank you. 25 CHAIRMAN EDGAR: Thank you, gentlemen.

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1	And with that, the witness may excused. Thank you,
2	Ms. Klein.
3	THE WITNESS: Thank you.
4	CHAIRMAN EDGAR: And we will go on break for lunch.
5	My clock says 12:49, we'll call it 12:50, and come back
6	gosh. We'll come back at 2:00 promptly. We will aim to come
7	back promptly. Thank you.
8	(Lunch recess.)
9	CHAIRMAN EDGAR: We will go back on the record.
10	MR. KEATING: Staff calls Mr. Joseph Jenkins, and I
11	believe Mr. Jenkins was previously sworn, is that correct?
12	THE WITNESS: Yes, I have been.
13	CHAIRMAN EDGAR: Okay.
14	JOSEPH D. JENKINS
14 15	JOSEPH D. JENKINS was called as a witness on behalf of the Staff of the Florida
15	was called as a witness on behalf of the Staff of the Florida
15 16	was called as a witness on behalf of the Staff of the Florida Public Service Commission, and having been duly sworn,
15 16 17	was called as a witness on behalf of the Staff of the Florida Public Service Commission, and having been duly sworn, testified as follows:
15 16 17 18	was called as a witness on behalf of the Staff of the Florida Public Service Commission, and having been duly sworn, testified as follows: DIRECT EXAMINATION
15 16 17 18 19	<pre>was called as a witness on behalf of the Staff of the Florida Public Service Commission, and having been duly sworn, testified as follows:</pre>
15 16 17 18 19 20	<pre>was called as a witness on behalf of the Staff of the Florida Public Service Commission, and having been duly sworn, testified as follows:</pre>
15 16 17 18 19 20 21	<pre>was called as a witness on behalf of the Staff of the Florida Public Service Commission, and having been duly sworn, testified as follows:</pre>
15 16 17 18 19 20 21 22	<pre>was called as a witness on behalf of the Staff of the Florida Public Service Commission, and having been duly sworn, testified as follows:</pre>
15 16 17 18 19 20 21 22 23	<pre>was called as a witness on behalf of the Staff of the Florida Public Service Commission, and having been duly sworn, testified as follows:</pre>

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1	A Yes, I am.
2	Q If I were to ask you today the questions presented in
3	your prefiled testimony, would your answers be the same?
4	A Yes, they would.
5	Q And do you have any corrections to make to that
6	testimony?
7	A No, I do not.
8	MR. KEATING: I would ask that Mr. Jenkins' prefiled
9	testimony be moved into the record as though read.
10	CHAIRMAN EDGAR: The prefiled testimony will be
11	entered into the record as though read.
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	FLORIDA PUBLIC SERVICE COMMISSION

Q. Please state your name, place of employment, and business address.

A. My name is Joseph D. Jenkins and I am employed by the Florida Public Service Commission, 2540 Shumard Oak Boulevard, Tallahassee, Florida, 32399.

Q. What is your background, and what positions have you held with the Commission?

A. I graduated with a master's degree in electrical engineering from the University of Miami
in 1968, from 1966 to 1967, I worked as a student engineer and later as a full-time engineer for
Florida Power & Light Company (FPL). Between 1968 and 1971, I worked as a laser engineer
for various companies. I became employed with the Florida Public Service Commission in 1971.
From 1980 to 2002 I was Director of the Electric and Gas Division, which has since been
reorganized within the agency. I am currently Deputy Director of the Division of Economic
Regulation. I am a professional engineer registered in Florida.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to propose that the Commission consider ordering that
FPL's storm recovery costs for 2005 be shared between FPL's retail customers and FPL.
Traditionally, the Commission has allowed all prudently-incurred costs to provide electric
service to be borne by the utility's customers. Ordering some of the costs to be shared between
the utility and its customers is a departure from the concept that 100 percent of prudentlyincurred costs are always to be borne by a utility's customers.

Q. Why are you proposing a departure from the traditional recovery of the utility's costs at this time?

A. I believe the utility's earnings should be affected to some degree by weather and economic variations. Weather variations in my mind include the utility bearing a portion of the costs to recover from dramatic weather events such as a hurricane.

9 Q. In addition to weather and economic related events, what are some other events that 10 cause you to propose a cost sharing for 2005 storm recovery?

FPL's customers have been significantly impacted by rising fuel costs and will in mid-A. 2007 bear the cost of a new natural gas-fired power plant through the new Generation Base Rate Adjustment clause. Since 2000, the overall cost of electricity per 1000 Kilowatt-Hours has risen from \$ 69.73 to \$108.61, a 56 percent increase. This includes a 19 percent increase from 2005 to 2006, which is the largest single year increase since the early 1980s. The percent increases are even greater for higher-use residential customers because of the inverted rates. Cost sharing will incent FPL to harden its transmission and distribution system and not revert to today's less hardened system.

Q. Hasn't FPL already proposed to harden its transmission and distribution system, making sharing unnecessary?

A. FPL's hardening proposal is admirable. However, FPL did not implement its proposed hardening long ago to avoid the number of downed poles and transmission towers caused by the 2005 storms. An explicit sharing of storm recovery costs will instill a managerial awareness in FPL not to stray from its proposed hardening and perhaps even improve on it in coming years.

Q. What range of sharing do you propose?

A. The sharing that FPL should bear should be up to 20 percent.

10 Q. How did you arrive at this upper amount of 20 percent?

No sharing ratio is sacrosanct, but up to twenty percent is what I consider a fair and A. 12 reasonable range given the dramatic increase in FPL's electric rates. The Commission has 13 14 established sharing arrangements in other areas. The Commission has a long-established sharing 15 mechanism for gains on utility off-system wholesale sales to other utilities. Under this 16 mechanism, shareholders are permitted to retain 20 percent of the gain on specific types of sales 17 to encourage such sales for the benefit of customers. In addition, the Commission's Generating 18 Performance Incentive Factor provides for a sharing of about 17 percent of the calculated 19 efficiency savings. The Commission's economic development rule, Rule 25-6.0426(3), Florida 20 Administrative Code, provides for 95 percent of economic development costs to be borne by 21 customers and five percent by the utility. While these regulatory practices differ from each other 22 in concept and purpose, they all have in common the result that electric rates are based, in part, 23 on a sharing of prudently incurred costs and savings. So as not to stray too far from the sharing

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percentages associated with these practices, I propose a sharing of up to twenty percent of the prudently-incurred 2005 storm recovery costs. Again, no sharing ratio is sacrosanct, but up to twenty percent is what I consider a fair and reasonable range given the dramatic increase in FPL's electric rates.

Q. Does the rate case Stipulation approved in FPL's last rate case in Docket No. 050045-EI address the recovery of its storm costs?

Yes, the Stipulation specifies that FPL will recover prudently-incurred storm recovery A. 9 costs. The Stipulation binds the Signatories from arguing for an earnings-based adjustment to storm recovery costs. My recommendation does not incorporate an earnings-based adjustment. Further, the Commission is not a signatory to the Stipulation and retains its authority to set fair and reasonable rates on a prospective basis.

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Does this conclude your testimony. Q.

A. Yes.

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1	BY MR. KEATING:
2	Q And, Mr. Jenkins, is it correct that you did not
3	include any exhibits with your prefiled testimony?
4	A That's correct.
5	Q Have you prepared a summary of your testimony?
6	A Yes. Should I read it?
7	Q It would be appropriate at this time, yes.
8	A Yes. In my testimony I propose that up to 20 percent
9	of the 2005 storm costs should be shared between FPL and FPL
10	customers. As I state in my testimony, I believe earnings
11	should be affected to some degree by weather and economic
12	variations. I did not do an earnings test. The reason for my
13	proposed sharing is due to the recent high fuel adjustment
14	charges which are somewhat unprecedented in the history of
15	electric utilities in Florida. I would caution the Commission
16	that any sharing would contravene the rate case settlement and
17	has not been done in the past.
18	That's my summary.
19	MR. KEATING: Mr. Jenkins is tendered for
20	cross-examination.
21	CHAIRMAN EDGAR: Thank you.
22	Is there cross from any of the intervenors?
23	MR. WRIGHT: The Retail Federation has none, Madam
24	Chairman.
25	MR. PERRY: None for FIPUG.
	FLORIDA PUBLIC SERVICE COMMISSION

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1		MR. TWOMEY: None.
2		CHAIRMAN EDGAR: AARP, none. Executive Agencies,
3	none.	
4		MR. SHREVE: May I have one second, please.
5	(Laughter.)	
6		CHAIRMAN EDGAR: You may. (Pause.)
7		Mr. Kise, I just asked if the Attorney General's
8	Office has cross for this witness.	
9		MR. KISE: Just one or two questions, thank you.
10		CHAIRMAN EDGAR: You're welcome.
11		CROSS EXAMINATION
12	BY MR. KISE:	
13	Q	Good afternoon, Mr. Jenkins.
14	А	Good afternoon.
15	Q	My understanding is you are not an attorney, is that
16	correct?	
17	А	That's correct.
18	Q	You have no legal training, correct?
19	А	I took a course in business law.
20	Q	Other than that?
21	А	That is correct.
22	Q	And with respect to the stipulation and settlement
23	agreement	that was entered into between the parties last
24	August, I	believe, you were not here either today or in your
25	testimony	to render any legal opinion as to the interpretation
		FLORIDA PUBLIC SERVICE COMMISSION

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of that agreement, correct? 1 2 Well, I did get direction from the Legal Department, Α 3 three lawyers at least, to address the stipulation and to put in my testimony essentially what I did. So in a sense I'm a 4 conduit, if you will. 5 A conduit. But you, yourself, don't have any legal 6 Q 7 opinion as to the interpretation of that agreement because you are not qualified to give one, right? 8 9 I think that's correct. Α And just for the record, you were not present in the 10 Q negotiations that led up to the execution of that agreement, 11 correct? 12 Α That's correct. 13 You do not know, then, what the parties to that 14 Q 15 agreement discussed or contemplated in negotiating and 16 executing that agreement, correct? That's correct. 17 А 18 And, therefore, you do not know, for example, the Q 19 Attorney General's view of the concept of sharing at the time 20 that agreement was executed, correct? 21 Α That's correct. MR. KISE: Thank you. I have nothing else. 22 Excuse me. I'm sorry, Mr. Shreve reminded me of 23 24 maybe, perhaps, one additional question. 25 BY MR. KISE:

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1259 Well, given that you are not an attorney, given that 1 0 you were not present during the negotiation for that agreement, 2 3 do you consider yourself qualified to render an opinion as to 4 what the parties intended in executing that agreement? I could read the four corners of the page, and I will 5 Δ agree with you there is some vagueness to it as regards to 6 sharing. 7 MR. KISE: Okay. Thank you. 8 CHAIRMAN EDGAR: And just for clarity, Mr. Perry, you 9 10 said no questions? MR. PERRY: (Indicating yes.) 11 12 CHAIRMAN EDGAR: And, Mr. Beck, did you say no questions? 13 MR. BECK: No questions. 14 CHAIRMAN EDGAR: Thank you. Mr. Litchfield. 15 Thank you, Chairman Edgar. 16 MR. LITCHFIELD: 17 CROSS EXAMINATION BY MR. LITCHFIELD: 18 19 0 Good afternoon, Mr. Jenkins. Good afternoon. 20 Α Now, you gave deposition testimony in this matter on 21 0 April 11th of this year, did you not? 22 23 Yes, that's correct. Α And you have read and signed your deposition? 24 0 25 I have read it. I am pretty sure I signed it. If I Α FLORIDA PUBLIC SERVICE COMMISSION

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1	didn't, I'	ll be glad to do so.	
2	Q	No, I have here in my hand a copy of your e:	rrata
3	sheet with	your signature, I was just confirming that	you had
4	read and s	igned it.	
5	A	Okay.	
6	Q	The only correction that I noted in your te	stimony
7	was an "h"	missing from a word on Page 18, a typograp	hical
8	error, cor	rect?	
9	А	That's correct. And I think there was one	other word
10	this was a	n awkward spelling.	
11	Q	But that wasn't in your testimony, that was	in a
12	statement	of counsel?	
13	A	Yes.	
14	Q	Now, you have been with the Commission for	
15	approximat	ely 35 years, is that right?	
16	А	Yes.	
17	Q	The last time you filed testimony before th	e
18	Commission	in a proceeding was about 20 years ago, is	that
19	correct?		
20	A	That's correct.	
21	Q	When was it decided that you would file tes	timony in
22	this matte	er?	
23	A	Probably it was discussed before the hearin	gs in
24	Miami and	Fort Lauderdale and Palm Beach. And then w	hen I came
25	back it wa	as pretty well decided that testimony was ne	eded to
		FLORIDA PUBLIC SERVICE COMMISSION	

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1	fill what, at least staff thought, might be a gap in the
2	record. So that would have been I would say the date when
3	it was firmly decided was one or two days after the service
4	hearings. Early March.
5	Q So the decision to file testimony was not yours?
6	A It was mine.
7	Q It was yours. Was the idea to file testimony yours?
8	A Say that again?
9	Q The idea to file testimony on this subject, was it
10	yours?
11	MR. KISE: I'm just going to interpose an objection,
12	if I may, Chair.
13	CHAIRMAN EDGAR: Mr. Kise.
14	MR. KISE: Since we are all considering time here,
15	I'm not certain as to the relevance of this line of
16	questioning. I think it is irrelevant as to who authorized it.
17	This is like the Libby trial in Washington.
18	CHAIRMAN EDGAR: Disregarding the comparison, Mr.
19	Litchfield, I would like to get to the substance.
20	MR. LITCHFIELD: I will do so, Madam Chairman. Thank
21	you.
22	BY MR. LITCHFIELD:
23	Q Would you turn in your testimony to Page 1, please.
24	You indicate on Line 20 that traditionally the Florida
25	Commission has allowed the recovery of all prudently incurred
	FLORIDA PUBLIC SERVICE COMMISSION

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1	costs, is that correct?
2	A Correct.
3	Q Would you agree with me that the Florida Commission
4	is not unique in this regard among other retail regulators in
5	this country?
6	A Not unique?
7	Q Meaning that other retail regulators traditionally
8	allow the recovery of all prudently incurred costs?
9	A Yes, that is correct.
10	Q Would you agree that the recovery of prudently
11	incurred costs is a fundamental principal of utility regulation
12	in this country?
13	A Yes, I would. Not a binding principal, mind you.
14	Q But a fundamental one.
15	Testimony on Page 2, Line 21, do you see that?
16	Ordering some of the costs to be shared between the utility and
17	its customers is a departure.
18	CHAIRMAN EDGAR: Mr. Litchfield, I'm sorry, I am
19	going to have to ask you to pause and for you all to give me
20	some forbearance because my testimony is out of order here.
21	Could you all give me a moment so I could get it in front of
22	me?
23	MR. LITCHFIELD: Absolutely.
24	THE WITNESS: My page numbers are slightly different
25	than yours. My page 1 is the unnumbered cover sheet, and my

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1	Page 2 is where the testimony starts.
2	MR. LITCHFIELD: I may have misspoke then. If so, I
3	apologize. I am looking at Page 2 for both the statement
4	beginning on Line 20, traditionally the Commission has allowed
5	all prudently incurred costs, that we just covered, and then
6	next sentence there I'm sorry, Madam Chairman, do you have a
7	copy at this point?
8	CHAIRMAN EDGAR: I am now ready, thank you.
9	BY MR. LITCHFIELD:
10	Q Ordering some of the costs to be shared between the
11	utility and its customers is a departure from the concept that
12	one hundred percent of prudently incurred costs are always to
13	be borne by a utility's customers, do you see that?
14	A Yes.
15	Q Now, although you used the term sharing in your
16	testimony, you agree with me that the effect is equivalent to a
17	disallowance of prudently incurred costs?
18	A As far as debits and credits go, yes.
19	Q And the net effect or impact to Florida Power and
20	Light is identical, is it not?
21	A That's correct.
22	Q The term disallowance to you suggests that the
23	company did something wrong?
24	A That is correct.
25	Q Okay. So that is why you prefer to use the term
	FLORIDA PUBLIC SERVICE COMMISSION

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1	sharing?	
2	A	That is correct.
3	Q	If your proposal is adopted, however, it would be
4	applied to	o reasonable and prudently incurred costs, correct?
5	А	That is correct.
6	Q	So your proposal would be applied to something that
7	the compar	ny did correctly, am I right?
8	А	That is correct.
9	Q	Your proposal would also affect the company's
10	earnings,	wouldn't it?
11	A	That's correct.
12	Q	It would decrease them?
13	А	That's correct.
14	Q	Do you have a copy of the settlement agreement before
15	you?	
16	А	No, I do not. I've got the pages that my testimony
17	relate to	, Page 10 of Attachment A.
18		MR. LITCHFIELD: I will ask my colleague to get you a
19	copy if I	could. The settlement agreement actually is included
20	as an exh	ibit to Mr. Dewhurst's rebuttal testimony. It's
21	MPD-4, Con	mmissioners. It should be the first exhibit in his
22	rebuttal	testimony.
23		Now, would you turn with me to Paragraph 5 of that
24	agreement	?
25	A	Okay. I have it.
		FLORIDA PUBLIC SERVICE COMMISSION

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1	Q I will give you a moment just to review it quickly.
2	I'm not going to ask any detailed questions about it, but I
3	want you to be familiar, conceptually, with what is there.
4	A I'm familiar with it.
5	Q You're familiar with that?
6	A Yes.
7	Q That is a description of the revenue sharing
8	incentive plan under the settlement agreement, is it not?
9	A That is correct.
10	Q And describe for me briefly how that works, according
11	to your understanding?
12	MR. KISE: Madam Chair
13	CHAIRMAN EDGAR: Mr. Jenkins, just a moment. Mr.
14	Kise.
15	MR. KISE: I just want to interpose. Without
16	objecting to each question, I'm certain you are going to allow
17	Mr. Litchfield latitude to explore this line of questioning,
18	but at least for the record, I want to impose a standing
19	objection, if that is permissible and agreeable to Mr.
20	Litchfield, instead of me objecting each time.
21	To the extent that Mr. Jenkins testifies in any way
22	inconsistent with the document, we would object to that,
23	because the document speaks for itself. He didn't prepare it,
24	he didn't plan it, he is giving his opinion as to what he is
25	reading on the page. But I don't want my silence to be

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1	acquiescence that we agree with Mr. Jenkins' interpretation of
2	the agreement. We do not. We think the document speaks for
3	itself.
4	CHAIRMAN EDGAR: So noted.
5	MR. KISE: Thank you.
6	BY MR. LITCHFIELD:
7	Q Okay. You were about to describe for me generally
8	how the revenue sharing incentive plan works?
9	A Yes. The revenue sharing works by, first, some place
10	in this document it establishes a revenue, what is called
11	revenue thresholds. Above that revenue threshold is a sharing
12	between customers and stockholders of revenues only, not of
13	costs, two-thirds/one-third, and then I think there is a higher
14	cap where all of the revenues are refunded to customers.
15	Q And within that first tier, if you will, the
16	one-third/two third sharing that you referred to, two-thirds of
17	the revenues within that range go to customers?
18	A That is correct.
19	Q And one-third go to FPL?
20	A That's correct.
21	Q And then above the second threshold, all of those
22	earnings go to customers, correct?
23	A That's correct. Not earnings, revenues.
24	Q Correct.
25	A You used the word earnings.

1 0 Oh, did I? I apologize. Revenues above that second 2 threshold all go to customers, is that correct? 3 Α Correct. 4 Now, look at Paragraph 4 immediately preceding the Q 5 paragraph you were discussing. And would you read -- read the 6 entire purchase, it is fairly short? 7 А The whole paragraph? 8 Yes, if you would, please. Q 9 Α During the term of this stipulation and settlement, revenues which are above the levels stated herein below in 10 11 Section 5 will be shared between FPL and its retail electric utility customers. It being expressly understood and agreed 12 13 that the mechanism for earnings sharing herein established is not intended to be a vehicle for rate case type inquiry 14 15 concerning expenses, investment, and financial results of 16 operations. 17 Thank you. Now, to the extent FPL does share 0 revenues, its earnings, obviously, also are affected, would you 18 19 agree with that? 20 Α That is correct. 21 Now, in the absence of a revenue sharing plan those Q 22 revenues all would be retained by FPL, would they not? 23 MR. KISE: I object to --24 THE WITNESS: Yes, subject to our surveillance 25 program.

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1 CHAIRMAN EDGAR: Mr. Kise. MR. KISE: I'm just going to interpose an objection 2 to that question. I don't think this witness is qualified to 3 4 answer that. 5 CHAIRMAN EDGAR: Mr. Litchfield, I was reading. I 6 apologize. 7 MR. LITCHFIELD: Yes. I'm sorry, I'm ready to move 8 on. 9 BY CHAIRMAN EDGAR: Now, would you agree with me that weather drives 10 0 11 revenues, Mr. Jenkins? 12 А Yes. So a really hot summer might result in increased 13 Q 14 revenues for the company? 15 Α That's correct. 16 But then above a certain level under this revenue 0 sharing plan as we discussed, those revenues would be shared 17 one-third/two-thirds with the two-thirds going to customers 18 within a certain range, and then one hundred percent to 19 customers above a second threshold, correct? 20 21 А Yes. 22 Q Would you agree that growth in the economy and growth generally will drive revenues for a utility? 23 24 A Yes. MR. KISE: Object to the question, it's ambiguous, 25 FLORIDA PUBLIC SERVICE COMMISSION

1 vaque. 2 MR. LITCHFIELD: Do you understand the question, Mr. 3 Jenkins? 4 THE WITNESS: Absolutely. Could I answer it? 5 CHAIRMAN EDGAR: You may answer. 6 MR. JENKINS: I may answer. The growth will drive 7 increased revenues and, of course, as we mentioned earlier, the thresholds, I think, increase from year to year or each year, 8 9 in part due to growth. 10 BY MR. LITCHFIELD: 11 And to the extent that Florida Power and Light 0 Company experiences growth due to a growing economy in the 12 state of Florida, its revenues would increase? 13 14 That's correct. А 15 Q And under this revenue sharing plan, again, referring 16 back to the thresholds that we discussed, there would be a 17 sharing of those revenues, two-thirds to customers above a 18 certain threshold, and then one hundred percent to customers beyond the second threshold, would you agree with that? 19 20 MR. KISE: Madam Chair. 21 CHAIRMAN EDGAR: Mr. Kise. 22 MR. KISE: I object to that question. The question 23 is contrary to the terms of the agreement. It leaves out the fact that built into the agreement is a growth factor. 24 There 25 is a factor into the agreement. And his question presumes that

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1 there is not such an agreement. So it is basically my same 2 objection to the entire line of questioning. You are asking a 3 witness who had no participation in preparing this document, 4 who is not a lawyer, who is really not qualified to opine as to 5 what the agreement means. I think the entire line is objectionable. 6 7 MR. LITCHFIELD: Madam Chairman, I'm happy to have 8 the witness qualify his answer based on including the growth factor as reflected in the settlement agreement. 9 10 CHAIRMAN EDGAR: Mr. Jenkins. 11 THE WITNESS: I thoroughly concur. 12 BY MR. LITCHFIELD: 13 Now, would you turn to your testimony on Page 3, if 0 14 you would, please. If I can find a copy of the testimony. 15 Okay. Do you see on Line 5, "I believe the utility's 16 earnings should be affected to some degree by weather and 17 economic variations," do you see that? 18 Α Yes. 19 Q So to the extent that weather and economics drive 20 utilities revenues, and to the extent that those revenues affect earnings, and to the extent that those revenues are 21 22 shared under the settlement agreement, in fact, utilities 23 earnings are affected to some degree by weather and economic 24 variations under the current agreement, would you agree with 25 that?

Α Yes. 1 Now, in order to hold FPL's base rates flat in the 2 Q last base rate proceeding, one of the things that FPL requested 3 and received under the settlement agreement was the recovery of 4 prudently incurred storm costs would incur independent of and 5 incremental to base rates, do you agree with that? 6 MR. KISE: Objection to the question, Madam Chair. 7 He is asking what FPL requested in the process. This witness 8 has absolutely no idea what FPL requested. He can speculate as 9 to what the meaning of these terms are. 10 CHAIRMAN EDGAR: Mr. Kise, I agree with you. 11 MR. LITCHFIELD: I can leave out the word requested 12 from my question and just ask if the witness understands that 13 FPL received the right to recover reasonable and prudently 14 incurred storm restoration costs independent of and in addition 15 16 to base rates. 17 MR. KISE: Then with that caveat my same standing 18 objection would apply. But other than that, no further 19 objection. THE WITNESS: I think you are referring to Page 10 of 20 21 the settlement. And, yes, that is what I believe many people interpret that to mean. However, there is some vagueness with 22 it. 23 BY MR. LITCHFIELD: 24 What is the vagueness in your mind? 25 0 FLORIDA PUBLIC SERVICE COMMISSION

In my mind the vagueness is there is no modification 1 Α of the words prudently incurred costs such as total or 100 2 percent of. I believe I mentioned that in my deposition. 3 I see. And you are referring to what is at the top 4 0 of my Page 10, Paragraph 10, the sentence beginning, "FPL will 5 be permitted to recover prudently incurred costs associated б with events covered by Account Number 228.1 and replenish 7 Account 228.1 to a target level through charges to customers 8 that are approved by the Commission that are independent of and 9 10 incremental to base rates and without the application of any form of earnings test or measure," that is to which you refer? 11 Yes, that is correct. 12 Α Now, would you refer to Paragraph 16 of the same 13 0 agreement for me? That is on my Page 12, it should be 14 identical for you. 15 Α Page 12? 16 Actually, 16 starts on Page 11, so if you would read 17 0 Paragraph 16 for me. It's very short. 18 Read Paragraph 16? Α 19 20 Please. 0 "Effective on the implementation date, FPL will 21 Α continue to operate without an authorized return on equity, 22 ROE, range for the purpose of addressing earning levels and the 23 revenue sharing mechanism herein described will be the 24 25 appropriate and exclusive mechanism to address earning levels,

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1	but an ROE of 11.75 percent shall be used for all other
2	regulatory purposes."
3	Q Now, in your 35 years at the Commission, Mr. Jenkins,
4	you don't recall any instance, do you, in which the Florida
5	Commission has overridden, or ignored, or overturned, or
6	otherwise disturbed a base rate settlement agreement that had
7	been entered into by parties and approved by the Commission in
8	a prior docket, do you?
9	MR. KISE: Object to the question, Madam Chair.
10	CHAIRMAN EDGAR: On the grounds.
11	MR. KISE: There are so many concepts built in there.
12	If he would like to go one at a time, some of them I might not
13	have an objection to, but he has bundled together so many
14	different things, and the question presumes that, in fact, the
15	Commission is ignoring, for example, the settlement,
16	disregarding, or if he would break it apart, it would be
17	unobjectionable.
18	CHAIRMAN EDGAR: Mr. Litchfield, one question at a
19	time.
20	MR. LITCHFIELD: I can do that, Madam Chairman.
21	BY MR. LITCHFIELD:
22	Q Mr. Jenkins, in your 35 years at the Commission, do
23	you recall any instance in which the Florida Commission has
24	ignored a settlement agreement that had been entered into in a
25	base rate proceeding by parties and approved by the Commission
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1	and ignored a key term of that settlement agreement?
2	MR. KISE: Objection to the extent that it presumes
3	that that is, in fact, what the impact of Mr. Jenkins'
4	testimony is.
5	MR. LITCHFIELD: I'm not
6	CHAIRMAN EDGAR: Mr. Kise, I'm not understanding your
7	objection. I need you to try again, please.
8	MR. KISE: Let me try and use it by way of analogy.
9	The question he is asking is the classic question: When did
10	you stop taking drugs? It presumes that you already were. And
11	so he is asking a question of this witness, have you ever known
12	the Commission to ignore the agreement. And I think built into
13	that question, and this is just my one person's opinion, but I
14	think built into that question is the concept that, in fact,
15	that's what Mr. Jenkins is advocating.
16	CHAIRMAN EDGAR: I'm going to allow the witness, in
17	this instance, to give his opinion or his recollection.
18	And if you can couch it in those terms, Mr. Jenkins.
19	THE WITNESS: The answer is yes.
20	BY MR. LITCHFIELD:
21	Q The Commission has ignored a base rate settlement
22	agreement?
23	A No, they have not, I'm sorry.
24	Q Thank you. In your recollection, has the Commission
25	in your 35 years ever overturned a base rate settlement
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l	agreement among parties that it had previously approved?
2	A Not to my recollection, no.
3	Q And would your answer be the same if I used the terms
4	overridden or overturned?
5	A My answer would be the same, yes.
6	Q Now, I think Mr. Kise asked you earlier whether you
7	were a lawyer, and you conceded that you were not, and so I'm
8	not going to ask you for your legal opinion here, but just your
9	understanding in the context of developing your testimony, and
10	that would be whether you asked for and/or received any
11	understanding relative to the legal basis for your
12	recommendation. And I'll ask it specifically in the context of
13	the following matters: Retroactive ratemaking, single-issue
14	ratemaking, or simply whether it might be considered
15	confiscatory?
16	MR. KISE: Madam Chair.
17	CHAIRMAN EDGAR: I was waiting, Mr. Kise.
18	MR. KISE: I'm sure you were. Thank you.
19	Is he asking for a yes or no answer to that question?
20	If it is a yes or no question, then I have no objection to it.
21	If he is asking the witness to elaborate thereafter, then I do.
22	If it is a yes or no question as to whether or not he, in fact,
23	solicited advice or, in fact, received advice, that is one
24	thing. If he wants to know the substance of that and go on
25	beyond that, then that would be hearsay.

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l	CHAIRMAN EDGAR: Mr. Jenkins, if you can answer the
2	question with a yes or no, please do so.
3	But before you do, Mr. Litchfield, so we all remember
4	the question, why don't you ask it again, please.
5	MR. LITCHFIELD: I will, thank you.
6	BY MR. LITCHFIELD:
7	Q Mr. Jenkins, in preparation for your testimony and in
8	considering your recommendation, I'm wondering whether you
9	explored the legal basis for your recommendation, specifically
10	with respect to the concepts of retroactive ratemaking or
11	single-issue ratemaking or whether the matter might simply be
12	considered confiscatory?
13	A Can I answer this in my own way, and that is I asked
14	the Legal Department what about the stipulation, and they said
15	what you are proposing would overturn it
16	MR. KISE: Madam Chair.
17	CHAIRMAN EDGAR: Mr. Kise.
18	MR. KISE: I think we are beyond the yes or no. With
19	all due respect to the witness, we are beyond the yes or no,
20	and he is now interposing just absolute hearsay.
21	CHAIRMAN EDGAR: And, Mr. Jenkins, I appreciate you
22	making the effort to answer the questions that are posed to
23	you, and I will obviously give you latitude to do it in the way
24	that you feel that you need to. In this instance, I'm going to
25	sustain the objection and ask, Mr. Litchfield, for you to move

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1	on.
2	BY MR. LITCHFIELD:
3	Q Mr. Jenkins, are you aware of let me ask it this
4	way. Is it your understanding that the Florida Public Service
5	Commission in the past has encouraged, overtly, settlement
6	agreements?
7	A Yes, that is correct. Good settlement agreements.
8	Q Good settlement agreements. And they approve the
9	ones that they find to be good, would you agree with that?
10	A That's correct.
11	Q Now, in making your recommendation, I'm wondering
12	whether you considered if such an action by the Commission in
13	accepting your recommendation might deter utilities from
14	entering into future settlements?
15	MR. KISE: Objection.
16	CHAIRMAN EDGAR: Mr. Kise.
17	MR. KISE: Thank you. I'm not sure which because
18	the question is so compound, and, again, it may be me, but with
19	all due respect to Mr. Litchfield, I'm not sure which
20	recommendation he is talking about, the recommendation that he
21	is advocating in his testimony or recommendations of settlement
22	agreements in general.
23	CHAIRMAN EDGAR: Mr. Litchfield, if you could try to
24	clarify your question.
25	MR. LITCHFIELD: Thank you, Madam Chairman.
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1	I was referring to Mr. Jenkins' recommendation in
2	this docket, and I can restate the question with that
3	clarification, if that would be helpful.
4	BY MR. LITCHFIELD:
5	Q Mr. Jenkins, in preparing your testimony and
6	formulating your recommendation that is before the Commission
7	today, I'm wondering whether you took into consideration,
8	considered in any way whether an action by the Commission in
9	accepting your recommendation might deter future settlements by
10	utilities?
11	A I don't think it would deter good settlements, good
12	for the customer.
13	Q It would not deter good settlements for the customer.
14	You mean it wouldn't deter utilities at all from entering into
15	future settlements?
16	MR. KISE: Objection, I don't know that this I'm
17	sorry.
18	CHAIRMAN EDGAR: Mr. Kise.
19	MR. KISE: I'm not certain that this witness is
20	qualified to testify as to what utilities might or might not
21	do. He gave his answer, it was a direct answer to Mr.
22	Litchfield's question, and I think that is the extent of it.
23	CHAIRMAN EDGAR: Mr. Litchfield.
24	MR. LITCHFIELD: Madam Chairman, I'm simply asking
25	whether he considered that as a factor in putting together his

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1	recommendation. And if he didn't, I'm happy to have that
2	answer. But if he did consider it, I would like to know.
3	MR. KISE: Fair enough.
4	CHAIRMAN EDGAR: Mr. Jenkins.
5	THE WITNESS: Yes, I did consider it.
6	BY MR. LITCHFIELD:
7	Q And can you describe for me how you took it into
8	consideration in formulating your recommendation?
9	A Well, I guess the first thing I had to ask myself is
10	the current stipulation a good one, and I don't think it is all
11	that good from a customer viewpoint. For example, if it were
12	to go away tomorrow in its entirety, how would the customer be
13	harmed. Now, the prior stipulation, the one that ended in 2005
14	was a good stipulation. It had a clear quantified \$250 million
15	rate reduction, that one I think would be safe from any staff
16	recommendation of overturning.
17	Q Did you participate on staff in the 2005 FPL base
18	rate proceeding?
19	A To a limited extent, yes.
20	Q To a limited extent. Did you file any testimony in
21	that docket?
22	A No, I did not.
23	Q And did you participate in making the staff
24	recommendation to the Commission to have that settlement
25	approved?
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1280 The 2005 settlement, there was no staff Α 1 2 recommendation. There was no staff recommendation relative to the 3 0 2005 stipulation? 4 That is correct. There was simply a staff member, my 5 А boss, and some others, just clarified what we thought the 6 stipulation said. There was never a staff recommendation per 7 8 se. Did you, Mr. Jenkins, express your views to the 9 0 Commission that in your view it was a bad settlement? 10 No, not at the time. It came at us too fast. 11 Α Did your boss or any other member of staff that did 12 0 13 attempt to clarify and explain what the stipulation would mean so that the Commission could determine whether to approve it or 14not, did any of them indicate at the time that this settlement 15 was a bad settlement in your view? 16 I think in our private conversations we didn't think 17 Α it was a good settlement, but, again, we didn't have to make a 18 recommendation. The Commission at that time thought it was 19 something to approve. 20 And all of the parties that signed the settlement 21 0 agreement indeed endorsed it and supported it before this 22 Commission, did they not? 23 А Yes, they did. 2.4 And they represented that, in fact, it was a very 25 0 FLORIDA PUBLIC SERVICE COMMISSION

1281 good settlement for customers, did they not? 1 2 Α It sounded like it, yes. MR. LITCHFIELD: That's all I have for this witness. 3 CHAIRMAN EDGAR: Thank you, Mr. Litchfield. 4 MR. LITCHFIELD: Thank you, Mr. Jenkins. 5 CHAIRMAN EDGAR: Commissioners, any questions? 6 Redirect. 7 MR. KEATING: No redirect. 8 CHAIRMAN EDGAR: Mr. Jenkins, you may be excused. 9 10 Thank you very much. MR. BUTLER: FPL would call as its next witness, it 11 is a rebuttal witness, Doctor Richard Brown. Mr. Brown has 12 been previously sworn. 13 DR. RICHARD E. BROWN 14 was called as a witness on behalf of Florida Power and Light 15 16 Company, and having been duly sworn, testified as follows: 17 DIRECT EXAMINATION BY MR. BUTLER: 18 19 Would you please state your name for the record. 0 Richard Brown. 20 Α And you have previously testified in this proceeding, 21 Q 22 correct? Α Correct. 23 Do you have before you eight pages of prepared 24 Q rebuttal testimony dated April 10, 2006? 25 FLORIDA PUBLIC SERVICE COMMISSION

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1	A	Yes.
2	Q	Was this testimony prepared under your direction,
3	supervisi	ion, or control?
4	А	Yes.
5	Q	Do you have any changes or corrections to your
6	prepared	testimony?
7	A	No.
8		MR. BUTLER: I would ask that Doctor Brown's prepared
9	rebuttal	testimony be inserted into the record as though read.
10		CHAIRMAN EDGAR: The prefiled rebuttal testimony will
11	be entere	ed into the record as though read.
12		MR. BUTLER: Thank you.
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1		<b>BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION</b>
2		FLORIDA POWER & LIGHT COMPANY
3		<b>REBUTTAL TESTIMONY OF RICHARD BROWN</b>
4		DOCKET NO. 060038-EI
5		APRIL 10, 2006
6		
7	Q.	Please state your name and business address.
8	A.	My name is Richard E. Brown. My business address is 3801 Lake Boone
9		Trail, Suite 200, Raleigh, NC, 27607.
10	Q.	Did you previously submit direct testimony in this proceeding?
11	A.	Yes.
12	Q.	What is the purpose of your rebuttal testimony?
13	A.	I will respond to portions of the testimony submitted on behalf of the Office of
14		Public Counsel (OPC) by James S. Byerley.
15		
16		<b>CONSERVATION-CORBETT 500-KV LINE FAILURE</b>
17	Q.	In his testimony, Mr. Byerley states that the maximum wind speed in
18		Palm Beach County during Hurricane Wilma was 86 mph, citing data
19		provided to the OPC by FPL (Bates 102887). Is this statement accurate?
20	A.	No. There are two problems with the wind speed that Mr. Byerley references.
21		First, the data cited by Mr. Byerley is from a forecast model, not actual wind
22		speed data. Second, Mr. Byerley references a sustained wind speed, whereas
23		the more relevant measurement is the three second gust which corresponds to

the design criteria in the National Electrical Safety Code. The official National
 Hurricane Center report on Hurricane Wilma (Tropical Cyclone Report,
 Hurricane Wilma, Jan. 12<sup>th</sup> 2006) cites 103 knot recorded gusts on West
 Boynton Beach, which is located in Palm Beach County. This corresponds to
 gusts of 119 mph.

### Q. Do you agree with Mr. Byerley's conclusion that an adequate maintenance policy and procedure would have required that some

#### 8 method of securing the nuts on cross brace bolts be implemented after an 9 inspection in 1998 revealed loose and missing bolts?

No. Mr. Byerley is incorrectly implying that the design of the Conservation 10 Α. Corbett transmission structures did not already provide a mechanism to secure 11 the nuts on the cross brace bolts. In fact, for this type of structure, it is 12 13 standard practice to use the weathering steel effect of the structures 14 themselves to secure the nuts. This is exactly what FPL did. There is no 15 history of nuts loosening on the cross brace bolts of structures such as those 16 used in the Conservation-Corbett line, either at FPL or in the utility industry generally. FPL reasonably understood the unusual problem it was having in 17 18 1998 with loose nuts to be the result of an excessive level of conductor 19 vibration. When FPL fixed the conductor vibration problem, it was reasonable 20 to conclude that the nut loosening problem was also fixed.

# Q. In his testimony, Mr. Byerley states that KEMA's only basis for knowing that the 1998 bolt problems had been addressed is an FPL employee's recollection. Is this a fair characterization?

1	A.	No. Although FPL employees did inform KEMA that the 1998 bolt problems
2		were addressed, KEMA compared the 2005 pre-Wilma inspection records to
3		the 1998 inspection records, and found that the towers identified with loose
4		and/or missing bolts in 1998 did not have these problems just prior to Wilma.
5		This is described in the KEMA report (page 44), where it states, "There is no
6		record that it was known before the 2005 storms that bolts were loose or
7		missing." The only logical way for structures that had loose/missing bolts in
8		1998 not to have the same problem at the time of later inspections is if actions
9		had been taken to address the problem in the interim.
10		
11		Subsequent to the publication of the KEMA report, FPL found evidence of a
12		missing bolt in 2002. This issue is further discussed in Ms. Jaindl's
13		testimony.
14		
15		FPL's DISTRIBUTION POLE INSPECTION & VEGETATION
16		MANAGEMENT PROGRAMS
17	Q.	With regards to KEMA's estimate that between 80% to 90% of all lateral
18		poles will be inspected over a 15-year period, Mr. Byerley states, "I
19		believe that their [KEMA's] assumptions are so uncertain that their
20		conclusions are suspect." Do you agree with Mr. Byerley on this point?
21	A.	No. KEMA has specifically reflected the uncertainty inherent in the
22		assumptions by presenting a range. Mr. Byerley is implying that his estimate
23		of uncertainty would be larger than KEMA's, but fails to provide a specific

1	opinion. KEMA and I have extensive experience in probabilistic reliability
2	assessment, and stand by our estimate.

3 Q. Do you agree with Mr. Byerley when he says that, prior to the 2005
4 storms, FPL did not have a planned pole inspection program which
5 adequately covered all its wood poles?

A. No. FPL, through its hazard inspections, samples a large number of wood
poles for deterioration each year. These samples are large enough to track
incipient problems so that more thorough targeted inspections can be initiated
as needed. FPL also tracks overall pole performance, which can also be used
to track incipient problems and take appropriate action.

# Q. Mr. Byerley points out that five of the utilities in the KEMA survey have systematic pole inspection programs. Does this suggest that FPL is deficient in this area?

14 No. First, each of the five utilities with systematic inspection programs only A. 15 addresses poles greater than a certain age with those programs. This is much 16 the same approach that FPL uses for its Osmose program, which targets older, 17 vulnerable pole populations. Second, each of the five utilities with a 18 systematic inspection program has an average pole population older than FPL's and hence has more of a need for regular inspections. Finally, it is 19 20 important to keep in mind that, of the utilities that responded to KEMA's 21 survey, two did not have systematic inspection programs. I think it is fair to 22 characterize the results of KEMA's survey on this point to be that (i) there is a 23 range of approaches to inspections taken by different utilities, (ii) none of the survey respondents reported an across-the-board systematic pole inspection
 program, and (iii) the utilities reporting the broadest inspection programs
 tended to be those with the oldest, most vulnerable pole populations. None of
 these results suggests that FPL's pole inspection policy prior to the 2005
 storm season was unreasonable or out of step with the industry.

Q. Mr. Byerley points out that the RUS Bulletin 1730B-121 calls for an eight
year inspection cycle for all wood poles in Florida. Do you believe that
FPL should have implemented a comprehensive eight year pole
inspection cycle prior to the 2005 storm season?

10 A. No. First, Mr. Byerley concedes in his testimony that the RUS Bulletin is not 11 applicable. Moreover, a systematic eight year inspection program for all 12 wood poles is, in my personal opinion, hard to justify as cost-effective for a utility such as FPL that has a history of good pole performance. Most U.S. 13 14 utilities with young pole populations do not spend money on widespread 15 inspection programs. Best practice is to monitor for problems and address the 16 problems as they arise. More widespread programs are typically pursued when 17 there is a significant portion of older poles that are beginning to show signs of 18 deterioration. While I understand that the State of Florida is moving towards 19 an eight year cycle for pole inspection, FPL would have had no reason to 20 implement that cycle prior to the Commission's recent change in policy.

# Q. In his testimony, Mr. Byerley states that, "The wind velocity that the poles are designed to withstand, according to FPL's Distribution Engineering Reference Manual (DERM), is 118.6 mph for Grade B and

1		96.9 for Grade C. It has been stated that the maximum wind speed during
2		Wilma was 92 mph in Collier and Lee counties, diminishing as the storm
3		moved eastward (Bates 102887). In light of this, there should have been
4		very few failures of poles which were properly installed and in good
5		condition due solely to wind pressure." Do you agree with this statement?
6	А.	No. First, I would like to point out that Mr. Byerley is again referencing
7		forecasted wind speed data not actual wind speed data, or the more applicable
8		three second gust measurement. The official National Hurricane Center report
9		on Hurricane Wilma (Tropical Cyclone Report, Hurricane Wilma, Jan. 12th
10		2006) cites 117 knot recorded gusts on Marco Island, which is located in
11		Collier County. This corresponds to gusts of 135 mph.

12

13 Second, by making this statement, Mr. Byerley shows a lack of understanding 14 of extreme wind ratings. The 92 mph "maximum wind speed" cited by Mr. 15 Byerley refers to sustained wind speeds, not gusts. Furthermore, the extreme 16 wind rating of Grade B construction is 104 mph gusts, not the 118.8 mph 17 value stated in the DERM (these values are described in detail in the KEMA 18 report). Since gust speeds can be expected to be about 25% higher than one-19 minute sustained speeds, the 92 mph maximum sustained wind speed cited by 20 Mr. Byerley corresponds to approximately 115 mph gusts, which exceeds the 21 rating of Grade B, but is still below the actual gust speeds experienced during 22 Wilma.

Since the gusts speeds during Wilma far exceeded the gust ratings of Grade B construction, it is not surprising that a certain percentage of poles in good condition with Grade B construction broke due to wind only. Also, it is important to note that Grade C corresponds to 85 mph gusts. If FPL had designed its system to Grade C, damage during Wilma would have been much more extensive. This is most likely why FPL failure rates during hurricanes are lower when compared to other utilities.

8 Q. Can you explain why the DERM states that Grade B construction 9 corresponds to 118.6 mph but you state that Grade B corresponds to 104 10 mph?

11 Α. Yes. The NESC defines the wind design criteria for light loading areas (which 12 are applicable to Florida) to be 60 mph. The DERM computes the ability of 13 Grade B and Grade C poles to withstand high winds assuming that the 14 overload factor is reduced to 1.0 instead of 4.0 for Grade B. This approach 15 must be modified to derive an effective extreme wind rating according to the 16 NESC, since new wood structures designed for extreme wind speeds require 17 an overload factor under the NESC of 1.33. Using an overload factor of 1.33 18 instead of 1.0 results in a Grade B effective extreme wind rating of 104 mph.

19 Q. Is Mr. Byerley properly representing the KEMA report when he states
20 that, "I concur with KEMA's observation that CCA poles tend to be
21 brittle."

A. No. The KEMA report states, "... both CCA and creosote feeder poles
correlated positively and with similar coefficients. This tells us that a different

pole type as an alternative engineering solution is not to be recommended and that brittleness of CCA poles, if any, is not a decisive factor." Thus, KEMA was not endorsing brittleness as a factor that could lead to the breakage of CCA poles; quite the opposite, we concluded that any brittleness that might exist in CCA poles did not affect their susceptibility to breakage.

6 Q. With respect to wood pole failure rates during hurricanes, Mr. Byerley 7 states that, "It is surprising to me that FPL or KEMA would find the 8 continuing lack of improvement in failure rate to be acceptable." Is it 9 reasonable to expect that hurricane failure rates for FPL poles have 10 improved over time?

- 11 A. No. FPL's pole performance in hurricanes has been and remains very good, 12 with failure rates during hurricanes that are low relative to other utilities. 13 When performance with respect to any parameter has been consistently good, 14 one may strive for, but certainly cannot realistically expect, significant 15 improvements in that performance. FPL has absolutely no reason to be 16 dissatisfied with its record of consistent, strong pole performance during 17 hurricanes.
- 18 Q. Does this conclude your rebuttal testimony?
- 19 A. Yes.

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1	BY MR. BUTLER:
2	Q Doctor Brown, would you please summarize your
3	rebuttal testimony?
4	A This testimony responds to portions of the testimony
5	submitted on behalf of the Office of Public Counsel by James S.
6	Byerley. This concludes my summary.
7	MR. BUTLER: Thank you. I would tender the witness
8	for cross-examination.
9	CHAIRMAN EDGAR: Mr. McGlothlin.
10	CROSS EXAMINATION
11	BY MR. McGLOTHLIN:
12	Q Doctor Brown, I will begin with a statement you made
13	at Pages 1 and 6 of your rebuttal testimony. There you refer
14	to Mr. Byerley's use of wind speed data. Do you recall that
15	testimony? Do you recall testifying concerning his use of wind
16	speed data?
17	A Yes.
18	Q And you refer to his use of 86 miles per hour as the
19	maximum wind speed in Palm Beach County. Is it true that the
20	weather reporting services provide data as to the average wind
21	speed as well as the maximum wind speed?
22	A Excuse me, what source are you referring to?
23	Q Weather reporting data.
24	A Certain weather reporting data does, not all.
25	Q And those that express wind speeds in terms of
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1 average and maximum, wouldn't it follow that if some data is 2 provided as the average and the maximum would incorporate some 3 consideration of gusts as well as the average?

A No. Typically what would happen is say if the measure that is used as a one minute sustained average, then the maximum wind speed would correspond to the maximum one minute sustained average, not including gust effects.

8 Q I see. So, in that instance there would be no 9 difference between the average and the maximum speed?

10 A In this case, the average from minute to minute could 11 change and then the maximum of these averages would be the 12 maximum one minute sustained wind speed. So there would be a 13 difference.

Q Okay. At Page 6 you refer to the 118.8 miles per hour value stated in the D-E-R-M, or DERM. Would you explain to the Commission what that acronym stands for?

A The DERM is the Florida Power and Light internal
document, Distribution Engineering Reference Manual.

19 Q And if you know, does the DERM reference manual 20 include standards and criteria that differ from the National 21 Electrical Safety Code?

A That is a general question. Are you referring to aspecific portion of the DERM?

Q I am referring specifically to the construction
standards and design standards for transmission.

1 Α The construction standards in the DERM relate to 2 distribution, not to transmission. 3 All right. With respect to distribution, do the wind 0 speed criteria of DERM differ from those in the National 4 Electrical Safety Code? 5 No, they do not. 6 Α At Page 2 of your rebuttal testimony, beginning at 7 Q Line 10, you refer to Mr. Byerley's testimony and say that FPL 8 provided a mechanism to secure the nuts on the cross brace 9 bolts, that mechanism being the use of weathering steel, is 10 that correct? 11 Correct. 12 Δ And specifically that mechanism involves the rusting 13 Q or oxidation of the outer surface of the steel in a way that 14 prevents the nut from loosening, is that the intent? 15 А Correct. 16 And would you agree with me that the weathering steel 17 0 bolts and nuts are designed so as to accomplish that patina, a 18 19 which as I understand it is the expression or term used to describe the appearance of the weathered steel in a relatively 20 brief period of time, weeks or months, is that correct? 21 Correct. 22 Α Now, referring to the Conservation-Corbett 23 Q transmission line, those towers went into service in 1996, did 24 25 they not?

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	1294
1	A Correct.
2	Q And the inspection that resulted in the discovery of
3	some 31 towers with loose or missing bolts occurred in 1998,
4	did it not?
5	A Correct.
6	Q And isn't it true that when the post-Wilma inspection
7	occurred in 2005, it was determined that some 14 of the towers
8	having loose or missing bolts at that point in time were the
9	same 14, or those 14 were among the towers that experienced
10	loose bolts in 1998?
11	A Yes.
12	Q At Page 2, Line 20, you make this statement, "When
13	FPL fixed the conductor vibration problem, it was reasonable to
14	conclude that the nut loosening problem was also fixed." Do
15	you see that?
16	A Yes.
17	Q Now, would you agree with me that whether a
18	particular position was reasonable or unreasonable would depend
19	on the circumstances at the time?
20	A Yes.
21	Q At one point in the KEMA report document, the report
22	refers to and describes the discovery of a small number of
23	loose foundation bolts. Do you recall that part of the report?
24	A Yes.
25	Q Approximately how many foundation bolts are used in
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the construction of the foundation for one of the 1 Conservation-Corbett towers or tower of that type? 2 I don't know, but there are two poles and each pole A 3 would have many nuts securing that pole to the foundation. So, 4 assuming there is around 18 or 20 nuts per tower, roughly 40 5 bolts, but you can refer to Witness Jaindl for a specific 6 answer to that question. 7 Okay. Well, that approximation will serve my purpose 8 0 for this guestion. Is it fair to say that the loosening of a 9 single foundation bolt in terms of the impact of a single bolt 10 on the structural integrity of the foundation portion of the 11 component would be far less significant than, for instance, the 12 loosening of one of four cross brace bolts that connect the 13 braces to the tower assembly? 14Α Yes. 15 In fact, isn't it true that the loosening of a single 16 0 cross brace bolt could seriously degrade the structural 17 integrity of the tower assembly itself? 18 19 Α Yes. And isn't it true that the function, one function of 20 0 the cross brace assembly is to provide the structural integrity 21 that would allow the tower to withstand significant lateral 22 forces? 23 Α Yes. 24 And one source of a significant lateral force would 25 0

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1 be high winds, would it not?

17

Α

A Yes. These towers, in fact, are designed to extreme
wind conditions specifically.

Q So those are the circumstances that were known to FPL the time it adopted the position that no further measures were necessary with respect to the attention it gave to the loose and missing bolts at that time?

A Yes. These structures were designed to withstand hurricane force winds, and after the remedies were taken to fix this loosening bolt situation, these towers were then assumed to be exposed to their typical design conditions, and so it was reasonable to conclude that the design specifications of the tower to withstand extreme winds was satisfied.

Q And that is the conclusion that you are asking the Commission, or that FPL is asking the Commission to determine was reasonable under all the circumstances, is that correct?

No, that is KEMA's position after investigating.

Q All right. And in terms of the nature of the problem posed by the loose bolts at the time, let me ask if you have Mr. Byerley's testimony available to you. I would like to refer you to an exhibit.

A I do not have his testimony in front of me.
MR. McGLOTHLIN: Can counsel provide a copy to him?
MR. BUTLER: My concern is I would like to be able to
follow along with what Mr. McGlothlin is asking, and if I give

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1	my one copy of it to the witness I'm not going to be able to be
2	do that.
3	CHAIRMAN EDGAR: I understand. I expect we can find
4	another copy here somewhere.
5	MR. BUTLER: We were able to get one. Thank you.
6	BY MR. MCGLOTHLIN:
7	Q I will refer you to Mr. Byerley's Exhibit JSB-6, Page
8	23 of 24. This is a page within a multi-page document which
9	was the caption 1998 analytical techniques, 500KV structure
10	fastener problem. Do you have it before you, sir?
11	A Yes.
12	Q Do you see the second bullet point on Page 23 that
13	states loose nuts and missing bolts can be a significant
14	problem under wind load?
15	A Yes.
16	Q And would you agree that the nature of the problem to
17	which this statement refers is not that wind would increase the
18	loosening of the nuts or bolts, but that the bolts have to be
19	secure and tight to present the structural integrity that would
20	allow the tower to withstand the high force winds?
21	A Yes.
22	Q I will refer you to Page 2 of your rebuttal
23	testimony. The question posed there reads as follows, "In his
24	testimony, Mr. Byerley states that KEMA's only basis for
25	knowing that the 1998 bolt problems had been addressed is an

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FPL employee's recollection. Is this a fair characterization?" 1 And your answer is no, and you continue there. Do you see that 2 question and answer? 3 Α Yes. 4 0 Let me refer you to the KEMA report. 5 MR. McGLOTHLIN: And could I have a moment in place, 6 7 Chairman Edgar, to get my copy? CHAIRMAN EDGAR: You may. 8 BY MR. McGLOTHLIN: 9 Page 43 of the KEMA report. If you will, sir, read 10 Q the very last short paragraph at the bottom of the page below 11 the photographs? 12 "In 1998, some cross brace bolts were found to be 13 Α loose or missing. The exact actions to rectify the loose and 14 missing bolts in 1998 was not known, but action was taken to 15 fix this. Since manual tightening was used, it appears that 16 some of the tightened cross brace bolts subsequently became 17 18 loose again. 19 0 And would you agree that that is the portion of the KEMA report that is the subject of both Mr. Byerley's testimony 20 21 and your comment? 22 Α Yes. It is important for me to add, though, that there was not information provided to KEMA to a large number of 2.3 inspections that had occurred in the 2001 through 2003 time 24 25 period when we wrote this section of the report, so the KEMA

1298

opinion has slightly changed since this report was written. 1 This was addressed earlier in my cross examination. 2 Now, if you would, turn to Mr. Byerley's testimony at 3 0 Page 8. And would you read the portion of his testimony 4 beginning at Line 22 and through Line 25? 5 Mr. Byerley says, "The additional statement in the 6 Α 7 KEMA report to the effect that in 1998 manual tightening was 8 used to address the issue is also revealing. In light of the earlier statement that the exact steps are unknown, it is 9 10 difficult to understand how KEMA can state that anything in 11 particular was done. The question is particularly appropriate 12 in that --" 13 That is all on that page. Thank you, Doctor Brown. 0 14 But turn to Page 9 now. And if you would, beginning at Line 9, 15 where the answer begins, "During the deposition." Mr. Byerley states, "During the deposition of FPL 16 А Witness Richard Brown, OPC asked Doctor Brown to explain the 17 assertion in the KEMA report that the bolts were retightened 18 manually. I have been informed by counsel for OPC that during 19 his deposition Doctor Brown said the statement in the KEMA 20 report was based on an FPL employee's recollection. With 21 respect to the apparent discrepancy with the informal 22 recollection in --" 23 Again, Doctor Brown, that is sufficient. Thank you. 24 0 25 Now, do you have your deposition available to you?

	1300
1	A Yes.
2	Q Please turn to Page 54 of the transcript. I'm sorry,
3	Page 56. And do you see the question that I posed to you
4	beginning at Line 18?
5	A Yes.
6	Q Would you read that question and answer?
7	A The next statement says, "Since manual tightening was
8	used, it appears that some of the tightened" it says crawl
9	space bolts, it should be cross brace bolts "subsequently
10	became loose again. If the exact axial is not known" I
11	assume axial should be action "how are you able to say that
12	manual tightening was used?"
13	"Answer: This was from FPL's recollection so we are
14	taking FPL at their word on this that this was the standard
15	work practice used for performing maintenance activities on
16	these towers."
17	Q Thank you. That is sufficient. Now, based upon what
18	I have asked you to review, isn't it true that the specific
19	comment Mr. Byerley made in his testimony was not to the effect
20	that action was taken, but the assertion that the particular
21	action was manual tightening?
22	A If that is the case, if Mr. Byerley was referring to
23	the fact that it was manual tightening rather than was any
24	action taken at all, I would agree with that statement.
25	Q At Page 4, Doctor Brown, of your rebuttal
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1 testimony --

2 MR. BUTLER: I'm sorry, would you give the page 3 reference again.

MR. McGLOTHLIN: Page 4 of rebuttal. And I will ask
the Commissioners and parties to bear with my lack of voice
today. I am struggling here a bit.

7 BY MR. McGLOTHLIN:

In the answer that begins on Line 6, Doctor Brown, 8 0 9 you refer to FPL's hazard inspection, and you state that these 10 samples are large enough to track incipient problems so that 11 more thorough targeted inspections can be initiated as needed. 12 FPL also tracks overall pole performance which can also be used 13 to track incipient problems and take appropriate action. Do you see that answer? 14

A Yes.

15

What you do mean with the term incipient problem? 16 0 17 For example, if you were tracking overall failures А 18 for your system that contribute to customer interruptions and 19 you have cause codes, and one of these cause codes is pole 20 failures, and one of the subcause codes of pole failures is due 21 to deterioration or strength-related problems, you can track 22 this over time. And if you see something that is trending negatively, this would potentially not be a problem in a safety 23 sense or in a customer reliability sense, but you can see that 24 25 you don't like where this trend is going and so that you can

investigate the problem further and potentially take action if
 needed. So it is a trend that might potentially result in an
 undesirable situation, but it is not undesirable yet.

4 Q Would you agree with me that for the purpose of 5 tracking trends, it's necessary to do that over time?

A

6

A Correct.

Q And would you agree with me that to track trends and follow incipient problems, it would be necessary to retain data and review it over a period of time?

10 A No, not necessarily. If you have people in an 11 organization that are familiar with problems, then just the 12 expertise and experience of people in the company can 13 absolutely identify trends. Of course, it's helpful if you 14 actually have data if you want to do a detailed investigation, 15 a statistical type analysis of these trends.

Q Well, let's take the example of a pole, an individual wood pole that shows early signs of deterioration but is not to the point of needing either bracing or replacement. Now under your definition, is that an incipient problem and a trend or is that a pole-specific problem?

21

Α

That would be a pole-specific problem.

22 Q And you're not including that in your discussion of 23 tracking of incipient problems, are you, sir?

A Correct. This does not consider specific poles.
Q And if you would turn to Page 34 of the KEMA report.

1 On this page the report discusses the FPL practices with 2 respect to the extent to which it prepares and maintains a 3 database for the overall population of wood poles; is that 4 correct?

A Yes.

5

Would you read for me the last paragraph on Page 34. 6 0 "This inability to make conclusions on the condition 7 Α of different types of poles for the entire system is due to the 8 lack of a comprehensive database on the vintage, pole type, 9 repair record and condition of poles in each location. 10 The current inspection program is not designed to collect data on 11 the entire pole population," excuse me, "on the entire 12 population of poles." Such a database would provide a tool for 13 a more effective maintenance program for managing the pole 14 15 population." Those are all of my questions. 16 MR. McGLOTHLIN: Thank you, Mr. McGlothlin. 17 CHAIRMAN EDGAR:

18 Are there -- is there further cross from any of the 19 intervenors? Mr. Kise.

20 MR. KISE: I just had a couple of questions. 21 CHAIRMAN EDGAR: You're recognized. 22 MR. KISE: A housekeeping matter. 23 CROSS EXAMINATION

24 BY MR. KISE:

25

Q Good afternoon, Dr. Brown.

		1304
1	А	Good afternoon.
2	Q	The other day we had some discussion, you may recall,
3	about som	e notes that you had. Do you recall that?
4	А	I remember. I do remember this.
5	Q	And then subsequent to that, your counsel asked you
6	to provid	e some notes to me; is that right?
7	А	Yes.
8	Q	And you did provide those notes?
9	A	Yes.
10	Q	And that consisted of, I have it here, four, just
11	four page	s. Is that your recollection?
12	А	Yes.
13	Q	And were those, just to be certain that we're talking
14	about the	same thing, and I appreciate you providing those and
15	I appreci	ate counsel getting them as well, is that the entirety
16	of your n	otes with respect to the responses you were given by
17	FPL to yo	ur questions?
18	A	Yes. They are the entirety of the notes. There was
19	a little	bit of a misunderstanding, I think. When I actually
20	prepared	my notes, they were based on me going through all of
21	the docum	ent review process. And then when I was having my
22	discussio	ns prior to several days ago, I used these as a basis
23	to record	just a very few details based on the discussions of
24	new infor	mation. So if that was a, a misunderstanding, I
25	apologize	. But you have all of my notes that I prepared.

1305 Okay. Thank you. And there is no, if I'm 1 0 2 understanding correctly, other written memorialization of any responses you were given on the new information? 3 4 А Correct. You have everything that I have. 5 MR. KISE: Okay. Thank you. CHAIRMAN EDGAR: Any of the other parties have 6 questions on cross for this witness? No? I'm seeing no across 7 the board for the record. 8 9 Okay. Questions from staff? 10 MS. GERVASI: No questions. 11 CHAIRMAN EDGAR: Commissioners? 12 COMMISSIONER DEASON: I have a question. 13 CHAIRMAN EDGAR: Commissioner Deason. 14 COMMISSIONER DEASON: The bolts and the cross-braces that are in question, it was believed that they were loosened 15 as a result of conductor vibration in, around 1998; correct? 16 17 THE WITNESS: Yes. 18 COMMISSIONER DEASON: Okay. And it was also believed 19 that when that vibration problem was corrected, that the bolts would not re-loosen sometime in the future; correct? 20 21 THE WITNESS: That's right. 22 COMMISSIONER DEASON: Okay. The vibration problem 23 was corrected; correct? 24 THE WITNESS: That's right. 25 COMMISSIONER DEASON: Okay. What caused the bolts to

loosen? It's your position that it was the high winds that
 caused that or some other factor?

3 THE WITNESS: Yeah. I was told not to speculate on 4 this in my cross-examination. What I can say is that after 1999 when they determined that the conductor vibration problem 5 6 was fixed and all of the loose and missing bolts were fixed, 7 there were subsequent inspections in 2001, aerial inspection in 8 2001, climbing inspection in 2002 in addition to ground patrols. In 2003 again there were aerial inspections and a 9 complete 100 percent thermography and visual inspection of this 10 11 entire line. And so I can't imagine doing more inspections on this line than was done in 2001 and 2002 and 2003. And there 12 simply, in my opinion, could not have been a bolt problem at 13 14 the end of 2003.

15 And so the issue, question is in 2005 when Wilma hit, to the best of my knowledge, I can't -- it seems like Wilma had 16 17 to have loosened these bolts and/or caused some of these bolts to become missing because I don't see a scenario between when 18 from the end of 2003 to the beginning of Wilma these bolts 19 20 could have gone loose. So by the process of elimination, it seems like this is what happened, but it is speculation. 21 Ι apologize if I'm speculating now, and I was told not to 22 speculate earlier. 23

But the KEMA report actually speculates differently.When I was not aware of these interim inspections, the KEMA

1 report says that maybe the vibration caused these bolts to 2 re-loosen and the inspection frequency maybe didn't catch it. 3 So what you read in the KEMA report was what I thought was most 4 likely. But after knowing about the extensive inspections that 5 actually did occur, it has dramatically changed my opinion on 6 the subject.

COMMISSIONER DEASON: Well, have you ever known high
winds to loosen bolts in other situations?

9 THE WITNESS: No. In fact, talking to other 10 utilities that use weathering steel with bolts that don't have 11 lock washers or locknuts there, I have not found any utility 12 that has had experience of loosening bolts due to vibration or 13 high wind speeds.

COMMISSIONER DEASON: And at the time that the vibration problem was corrected, what would have been wrong with simply putting locknuts on those bolts at that time? Would there have been anything wrong with that or is it just your opinion it was unnecessary?

19 THE WITNESS: I would have to defer to Witness 20 Jaindl. She would be more qualified to answer that. But it's 21 possible that, for example, the bolts weren't sized to have a 22 locknut washer on it. These are not standard items. Since 23 they're not used in weathering steel, potentially they would 24 have to be special ordered. Issues like these. But Witness 25 Jaindl, who is, I believe, up next, would be able to

1308 1 specifically answer those questions for you. CHAIRMAN EDGAR: Thank you, Dr. Brown. 2 Mr. Butler. 3 MR. BUTLER: Brief redirect. 4 REDIRECT EXAMINATION 5 6 BY MR. BUTLER: 7 Dr. Brown, you were asked by Mr. McGlothlin about the 0 8 collection of data to develop the overview or a sense of the performance of FPL's pole population. I wonder, have you done 9 10 any analysis of comparing FPL's pole population to that of other utilities that would provide any insight on just kind of 11 12 compared to the industry the quality or condition of FPL's 13 poles? 14 Α Yes. The data that FPL has actually is much better than most other utilities. Most utilities, large 15 16 investor-owned utilities are moving towards a direction where 17 they will have all of their poles individually represented in a 18 geographic information system so that they can track on a pole 19 level things such as levels of deterioration. But I have not 20 today worked with a utility that has a fully populated 21 geographic information system with this level of detail. 22 Q And do you have any statistics on sort of the 23 percentages of poles having problems within FPL versus other utilities? 24 25 Α Yes. If you look at the Osmose examinations that

1 were done from 1999 through 2004, there was a, what's called a 2 reject rate of approximately 5 percent, which means that 5 percent of the poles that were examined required either 3 4 bracing or replacement. And if you look at the benchmark 5 survey that we did for utilities that were in hurricane-prone 6 areas in climates similar to Florida Power & Light, these 7 reject rates were similar to the other utilities. The reject rates of FPL were similar to other utilities. 8

9 Q Do you have statistics on pole outages for FPL 10 compared to other utilities?

11 Α Yes. In terms of the contribution of -- you can look at this in two different ways. The first is how much do pole 12 13 failures actually impact the customers in terms of 14 interruptions. And I had data for two other large investor-owned utilities. One is Continental Large U.S. 15 Utility, and wood pole failures due to deterioration 16 contributed to about 1 percent of all customer interruptions 17for that utility. Another utility that's in a climate similar 18 to Florida Power & Light had a contribution of about 19 1.5 percent due to pole deterioration to customer 20 interruptions. So that 1 percent and 1.5 percent contribution 21 during nonextreme weather conditions compares to, over the last 22 23 five years, about .2 percent to .4 percent, which is what the 24 contribution of Florida Power & Light was. So at least compared to these two large investor-owned utilities, Florida 25

Power & Light was three to five times lower than these 1 2 utilities. In addition, we looked at information from the 3 benchmark survey which was similar, although this was the 4 percentage of poles that failed every year due to pole 5 deterioration. So not the contribution to the customer 6 experience, but just as a percentage how many poles failed. Of 7 the nine utilities that responded, five of them kept this data. 8 Of these five that responded, FPL's nonstorm pole performance 9 was the lowest. It had the best performance of all the five 10 that responded. And of the average response, FPL was 11 75 percent lower than the average response. So by any measure, 12 the nonstorm performance of FPL poles was better than the 13 comparison utilities. 14 MR. BUTLER: That's all the redirect that I have. 15 16 Thank you. 17 CHAIRMAN EDGAR: Mr. Kise. MR. KISE: Madam Chair, I just have a couple of 18 follow-up questions to Mr. Butler's examination, if I may. 19 20 CHAIRMAN EDGAR: Briefly. 21 MR. KISE: Very briefly. 22 RECROSS EXAMINATION BY MR. KISE: 23 Dr. Brown, just with respect to the other utilities 24  $\cap$ you were referencing, I think, if I understood you correctly, 25 FLORIDA PUBLIC SERVICE COMMISSION

	1311
1	you were referencing two groups, the benchmark study group and
2	then a different group; is that right?
3	A Yes.
4	Q Okay. And with respect to the other utilities, did I
5	understand you to be saying that those other utilities were of
6	comparable size to FP&L?
7	A One was much larger. One was much smaller.
8	Q Okay. And their service areas, the one that was much
9	larger, where is the service area for that utility?
10	A On the West Coast.
11	Q The West Coast of the United States?
12	A Correct.
13	Q And to your knowledge, has that utility ever
14	experienced any hurricane damage in its service area?
15	A No. They have not experienced hurricane damage or
16	hurricane they have not experienced a hurricane there.
17	Q And then with respect to the one that was smaller,
18	where is that service area?
19	A Noncontinental United States.
20	Q Outside the United States?
21	A Correct. No. No. Inside the United States but not
22	continental.
23	Q Okay. In the Territories or in Hawaii?
24	A I have to respect a little bit of confidentiality,
25	but outside of the continental United States.
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	1312	
1	Q And did that	
2	A In a climate similar to Florida.	
3	Q Did that will utility has that has that utility	
4	experienced a hurricane in its service area to your knowledge?	
5	A I believe, yes.	
6	Q Okay. And then with respect to the benchmark study	
7	you said that there were nine, I believe, utilities, is that	
8	right, included in that study?	
9	A Nine utilities responded to our survey.	
10	Q Responded. I'm sorry. Nine responded to the survey?	
11	Okay.	
12	And were those utilities all of comparable size to	
13	Florida Power & Light?	
14	A No. The details are in the KEMA report and there are	
15	a range. Some are larger and some are smaller.	
16	Q Okay. Fair enough. And with respect to the service	
17	area, I believe you indicated yesterday in your testimony that	
18	one of them was actually in Florida. What about the other	
19	eight?	
20	A A list of all but one of those utilities has been	
21	provided as a document request, and there are multiple that are	
22	from Florida.	
23	Q Okay. And that's in the confidential exhibits, I'm	
24	assuming?	
25	A I don't think so. Only one of the utilities that	
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1313 1 responded requested their name to be anonymous. So eight of the nine names are available. But the relationship of who 2 answered what is not available because as a condition of the 3 4 survey we said we wouldn't assign answers to specific utility 5 names. 6 Q Okay. Fair enough. I misunderstood your answer 7 yesterday on that point. Okay. Thank you. 8 MR. BUTLER: Nothing further. 9 CHAIRMAN EDGAR: Mr. Butler. 10 MR. BUTLER: Nothing further. CHAIRMAN EDGAR: Commissioners? Thank you. 11 12 THE WITNESS: Thank you. MR. BUTLER: Shall we call our next witness? 13 We'd call Ms. Jaindl, and Ms. Jaindl has not been 14sworn previously. 15 CHAIRMAN EDGAR: We'll do that now. Ms. Jaindl, if 16 you'll stand and raise your right hand. 17 18 BARBARA A. JAINDL 19 was called as a witness on behalf of Florida Power & Light 20 Company and, having been duly sworn, testified as follows: DIRECT EXAMINATION 21 BY MR. BUTLER: 22 Thank you. Ms. Jaindl, would you please state your 23 0 24 name and address for the record. 25 Α Yes. My name is Barbara Jaindl. I work at FLORIDA PUBLIC SERVICE COMMISSION

		1314
1	700 Unive	rse Boulevard in Juno Beach, Florida.
2	Q	Thank you. By whom are you employed and in what
3	capacity?	
4	А	Florida Power & Light. I'm currently Director of
5	Transmiss:	ion.
6	Q	Do you have before you 19 pages of prepared rebuttal
7	testimony	dated April 10, 2006?
8	А	Yes, I do.
9	Q	Would you please either bring the microphone closer
10	to you or	move closer to it? It looks like it's not picking up
11	real well	. Thank you.
12		Was this testimony prepared under your direction,
13	supervisio	on or control?
14	А	Yes, it was.
15	Q	Thank you. Do you have any changes or corrections to
16	your prepa	ared testimony?
17	A	No.
18		MR. BUTLER: I'd ask that Ms. Jaindl's prepared
19	testimony	be inserted into the record as though read.
20		CHAIRMAN EDGAR: The prefiled rebuttal testimony of
21	this with	ess will be inserted into the record as though read.
22		
23		
24		
25		
		FLORIDA PUBLIC SERVICE COMMISSION

1		<b>BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION</b>
2		FLORIDA POWER & LIGHT COMPANY
3		<b>REBUTTAL TESTIMONY OF BARBARA JAINDL</b>
4		DOCKET NO. 060038-EI
5		APRIL 10, 2006
6		
7	Q.	Please state your name and business address.
8	A.	My name is Barbara Jaindl. My business address is 700 Universe Boulevard,
9		Juno Beach, Florida 33408-0420.
10	Q,	Did you previously submit direct testimony in this proceeding?
11	Α.	No.
12	Q.	By whom are you employed and what is your position?
13	A.	I am employed by Florida Power & Light Company (FPL) as Director of
14		Transmission.
15	Q.	Please describe your duties and responsibilities in that position.
16	A.	For the past six years I have been responsible for the siting, design,
17		engineering, and construction of the transmission system. I recently assumed
18		the additional responsibility of maintenance and restoration of the
19		transmission lines.
20	Q.	Please describe your educational background and professional
21		experience.
22	А.	I have a Bachelor of Civil Engineering degree from Georgia Institute of
23		Technology and a Bachelor of Science in Electrical Engineering from

1 University of Miami. I have worked for FPL since 1976 in a variety of 2 positions involving transmission and substation. I have been supervisor of 3 civil/structural engineering, manager of design and standards, director of 4 substations, director of transmission and director of transmission projects. I 5 am a registered Professional Engineer in both Civil and Electrical Engineering 6 in the state of Florida.

7 Q.

## What is the purpose of your rebuttal testimony?

8 The purpose of my testimony is to address transmission issues raised by OPC A. 9 witness Byerley and provide details that support the reasonableness and 10 prudence of FPL's inspection, maintenance and replacement programs for 11 transmission facilities, especially with regard to the actions FPL took on the Conservation-Corbett 500 kV line, the Alva-Corbett 230 kV line, and the 69 12 13 kV line on the Herbert Hoover dike of Lake Okeechobee. I will also address 14 the reasonableness of FPL's substation landscaping storm repair costs, which 15 are the subject of Staff Audit Finding No. 2 sponsored by Staff witness 16 Welch.

- 17
- 18

## **CONSERVATION-CORBETT 500 KV LINE**

Q. On page 3 of his testimony, Mr. Byerley claims that failure of the
 Conservation-Corbett 500 kV transmission line is partly the result of
 poor construction management practices. Please describe the
 Conservation-Corbett 500 kV transmission line, its design and

2

construction specifications, and the construction quality assessment and quality control.

A. The Conservation-Corbett 500 kV line was energized in 1996. Twenty-eight
of the 57 miles of this line are in the South Florida Water Management
District Conservation areas. To minimize environmental impacts in the
conservation area, significant portions of the line were designed to allow
construction without building access roads.

8

9 Design considerations for roadless construction included structures that were 10 designed to reduce weight so that the majority of structures could be installed with a helicopter. Overall, although the line design differed in some respects 11 12 from previous designs, it was built to all applicable industry standards and 13 guidelines including: National Electrical Safety Code (NESC) for clearance, 14 loading and strength requirements including extreme wind; EPRI (Electric 15 Power Research Institute) Transmission Line Reference Book (1982) for 16 phase spacing; NESC/OSHA (Occupational Safety & Health Administration) 17 requirements for safe minimum approach distance; ASCE (American Society 18 of Civil Engineers) 74 "Guideline for Electrical Transmission Line Structure 19 Loadings"; and ASCE 72 "Design of Steel Transmission Pole Structures" for 20 the H-frame designs.

21

The construction specifications for the structures on the Conservation-Corbett 500 kV line included both FPL standard and job specific requirements for

1 structure erection. Although FPL developed the design criteria and 2 participated in the design optimization, the structure design, fabrication and erection details for the new Conservation-Corbett 500 kV structures were 3 4 developed by Thomas and Betts (T&B), and the T&B drawings were included 5 as part of the construction specifications. These drawings showed assembly 6 and erection requirements, including nut tightening specifications, which 7 referenced the 9th edition of American Institute of Steel Construction (AISC) as the basis for these specifications. Specifically, the drawings called for the 8 "turn of the nut" method, which requires that the nut be rotated a specified 9 10 amount past snug. The specifications for the Conservation-Corbett 500 kV structures were consistent with the T&B erection drawings used on previous 11 FPL 500 kV lines. 12

13

The industry standard practice for weathering steel connections, both at the time of construction and today, is for the patina (the change in an object's surface due to oxidation) associated with the weathering steel to secure the nuts on all bolted connections. FPL's use of this locking mechanism on more than 1,000 miles of weathering steel 500 kV structures has proven to be effective, even under hurricane winds.

20

FPL's construction inspection for this line, as for previous 500 kV lines, was consistent with industry practices for oversight and acceptance of foundations and anchors, structure assembly and erection, and conductor/overhead ground

1		wire (OHGW) sag and tensioning. FPL utilized experienced FPL construction
2		supervisors to oversee the Conservation-Corbett 500 kV line construction.
3	Q.	On page 7 of Mr. Byerley's testimony, he states that the Rural Utility
4		Service (RUS) requires use of locknuts on bolted connections to prevent
5		loosening by vibration. Is that bulletin pertinent to weathering steel
6		transmission structures?
7	A.	No. Rural Utilities Service (RUS) bulletin 1724e-200 section 15.4.1, is titled
8		"Structure Related Hardware for Wood Structures." In contrast, Section 15.5
9		applies to concrete and steel structures. That section goes on to explain that
10		hardware used on wood construction may be appropriate for steel structures
11		but could differ because wood can shrink or swell with age and weather over
12		time.
13		
14		I also should note that even Section 15.5 would not directly apply to the
15		Conservation-Corbett structures, because it is for galvanized steel hardware
16		and does not address weathering steel. In the case of weathering steel,
17		the industry standard practice for connections is for the patina associated with
18		the weathering steel to secure the nuts on all bolted connections, not locknuts.
19	Q.	Mr. Byerley refers to loose and missing brace bolts on the Conservation-
20		Corbett towers. How did FPL first discover that there were loose and
21		missing bolts on the Conservation-Corbett transmission line and what
22		was determined to be the cause?

A. FPL became aware of the loose/missing bolt issue in early 1998 as the result
 of an outage investigation and follow-up inspections for an insulator failure.
 During these inspections, FPL observed excessive vibration on the conductors
 and also noted that some of the structure bolts appeared loose and that two
 were missing.

6

7 The root cause of the loose/missing bolts was determined to be excessive 8 conductor vibration. The vibration caused some of the nuts on the bolt to 9 loosen from the snug tight specifications before the weathering steel patina 10 could "lock" them in place. The excessive conductor vibration was confirmed 11 by field measurements in a 1998 study that FPL performed jointly with the 12 Georgia Institute of Technology's National Electric Energy Testing Research 13 and Application Center (NEETRAC) and Dulmison Products (provider of the 14 original wire-type spacer dampening system).

Q. On page 6 of his testimony, Mr. Byerley states that "FPL did not take
adequate measures to remedy the situation". Do you agree?

17 A. No. In early 1998, the bolt status was inventoried for each structure in the 18 accessible area, and FPL took immediate action to replace missing bolts. The 19 NEETRAC study was done to measure the line vibration. After determining 20 that there was excessive conductor vibration and it was causing the bolts to 21 loosen, FPL took action in late 1998 to tighten the loose bolts in addition to 22 changing out corona rings and adding dampers to reduce the vibration. The 23 addition of these dampers reduced the conductor vibration to within industry

- standard limits. After a follow-up conductor condition analysis was complete,
   FPL installed additional vibration damping upgrades on the entire line in
   1999.
- Q. On page 8 of his testimony, Mr. Byerley asserts that the 1998 inspection
  results should have been entered into FPL's Asset Management System.
  Do you agree?
- 7 Α. No. FPL's asset management system was developed at the component level 8 for items such as poles, cross-arms, insulators, conductor, OHGW, etc. It did 9 not have in 1998, and does not have today, the capability to record assets 10 down to the bolt level. Keep in mind that FPL has had no history of loose or 11 missing bolt problems on transmission structures such as those used on the Conservation -Corbett 500 kV line and we reasonably believed the 1998-99 12 experience to be a vibration-induced anomaly that had been fully resolved by 13 14 the additional vibration dampers. Mr. Byerley's criticism is made only with 15 the benefit of 20/20 hindsight.

16 Q. If the information was not entered into the asset management system,
17 how do you know the bolts were replaced or tightened?

A. We confirmed that action was taken as planned by comparing bolt status post Wilma with the original 1998 inspection results. This comparison revealed that, of the 105 structures inspected in both 1998 and 2005, loose or missing bolts were found at 31 locations in 1998 and 23 locations post-Wilma, with only 15 locations common to both inspections. Thus, a little less than half of the structures that had loose or missing bolts in 1998 also had them in 2005.

- We concluded from this comparison that the bolts were tightened as specified in 1998. Otherwise we would have found loose or missing bolts at all of the original 31 locations at the time of the 2005 inspection.
- Q. On Page 11 of his testimony, Mr. Byerley states "clearly, the crews did
  not follow the recommendation in the November 1998 FPL staff report to
  peen the crossbrace bolt threads". Why was this not done?
- A. At the top of the same page 11, Mr. Byerley summarized the
  recommendations at the time: "if a nut is frozen, leave it alone". This is the
  criteria that the crews used to determine if the threads needed to be peened.
  Clearly in hindsight this was not adequate and threads on all brace bolts are
  now being peened post-Wilma.
- Q. On page 10 of his testimony, Mr. Byerley cites a statement from the "1998
  Analytical Techniques, 500 kV Structure Fastener Problem" that refers
  to the loosening of structure bolts as an "independent problem." He
  concludes from this statement that the bolts "should have been addressed
  separately and effectively." Do you agree?
- A. No. By "independent problem," the author of the study simply meant that the
  loose and missing bolts were another problem, in addition to insulator
  damage, both of which were caused by excessive conductor vibration. FPL
  knew at the time that conductor vibration, and not independent structural
  vibration, was the culprit because the NEETRAC measurements performed in
  March 1998 looked at vibration on both the conductors and structures.
  NEETRAC concluded from those measurements that the vibration of the

- conductor was excessive whereas the structural vibration was within the
   expected range.
- Q. If FPL already knew the root cause of the loose bolts in 1998, then what
  was the purpose of the "1998 Analytical Techniques, 500 kV Structure
  Fastener Problem" that is attached to Mr. Byerley's testimony as Exhibit
  JSB-6?
- 7 A. This 1998 study was a statistical analysis to determine if the "new", lighter, 8 straight-leg H-frame structure was more prone to loose bolts from conductor 9 induced vibration than the "old", slanted-leg H-frame structure. Both types of 10 structures are used on the Conservation-Corbett line, and both had experienced loose bolts but in different proportions. In the conclusions of this 11 12 study (see pages 22-23 of Exhibit JSB-6) the author relates the loose bolts to 13 vibration and recommends the same solutions for the bolt issue without regard 14 to the structure type.
- Q. On page 3 of his testimony, Mr. Byerley claims that damages during
  hurricane Wilma were exacerbated by inadequate inspection practices.
  What are FPL's normal inspection standards pertaining to the
  Conservation-Corbett 500 kV transmission line?
- A. As part of its transmission system inspection, FPL schedules and conducts
   detailed inspections on its 500 kV transmission structures on a 10% sample
   population every 4 years.
- Q. Why is the practice of inspecting a 10% random sample of the 500 kV
  steel structures appropriate?

A. Sampling along with routine visual inspections and special assessments gives
 FPL a good view of the overall condition of the steel structures on a 500 kV
 line. The focus of the 10 % sampling is on a detailed inspection of the
 structures. Depending upon the results from the sample population, additional
 detailed inspections are scheduled accordingly.

7 The inspection for the other line components such as wire, insulator, and 8 conductor are normally done with special assessments (in addition to 9 sampling) based upon identified problems with age, manufacturer or 10 environment.

Q. On page 8 of his testimony, Mr. Byerley states that, after the bolt issues
were found "... the line should have been completely inspected frequently
until the problem was resolved satisfactorily." Was this done?

14 A. Yes. FPL conducted follow up special assessments on the Conservation15 Corbett 500 kV line post 1998 in addition to the 10% sample inspections.

16 Q. Describe the additional inspections that occurred on the Conservation17 Corbett 500 kV line after the loose bolt issue was found.

A. FPL increased the frequency of inspection on the Conservation-Corbett line
after the repairs in 1998/1999. Follow-up helicopter inspections on the line
were performed in 2001 and 2003 to ensure that there was no evidence of a
continuing vibration problem, which included an inspection of the bolts. All
the line insulators were thermovisioned in 2003, and the condition of the
structures was confirmed visually as part of that inspection. All these

1		inspections were in addition to the regularly scheduled climbing inspections
2		that were conducted on 10% of the structures in 2002 and the routine ground
3		patrols.
4		
5		These additional inspections, well beyond the 10% standard inspection, were
6		well suited to identifying any loose or missing bolts.
7	Q.	Did FPL discover loose or missing bolts subsequent to 1998?
8	A.	One missing bolt was reported in 2002 as the result of a routine ground patrol.
9		None were reported from any of the other inspections.
10	Q.	What was determined to be the cause of the missing bolt that was
11		discovered in 2002?
12	А.	No specific cause was identified. However, as no other missing or loose bolts
13		were reported from the other inspections, FPL reasonably concluded that the
14		single missing bolt was an anomaly.
15	Q.	What does FPL now believe is the reason that the Conservation-Corbett
16		line experienced the additional loose and missing bolts that were
17		identified after Hurricane Wilma?
18	A.	FPL has carefully evaluated the design, construction, maintenance and
19		inspections of the Conservation-Corbett line. We have found nothing that
20		definitively caused the loose and missing bolts. At this point, it appears
21		possible that the loose and missing bolts may have resulted from subtle and
22		unanticipated interactions of components in the line, perhaps exacerbated by
23		the extraordinary loads imposed by hurricane-force winds. Because of this

1 uncertainty, we are taking all reasonably feasible measures to prevent 2 recurrence.

## 3 Q. Please describe the corrective measures FPL is taking.?

A. FPL is inspecting every structure bolt (crossbrace, foundation, crossarm, etc)
on the Conservation-Corbett 500 kV line, tightening them to a connectionspecific specification where necessary, and peening the exposed threads on all
cross brace and cross arm bolts to provide additional locking security beyond
the natural patina. Follow up inspections on the bolts are scheduled to be
completed prior to the start of hurricane season.

10

Additionally a detailed helicopter and ground inspection is being done on the entire 500 kV system and is almost complete. No missing or loose bolts have been identified on any other of FPL's 500 kV transmission lines. FPL is not charging the cost of any of these measures as part of the storm recovery.

15

Due to physical damage, the conductor damping system for the entire line was replaced post Wilma. The damping system was designed by a damper manufacturer based upon line sag and tension characteristics. In order to ensure the conductor vibration issue is effectively addressed with this new system, FPL has installed conductor vibration monitors on the line. Data will be reviewed over the next several months to ensure the system is working as designed. The repair of this damage is part of storm recovery.

23

- 1Q.Was the foundation failure on the Conservation-Corbett 500 kV line the2result of insufficient quality specifications and inspection, as Mr. Byerley3suggests?
- 4 The job specifications for cast-in-place foundations spelled out A. No. 5 comprehensive quality control and inspection criteria for the acceptance of 6 each foundation including: dimension checks, concrete checks, and concrete 7 placement surveillance with emphasis on ensuring a clean hole and continuous 8 pour. Although the contractor was responsible for inspecting and approving 9 work to ensure compliance with FPL drawings and specifications, FPL had 10 experienced construction supervisors doing surveillance inspections to ensure 11 foundations were being constructed to specifications. FPL's actions were 12 consistent with good industry practice to ensure that the foundations met the 13 specifications by specifying the quality requirements, requiring quality checks 14 on each foundations and doing surveillance inspection while the foundations 15 were being installed.
- 16

As a result of the foundation failure discovered after Hurricane Wilma, FPL has visually inspected and "sounded" all the foundations and, where warranted, is following up with core borings. FPL is not seeking to recover the costs for this testing as part of the storm recovery.

- 21
- 22
- 23

1		ALVA-CORBETT 230 KV LINE
2	Q.	Please respond to Mr. Byerley's observations on the deterioration of the
3		wood structures on Alva-Corbett line and his assertion that they
4		contributed to the failure that occurred in Hurricane Wilma.
5	A.	I disagree with Mr. Byerley's conclusion that the failed transmission
6		structures on the Alva-Corbett 230 kV transmission line were a result of
7		deterioration. In May 2005, the most recent climbing inspection was
8		completed on the Alva-Corbett 230 kV line. During this inspection, no
9		problems were reported on the six (6) transmission poles that required
10		replacement as a result of hurricane Wilma.
11	Q.	What comments do you have in respect to the two deteriorated poles
12		referenced to by Mr. Byerley.
13	A.	We know from our hurricane forensics that none of the six structures that
14		failed on the Alva-Corbett line from hurricane Wilma was the result of
15		deterioration. Mr. Byerley's Exhibit JSB-2, photo 54 does not illustrate
16		transmission structure damage from hurricane Wilma but rather a stub that
17		was abandoned in place after damage from hurricane Frances (September
18		2004).
19		
20		Similarly, Exhibit JSB-2, photo 51 simply shows a deteriorated pole on the
21		ground. The work site Mr. Byerley visited on the Alva-Corbett line is

currently under construction. I cannot conclude whether this particular

- photograph was even from the Alva-Corbett 230 kV transmission line or the
   timeframe from which it existed.
- Q. Please respond to Mr. Byerley's conclusion that FPL made an economic
  decision to replace a portion of Alva-Corbett line that was leaning/
  deteriorated rather than repair it.
- 6 Α. FPL indeed made economic decisions following the 2004 storm season 7 regarding the most cost-effective way to maintain the Alva-Corbett 230 kV 8 transmission line, and rightly so. FPL is currently rebuilding a portion of the 9 Alva-Corbett 230 kV transmission line as part of a planned system expansion 10 project. Knowing the rebuild project was forthcoming, FPL made an 11 economic decision after the 2004 storm season to temporarily brace 10 miles 12 of poles that were leaning as a result of Hurricane Frances in order to 13 minimize the cost to storm recovery. Since this particular rebuild project is 14 not storm related, the charges are not included in FPL's petition.
- Q. Please respond to the statements on page 15 of Mr. Byerley's testimony
  that the leaning structures also indicate a potential for foundation failure
  in a future storm.
- 18 A. As discussed above, this portion of the line will be rebuilt prior to the 200619 storm season.
- 20
- 21

## OTHER TRANSMISSION LINE FAILURES

Q. On page 17 of his testimony, Mr. Byerley addresses the failure of a
number of other transmission structures. Please describe the ove rall

- performance of the transmission system during the 2005 hurricane
   season.
- There were 100 transmission structure failures as a result of Hurricane Wilma: 3 Α. 4 30 were on the Conservation-Corbett 500 kV line, which also caused five 5 wood H-frame structures to fail on the Alva-Corbett line; 46 were single pole 6 unguyed wood (or wood equiv) on three 69 kV line sections located on berms 7 in the vicinity of Lake Okeechobee which I will discuss below; and there were 8 19 random structure failures. Thus, out of 64,000 transmission structures in 9 the FPL system, only about 0.16% failed, which is very good performance in 10 the face of Wilma's strong winds.
- Q. On page 17, Mr. Byerley states that the failure of other 69 kV
  transmission structures in western Palm Beach County could have been
  avoided if they had been relocated prior to 2005. What structures is he
  referring to?
- A. There are three 69 kV lines in the vicinity of Lake Okeechobee that are
  installed on raised berms and that experienced failures in 2005. One was a
  line that also failed in 2004 and had been partially relocated and rebuilt.
- Q. Mr. Byerley states that since the replaced and relocated poles performed
   well during Wilma, that FPL should have taken some action on the
   remaining poles to mitigate future damage. Please describe these
   transmission structures and FPL's efforts to relocate the line after the
   2004 hurricanes.

A. The line that failed in 2004 was a 69 kV line that was constructed of single unguyed wood poles located on the Herbert Hoover dike and dated back to approximately 1963. It experienced failures as a result of hurricanes in both 2004 and 2005. The primary cause for these structure failures was the older design standard and the high winds associated with the "coastal" effect of Lake Okeechobee and the topographic speed-up effect associated with the surrounding earth berm.

8

9 After the 2004 storm season, FPL relocated the portion (approximately 5.8 10 miles) of this transmission line section north of Canal Point that was 11 previously located along the Herbert Hoover Dike. It was relocated 12 approximately 300 feet east of the Herbert Hoover Dike and was rebuilt with 13 round spun concrete poles and polymer post insulators consistent with FPL's current design standard. FPL was able to quickly relocate and rebuild the 14 15 structures in this area because of limited commercial and residential 16 development along this portion of the transmission line. None of the 17 structures along this rebuilt portion of the transmission line required 18 replacement after Hurricane Wilma.

19

The southern portion of this transmission line south of Canal Point was also located along the Herbert Hoover Dike. Relocation of this southern line section was problematic, as it would either have significant community impact by routing through residential and commercial areas or would require a

1		routing study and significant right of way acquisition to avoid the developed
2		areas. After the 2004 hurricane season, in order to ensure reliable service to
3		the area, this southern portion of the transmission line was rebuilt on the dike
4		with wood poles while an alternative route, permitting, right-of-way
5		acquisition and community outreach could properly be evaluated and
6		completed. The temporary rebuild of this line section could not be done to
7		current standards, because the poles could not be set as deep into the dike
8		surrounding Lake Okeechobee as would normally be FPL's practice. The
9		rebuilt section on the dike failed as a result of Hurricane Wilma. FPL is
10		aggressively pursuing relocation of this line section and anticipates
11		completion by mid 2006.
12	Q.	Would it have been possible for FPL to relocate all of the transmission
13		structures on the Herbert Hoover Dike prior to the 2005 hurricane
14		season?
15	A.	No. It was not possible to identify a new line route, conduct community
16		outreach, and acquire necessary permits and easements for the southern part of
17		the line prior to the 2005 hurricane season.
18		
1 <b>9</b>		SUBSTATION LANDSCAPING
20	Q.	On page 4 and 5 of her testimony, Ms. Welch discusses the amount of
21		costs related to substation landscaping that the company should remove
22		from the storm reserve account if the Commission were to decide that
23		these costs should not be recovered. Is landscaping required at FPL

1	ubstations and is FPL required to replace or restore landscaping
2	lamaged by hurricanes?

3 A. Yes. Landscaping installed at substations is in response to local development 4 orders or code requirements. The landscaping shown on approved landscape 5 plans must be planted and then maintained by FPL; otherwise the site would 6 be in violation of the approved development order, which would result in code 7 enforcement action by the local jurisdiction. The effect of not 8 restoring/replacing landscaping would be to create the potential for "Notices 9 of Violation" (NOV's) and/or monetary fines imposed by local jurisdictions.

10

## 11 Q. Please summarize your testimony.

- A. FPL's actions with regard to the design, construction, maintenance and
  inspection of the transmission system, specifically including the facilities that
  Mr. Byerley takes issue with, were all consistent with applicable standards
  and codes and represent good utility practice. Mr. Byerley's testimony raises
  no valid points to the contrary.
- 17

18 The repair of substation landscaping is required to meet conditions of the19 original site plan approval.

- 20 Q. Does this conclude your rebuttal testimony?
- 21 A. Yes.

1 BY MR. BUTLER:

2 Q And I would ask Ms. Jaindl to please summarize her 3 testimony.

A Okay. Good afternoon. The purpose of my rebuttal testimony is to address the contentions of OPC Witness James Byerley concerning the reasonableness and prudence of FPL's design, construction, maintenance and inspection programs. FPL's actions with regard to these programs met or

9 exceeded all applicable standards, codes and represent good 10 utility practice.

Mr. Byerley's testimony raises no valid points to the contrary. As a result of Hurricane Wilma, there were only 100 transmission structure failures out of 64,000 transmission structures in the FPL system. Thus, less than 0.16 percent of FPL's transmission structures failed. This is very good performance in the face of Hurricane Wilma's strong winds.

Mr. Byerley specifically criticized FPL's response to the discovery in 1998 of loose and missing cross-brace bolts on the Conservation-Corbett 500 kV line. His criticism is unwarranted.

The Conservation-Corbett 500 kV line was built to all applicable industry standards and guidelines, and the specifications for the bolted connections on this line are consistent with industry standard practices for this type structure.

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When FPL became aware of the bolts associated with 1 the excessive conductor vibration in 1998, we responded 2 aggressively to address the problem. We installed a new 3 vibration damping system that eliminated the excessive 4 vibration and we tightened and replaced the bolts. 5 We then followed up with frequent special inspections 6 in addition to routine climbing inspections of the transmission 7 structures on this line. No reoccurring problems were found 8 with either the bolts or vibration-related symptoms on this 9 line. 10 In summary, FPL's transmission, design, construction, 11 maintenance, inspection programs are reasonable and prudent, 12 and they ensured very good performance of the transmission 13 system during the 2005 hurricane season. 14 MR. BUTLER: Madam Chairman, yesterday when we had 15 the amendments to Mr. Byerley's testimony, you may recall that 16 I had requested an opportunity to ask a brief series of 17 questions to address in, or to have Ms. Jaindl address the 18 additional testimony that Mr. Byerley was submitting, and I 19 would ask for the opportunity to do that at this time. 20 CHAIRMAN EDGAR: Granted. 21 MR. BUTLER: Thank you. 22 BY MR. BUTLER: 23 Ms. Jaindl, Mr. Byerley's amended testimony refers to 24 Q RUS Bulletin 1724E-204 entitled "Guide Specifications for Steel 25 FLORIDA PUBLIC SERVICE COMMISSION

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1	Single Pole and H Frame Structures" on Page 7. Does FPL follow
2	RUS bulletins in the design or construction of its transmission
3	structures?
4	A No, we do not.
5	Q Why not?
6	A The RUS guidelines are applicable to co-ops that are
7	going to the Rural Utility Service for funding, a part of the
8	Department of Agriculture, so it's not applicable to FPL.
9	Q Does FPL rely instead on other sources of standards
10	for the design of steel pole transmission structures?
11	A Yes, we do.
12	Q And what are those other sources of standards?
13	A As I referenced in my testimony, we use ASCE Manual
14	Number 72, which is the Design of Steel Transmission Poles.
15	And this particular manual is referenced in the National
16	Electric Safety Code, which we are required to meet by Florida
17	Statute.
18	Q Even if the RUS guidelines did apply to Florida or,
19	I'm sorry, to FPL, would Section 5.2.5 of RUS bulletin
20	1724E-204 be applicable to the bolts and nuts of the
21	Conservation-Corbett 500kV line?
22	A No. The chemistries that they reference in 5.2.5 are
23	nonweathering steel chemistries for the bolts. For example,
24	one of the bolts they call out for is a ASTM354 and without a
25	designation on the back side of it it is not a weathering steel
	FLORIDA PUBLIC SERVICE COMMISSION

1337 bolt. 1 If you'll bear with me, I know you've heard so much 2 about the bolts, but I thought you might like to see one. 3 Basically, this is an ASTM354, but on the head of the bolt it 4 has a BC designation after it, and that means it's a weathering 5 steel bolt. So basically these guys do not call for the 6 weathering steel, nor do they spec them out. 7 Additionally, when it refers to locknut, it says the 8 locknut shall be galvanized. And you don't put a galvanized 9 nut on a weathering steel bolt, so it's kind of absent in 10 really having any specifications for weathering steel. 11 For the benefit of the record, would you please refer 12 Ο again to the ASTM standard number that applies to the 13 weathering steel bolts and nuts? 14 15 Ά It's ASTM354BC. Okav. Thank you. Do the ASCE guidelines specify the 16 0 17 type of fasteners to use with weathering steel structures? No, they do not. 18 А Okay. How does FPL decide what sorts of fasteners to 19 0 use with its weathering steel structures? 20 They're pretty much relying on the vendors or the 21 Α 22 experts in the weathering steel properties. And depending on the performance of the structure, the vendor will recommend 23 what kind of fasteners and what kind of locking devices to use. 24 We have experience with weathering steel structures. We've had 25

structures developed by five different vendors, and none of 1 them with these five different vendors -- about 98 percent of 2 3 our structures required locknuts. They all relied on the patina from the weathering steel to freeze the nut to the 4 bolts. That's been pretty much our experience that that's what 5 the vendors are recommending. They are the experts. There are 6 no guidelines or codes that would recommend anything different. 7 8 Q Thank you. Now Mr. Byerley's amended testimony on 9 Page 7 also refers to the specification of locknuts in a 1972 drawing for old style transmission structures of the sort that 10 11 were used in the Conservation-Corbett 500kV line. Are you 12 familiar with that drawing? 13 Yes. We've been referring to this 1972 drawing as А 1977. Basically it has a revision block on it. It was revised 14 as late as 1977. 15 16 I'll use that terminology. Was the 1977 drawing 0 17 applicable to the Conservation-Corbett structures when they 18 were erected in the mid-1990s? 19 Α No, they were not. 20 Q Do you have a copy of the drawing that was applicable 21 to the old style Conservation-Corbett structures? 22 Yes, I do. Α 23 And what is the date of it? Q 24 The date on this is 1978. It's a more current Α 25 revision of what we were doing as far as installing fasteners FLORIDA PUBLIC SERVICE COMMISSION

1 on weathering steel structures.

2 Q Does the 1978 drawing call for the use of locknuts on 3 the cross-brace bolts?

A No, it does not.

5 Q What percentage of the FPL 500kV transmission 6 structures built after 1978 were built without locknuts on the 7 cross-brace bolts?

A 98 percent.

4

8

9 Q And how many structures in total have been built?
10 A The total number of structures built post-1978 is
11 3,100 structures.

12 Q Thank you. Other than on Conservation-Corbett, has 13 FPL experienced any loose or missing cross-brace bolts on the 14 weathering steel 500kV transmission structures that were built 15 without locknuts on the cross-braces?

16 A No, we have not. In fact, post-Wilma we have 17 inspected 100 percent of the 500kV transmission system, and 18 zero missing or loose cross-brace bolts were found on any of 19 the other lines.

20 MR. BUTLER: Thank you. That's the conclusion of my 21 additional examination of Ms. Jaindl, and I would tender her 22 for cross-examination.

CHAIRMAN EDGAR: Thank you. Cross?
 CROSS EXAMINATION
 BY MR. McGLOTHLIN:

1340 Ms. Jaindl, I'm Joe McGlothlin with the Office of 1 0 2 Public Counsel. 3 To follow up so that I understand your additional 4 testimony, is it your testimony that locknuts are not an option 5 with respect to the 500kV Conservation-Corbett situation? 6 Α No. My testimony is that they're not the standard industry practice. It is an option, but not the standard 7 practice. 8 9 0 So it would be both possible and feasible technically 10 to secure the nuts on the bolts used to connect the cross-braces with a locking device such as a locknut? 11 12 Α Yes, it would. 13 And would you agree that just because RUS doesn't Q govern FPL, that doesn't mean they can't have a good idea from 14 time to time? 15 16 Well, I guess what I'm -- yes, they can have a good А 17 idea and they do have good ideas. I do not disagree that you need locknuts with galvanized bolts. We use it exclusively on 18 19 our galvanized system. What I disagree with is it's not 20 applicable to weathering steel fasteners. 21 Q I'll turn now to your prefiled rebuttal testimony, if 22 you have that available to you. 23 Your current position is Director of Transmission; is that correct? 24 25 А Yes.

And your testimony states that in that position 1 0 you're responsible for siting, design, engineering and 2 construction of transmission systems; is that correct? 3 4 А Correct. 5 Q And in that capacity do you have any management 6 responsibilities for the operational aspects of the transmission system? 7 As I said in my testimony, I have recently assumed 8 Α 9 the additional responsibility of the operation and maintenance of the transmission system. We were trying to align our storm 10 secure plan between the expansion and the operation side. 11 12 0 When did you assume that additional responsibility? 13 Α In March. However, I will mention that I was Director of Transmission in the 1998-99 time frame. 14 15 0 Okay. If you received those additional responsibilities in March of this year, then you are not 16 17 responsible for the restoration activities for the 18 Conservation-Corbett power failures; is that right? Α 19 I was responsible for the rebuild of the 20 Corbett-Conservation line. Yes. 21 Oh, I see. All right. Your testimony says that 0 you've had that position for six years. Would you have assumed 22 23 that role in then 2000? 24 Α In mid 1999. 25 0 The Conservation-Corbett transmission line went into FLORIDA PUBLIC SERVICE COMMISSION

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1	service in 1996; is that correct?
2	A That's correct.
3	Q And the inspection that disclosed the existence of
4	loose or missing cross-brace bolts occurred in 1998?
5	A Yes. We found the bolts as a result of insulator
6	failure.
7	Q Now you were not Director of Transmission at that
8	point in time, were you?
9	A Yes, I was.
10	Q Oh, I see. I misunderstood.
11	And what does the word "missing" mean in this
12	context, if the, if the cross-brace bolt was determined to be
13	missing? What does that mean?
14	A In the context of the hurricane or in the context of
15	1998?
16	Q Let's use 1998.
17	A Okay. Obviously there was no bolt in place.
18	Q And we're referring to monsters like the one in front
19	of you as having completely pulled out of the assembly?
20	A Yes. That's correct.
21	Q You said that you were in charge of the restoration
22	aspects following Hurricane Wilma. Was it your decision to
23	instruct FPL personnel to peen the threads of all cross-brace
24	bolts?
25	A And this is post-Wilma?
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Q Yes.

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A Yes. Upon investigation, you know -- as we look at it, we're not 100 percent sure what happened, and Dr. Brown had talked to that. We do know we fixed the vibration, we do know that we tightened the bolts in 1998, we do know that the bolts were in place in 2003 based on the inspections.

7 So in light of all the things we do know, but we don't know what caused the bolts to fall out. We're thinking 8 it had to do with the vibration damping system was destroyed 9 10 during Hurricane Wilma. There was a lot of wind out there. There were some oddball wind events. And so in light of the 11 fact of all the things that stack up there, we think it's 12 prudent to go back in hindsight and we've tightened every 13 fastener on the structure to a predetermined specification and 14 15 we've peened the threads on both the cross-brace and cross-arm bolts. And we have plans to go back, both pre- and post-storm 16 season for the next several years, to ensure that those bolts 17 stay in place. 18

19 Q So the answer is, yes, you were the one to make the 20 decision?

A Yes.

21

Q Turn to Page 6, please, Ms. Jaindl. At Line 8 you make this statement, referring to the Conservation-Corbett situation. "The vibration caused some of the nuts on the bolt to loosen from the snug tight specifications before the

	1344
1	weathering steel patina could lock them in place."
2	Do you see that segment?
3	A Yes, I do.
4	Q And we established earlier that these towers went
5	into service in 1996; is that correct?
6	A That's correct.
7	Q And the loose bolts were found during an inspection
8	in 1998; correct?
9	A As a result of an insulator outage, yes.
10	Q Turn to Page 8 of your rebuttal testimony. Beginning
11	at Line 12 on Page 8 there appeared a question and an answer
12	that respond to Mr. Byerley's reference to a statement from the
13	1998 analytical techniques document. Do you see that?
14	A Yes, I do.
15	MR. McGLOTHLIN: If I may have a moment, I want to
16	distribute a document.
17	If I may have a moment, I changed the order of things
18	on my colleague and I haven't given him the right document to
19	hand out. But keep this one. It's coming.
20	CHAIRMAN EDGAR: Okay. We can do that.
21	MR. McGLOTHLIN: Commissioners, with some help, I'm
22	distributing a three-page document that has already been
23	identified as one of Mr. Byerley's exhibits and has been
24	entered into the record. I distribute it now simply for ease
25	of reference and it does not need another number. And by way

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	1345
ı	of identification, this is a three-page excerpt of the 24-page
2	document that is Mr. Byerley's JSB-26.
3	BY MR. McGLOTHLIN
4	Q Ms. Jaindl, do you have that three-page excerpt
5	before you?
6	A Yes, I do.
7	Q And do you recognize this as an excerpt from the
8	document that was the subject of both Mr. Byerley's comments
9	and your rebuttal testimony?
10	A Yes, I do.
11	Q Take a moment, if you need to, and I attached the
12	cover page simply for identification, review the information on
13	the following two pages that are captioned "Background."
14	A Yes.
15	Q Now this background section summarizes in bullet
16	point fashion the situation that was found during the 1998
17	inspection, does it not, with respect to the cross-brace bolts?
18	A Was there a question?
19	Q Yes.
20	A I missed it.
21	Q Do you agree that this background section summarizes
22	the situation that was found during the 1998 inspection with
23	respect to the insulator failure and with respect to the loose
24	cross-brace bolts that were found at that time?
25	A It's kind of an odd shorter view. Yes, it
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1	represents it's not all-inclusive.
2	Q Okay. And do you see the bullet point on the second
3	page of the three pages that indicates crews had witnessed
4	structural vibration with respect to the Conservation-Corbett
5	towers?
6	A Yes, I do.
7	Q Now structure vibration is a different phenomenon
8	than conductor vibrations, is it not?
9	A Yes, it is. That's why I say this does not show the
10	whole story. At the same time this author was looking at
11	contrasting the old style slant leg structures with the
12	straight leg structures, we had GTRI, which is the research arm
13	of the Georgia Institute of Technology, doing vibration
14	analysis on both the conductor and the structure. The results
15	of their study said that the vibration on the conductor was
16	excessive and caused a concern and the vibration on the
17	structure was within the normal range. So we knew at the time
18	that the study was going on that the vibration was related to
19	the excessive conductor aeolian vibration.
20	Q But you see on the third page the last bullet point
21	is that the loosening of structure fasteners is an independent
22	problem. Do you see that statement?
23	A Yes. And as I had in my testimony, I said what he
24	meant by independent. His assignment, and this was one of four
25	assignments that was going on, was to contrast the old style

structures' performance to the new style structures to find out if there were more loose fasteners on the new one than there were on the old one.

Q But would you agree with me that the import of the statement that the loosening structure fasteners in the independent problem is that it is separate and apart from the insulator damage that was resulting from the vibration and it had to be addressed in and of itself?

9 A The intent of the author in writing this was, his 10 purpose was to study as an independent problem, contrasting the 11 new structures with the old structures, knowing that both were 12 the result of conductor vibration.

Q Well, you referred to the intent of the author, but as Director of Transmission don't you regard the detection of loosening cross-brace bolts as a problem to be addressed separate and apart from, independent of any remedy to the damage to the insulator?

I think it's all part of the same problem. It's very 18 Α important. It's just as important as the conductor damage, the 19 20 insulator damage that we were seeing, and we needed to fix everything at the same time. To put the bolts out with regard 21 to the vibration, we would have just had another problem 22 recurring. So it was not independent in the sense that they 23 had a different root cause. 24

25

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But one would want to know that the remedy that was

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1	applicable to the insulator also served to prevent additional
2	bolt loosening, wouldn't one? Wouldn't one want to know that?
3	A And we do know that happened. When we, when we
4	Q Well, first of all, would you agree, yes or no?
5	A I would agree, yes.
6	Q Thank you.
7	A And we do know that happened from the follow-up
8	inspections.
9	Q Well, what we know is that in 2005 some 30 of those
10	towers collapsed and many of them had loose bolts; we know that
11	as well, don't we?
12	A I know yes, that is true.
13	Q Now in your testimony you contend that Mr. Byerley's
14	observations are based on or employ hindsight, do you not?
15	A Which page are you referring to?
16	Q Oh. Fortunately your testimony is not all that long,
17	so let me ask the question a different way.
18	Would you agree that in determining whether FPL's
19	assumption that it had taken measures necessary to address the
20	loose bolts, the cross-brace bolts in 1998, would, should be
21	based upon what was known to FPL at the time?
22	A Repeat the question.
23	Q Would you agree that in assessing whether FPL was
24	reasonable in concluding that it had adequately addressed the
25	problem of loose bolts in 1998, that assessment should be based
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1	upon information that was available to it or known to FPL at
2	the time?
3	A I agree. And the information that was known to FPL
4	is we had a severe conductor vibration, we fixed the vibration
5	
6	Q Excuse me.
7	A and the industry standard practice was to use a
8	patina for locking the nuts.
9	MR. BUTLER: I'd ask Mr. McGlothlin not to try to cut
10	the witness off in answering the question. She's certainly
11	entitled to explain and she had, in fact, answered his question
12	directly before starting to explain.
13	CHAIRMAN EDGAR: Mr. McGlothlin, can you give me a
14	rough estimate of how many more questions or about how much
15	longer do you have for this witness?
16	MR. McGLOTHLIN: Possibly 15 minutes.
17	CHAIRMAN EDGAR: Okay. Let's go ahead. We're coming
18	up on about two hours, and maybe the court reporter needs a
19	break. I could use one. We will come back at 4:00.
20	(Recess.)
21	CHAIRMAN EDGAR: We will go back on the record.
22	Mr. McGlothlin, before I recognize you for continued cross, we
23	have, of course, had numerous questions about scheduling, which
24	I appreciate and understand. And, you know, I remain
25	optimistic that we can finish tonight. That clearly is not in

my hands. We will, as always, take the time that we need to 1 2 take to do the job that is before us. While I'm thinking of it, the agency received 3 information earlier today that there will be construction on 4 the entrance into the office complex tomorrow. And so if we do 5 need to come back tomorrow again, while I'm thinking of it, 6 people will need to come in the entrance down and come in 7 around the back. And if anybody needs directions, we'll try to 8 do that. But the entrance right here nearest to this building 9 at Shumard Oak my understanding is will be blocked. 10 As I said yesterday, if we do need to come back 11 tomorrow, my intention is to begin at 1:00 p.m. tomorrow, early 12 afternoon. And I am hopeful though that we can finish by 13 7:00ish this evening. If, if prior to that for some reason 14 15 circumstances change and I feel that we need to end earlier, we But right now my desire is to go to about 7:00ish and 16 will. 17 hopefully finish up. 18 And I realize I'm being repetitive, but just so I'm clear, if we need to, we will come back at 1:00 tomorrow. 19 Anything before we get started or any questions on 20 any of that? Seeing none, Mr. McGlothlin. 21 BY MR. McGLOTHLIN: 22 Ms. Jaindl, I located my reference during the break. 23 0

At Page 7 of your rebuttal testimony, Line 14, you state, 24 "Mr. Byerley's criticism is made only with the benefit of 20/20 25

	1351
1	hindsight," do you not?
2	A Yes.
3	MR. McGLOTHLIN: For the purposes of my next
4	question, Chairman Edgar, I'd like to have an exhibit number
5	assigned to the tower diagram that was distributed before the
6	break.
7	CHAIRMAN EDGAR: The legal-sized that you passed out
8	earlier?
9	MR. McGLOTHLIN: Yes.
10	CHAIRMAN EDGAR: Okay. I am showing that we are at
11	162, 162. And, Mr. McGlothlin, a title.
12	MR. McGLOTHLIN: New tower design,
13	Conservation-Corbett.
14	(Exhibit 162 marked for identification.)
15	BY MR. McGLOTHLIN
16	Q Do you have a copy of that, Ms. Jaindl?
17	A Yes, I do.
18	Q And let me ask you to refer also to Mr. Byerley's
19	exhibit, JSB-6, Page 7 of 24, where it says which shows two
20	photographs of transmission towers.
21	A Okay. Yes.
22	Q First, do you recognize what has been marked as 162?
23	A Yes, I do.
24	Q And is it a line diagram that depicts the, what has
25	been referred to as the new style or new configuration of the
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1	transmission tower that was used on the Conservation-Corbett
2	transmission line?
3	A Correct.
4	Q And referring to Page 724 in JSB-6, would these
5	fairly depict the appearance of both the new style, which is
6	the H shape on the left, and the old style, which has the
7	spread legs on the right?
8	A Yes, they do.
9	Q Good. Now with respect to each of those or either of
10	those tower designs, we're talking in terms of a structure
11	that's roughly eight or nine stories high, are we not?
12	A If the story is ten feet, yes.
13	Q With that assumption, yes. And would you for
14	ballpark purposes agree with me that each of the structures
15	would weigh in the range of 12 to 15 tons depending on the
16	particular height of each one?
17	A Yes. That's correct.
18	Q And that information, of course, was known to FPL in
19	1998, was it not?
20	A Yes, it was.
21	Q And the conductor that is held by the transmission
22	tower carries 500,000 volts; is that correct?
23	A Yes. That's correct.
24	Q And this particular transmission line was strung at a
25	tension of approximately 25 percent than is typical for other
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1	transmission lines on FPL's system, was it not?
2	A What was the question?
3	Q Wasn't the Conservation-Corbett transmission line
4	strung at a tension greater than the tension that is typical of
5	other transmission lines on the system?
6	A As a percentage of the rate of breaking strength.
7	Q Yes.
8	A We have other wires that are strung much higher but
9	the diameter is much larger.
10	Q But this particular line has a tension ratio
11	25 percent greater than is typical for other lines on the
12	system; is that not right?
13	A Only for the 500. We have 138 and 230 that are
14	strung at a comparable value.
15	Q All right. But for the 500 it's a greater tension
16	than is typical?
17	A Typically we stream for about 25 percent of the rate
18	at breaking strength. This was designed for 28 percent of the
19	rate at breaking strength. So whatever the 28 of 25 comes out
20	to.
21	Q Okay. Now referring to both the line diagram and the
22	pictures on Page 7 of 24 in Mr. Byerley's exhibit, is it
23	correct that the large X-shaped component that is seen
24	attaching between the vertical components of the tower
25	constitute the cross-brace that has been the subject of

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		1354
1	testimony	in this proceeding?
2	А	Yes, it does.
3	Q	And would it be fair to say that the cross-brace
4	itself is	several stories tall?
5	А	Yes, it is.
6	Q	You heard Dr. Brown agree that these cross-braces are
7	essential	to the structural integrity of the assembly, did you
8	not?	
9	А	For working under extreme loads, yes.
10	Q	You don't agree with that testimony, do you?
11	А	For working under extreme loads, yes.
12	Q	And you heard Dr. Brown testify that among other
13	things the	ey lend the structural integrity needed to withstand
14	severe la	teral forces; do you agree with that testimony?
15	А	Correct.
16	Q	And an example of such extreme lateral forces would
17	be high w	inds in a hurricane?
18	A	Yes.
19	Q	Okay. And do you agree that to provide that
20	structura	l integrity it's necessary that all four cross-brace
21	bolts be	tight and secure?
22	A	It's important that all four bolts be intact under
23	hurricane	wind conditions, yes.
24	Q	And that the loosening of a single cross-brace bolt
25	would ser	iously degrade the structural integrity and make the
		FLORIDA PUBLIC SERVICE COMMISSION

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1	tower more vulnerable to severe lateral forces?
2	A I think we need to define I can't answer that.
3	You have to define "loose."
4	Q Well, how would you define "loose"?
5	A We basically have the guidelines from our structural
6	engineer that you can have quite a lot of play in that joint.
7	So if loose is a gap, you're allowed up to one inch of a gap.
8	If loose is the nut is going to come off, then I would agree
9	with you.
10	Q Well, let's say looser than the standard that is
11	deemed sufficient for the connection assembly to meet the
12	standard.
13	A If loose is a gap, you can have up to one inch in the
14	structural performance design. If loose is the nut is not
15	secure, then it's a problem.
16	Q Yes. All right. And it's fair to say that all of
17	that was known in 1998?
18	A Yes.
19	Q And in 1998 it was oh, let me just add one more
20	thing.
21	It's true, is it not, that if one tower, because it
22	has insufficient structural integrity due to a loose bolt, if
23	that tower collapses, it can take down other towers even though
24	those other towers may be in and of themselves structurally
25	sound?

I think you have to take a structural assessment. А My 1 feeling is one tower is probably okay. If you have multiple 2 scenarios going on, then it's not okay, based on my structural 3 engineering background. 4 And, for instance, looking at the picture on Page 5 0 7 of 24 which shows a series of towers, the word "cascade" or 6 "cascading type of situations" has been used in this docket. 7 And do I understand correctly that refers to a situation in 8 which a failure may begin with one tower, but has the effect of 9 causing adjacent towers to fail also? 10 11 That's what cascade means, yes. Α So with respect to just, as an easy example, if 12 Q these, if one tower were to fail in this picture, it's possible 13 that it could have a cascading effect and those distant towers 14 would also fail? 15 Typically if you have one tower fail, you will affect 16 Α 17 a couple, but not, not all the ones in the distance. 18 Okay. With respect to the incident in Hurricane 0 19 Wilma, isn't it true that according to the KEMA report 28 of the failed towers failed in a cascading fashion? 20 21 Α Correct. And that potential or that possibility of a cascading 22 0 effect was known in 1998, was it not? 23 It's also known when you design a structure, yes, 24 Α it's known you could cascade. However, in 1998 when we secured 25 FLORIDA PUBLIC SERVICE COMMISSION

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1	the bolts, we secured it to industry practice, standard
2	practice, and we inspected to make sure they stayed in place.
3	Q Okay. You secured it to industry practice. And by
4	that, you refer to the fact that you used weathering steel
5	that's supposed to develop a patina that prevents the nut from
6	loosening; is that correct?
7	A Correct.
8	Q And you're referring to the fact that the bolts were
9	manually tightened when they were installed and manually
10	tightened again in 1998; is that correct?
11	A Correct.
12	Q But in 1998 you discovered that the patina had failed
13	to secure at least the number of bolts found on the 31 towers
14	of that inspection; is that correct?
15	A That's correct. And it was a result of aeolian
16	vibration from the conductor.
17	Q We'll get to that. And you also discovered that
18	manual tightening was insufficient to prevent those bolts from
19	loosening?
20	A Correct.
21	Q But those were the measures that were implemented in
22	1998.
23	A In 1998 the key of the measures was to deal with the
24	conductor vibration, tighten the bolts and inspect.
25	Q Now you've testified that FPL took measures to reduce
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1 the amount of conductor vibration that was detected at the time 2 of the 1998 inspection that discovered damaged insulators; is 3 that correct?

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Yes.

5 Q Now would you agree with me that at that point in 6 time FPL could not know to point of certainty that the measures 7 it took to reduce conductor vibration would prevent bolts from 8 loosening thereafter?

9 A We took measures to deal with the vibration. We 10 measured the vibration after the dampers were put in place and 11 the dampers were successful. We did go back to the line in 12 1999 and did additional damper fixes. And no bolts were 13 reported loose or missing at that time, so we knew that the 14 solution was effective.

Q My question, Ms. Jaindl, is this. Would you agree with me that FPL could not know at the time it made the adjustments to reduce conductor vibration in 1998, it could not know to point of certainty at that point in time that those particular measures would prevent future loosening of bolts?

A I would disagree based upon our very long history of
dealing with weathering steel and vibration with conductors.

Q Well, isn't it true that after the hurricane in 2005 loose bolts were discovered?

A After the hurricane in 2005 the vibration damper system was entirely destroyed, so we were no longer back at the

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1	1998 situation. So we have you know, we're not whole. The
2	fixes we had put in place were blown away and we're back to the
3	situation. We had extraordinary winds, a lot of conductor
4	vibration, a lot of structural movement. So we're not at the
5	1998 situation any longer.
6	Q Didn't you say in your testimony that at that point
7	in time FPL, in your words, reasonably assumed that the loose
8	bolt problem had been addressed?
9	MR. BUTLER: I'm sorry. Which point in time are you
10	referring to?
11	MR. McGLOTHLIN: In 1998 when the reduction in
12	conductor vibration was implemented.
13	THE WITNESS: Yes, I did say it was reasonably
14	assumed based upon the wealth of history in the industry using
15	weathering steel structures. We're by no means kind of out on
16	a limb here. This is pretty much industry standard practice.
17	The recommendation for using the patina to lock the nuts is
18	what is generally I think it's the only standard used by
19	Thomas and Bett, who is one of the experts in these structures.
20	So I think it was reasonable to assume that once
21	you've dealt with the vibration issue, that this would be
22	successful.
23	BY MR. McGLOTHLIN:
24	Q Would you agree with me that an assumption is
25	different than certainty?
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A I don't think anything is certain, even a locknut.
Q Okay. Would you agree that FPL had the option in
1998 to secure the bolts either by peening the threads on the
bolts or by using locknuts?

5 A Yes, we had that option. But we did not see this as 6 a bolt-related problem. We saw this as vibration-related, and 7 rightly so based upon our history and experience with the 500kV 8 system.

9 I do want to remind you that we've looked at the 10 whole 500 system and have not found another brace bolt missing 11 in the recent inspection. So it is surely -- purely something 12 that's unique to this line.

We have also talked to a number of other utilities saying, you know, do you have similar experiences with, you know, bolts spontaneously falling out under extreme wind events, and no one else has had a similar problem in the industry.

18 MR. McGLOTHLIN: Chairman Edgar, I understand your 19 earlier rulings, but there has to be some fairness and balance 20 here. I don't believe a question presented on cross is an 21 opportunity for a witness to present the witness's, the entire 22 testimony.

CHAIRMAN EDGAR: Ms. Jaindl, please limit your answerto the scope of the question that is asked. Okay.

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MR. BUTLER: Madam Chairman, I have to observe --

1 CHAIRMAN EDGAR: Mr. Butler. 2 MR. BUTLER: Sorry. I have to observe that the question was, essentially, did FPL do a reasonable thing 3 4 knowing what it knew at the time. And what Ms. Jaindl was 5 doing was talking about the whole scope of what FPL knew at the time. Sometimes questions by their open-ended nature invite 6 7 open-ended responses. 8 MR. McGLOTHLIN: I think the transcript will show that the precise question was: Did they have the option of 9 10 securing the bolts at that time? CHAIRMAN EDGAR: Gentlemen, let's proceed with the 11 12 questioning. BY MR. McGLOTHLIN: 13 14 0 Ms. Jaindl, do you agree with Doctor Brown that the 15 pinging of threads, or the use of lock nuts is an effective mechanism for securing the bolts? 16 17 Α Yes, I do, and we are pinging post-Wilma. I couldn't hear that answer. 18 0 19 Α We are using pinging on the threads on this line as 20 part of the rebuild post-Wilma. 21 Now, in your testimony you describe the inspections 0 22 that took place after 1998. First of all, excuse me, may I 23 take a moment? 24 Pardon me. The inspection that occurred in 1998 was 25 one of the routine 10 percent every four-year types of

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1	inspections, was it not?
2	A In 1998?
3	Q Yes.
4	A In 1998 the inspection was a result of an outage
5	investigation. We had an outage of a 500 kV line, and we found
6	an insulator failure.
7	Q I see.
8	A It was not a routine 10 percent failure, no.
9	Q All right. But the routine type of inspections for
10	this and other transmission lines is to inspect 10 percent of
11	the towers each four years, is that correct?
12	A Right. In the absence of any particular issues on
13	that line, we would inspect 10 percent of the towers every four
14	years, and then use that information to determine do we need to
15	do something more.
16	Q How many let me see if my memory is right. If
17	memory serves, on this particular transmission line there are
18	231 structures, correct?
19	A 223, I believe.
20	Q 223. So the routine inspection would involve
21	inspecting 22 or 23 every four years?
22	A For the routine climbing inspection, yes.
23	Q And if my arithmetic is right, referring, again, to
24	the routine or normal inspection period, that means that 100
25	percent of the towers would be inspected after 40 years?

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A If all we did was routine climbing inspections, that would be correct. The life-cycle of many of the components don't last that long, and that would demand an extra inspection.

5 Q Now, what was the next inspection that occurred after 6 1998?

7 Okay. In 1998 we did the vibration mitigation, and Α we tightened all the bolts. We still had conductor damage on 8 the line, and in 1999 we had another project to go out and 9 touch every wire, add additional dampening, and fix the 10 conductor. So we did 100 percent inspection of the whole line 11 in '99 as part of that rebuilt. There were no missing bolts 12 found. Okay. In 2001, we did a helicopter inspection on 100 13 of the 223 structures. Okay. In 2002, we did 10 percent 14 climbing inspection. In 2003, we did a helicopter inspection, 15 16 which is a detailed inspection of 30 structures. And in the 17 middle of 2003 we did 100 percent inspection, thermovision, 18 which included a visual inspection of the structures.

19 Q Now, I believe it was after the 2002 inspection that 20 an additional loose bolt, cross-brace bolt was found, is that 21 correct?

A It was not as a result of the inspection. We found a missing bolt as part of a routine ground patrol, which is part -- we are constantly out on the right-of-ways observing the conditions of the structures.

	1364
1	Q Okay. Was that 2002?
2	A 2002, after the climbing inspection.
3	Q Now, in your testimony you say FPL regarded that as
4	an anomaly, do you not?
5	A Yes, I do. In light of the fact that we had looked
6	at everything in '99, 2001, 2002, and now we find a bolt, and
7	we know we were going back there in 2003, we put the bolt back
8	in place, we inspected, and everything was fine in 2003.
9	Q You inspected that particular tower?
10	A Yes, we did. As part of the 100 percent thermovision
11	and structural visual assessment.
12	Q But you did not inspect all of the towers in that
13	ground patrol that discovered the loose bolt, did you?
14	A The ground patrol, someone is just driving along
15	looking at the overall conditions of the right-of-way, and they
16	would have observed that that bolt was missing.
17	Q Yes. But my point is the ground patrol that
18	discovered that was not an inspection of all the 221 towers?
19	A No. The follow-up the following year, 2003 with the
20	thermovision was 100 percent inspection of all the towers.
21	Q Okay. But earlier in your testimony, I believe you
22	make the point that and I think you made it here today in
23	responding to questions, that except for the
24	Conservation-Corbett experience, FPL has never found a loose or
25	missing cross-brace bolt in any of its transmission towers, is

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1	that correct?
2	A That is correct.
3	Q But FPL found loose or missing cross-brace bolts on
4	31 of the Conservation-Corbett towers in 1998, correct?
5	A Correct.
6	Q So in view of the uniqueness of that experience, how
7	could FPL treat the discovery of yet another loose cross-brace
8	bolt in 2002 as an anomaly not to be worried about?
9	A I think because we had confidence in the ability to
10	follow up with the inspections.
11	Q Who is Jerry Wong (phonetic)?
12	A Jerry Wong is our structural engineer. He is a Ph.D.
13	Q Are you familiar with the post-Wilma report that he
14	prepared and that was attached to Mr. Byerley's testimony?
15	A Yes, I am.
16	Q And would you agree that in the course of that
17	analysis and recommendations, Mr. Wong suggested that lock nuts
18	be used on the cross-brace bolts?
19	A Do you want to refer me to the section? I think it
20	was post-Wilma, this is some of the suggestions he made.
21	Q Countermeasures and recommendations, yes. Page 10 of
22	11 of JSB-5, the bottom paragraph, do you see the statement
23	that says locking devices should be used to prevent bolts from
24	missing or loosening?
25	A Page 9, you said?

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1	Q	Page 10 of 11.
2	A	Yes. And that is what we are doing post-Wilma.
3	Q	Okay. So you regard the pinging as a form of locking
4	device?	
5	A	Yes, I do.
6	Q	Okay. Would you read the sentence that follows the
7	one I read	d, beginning with however.
8	А	"However, the vibration phenomena of the conductor on
9	this line	also needed to be studied in detail to provide
10	mitigation	n to the main source of vibration activities."
11		Keep going?
12	Q	One more sentence, thank you.
13	А	"It is likely that the loosened bolt conditions may
14	occur aga	in if the conductor vibration issue is not addressed
15	effective	ly."
16	Q	And this was prepared post-Wilma in 2005?
17	А	Yes, that's correct.
18	Q	So your Ph.D is of the view that the conductor
19	vibration	that FPL addressed in 1998 continues to be a source
20	of concer	n?
21	A	Well, I think if you refer to the top of Page 11 he
22	goes on t	o say basically 75 percent of the dampening system was
23	destroyed	, so obviously we needed to study the vibration and
24	come up w	ith a new dampening system. And in light of the fact
25	that this	one performed so poorly, we would want to do

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1	something else.
2	MR. McGLOTHLIN: Those are all my questions. Thank
3	you.
4	CHAIRMAN EDGAR: Mr. Kise.
5	MR. KISE: Thank you. I just have a couple of
6	questions for this witness.
7	CROSS EXAMINATION
8	BY MR. KISE:
9	Q Good afternoon, Ms. Jaindl. Just a couple of
10	questions following up on what Mr. McGlothlin was asking you.
11	I just want to make sure I'm clear on some of your answers.
12	First, loose bolts were discovered post-Wilma, right?
13	A Yes.
14	Q Okay. I thought so, but I just wasn't sure from your
15	answers, okay.
16	A Can I clarify, because I think at one point I said
17	loose bolts was one inch. When they went back post-Wilma, the
18	criteria they used to define loose is if the plates weren't
19	touching, they defined it as loose. Very stringent criteria
20	post-Wilma.
21	Q That is fair enough. I was going to ask you then
22	about your definition about what is a loose bolt, because I'm a
23	little confused by that, too. You said, and this may be the
24	standard that applied before as opposed to now, and if that is
25	the case, feel free to clarify that. But just based on what

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1	you said earlier, you said if loose means a gap that that is
2	okay, right?
3	A That is what we had in 1998 and we accepted that.
4	Q But if loose means the nut is not secure, then that
5	is a problem, right?
6	A Correct.
7	Q Now, how do you know the nut is not secure? How do
8	you determine that?
9	A In 1998, when we went back and addressed the
10	fasteners, in addition to the vibration, we basically
11	tightened the instructions were if the nut is frozen, leave
12	it alone, if it's not frozen, tighten it. Basically, the crews
13	would observe it, they see a gap, they try to tighten it. If
14	they couldn't move it, it was okay.
15	Q Okay. So, then, like with that nut that you have
16	right there in front of you, just looking at it, can you tell
17	me whether it is secure or not just looking at it? Just
18	looking at it right there in front of you, can you tell if that
19	nut is secure?
20	A No, it's not secure.
21	Q Well, do you know that from looking at it, or do you
22	know that from touching it and turning it?
23	A I know that from touching it and turning it.
24	Q So that's my question, then. That's really where I'm
25	going with this. The only way to really know that is to

actually put your hands on it, right? 1 Α Correct. 2 So a visual inspection like by helicopter, for 3 0 example, would not really tell you whether or not that nut was 4 secure, right? 5 I disagree. The helicopter inspection is very 6 Α detailed. And, as I said, it is similar to how -- we went back 7 post-Wilma looking for the plates being flat, that is how the 8 helicopter inspection would have been done. 9 But if you flew over that nut right here, you 10 0 couldn't tell me whether it was secure or not based on your 11 definition. Your definition of secure is it doesn't come 12 unhinged if you turn it. So if you fly over it, how do you 13 know? Even if there is no gap, even if there is no separation, 14 even if it is snugged up, at least by visual inspection, right 15 against the side of the plate, it still could be unscrewed, 16 17 right, by hand, possibly? Α I think that is unlikely. 18 You may think its unlikely, but the only way to know 19 Q for sure is to go lay your hand on it, right? 20 Okay. But we went through a number of different 21 Α inspections; 1999, 2001, 2002, 2003, and all the connections 22 were observed to be okay. 23 My questions are not what you did, or even the 24  $\cap$ propriety of what you did for these purposes. I'm just trying 25

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l	to find out if the answer to my question, which I think is yes,
2	and I think you have answered it, but I want to be sure, the
3	only way to know for sure is to lay your hands on it, right?
4	A If you are defining it as a nut loose, yes.
5	Q I didn't define it, you defined it.
6	A If I'm defining it that way, yes.
7	Q Okay. Now, if the bolt is secure by your definition,
8	meaning it doesn't come unhinged when you touch it even, right,
9	how does wind loosen that bolt?
10	A Repeat the question.
11	Q Okay. If by your definition that bolt, like the one
12	right there in front of you, let's assume that if you laid your
13	hands on that and tried to turn it, it wouldn't move, it's
14	secure by your definition. How then, if at all, could wind
15	loosen a bolt that is secure, turn it?
16	A It is frozen in place?
17	Q Yes.
18	A Exceptional forces with vibration can cause a bolt to
19	loosen.
20	Q Even if it's secure by your definition?
21	A Well, apparently something happened in 2005.
22	Q Now you are right where I'm going, exactly.
23	A Yes.
24	Q Because Doctor Brown said I don't know, and then
25	today he offered an explanation, I think, in response to
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Commissioner Deason's question about, well, how did it happen, and his admitted, and in fairness to him he was very helpful, explanation was, well, maybe the wind did it. And so now -and he did defer to your expertise, so now I am trying to get from you exactly how the wind would do that. But I don't think there is a way you can answer that, either, am I right?

The typical vibration you have from the conductor 7 Α vibration is under low wind speeds, five to fifteen miles per 8 9 hour, and those were the wind speeds that we addressed with the 10 conductor vibration mitigation in 1998. Okay. There is not a lot of information on what kind of vibration you see under 11 hurricane winds. It is not typically a problem for 12 13 transmission structures. But then, again, the vibration 14 dampening system usually isn't destroyed under hurricane wind situations, so I don't know. 15

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You don't know. And that's fair.

Now, today, you are, if I understood your testimony correctly, you are using lock nuts or this pinging system, I'm not sure I've got that term right, but you are using something in addition to just having it twisted on there tight. You are using a lock nut or this other procedure, right?

A Yes. Pinging is basically damaging the threads sothe nut can't back off.

24 Q Okay. And that pretty much would satisfy you, then, 25 to almost as high a degree of certainty as you can get that the

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l	wind, or even any form of vibration, couldn't loosen that nut,
2	right?
3	A Yes, that is correct.
4	MR. KISE: Thank you.
5	CHAIRMAN EDGAR: Mr. Perry.
6	CROSS EXAMINATION
7	BY MR. PERRY:
8	Q I'm going to ask you about the Conservation-Corbett
9	line with respect to the 2004 storms. Did that area
10	experience, to your knowledge, any tropical storm strength or
11	higher winds during 2004?
12	A I think it was on the periphery. It had some
13	tropical force winds, no hurricane force winds.
14	Q And did you inspect the structures after the 2004
15	storm season?
16	A We had routine ground patrols, but we had no special
17	inspections during that time frame.
18	Q And the routine ground patrols, it's not climbing
19	inspection, they don't put their hands on the nuts and bolts?
20	A No. As I said, typically vibration-related failures
21	are under five to fifteen miles per hour, not tropical force
22	winds.
23	MR. PERRY: That's it. Thank you.
24	CHAIRMAN EDGAR: Mr. Twomey.
25	MR. TWOMEY: No questions.

1373 CHAIRMAN EDGAR: Mr. Wright. 1 2 MR. WRIGHT: No questions. 3 CHAIRMAN EDGAR: Captain Williams? 4 MR. WILLIAMS: No. 5 CHAIRMAN EDGAR: Ouestions from staff? 6 MS. GERVASI: Yes. Thank you. We have about, maybe 7 ten minutes worth. 8 CROSS EXAMINATION BY MS. GERVASI: 9 10 Q Ms. Jaindl, in your prefiled testimony you didn't provide a detailed explanation of FPL's transmission tower 11 12 inspection program budget versus actual expenditures for 2005, did you? 13 14 Α As part of the production of documents and interrogatories, we did, but not as part of my exhibits. 15 16 Do you know whether all the damages that occurred to Q the transmission system in 2005 were due to weather events? 17 18 Α Yes, I do. There was no maintenance-related or deteriorated-related failures that we got from our forensics. 19 20 They were all weather related. 21 And they were all weather-related events that Q 22 occurred in 2005? 23 А We had weather-related events all in 2005 and that is 24 also true for 2004. 25 Did you just testify, I want to make sure I heard you 0 FLORIDA PUBLIC SERVICE COMMISSION

1 correctly, that subsequent to the 2004 storms, FPL performed 2 all necessary post-storm sweeps of its transmission lines, if 3 any were necessary? 4 Α Post-storm sweeps, yes, were necessary. The sweeps 5 would be in the time hurricane-impacted areas. And all necessary sweeps were performed? 6 0 7 Yes, they were. Α 8 Is it correct to say that cross-brace bolts such as Q the one that you have before you, are not expected to loosen 9 10 and fall off because the bolts oxidize, and this oxidation 11 process inhibits the movement of the nuts, is that correct? 12 Yes, that's correct. In fact, the other one here I Ά 13 wanted to show you was one that we tried to tighten post-Wilma, 14 and what they are typically having to do is cut the heads off 15 the bolts because they can't get them tight. They are frozen 16 in place. 17 In general, how many years does it take for the oxide 0 18 to develop to a sufficient level that movement of the nuts is restricted? 19 20 Α In general, in Florida it's very quick. You can see it by the arched patina that's on the structure. If you're in 21 Arizona, it would not be so quick. 22 23 Q How do you define very quick? Hours, days? 24 Α I would say a month or so. 25 Q Thank you. Do you have a copy of the KEMA report in FLORIDA PUBLIC SERVICE COMMISSION

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1	front of you?
2	A Yes, I do.
3	Q That is Doctor Brown's Prefiled Exhibit 1 moved into
4	the record as Exhibit 15. Could you please turn to Page 37 of
5	that report.
6	A Yes.
7	Q At the top of that page, the second paragraph states
8	that all of FPL's damaged transmission structures had been
9	repaired or removed at the time the report was written. Do you
10	see that?
11	A Yes, I do.
12	Q That report was published on January 12th of 2006, is
13	that right?
14	A Yes, I believe it is. Yes.
15	Q So is it correct to say then that all damaged
16	transmission lines, towers, substation equipment, was back in
17	service on or before January 12th of 2006?
18	A It was. The Corbett Conservation line was not back
19	in service until April 3rd.
20	Q Of 2006?
21	A Correct. Everything else was back in service by
22	then.
23	Q So at this time everything is back in service?
24	A Yes. There are a few minor repairs remaining, but it
25	is not keeping anything from being in service.
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0 What do you mean by a minor repair? 1 There is one transmission line that I think has 2 Α leaning poles that they cannot get a clearance on while they 3 are doing work on another line, and that's kind of the balance 4 of the work that we have on the transmission system. 5 Will that cause some of FPL's customers to be more 6 0 7 likely to have service interruptions in the event of another storm? 8 9 Α The work will get done prior to the hurricane season. Thank you. 10 Q 11 Could you please turn to Page 60 of the KEMA report? Yes, I'm there. 12 Α 13 At the end of the first paragraph, after the table, 0 it states that the 11 judgments for possible design overload 14 15 could be personal judgments from a small group of inspectors. 16 Do you see that? 17 Yes. But this is distribution. I'm really not Α familiar with this portion of the report. 18 Q I see. And who would be? 19 20 Ms. Williams, who's coming on next. A 21 Okay. Did you choose any of the people who are Q 22 referenced as being in the forensic team? 23 Α The forensic team, once again, is a distribution assignment. 24 25 MS. GERVASI: Thank you. I have no further FLORIDA PUBLIC SERVICE COMMISSION

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1	questions.
2	CHAIRMAN EDGAR: Mr. Butler.
3	MR. BUTLER: Just one moment, please.
4	I have no redirect. Thank you.
5	CHAIRMAN EDGAR: Thank you. I believe we have one
6	exhibit.
7	MR. McGLOTHLIN: I move 162.
8	CHAIRMAN EDGAR: Thank you, Mr. McGlothlin. Any
9	objections? Seeing none, thank you. Please show Exhibit
10	Number 162 entered into the record as evidence.
11	(Exhibit 162 admitted into the record.)
12	CHAIRMAN EDGAR: The witness may be excused. Thank
13	you very much.
14	Mr. Butler, whenever you are ready.
15	MR. BUTLER: Okay. We will call Ms. Williams as next
16	witness. Take a moment or two just to shift teams.
17	Ms. Jaindl is excused, correct?
18	CHAIRMAN EDGAR: Yes.
19	(Transcript continues in sequence with Volume 11.)
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2	STATE OF FLORIDA ) : CERTIFICATE OF REPORTERS COUNTY OF LEON )
3	WE, JANE FAUROT, RPR, and LINDA BOLES, RPR, CRR,
4	Official Commission Reporters, do hereby certify that the foregoing proceeding was heard at the time and place herein
5	stated.
6	IT IS FURTHER CERTIFIED that we stenographically
7	reported the said proceedings; that the same has been transcribed under our direct supervision; and that this
8	transcript constitutes a true transcription of our notes of said proceedings.
9	WE FURTHER CERTIFY that we are not a relative,
10	employee, attorney or counsel of any of the parties, nor are we a relative or employee of any of the parties' attorneys or
11	counsel connected with the action, nor are we financially interested in the action.
12	
13	DATED THIS 22nd day of April, 2006.
14	$\bigcap 1 + A + i \rho \rho h$
15	Andamos Linda Boles A
16	JANE FAUROT, RPR LINDA BOLES, RPR, CRR FPSC Official Commission FPSC Official Commission
17	Repov/ter Reporter (850) 413-6732 (850) 413-6734
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