1		BEFORE THE
2	FLORIDA	A PUBLIC SERVICE COMMISSION
3		FILED 11/7/2018 DOCUMENT NO. 07015-2018 FPSC - COMMISSION CLERK
4 5 6	In the Matter of: ENVIRONMENTAL COST RECOVERY CLAUSE.	DOCKET NO. 20180007-EI
7		/
8		
9		VOLUME 2 PAGES 247 through 430
10		
11	PROCEEDINGS: COMMISSIONERS	HEARING
12	PARTICIPATING:	CHAIRMAN ART GRAHAM COMMISSIONER JULIE I. BROWN
13 14		COMMISSIONER DONALD J. POLMANN COMMISSIONER GARY F. CLARK COMMISSIONER ANDREW G. FAY
15	DATE:	Monday, November 5, 2018
16	TIME:	Commenced: 2:03 P.M. Concluded: 5:40 P.M.
17	PLACE:	Betty Easley Conference Center
18		Room 148 4075 Esplanade Way
19		Tallahassee, Florida
20	REPORTED BY:	DEBRA R. KRICK
21		Court Reporter
22	APPEARANCES:	(As heretofore noted.)
23		PREMIER REPORTING
24		114 W. 5TH AVENUE TALLAHASSEE, FLORIDA
25		(850) 894-0828

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1	PROCEEDINGS
2	(Transcript follows in sequence from
3	Volume 1.)
4	COMMISSIONER CLARK: Move to exhibits.
5	MR. MURPHY: Staff has compiled a stipulated
6	comprehensive exhibit list which includes the
7	prefiled exhibits attached to the witness'
8	testimony and staff's exhibits. The list has been
9	provided to the parties, the Commissioners and
10	court reporter. This list is marked as the first
11	hearing exhibit, and the other exhibits should be
12	marked as set forth in the chart.
13	COMMISSIONER CLARK: All right. The
14	comprehensive exhibit list is marked as Exhibit 1.
15	(Whereupon, Exhibit No. 1 was marked for
16	identification.)
17	COMMISSIONER CLARK: Okay. Staff.
18	MR. MURPHY: At this time, staff asks that the
19	comprehensive exhibit list marked as Exhibit 1 be
20	entered into the record.
21	COMMISSIONER CLARK: Okay. Exhibit No. 1 is
22	entered.
23	(Whereupon, Exhibit No. 1 was received into
24	evidence.)
25	MR. MURPHY: Staff asks that all prefiled
 Premier	Reporting (850) 894-0828 Reported by: Debbie K

1	exhibits and staff's exhibits be included in the
2	record as set forth in the comprehensive exhibit
3	list numbered Exhibit 2 through 48.
4	(Whereupon, Exhibit Nos. 2-48 were marked for
5	identification.)
6	COMMISSIONER CLARK: Okay. Have all of the
7	parties had an opportunity to review this exhibit
8	list?
9	So are there any objections to entering this
10	into the record?
11	All right. Seeing none, Exhibits 2 through 48
12	are hereby entered into the official record.
13	(Whereupon, Exhibit Nos. 2-48 were received
14	into evidence.)
15	COMMISSIONER CLARK: All right. Stipulated
16	issues, Mr. Murphy.
17	MR. MURPHY: Yes, if the Commission decides
18	that a bench decision is appropriate today, staff
19	recommends that the proposed stipulation for the
20	issues set forth in Section X of the prehearing
21	order should be approved. All parties either
22	support or do not oppose the proposed stipulations.
23	COMMISSIONER CLARK: All right.
24	Commissioners, are there any questions on the
25	generic issues or the stipulated company specific
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1	issues that are listed? I can go through those
2	numbers if necessary, but would rather not.
3	There are no questions on any of the
4	stipulated issues. All right, then I would
5	entertain a motion regarding the proposed
6	stipulations.
7	COMMISSIONER FAY: Mr. Chairman, I will move
8	the motioned stipulation.
9	COMMISSIONER CLARK: Do I have a second?
10	CHAIRMAN GRAHAM: Second.
11	COMMISSIONER CLARK: I have a motion and
12	second to approve the stipulations as set forth in
13	Section X of the prehearing order.
14	Any discussion? Seeing none, all in favor,
15	say aye.
16	(Chorus of ayes.)
17	COMMISSIONER CLARK: Opposed?
18	(No response.)
19	COMMISSIONER CLARK: Motion carries.
20	Mr. Murphy.
21	MR. MURPHY: Would you wish to excuse Gulf,
22	TECO and DEF at this time?
23	COMMISSIONER CLARK: Yes. We will excuse
24	Gulf, TECO and Duke since all of your issues have
25	been resolved, for the remainder of the ECRC
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1 hearing that is. 2 Okay. Did we get everybody? 3 All right. Let's move to contested issues, 4 Mr. Murphy. 5 MR. MURPHY: I'm not aware of any preliminary 6 matter for contested issues. 7 COMMISSIONER CLARK: All right. Parties, is 8 there anything else that we need to discuss? 9 All right. Let's move into opening 10 Each party is allowed three minutes statements. 11 for opening statements, and I believe we will begin 12 with FPL. 13 Thank you. Good afternoon, MS. MONCADA: 14 Commissioners. 15 The environmental cost recovery factors 16 proposed by FPL are reasonable and should be 17 approved. In this proceeding, FPL proposes to 18 modify two existing projects and seeks approval of 19 one new project. 20 FPL proposes to modify Project 41, the Manatee 21 Temporary Heating System project, to include 22 installation of a heating system at Plant Ft. 23 This installation is a cost-effective way Myers. 24 to satisfy the plant's environmental permit 25 requirement to provide a warm refuge for manatees.

Next, FPL proposes to modify Project 47, the
 National Pollution Discharge Elimination System
 Permit Renewal Requirement project, or the NPDES
 project. Florida and Georgia Power, the co-owners
 of Plant Scherer Unit 4, anticipate that the
 plant's renewed NPDES permit will include an
 effluent discharge limit for copper.

8 In order to continue to satisfy Georgia's 9 water quality standards, FPL and Georgia Power will 10 replace what is known as packing material that is 11 contained inside of Unit 4's cooling tower. The 12 old packing material at Plant Scherer had become 13 contaminated with copper, which led to elevated 14 levels of copper discharge in the Ocmulgee River. 15 The replacement of that material is designed to 16 redress that situation.

And to be clear, Commissioners, FPL seeks to recover the associated costs through ECRC only if the copper discharge limit is included as a permit condition as we anticipate will occur.

21 Next, FPL seeks approval of for a new project 22 that is known as the Solar Site Avian Monitoring 23 and Reporting project. This monitoring and 24 reporting of the avian fatality rate at a universal 25 solar site is required by Alachua County's Department of Growth Management as a permit requirement for FPL's Horizon Solar Energy Center. Thus, the two modifications and the one new project concern activities that FPL is required to undertake in order to comply with environmental regulations.

7 Finally, with respect to FPL's Turkey Point 8 Cooling Canal Monitoring project, SACE's prehearing 9 statement acknowledges the Commission's ruling from 10 last year that the costs associated with the 11 activities required by the DEP Consent Order and 12 Miami-Dade Consent Agreement are eligible for ECRC 13 The cooling canal costs in question here recovery. 14 are necessary to comply with that Consent Agreement 15 and Consent Order. They are prudent and reasonable 16 and should be approved.

17 In conclusion, FPL's new projects, or 18 modifications to existing projects, satisfy the ECRC eligibility criteria and should be approved, 19 20 and FPL's proposed 2019 ECRC factors should be 21 approved. 22 Thank you. 23 COMMISSIONER CLARK: Okay. Who's next? OPC? 24 Thank you, Mr. Chairman and MR. REHWINKEL: 25 Commissioners.

1 Very briefly, the Public Counsel is here today 2 challenging the company's request for cost recovery 3 for two projects, the manatee heating plan project 4 and the NPDES -- if I said that correctly --5 modification cost recovery request for the Scherer 6 plant in Georgia. We believe that the company's 7 showing falls short of the legal standard that is 8 required for cost recovery in Florida, and that 9 would be the basis of our questioning here today. 10 Thank you. 11 All right. COMMISSIONER CLARK: FIPUG. 12 MS. PUTNAL: Thank you. FIPUG waives an 13 opening statement in this docket. 14 COMMISSIONER CLARK: Okay. Phosphate. 15 MR. BREW: No. 16 COMMISSIONER CLARK: And SACE. 17 Good afternoon, Commissioners. MR. CAVROS: 18 George Cavros on behalf of Southern Alliance for 19 Clean Energy. SACE, as you know, is a nonprofit 20 clean energy organization that advocates moving the 21 state to a lower cost, lower risk and cleaner 22 energy future. 23 SACE maintains its position from last year's 24 docket, that FPL's cooling canal system remediation 25 cost should not be recoverable from FPL customers.

1 It believes that Florida's families should not be 2 paying for FPL's mistakes. FPL knew or should have 3 known in 1978, or at least by 1992, that its 4 cooling canal system at its Turkey Point plant was 5 causing an underground hypersaline plume, a 6 contamination plume that was spreading well beyond 7 the borders of the plant.

8 FPL's imprudent operation of the cooling canal 9 system violated drinking water standards, which has 10 led to environmental compliance requirements placed 11 upon it by the Department of Environmental 12 Protection and the Miami-Dade Division of 13 Environmental Resources Management.

14 The Commission last year approved the 15 company's request for rate recovery from customers 16 for the costs associated with those compliance 17 actions. The Commission's order is being appealed 18 at the Florida Supreme Court, and a decision on 19 that appeal is still pending.

20 So, you know, beyond the recovery of the 21 operations and maintenance costs, FPL is also 22 seeking to recover profit for shareholders for 23 investments stemming directly from its violation of 24 law.

In 2019, for instance, the company will

collect over \$6 million in revenue requirements from customers. And based on FPL's debt to equity ratio and its 10.5 percent ROE midpoint range, surely more than half of that will be paying for FPL profits stemming from the company's violation of federal, state and local water quality laws. SACE believes that, again, is very inappropriate.

8 In this year's docket, FPL is not only 9 requesting a prudency determination for costs that 10 it's already incurred, but it's coming to you, 11 Commissioners, for costs that it wants to spend, 12 but yet it provides almost very little testimony on 13 whether it is making timely progress towards 14 meeting provisions in the DEP Consent Order and the 15 DERM Consent Agreement.

This information is critical for a 16 17 reasonableness determination. That's the standard 18 for approving costs, forward-looking costs. 19 Without that information, the Commission is 20 effectively providing a blank check to the company. 21 Getting information on the record whether FPL is 22 making timely progress on its compliance 23 requirements will help this commission now and 24 future commissions in making a reasonable 25 determination on a cost that flow from these

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compliance activities.

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2 SACE believes that FPL has not met its evidentiary burden to show the projected 3 4 remediation costs are reasonable. FPL only 5 provides a one-paragraph summary of project 6 accomplishments. FPL witness -- in that summary, 7 FPL Witness Sole states that the company is moving 8 forward with compliance on the consent agreement 9 and the consent agreement addendum.

10 Commissioners, it's not only -- the company is 11 not only moving -- not moving forward, it's not 12 even moving sideways. The Commission -- rather, 13 the company is moving backwards on some of these 14 matters referenced in the Consent Agreement, and we 15 look forward to shedding light on that here today.

16 Therefore, we request that rate recovery for 17 the Turkey Point Cooling Canal Management Plant 18 project remediation activities should be denied. 19 Thank you.

20COMMISSIONER CLARK: Thank you, Mr. Cavros.21All right. Did we cover everybody in opening22statements?

All right. We will move in to witnesses.FPL.

MS. MONCADA: FPL calls Mr. Mike Sole.

25

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1	COMMISSIONER CLARK: Before you begin your
2	testimony, may I swear you in? Would you raise
3	your right hand and repeat after me?
4	Whereupon,
5	MIKE W. SOLE
6	was called as a witness, having been first duly sworn to
7	speak the truth, the whole truth, and nothing but the
8	truth, was examined and testified as follows:
9	COMMISSIONER CLARK: All right. Witness Sole
10	will be allowed three minutes to summarize his
11	testimony.
12	We would like to remind the parties that there
13	will be no friendly cross, and I believe everything
14	else is in order.
15	Mr. Sole, you have the floor.
16	THE WITNESS: Good afternoon, Chairman,
17	Commissioners.
18	My testimony
19	COMMISSIONER CLARK: Microphone.
20	THE WITNESS: addresses FPL's request for
21	approval to modify two existing projects and
22	approval of a new project. I also explain the
23	variance between 2017 estimated and 2017 actual
24	expenditures for the Turkey Point Cooling Canal
25	Monitoring Plan project.

1 FPL is requesting to modify the Manatee 2 Temporary Heating System project. In 2009, this 3 commission approved FPL's Manatee Temporary Heating 4 System project, which involved the installation of 5 an electric heating system at Riviera and Cape 6 Canaveral plants in order to provide a Manatee 7 refuge by discharging warm water to the Manatee 8 embayment area during the plant's modernization 9 process.

10 Since 2009, this commission has approved 11 expansions to this project to include similar 12 installations at two additional plants. FPL is now 13 requesting to expand this project to include the 14 installation of a Manatee Temporary Heating System 15 at Plant Ft. Myers for two reasons.

First, FPL can no longer ensure that plant outages at Ft. Myers are sequenced outside of the Manatee season due to changes in its combined cycle fleet.

Second, improvements in the efficiency of FPL's fossil fuel fleet have pushed Plant Ft. Myers down the dispatch stack to a point that FPL can no longer be confident that it will be dispatched regularly during the winter months.

FPL also proposes a modification to its NPDES

1 permit renewal requirements project. As approved in 2011, the project allows FPL to recover costs to 2 3 meet the new requirements associated with NPDES 4 permit renewals. FPL has an ownership interest in 5 Plant Scherer, which is currently renewing its NPDES permit through the Georgia Environmental 6 7 Protection Division.

8 Recent testing of the effluent from Plant 9 Scherer revealed that copper discharge levels have 10 the potential to result in an exceedance of the 11 Georgia water quality standard. Based on 12 consultations with the Division, FPL and Georgia 13 Power anticipate that the Division will include a 14 new permit condition addressing this continued 15 obligation to meet copper discharge limits.

16 FPL and Georgia Power analyzed options and 17 chose the most cost-effective long-term solution, 18 which entails replacing the copper condenser tubes 19 with titanium tubes, and replacing the copper 20 contaminated packing in the cooling towers with new 21 packing material. While the replacement of the 22 copper condenser tubes was completed as part of the 23 normal replacement schedule, replacement of the 24 packing material is necessary solely to address the 25 anticipated copper discharge limits.

1 FPL is also requesting Commission approval of 2 a new project, the Solar Site Avian Monitoring and Reporting project. FPL's Horizon Solar Energy Center is subject to a development order issued by the Alachua County Department of Growth Management, under which FPL is required to monitor and report on avian mortality.

8 Finally, my testimony provides an update on 9 FPL's Turkey Point Cooling Canaling Monitoring Plan 10 Expenditures for this project were lower project. 11 than projected in 2017 due to delays in the permit 12 approval process. FPL has timely filed request for 13 permit approval with the appropriate regulatory 14 agencies, and continues to work with these agencies 15 to implement all projects associated with the 16 monitoring and reporting requirements.

17 Additionally, costs associated with sediment 18 removal have been deferred in order for FPL to 19 evaluate the appropriate level of sediment removal 20 needed to address system thermal performance. 21 This concludes my summary. 22 COMMISSIONER CLARK: Thank you, Mr. Sole. 23 Ms. Moncada. 24 Thank you, Commissioner Clark. MS. MONCADA: 25 I have confirmed with staff that although Mr.

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1	Sole's prefiled exhibits have been entered into the
2	record, his prefiled testimony has not, and I would
3	like to do that now.
4	COMMISSIONER CLARK: Okay.
5	EXAMINATION
6	BY MS. MONCADA:
7	Q Mr. Sole, did you prepare and cause to be
8	filed direct testimony on April 2nd, 2018 and June 13th,
9	2018?
10	A I did.
11	Q If I asked you the same questions today, would
12	your answers be the same?
13	A Yes, they would.
14	Q Do you have any changes to your testimony?
15	A I do not.
16	MS. MONCADA: Commissioner Clark, FPL requests
17	that Mr. Sole's prefiled testimony be entered into
18	the record as though read.
19	COMMISSIONER CLARK: Okay. So entered.
20	MS. MONCADA: Thank you.
21	(Prefiled testimony inserted.)
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2		FLORIDA POWER & LIGHT COMPANY
3		<b>TESTIMONY OF MICHAEL W. SOLE</b>
4		DOCKET NO. 20180007-EI
5		<b>APRIL 2, 2018</b>
6		
7	Q.	Please state your name and address.
8	А.	My name is Michael W. Sole and my business address is 700 Universe
9		Boulevard, Juno Beach, Florida 33408.
10	Q.	By whom are you employed and in what capacity?
11	A.	I am employed by NextEra Energy, Inc. ("NEE") as Vice President of
12		Environmental Services.
13	Q.	Please describe your educational background and professional
14		experience.
15	A.	I received a Bachelor's of Science degree in Marine Biology from the Florida
16		Institute of Technology in 1986. I served as an Officer in the United States
17		Marine Corps from 1985 through 1990 attaining the rank of Captain. I was
18		employed by the Florida Department of Environmental Protection ("FDEP")
19		in multiple roles from 1990 to 2010 and served as the Secretary of the FDEP
20		from 2007-2010. I have been employed by Florida Power & Light Company
21		("FPL" or the "Company"), or its affiliate NextEra Energy Resources, in
22		multiple roles since 2010. Since November 2016, I have held the position of

1		Vice President of Environmental Services. In that role, I have overall
2		responsibility for environmental, licensing, and compliance efforts for the
3		Company. In May 2017, I was appointed by Governor Scott to the Florida
4		Fish and Wildlife Conservation Commission ("FWC").
5	Q.	What is the purpose of your testimony in this proceeding?
6	A.	The purpose of my testimony is to present for Commission review and
7		approval modification of two existing, approved projects: the Manatee
8		Temporary Heating System ("MTHS") and the National Pollutant Discharge
9		Elimination System ("NPDES") Permit Renewal Requirements. Additionally,
10		I will provide an update on the Turkey Point Cooling Canal Monitoring Plan
11		("TPCCMP") Project.
12	Q.	Have you prepared, or caused to be prepared under your direction,
13		supervision, or control, any exhibits in this proceeding?
14	A.	
	11.	Yes, I am sponsoring the following exhibits:
15	11.	<ul> <li>Yes, I am sponsoring the following exhibits:</li> <li>Exhibit MWS-1 - Supplemental CAIR/CAMR/CAVR Filing</li> </ul>
15 16	11.	
	1.	• Exhibit MWS-1 - Supplemental CAIR/CAMR/CAVR Filing
16		<ul> <li>Exhibit MWS-1 - Supplemental CAIR/CAMR/CAVR Filing</li> <li>Exhibit MWS-2 - Conceptual Location of Fort Myers Plant Manatee</li> </ul>
16 17		<ul> <li>Exhibit MWS-1 - Supplemental CAIR/CAMR/CAVR Filing</li> <li>Exhibit MWS-2 - Conceptual Location of Fort Myers Plant Manatee Heating System</li> </ul>
16 17 18		<ul> <li>Exhibit MWS-1 - Supplemental CAIR/CAMR/CAVR Filing</li> <li>Exhibit MWS-2 - Conceptual Location of Fort Myers Plant Manatee Heating System</li> <li>Exhibit MWS-3 - FDEP NPDES Permit for PFM</li> </ul>
16 17 18 19		<ul> <li>Exhibit MWS-1 - Supplemental CAIR/CAMR/CAVR Filing</li> <li>Exhibit MWS-2 - Conceptual Location of Fort Myers Plant Manatee Heating System</li> <li>Exhibit MWS-3 - FDEP NPDES Permit for PFM</li> <li>Exhibit MWS-4 - PFM Manatee Protection Plan</li> </ul>

1		• Exhibit MWS-6 - Application for EPD NPDES Permit GA00035564
2		Renewal for Plant Scherer
3		• Exhibit MWS-7 - Letter from Georgia Power to Plant Scherer Co-Owners
4		
5		Manatee Temporary Heating System Project
6		
7	Q.	Please describe FPL's currently approved MTHS Project.
8	A.	On April 13, 2009, FPL petitioned the Commission for approval of the
9		MTHS Project, which involved the installation of an electric heating system
10		at its Riviera Plant, in order to provide a manatee refuge by discharging warm
11		water when necessary into the manatee embayment area during the plant's
12		conversion to the Riviera Beach Next Generation Clean Energy Center
13		("RBEC"). On August 28, 2009, FPL petitioned the Commission to expand
14		the proposed MTHS Project to include FPL's Cape Canaveral Plant during its
15		conversion to the Cape Canaveral Next Generation Clean Energy Center
16		("CCEC"). The MTHS Project at Riviera and Cape Canaveral was approved
17		by Order No. PSC-2009-0759-FOF-EI.
18		
19		On January 13, 2012, FPL petitioned the Commission to expand the MTHS
20		Project to include a MTHS at its Port Everglades Plant during its conversion
21		to the Port Everglades Next Generation Clean Energy Center ("PEEC"). This

1		expansion of the existing MTHS Project was approved by Order No. PSC-
2		2012-0613-FOF-EI.
3		
4		On July 19, 2017, FPL petitioned the Commission to expand the MTHS
5		Project to include a MTHS at its Ft. Lauderdale Plant during its conversion to
6		the Dania Beach Clean Energy Center ("DBEC"). This expansion was
7		approved by Order No. PSC-2018-0014-FOF-EI.
8		
9		On February 12, 2018, FPL petitioned the Commission for approval to
10		modify the MTHS Project to include the installation of an MTHS at Fort
11		Myers Plant ("PFM") in 2018. As explained further in this testimony, the
12		MTHS will ensure compliance with the Manatee Protection Plan ("MPP") by
13		providing a manatee refuge when necessary by discharging warm water into
14		the discharge canal at PFM.
15	Q.	Please briefly describe FPL's proposed expansion of the MTHS Project
16		at PFM.
17	A.	A MTHS much like the system currently in place at CCEC will be installed at
18		PFM. A conceptual location of the MTHS at PFM is included as Exhibit
19		MWS-2. The MTHS would be used during manatee season, which spans
20		from November 15 to March 31, whenever the water temperature in the PFM
21		intake canal drops below 61°F and PFM is either shut down for outages or is
22		not being economically dispatched. At these times, the PFM MTHS will help

- Q. Please describe the environmental laws or regulations requiring FPL's
  proposed activities at PFM.
- 4 A. FPL is proposing to expand the MTHS Project to include PFM in order to 5 comply with PFM's MPP, which is Specific Condition I.D.10 to the NPDES 6 Permit Number FL0001490, issued by the FDEP for PFM on January 20, 7 2016. Specific Condition I.D.10 to the NPDES Permit states that "the 8 permittee shall continue compliance with the facility's Manatee Protection 9 Plan approved by the Department on August 18, 1999." The NPDES Permit 10 containing Specific Condition I.D.10 is attached as Exhibit MWS-3. FPL's 11 PFM MPP is attached as Exhibit MWS-4. Please note that the MPP refers to 12 "Specific Condition 14" which has been renumbered as Specific Condition 13 I.D.10 in the current NPDES Permit.
- Q. Typically, how many manatees can be found in the discharge canal and
  Orange River in the vicinity of PFM and the PFM warm water refuge?
- A. Aerial surveys for manatees have been conducted by Mote Marine Laboratory
   on behalf of FPL for decades. Over the past five years, the number of
   manatees that have been observed at various times in the vicinity of the PFM
   discharge canal has ranged from 77 to 434.

### 20 Q. How did FPL comply with the MPP in the past?

A. Historically, FPL provided warm water in support of the MPP by releasing
once-through cooling water from the existing oil and gas-fired steam units at

1 PFM into the discharge canal.

- 2 **O**. Why does FPL now need an additional heating source for PFM? 3 A. PFM was repowered in 2003 with what was highly efficient combined cycle 4 technology for the time. As part of the MPP that was approved on August 18, 5 1999, and is implemented via PFM's NPDES permit, FPL is obligated to 6 maintain a warm water manatee refuge if the water temperature at the PFM's 7 cooling water discharge falls below 61°F. 8 9 Until recently, FPL has not needed to have a MTHS at PFM because the plant 10 routinely operated during the manatee season and thus the plant's regular 11 cooling water discharges provided a sufficient and consistent supply of warm 12 water. For the reasons described below, however, FPL cannot continue to 13 rely solely on the plant's regular cooling water discharges to meet the permit 14 requirement for a warm water manatee refuge. 15 16 Over the past two decades, FPL has embarked on a concerted program of 17 upgrading its fossil power plant fleet, constructing state-of-the-art combined 18 cycle units at its Turkey Point, Martin, Manatee, West County, Cape 19 Canaveral, Riviera and Port Everglades plant sites. Similar units are planned 20 to go into service in 2019 and 2022 at Okeechobee and Ft. Lauderdale plant 21 sites, respectively. With each successive generation of combined cycle
- technology, the efficiency has continued to improve, resulting in \$9.3 billion

in fuel savings for customers and over 120 million tons of carbon dioxide
 emissions avoided. The addition of these highly efficient combined cycle
 units has had two consequences for PFM that are now requiring the addition
 of an MTHS at the site.

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6 First, combined cycle units need significant routine maintenance. Until now, 7 FPL has been able to schedule the maintenance for PFM outside of the 8 manatee season so that it would be able to rely on the plant's normal cooling 9 water discharge to provide a warm water manatee refuge without the need for 10 an MTHS. The upgrades at other plant sites discussed above have resulted in 11 both a significant increase in the number of combined cycle units requiring 12 routine maintenance and a significant decrease in the number of smaller units 13 with individual steam turbines that can remain in operation to provide warm 14 water for manatees. For example, prior to 2013, the predecessor plant to the 15 CCEC facility consisted of two individual steam units which allowed one 16 steam unit to be idled for maintenance activities while allowing the other to 17 continue operating and thus providing warm water discharges. After 2013, 18 the new plant consists of three combustion turbines with heat recovery steam 19 generators that provide steam to a single steam turbine. When the CCEC 20 plant is taken out of service today, the single steam turbine is idled and thus 21 no cooling water discharge is available to provide warm water for manatees.

1 The same situation is true for RBEC and PEEC. The size of FPL's combined 2 cycle fleet and the reduction in the number of small, single units that can be 3 taken out of service separately for maintenance outages has now reached the 4 point that FPL can no longer ensure that the PFM outages are sequenced 5 outside of manatee season.

6

7 Second, improvements in the efficiency of FPL's fossil fuel fleet since the 8 time that PFM was repowered have pushed PFM down the dispatch stack to 9 the point that FPL can no longer be confident that it will be dispatched 10 regularly and for sustained periods during winter months. When PFM was 11 first repowered, it was one of the most efficient and economical units in 12 FPL's fleet, and as such, it would be dispatched routinely even during periods 13 of relatively low winter-time load. Now, the more recent combined cycle 14 units are more efficient and are dispatched before PFM, with the result that 15 there may be extended periods during manatee season when PFM would not 16 be dispatched to meet load and thus would not be producing a cooling water 17 discharge that could maintain the necessary warm water manatee refuge.

# Q. Could FPL run PFM out of dispatch in order to provide a warm water refuge when needed?

A. That could be done if the plant were not in an outage, but of course it would
not eliminate the need for an MTHS during planned and unplanned outages.
Furthermore, running the plant out of dispatch could be very costly. While

1		FPL's use of the MTHS at PFM will be seasonal or sporadic, the need for that
2		MTHS will continue indefinitely. Based on the frequency of events for the
3		past ten years where water temperature was below 62°F during manatee
4		season (i.e., the temperature at which FPL would have to start PFM in order
5		to provide a timely warm water manatee refuge), the annual fuel and other
6		operating and maintenance expenses of running PFM out of dispatch are
7		estimated to range from \$350,000 in an average year to more than \$1 million
8		in a worst case year.
9	Q.	Did FPL anticipate that it would need an MTHS for PFM at the time
10		that it prepared the Minimum Filing Requirements for its 2016 rate
11		case?
12	A.	No. Those MFRs were prepared in late 2015 and early 2016. The
12 13	A.	No. Those MFRs were prepared in late 2015 and early 2016. The cumulative impact of the factors discussed above on FPL's ability to rely on
	A.	
13	А.	cumulative impact of the factors discussed above on FPL's ability to rely on
13 14	А. <b>Q.</b>	cumulative impact of the factors discussed above on FPL's ability to rely on operating PFM to provide a warm water refuge has become apparent only in
13 14 15		cumulative impact of the factors discussed above on FPL's ability to rely on operating PFM to provide a warm water refuge has become apparent only in the last year or so.
13 14 15 16	Q.	cumulative impact of the factors discussed above on FPL's ability to rely on operating PFM to provide a warm water refuge has become apparent only in the last year or so. Please describe the MTHS that is proposed for PFM.
13 14 15 16 17	Q.	<ul> <li>cumulative impact of the factors discussed above on FPL's ability to rely on operating PFM to provide a warm water refuge has become apparent only in the last year or so.</li> <li>Please describe the MTHS that is proposed for PFM.</li> <li>The installation of the MTHS at PFM is a two-stage process. During the</li> </ul>
13 14 15 16 17 18	Q.	<ul> <li>cumulative impact of the factors discussed above on FPL's ability to rely on operating PFM to provide a warm water refuge has become apparent only in the last year or so.</li> <li>Please describe the MTHS that is proposed for PFM.</li> <li>The installation of the MTHS at PFM is a two-stage process. During the 2017-2018 manatee seasons and during construction of the fixed electric</li> </ul>
<ol> <li>13</li> <li>14</li> <li>15</li> <li>16</li> <li>17</li> <li>18</li> <li>19</li> </ol>	Q.	<ul> <li>cumulative impact of the factors discussed above on FPL's ability to rely on operating PFM to provide a warm water refuge has become apparent only in the last year or so.</li> <li>Please describe the MTHS that is proposed for PFM.</li> <li>The installation of the MTHS at PFM is a two-stage process. During the 2017-2018 manatee seasons and during construction of the fixed electric heating system that will be used in the future, FPL leased mobile, diesel-</li> </ul>

1 The mobile diesel-fueled system will allow FPL to meet the permit 2 requirements in the short term, but such systems are difficult to operate 3 reliably over longer periods. Therefore, for the second stage FPL will install 4 a fixed electric MTHS that will be used in future years. The fixed electric 5 MTHS will consist of three heaters in parallel. Under normal circumstances 6 two of these permanent heaters will be operated when required, and will 7 produce 17-20 MMBtu/hr thermal energy to heat the water in manatee refuge 8 area. Under extremely cold conditions, the third heater can be operated to 9 supply a maximum of 30 MMBtu/hr of thermal energy. In addition to the 10 heaters, the MTHS will include an associated pumping system, piping, and 11 electrical equipment. The intake piping and pump systems will be installed 12 in the discharge canal near the northern end of helper cooling towers (see 13 Exhibit MWS–2). Water from the discharge canal will be pumped through 14 the fixed electric heater and discharged into the northern portion of the 15 discharge canal when the ambient water temperature falls below a specified 16 trigger temperature. The water depth in this area is approximately 10 feet. 17 The proposed MTHS has been modeled to provide approximately 0.7 acres of 18 water at or above 68°F during the conditions under which the MPP requires 19 that FPL endeavor to provide heated water for manatee protection.

274

#### 20 Q. How did FPL determine the size of the required MTHS?

A. To determine the size of the heater required to comply with the MPP
requirement, FPL retained an environmental services firm to perform

computer modeling of the minimum thermal output needed to generate and
 maintain a warm water refuge consistent with the U.S. Fish & Wildlife
 Service and FWC size guidance. FPL utilized its experience with the MTHS
 at CCEC, RBEC and PEEC to refine the preliminary design basis for the
 MTHS at PFM.

#### 6 Q. Why does the PFM MTHS need to be installed in 2018?

7 A. FPL commenced a maintenance outage at PFM on March 5, 2018, which is 8 within the manatee season. FPL needed to be prepared for the possibility of 9 cold weather during the outage that would require an MTHS to meet the 10 permit requirement for a warm water manatee refuge. In order for FPL to 11 provide warm water during the March 2018 outage, the mobile diesel-burning 12 heaters were rented and temporarily installed at the site. To provide warm 13 water during outages occurring in future manatee seasons, FPL is purchasing 14 and installing the proposed fixed electric MTHS at the site.

#### 15 Q. Has FPL estimated the capital cost of the proposed PFM MTHS?

A. Yes. The total estimated capital cost for the PFM MTHS is \$5 million. This
estimate includes expenditures for the equipment, design and engineering of
the system, labor for installation, and interconnection to the FPL power
system and is expected to be spent in 2018 and 2019.

#### 20 Q. What O&M costs will be associated with the proposed PFM MTHS?

A. FPL estimates that it has incurred \$250,000 of O&M expenses associated
with the cost of the temporary mobile diesel-burning heater, from the

1		February 12, 2018 date that the petition to amend the MTHS Project was filed
2		through March 31, the end of the 2017-2018 manatee season.
3		
4		FPL estimates O&M costs of \$30,000 per year through the life of the
5		proposed fixed electric MTHS. These projected O&M costs do not include
6		the electrical costs to operate the MTHS. FPL cannot predict how often the
7		system will operate but does not expect the electrical costs to be significant.
8		Therefore, FPL is not seeking recovery through the ECRC process for the
9		electrical costs.
10	Q.	Please describe the measures FPL is taking to ensure that costs of the
11		MTHS Project at PFM are reasonable and prudently incurred.
12	A.	FPL's Power Generation Division ("PGD") projects team designed the
12 13	А.	FPL's Power Generation Division ("PGD") projects team designed the MTHS from experience and lessons learned during installations of similar
	Α.	
13	А.	MTHS from experience and lessons learned during installations of similar
13 14	Α.	MTHS from experience and lessons learned during installations of similar systems at PEEC, RBEC, DBEC and CCEC. This will ensure a cost-
13 14 15	Α.	MTHS from experience and lessons learned during installations of similar systems at PEEC, RBEC, DBEC and CCEC. This will ensure a cost-effective design and equipment selection process. A few examples of lessons
13 14 15 16	Α.	MTHS from experience and lessons learned during installations of similar systems at PEEC, RBEC, DBEC and CCEC. This will ensure a cost- effective design and equipment selection process. A few examples of lessons learned include 1) critical review of the warm water refuge thermal loss
13 14 15 16 17	Α.	MTHS from experience and lessons learned during installations of similar systems at PEEC, RBEC, DBEC and CCEC. This will ensure a cost- effective design and equipment selection process. A few examples of lessons learned include 1) critical review of the warm water refuge thermal loss mechanisms, including use of a thermal model that divides the refuge into at
<ol> <li>13</li> <li>14</li> <li>15</li> <li>16</li> <li>17</li> <li>18</li> </ol>	Α.	MTHS from experience and lessons learned during installations of similar systems at PEEC, RBEC, DBEC and CCEC. This will ensure a cost- effective design and equipment selection process. A few examples of lessons learned include 1) critical review of the warm water refuge thermal loss mechanisms, including use of a thermal model that divides the refuge into at least six cells and accounts for tidal exchange, advection and convective
<ol> <li>13</li> <li>14</li> <li>15</li> <li>16</li> <li>17</li> <li>18</li> <li>19</li> </ol>	Α.	MTHS from experience and lessons learned during installations of similar systems at PEEC, RBEC, DBEC and CCEC. This will ensure a cost- effective design and equipment selection process. A few examples of lessons learned include 1) critical review of the warm water refuge thermal loss mechanisms, including use of a thermal model that divides the refuge into at least six cells and accounts for tidal exchange, advection and convective flows between cells and at the refuge entrance, 2) optimization of the
<ol> <li>13</li> <li>14</li> <li>15</li> <li>16</li> <li>17</li> <li>18</li> <li>19</li> <li>20</li> </ol>	Α.	MTHS from experience and lessons learned during installations of similar systems at PEEC, RBEC, DBEC and CCEC. This will ensure a cost- effective design and equipment selection process. A few examples of lessons learned include 1) critical review of the warm water refuge thermal loss mechanisms, including use of a thermal model that divides the refuge into at least six cells and accounts for tidal exchange, advection and convective flows between cells and at the refuge entrance, 2) optimization of the temporary refuge design such as locating the heated water discharge at a

optimization of the warm water refuge size to provide only the necessary area
 of heated water for the expected number of manatees at PFM, and
 4) coordination of electrical service for the PFM MTHS with the plant
 upgrade construction plans and schedule, in order to maximize use of existing
 transformers and electrical feeds.

6

Using a performance specification for the PFM MTHS equipment that meets 7 8 all of FPL's requirements, FPL's Integrated Supply Chain ("ISC") group will 9 solicit bids from multiple suppliers to determine the source providing the 10 overall best value. The ISC group provides enterprise-wide leadership, 11 direction, and operation of a fully integrated supply chain supporting the 12 procurement, materials management, and logistic needs of FPL and the MTHS Project at PFM. ISC's objective is to drive down costs to FPL and 13 14 ensure the delivery of the highest quality goods and services. Well-15 established corporate policies and procedures dictate that for the MTHS 16 Project at PFM, the materials supply contract and the construction contract 17 will be competitively sourced.

18

FPL's PGD projects team has established a scope, budget, and schedule to
meet the needs of the PFM MTHS. Project Controls is also responsible for
tracking all MTHS Project costs through various approval processes,
procedures, and databases.

1	Q.	Is FPL recovering through any other mechanism the costs for the MTHS
2		Project at PFM for which it is petitioning for ECRC recovery?
3	A.	No.
4		
5		Modification to National Pollutant Discharge Elimination System
6		("NPDES") Permit Renewal Requirements Project
7		
8	Q.	Please describe FPL's approved NPDES Permit Renewal Requirements
9		Project.
10	A.	The Federal Clean Water Act requires all point source discharges to
11		navigable waters from industrial facilities to obtain permits under the NPDES
12		program. Affected facilities are required to apply for renewal of the five-year
13		duration NPDES permits prior to their expiration.
14		
15		By Order No. PSC-2011-0553-FOF-EI issued in Docket No. 20110007-EI on
16		December 7, 2011, the Commission approved FPL's NPDES Permit Renewal
17		Requirements Project to recover costs associated with new requirements for
18		whole effluent toxicity monitoring and reporting, as well as for preparing
19		Storm Water Pollution Prevention Plans that were contained in the then-latest
20		renewals for FPL's NPDES permits.
21		

1		With one exception, all of FPL's power plants are located in Florida and
2		therefore already are part of the NPDES Permit Renewal Requirements
3		Project. The one exception is FPL's ownership interest in Plant Scherer Unit
4		4.
5	Q.	Please briefly describe FPL's proposed expansion of the NPDES Permit
6		Renewal Requirements Project at Plant Scherer.
7	А.	Due to circumstances described below, Plant Scherer will be replacing the
8		packing material inside the Unit 4 cooling tower in order for the Plant to
9		ensure compliance with anticipated NPDES permit conditions.
10	Q.	Please describe the law or regulation requiring the NPDES Permit
11		Renewal Requirements Project.
12	A.	All of FPL's power plants that discharge to navigable waters are subject to
13		the Federal Clean Water Act's NPDES program. Pursuant to the EPA's
14		approval, the Georgia Environmental Protection Division ("EPD")
15		implements the NPDES permitting program in Georgia.
16	Q.	What regulatory compliance action does FPL anticipate will be required
17		at Plant Scherer as a result of the NPDES permit renewal?
18	A.	Under the NPDES program, wastewater discharges from Plant Scherer
19		cannot cause a water body to exceed Georgia's Water Quality Standards
20		("WQS"). Georgia's WQS for copper in the Ocmulgee River, which is found
21		in Rule 391-3-6.03 (5)(e)(ii)5, is 5 parts per billion ("ppb"). As established
22		in Rule 391-3-6.06 (4)(d)5(ii) of the Georgia Rules and Regulations, if a

1	chemical constituent listed in the WQS is present in an effluent stream, an
2	effluent limit may be required. Copper is one of those constituents. The limit
3	for copper in the Plant Scherer effluent is based on the following equation:
4	Effluent limit = criteria concentration $x$ dilution factor.
5	The dilution factor is calculated by determining the ratio of the effluent
6	volume to the receiving stream (Ocmulgee River) flow.
7	
8	In the case of Plant Scherer, the calculated limit is approximately 60 ppb at
9	the point of discharge from the collection basin for the Plant Scherer cooling
10	towers. On January 30, 2018, Plant Scherer submitted an updated NPDES
11	permit renewal application (see Exhibit MWS-6). Recent testing and
12	monitoring of the effluent from Plant Scherer's cooling tower basin (referred
13	to as the "NPDES Collection Basin") revealed that Plant Scherer's copper
14	discharge levels have the potential to result in an exceedance of the Georgia
15	WQS. Based on the EPD's permitting procedures, and consultation with
16	EPD, FPL and Georgia Power Corporation ("Georgia Power") anticipate that
17	the EPD will include in the facility's renewed NPDES permit a new condition
18	addressing the Plant's obligations to ensure that it does not exceed the
19	Georgia WQS copper discharge limit. FPL and Georgia Power also
20	anticipate that the EPD will require monitoring of copper concentrations.
21	Depending on the results of the EPD's final analysis of the renewal

application, the EPD may also require additional compliance measures
 beyond the cooling tower repacking projects.

#### 3 **Q.** What is cooling tower packing?

- A. Packing is a medium used in cooling towers to increase the surface area over
  which cooling water is exposed to air in the towers. Increased surface area
  allows for maximum contact between the air and the water, which allows for
  greater evaporation rates and lower temperature cooling water being returned
  to the condenser.
- 9 Q. Do Georgia Power and FPL expect that Plant Scherer Unit 4 cooling
  10 tower packing needs to be replaced in order to achieve the anticipated
  11 copper concentration limit?
- 12 A. Yes. Georgia Power analyzed the source of copper in Plant Scherer's 13 discharge stream and evaluated options for reducing the concentration of 14 copper in the discharge. It determined that that the elevated copper levels in 15 the effluent were attributable to two sources: (1) degradation of the Plant's 16 copper condenser tubes, and (2) concentration of copper in the cooling tower 17 packing, where copper from the condenser tubes became entrained over years 18 of operation. Between 2009 and 2013, various cleaning and treatment 19 techniques were employed in an attempt to reduce the rate of copper 20 corrosion and erosion from the condenser tubes and to remove copper that 21 was entrained in the cooling tower packing. Unfortunately, these efforts on 22 their own resulted in only limited reductions in the copper discharge level.

- Q. Has Georgia Power subsequently evaluated the cost and effectiveness of
   available options that could adequately reduce the copper discharge
   level?
- A. Yes. Georgia Power identified three options that could potentially resolve the
  issue of copper concentrations in the cooling water wastewater. They were:
  (1) coating of condenser tubes, (2) installation of a treatment system to
  remove copper from the cooling tower discharges, or (3) replacement of
  condenser tubes and cooling tower packing.
- 9

A thorough analysis of the options concluded that, due to the age of the condenser tubes (i.e., they have been in service since the 1980s with a life expectancy of 30 years) and contamination of the packing, replacement of the condenser tubes and packing is the most cost-effective, long-term solution, which entails replacing the copper condenser tubes with titanium tubes and replacing the copper-contaminated packing in the cooling towers with new packing material (Exhibit MWS-7).

## Is FPL seeking to include the Unit 4 condenser tube replacement as part of the NPDES Permit Renewal Requirements Project?

A. No. Georgia Power already has completed the replacement of the copper
condenser tubes in both Units 3 and 4 as part of a normal replacement
schedule based on the anticipated life and condition of the tubes. Therefore,
1		FPL has not included the costs incurred for the tube replacement as part of
2		this request.
3	Q.	Is the cooling tower packing material also being replaced as a part of
4		normal Unit 4 maintenance?
5	A.	No. The packing material in Unit 4 has not reached the end of its useful life
6		and was not previously expected to be replaced for many more years.
7		However, due to its contribution to the elevated copper concentration in the
8		cooling tower effluent, it needs to be replaced before the end of its useful life
9		in order to ensure that the copper concentration in the cooling tower basin can
10		remain consistently in compliance with applicable WQS.
11	Q.	When has Georgia Power scheduled the Unit 4 repacking?
12	A.	To maximize efficiency, Georgia Power plans to complete the remaining tube
13		replacements and the repacking for all four Plant Scherer units during the
14		next planned outage for each unit. For Unit 4, that planned outage began on
15		March 8, 2018. Furthermore, satisfaction of the WQS is an issue of great
16		importance to the EPD. It is therefore reasonable to move forward with these
17		steps now, to provide the EPD assurance that Plant Scherer will be able to
10		
18		meet the WQS for copper under its renewed NPDES permit.
18 19	Q.	meet the WQS for copper under its renewed NPDES permit. Did FPL anticipate that it would need to repack the Unit 4 cooling
	Q.	
19	<b>Q.</b> A.	Did FPL anticipate that it would need to repack the Unit 4 cooling

- copper concentration in the Plant Scherer effluent, much less determined the
   appropriate way to address that need.
- 3 Has FPL estimated the cost of the repacking activities at Plant Scherer? **Q**. 4 Yes. The total estimated cost for FPL's share of the repacking activity at A. 5 Plant Scherer Unit 4 is \$9 million, all of which will be recorded as a capital 6 investment. FPL anticipates that there will be minimal O&M costs associated with this project. Because the NPDES permit renewal process is still in an 7 8 early stage, FPL is seeking to defer ECRC recovery of the Unit 4 cooling 9 tower repacking costs in the manner discussed in the testimony of FPL 10 witness Renae Deaton.

### 11 Q. How will FPL ensure that the costs incurred for this project are prudent 12 and reasonable?

A. Georgia Power, as FPL's agent for the operation and maintenance of Scherer
Unit 4, uses competitive bidding for equipment and services as part of their
standard practices. Under the contract agreement between FPL and Georgia
Power, FPL has oversight and audit rights for costs that are incurred on
behalf of our ownership of Unit 4 and have on-site staff at the facility to
ensure expenditures are reasonable and prudent.

# 19 Q. Is FPL recovering the cost of the repacking through any other 20 mechanism?

- 21 A. No.
- 22

- 1
   <u>Turkey Point Cooling Canal Monitoring Plan Project ("TPCCMP") Update</u>

   2
- Q. In FPL witness Deaton's final true-up testimony, she states that the 2017
  O&M expenditures for the TPCCMP project were \$26.5 million lower
  than projected and that the 2017 capital revenue requirements were
  \$495,747 lower than projected. Why were project expenditures in 2017
  for the TPCCMP lower than projected?

8 A. These reductions were due to delays in the permitting process, which affected 9 the timely implementation of the Recovery Well System ("RWS"), Turning 10 Basin and Turtle Point Backfill projects. FPL submitted the RWS designs 11 and modeling to the agencies for review and approval on May 16, 2016, with 12 the expectation that the approvals and permitting for this agreed upon 13 restoration project would be completed in nine months. Due to the scale of 14 the remediation and complexity of the model, however, the regulatory 15 agencies did not approve the designs for the RWS until May 15, 2017. On 16 June 27, 2017 the RWS wells, pumps and electrical construction began and is 17 scheduled to be completed in May 2018. Permit approval from Miami-Dade 18 County and the U.S. Army Corps of Engineers for the Turning Basin and 19 Turtle Point Backfill projects is still pending and anticipated to be issued by 20 the end of April 2018. Additionally, costs associated with sediment removal 21 have been deferred in order for FPL to evaluate the appropriate level of 22 sediment removal needed to address system thermal performance.

#### 1 Q. Does this conclude your testimony?

2 A. Yes.

1		<b>BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION</b>
2		FLORIDA POWER & LIGHT COMPANY
3		<b>TESTIMONY OF MICHAEL W. SOLE</b>
4		DOCKET NO. 20180007-EI
5		JUNE 13, 2018
6		
7	Q.	Please state your name and address.
8	A.	My name is Michael W. Sole and my business address is 700 Universe
9		Boulevard, Juno Beach, Florida 33408.
10	Q.	By whom are you employed and in what capacity?
11	A.	I am employed by NextEra Energy, Inc. ("NEE") as Vice President of
12		Environmental Services.
13	Q.	Have you previously filed testimony in this docket?
14	A.	Yes.
15	Q.	What is the purpose of the testimony that you are filing at this time?
16	A.	The purpose of my testimony is to present for Commission review and
17		approval Florida Power & Light Company's ("FPL" or the "Company")
18		request for recovery through the Environmental Cost Recovery Clause
19		("ECRC") of a new project, the Solar Site Avian Monitoring and
20		Reporting ("SSAMR") Project.
21	Q.	Have you prepared, or caused to be prepared under your direction,
22		supervision, or control, any exhibits in this proceeding?
23	A.	Yes, I am sponsoring the following exhibits:

	• Exhibit MWS-8 – Alachua County Development Review Committee
	Order DR-17-04
	• Exhibit MWS-9 – FWC Protocol for Monitoring Avian Mortality at
	Solar Energy Facilities
	Solar Site Avian Monitoring and Reporting Project
Q.	Please briefly describe FPL's proposed SSAMR Project.
А.	FPL will be monitoring and reporting on avian mortality at FPL's existing
	DeSoto solar photo voltaic ("PV") facility ("DeSoto"), utilizing a protocol
	for avian monitoring at solar facilities that was developed in conjunction
	with the Florida Fish and Wildlife Conservation Commission ("FWC").
Q.	Please describe the environmental law or regulation requiring the
	SSAMR Project.
A.	FPL is required to obtain a siting permit from the Alachua County
	Department of Growth Management ("Alachua DGM") for its Horizon
	Solar Energy Center ("HSEC"). Pursuant to the Development Review
	Committee Order DR-17-04 issued by the Alachua DGM on February 16,
	2017, FPL is required to conduct avian mortality monitoring and report on
	the results of that monitoring as a permit condition for the HSEC.
	Specifically, Section 6 of that Order requires FPL to develop monitoring
	protocols in 2017, perform monitoring in accordance with those protocols
	and, ultimately, report the results of that monitoring to the Alachua DGM.
	А. <b>Q</b> .

1 Order DR-17-04 is attached as Exhibit MWS-8.

### Q. Why is the required monitoring being conducted at the DeSoto PV facility rather than at the HSEC?

Alachua County was the first governmental entity in Florida to require 4 A. 5 FPL to conduct monitoring at a universal solar site as a permit 6 requirement. The Alachua DGM required this type of data collection to 7 inform and further its assessment of the impacts of solar generation on 8 avian species, and it wanted to get results as promptly as possible. In 9 order to accommodate the Alachua DGM's desire for prompt results, FPL 10 recommended that monitoring be conducted at DeSoto (an existing 11 universal solar facility) because construction of HSEC had not been 12 completed at the time the permit condition was imposed. Using a fully 13 operational site helped FPL and FWC create the avian solar protocol and 14 allowed FPL to conduct a necessary trial in 2017 for implementing the 15 protocol. The Alachua DGM agreed that the data from DeSoto would be 16 representative of future universal solar PV facilities located in Alachua 17 County and required the monitoring be conducted at DeSoto as part of the 18 Development Review Committee Order DR-17-04 (MWS-8).

### 19 Q. Please describe what is entailed in the monitoring portion of the 20 SSAMR Project.

A. The purpose of the monitoring program is to estimate the overall annual
avian fatality rate and species composition associated with a universal
solar site. At a specified frequency, biologists, using trained dogs as

appropriate, will conduct searches for avian detections within designated sampling units. Bias trials will be conducted to determine the likelihood of carcasses being removed naturally by scavengers (carcass persistence trials) and the effectiveness of the searchers in finding the carcasses (searcher efficiency trials). The search frequency will be based on carcass persistence trials conducted at the site. An estimate of fatalities will be calculated using the results of the monitoring and the bias trials.

#### 8 Q. Please describe the actions taken by FPL to date in order to prepare 9 for the required monitoring under Order DR-17-04.

Since the issuance of Order DR-17-04, FPL has worked with the FWC to 10 A. 11 identify suitable protocols and procedures for avian mortality monitoring 12 and reporting. FPL initiated preliminary carcass persistence trials on 13 October 3, 2017, which were used to determine the appropriate survey 14 frequency for the mortality monitoring. Following these preliminary 15 trials, the FWC developed an avian solar monitoring protocol and 16 provided FPL the final version on October 31, 2017. The protocol is 17 attached as Exhibit MWS-9. FPL is not seeking ECRC recovery for the 18 preliminary carcass trials or the costs for developing the protocol.

#### 19Q.What activities related to the SSARM Project does FPL need to20conduct in the future?

A. Pursuant to Order DR-17-04, FPL is required to conduct four seasons of
 avian mortality monitoring, including bias trials (carcass persistence and
 searcher efficiency), and must provide FWC an annual report with fatality

- estimates for birds. FPL intends to start the standardized mortality
   monitoring this year and finish in 2019.
- 3 Q. Is FPL currently required to conduct similar avian monitoring and
  4 reporting programs at any other solar sites?
- 5 A. No. The Alachua DGM is currently the only regulator that has required 6 FPL to conduct this type of program. However, it is possible that other 7 regulators will require FPL to conduct avian monitoring and reporting 8 programs.
- 9 Q. What is the estimated O&M expense associated with the proposed
  10 SSAMR Project that FPL is requesting to recover through the
  11 ECRC?
- A. FPL estimates that the total O&M expenses associated with the SSAMR
  Project that will be incurred following the filing of this petition is
  \$173,270. FPL expects that this expense will be incurred in 2018 and
  2019.
- Q. What are the main drivers of the O&M expenses being requested for
   ECRC recovery for this project?
- A. The main drivers of the O&M expenses for the Project derive from the survey protocol's requirements for biologists, using trained dogs as appropriate, to walk a significant portion of the 235-acre site to conduct the mortality monitoring. The amount of site surveyed and frequency of the surveying is driven by the results of the carcass persistence and searcher efficiency trials.

- 1Q.Does FPL expect to incur any capital costs associated with the2proposed SSAMR Project?
- 3 A. No.

## 4 Q. Please describe the measures FPL is taking to ensure that costs of the 5 SSAMR Project are reasonable and prudently incurred.

6 A. In general, FPL competitively bids the procurement of materials and 7 services. FPL benefits from strong market presence allowing it to leverage 8 corporate-wide procurement activities to the specific benefit of individual 9 procurement activities. For the SSAMR project, FPL issued a request for 10 proposal to five vendors and chose the least cost option among the two 11 bids that were received. All initial commitments and contract change 12 orders will be appropriately authorized. FPL's Project Controls group 13 maintains the project scope, budget, and schedule and tracks project costs 14 through various approval processes, procedures, and databases. FPL used 15 its prior experience and lessons learned with wildlife monitoring and 16 reporting to ensure a cost-effective procurement selection process.

Q. Did FPL anticipate that it would need to conduct avian monitoring
and reporting as a permit condition for the HSEC at the time that it
prepared the Minimum Filing Requirements for its 2016 rate case?

- A. No. Those MFRs were prepared in late 2015 and early 2016. As noted
  above, Order DR-17-04 was not issued until February 16, 2017.
- Q. Is FPL recovering through any other mechanism the costs for the
  SSAMR Project for which it is petitioning for ECRC recovery?

- 2 Q. Does this conclude your testimony?
- 3 A. Yes.

1 The witness is available for MS. MONCADA: 2 cross. 3 COMMISSIONER CLARK: All right. We will start 4 with OPC. 5 MR. REHWINKEL: Thank you, Mr. Chairman. 6 EXAMINATION 7 BY MR. REHWINKEL: 8 Q Good afternoon, Mr. Sole. 9 Α Good afternoon. 10 It's good to see you about a year later. 0 11 I am going to ask you questions only about 12 your April 2nd testimony. 13 Α Okay. 14 Mr. Chairman, I prepositioned MR. REHWINKEL: 15 with your staff three exhibits that I would be 16 happy to pass out now to save time, if you would 17 like. 18 COMMISSIONER CLARK: Yes, please. 19 While they are being passed MR. REHWINKEL: 20 out, one exhibit is just Section 366.8255 Florida 21 Statutes. And I would ask that be given a number 22 just for identification. I am not sure that it 23 will be moved. 24 COMMISSIONER CLARK: Okay. I think the 25 correct number would be 49, is that right? 49. Premier Reporting

1 MR. REHWINKEL: We can just call it the ECRC statute for a short title. 2 3 COMMISSIONER CLARK: That's fine. 4 (Whereupon, Exhibit No. 49 was marked for identification.) 5 6 MR. REHWINKEL: And a next exhibit is entitled 7 February 12, 2018 and March 5, 2018, FPL petitions. 8 COMMISSIONER CLARK: Okay. We will give that 9 Exhibit No. 50, and title it February 12th, 10 March 5th FPL petitions. 11 (Whereupon, Exhibit No. 50 was marked for 12 identification.) 13 MR. REHWINKEL: Thank you, Mr. Chairman. 14 And then finally, again, probably more for 15 cross-examination purposes, but this would be Order 16 No. PSC-11-0553-FOF-EI. 17 COMMISSIONER CLARK: And we will mark it No. 18 51, Order No. PSC-11-0553-FOF-EI. 19 (Whereupon, Exhibit No. 51 was marked for 20 identification.) 21 MR. REHWINKEL: And just for the record, I 22 think the new naming convention would require that 23 order to be known as PSC-2011-0553. 24 COMMISSIONER CLARK: Okay. 25 BY MR. REHWINKEL:

1 Q Mr. Sole, do you have these exhibits with you? 2 I do not believe I have all of them. Α What was 3 the last exhibit, again, Mr. Rehwinkel? 4 0 It would be the 2011 order, PSC order. That 5 would be 51. And 50 would be the petitions relating to 6 the Manatee Temporary Heating System and the NPDES 7 permit for Scherer. 8 Mr. Rehwinkel, I apologize, I do not seem to Α 9 have the order. I apologize. 10 No problem. 0 11 I have them. Α 12 Okay, very good. Q 13 So would can just set those aside for a 14 Well, let me start by asking you to start second. 15 with -- your job title and responsibilities remain 16 unchanged since the last time you testified in the 2017 17 docket, is that correct? 18 Yes, that is correct. Α 19 Would it be correct -- I wasn't trying to 0 20 trick you, but are you also over the new acquisition of 21 Is that under your umbrella of NextEra City Gas? 22 Environmental Services Vice-President? 23 Α I wouldn't -- as you characterize it, I No. 24 would have to answer no, Mr. Rehwinkel. Obviously, I 25 have responsibility, as we look at that acquisition, in (850) 894-0828 Reported by: Debbie Krick Premier Reporting

1 implementing that acquisition. 2 And I know that Gulf Power has not been 0 Okay. 3 acquired by NextEra yet, is that correct? 4 Α That is correct. 5 Q Okay. Upon closing of that transaction, 6 assuming that it occurs, will you be responsible for 7 Gulf Power as a part of your responsibilities for 8 NextEra? 9 Α Yes. No different than my current 10 responsibilities at NextEra. I am responsible for 11 environmental programs for both FPL as well as NextEra 12 subsidiaries. 13 0 Okay. Thank you. 14 Mr. Sole, could you pick up Exhibit 49, which 15 is just the one-pager with the statute? 16 Α Yes, sir, I have it. 17 Q And I know right off the bat you are not an 18 attorney, correct? 19 That is correct. Α 20 Q Are you familiar with this statute 21 nevertheless? 22 Α Yes, I am. 23 Could I ask you to read the definition of Q 24 environmental laws or regulations, which is subsection 25 Would you read that aloud? (1)(c), aloud?

1 Α Yes. 2 Environmental laws or regulations includes all 3 federal, state or local statutes, administrative 4 regulations, orders, ordinances, resolutions or other 5 requirements that apply to electric utilities and are 6 designed to protect the environment. 7 Thank you. Q 8 Would you -- would it be your testimony that 9 that provision, as it defines laws or regulations, 10 environmental laws or regulations, is the standard that 11 your testimony seeks to meet for approval of the 12 recovery of costs under the ECRC today? 13 Α Yes. I believe that FPL is obligated to 14 ensure compliance with all of 366.8255, and that is one 15 provision. But that is the definition of what the 16 Okay. 0 17 law or regulation is that your projects must be within 18 in order to be eligible for recovery, is that correct? 19 Yes. That is the statutory definition of Α 20 environmental laws or regulations. 21 Q Okay. Thank you. 22 Now, in your testimony -- well, let me strike 23 that and ask it this way. Your testimony provides the basis of what you 24 25 call modifications of two existing approved projects for

1 Commission approval, is that right? 2 Α Yes. 3 0 And turning to the Manatee Temporary Heater 4 System, or MTHS project, first, can you tell me exactly 5 what you are asking the Commission to do with respect to 6 this MTHS project? 7 Yes. FPL is requesting that the Commission Α 8 modify the existing Manatee Temporary Heating System 9 project to include the addition of a temporary Manatee 10 heating system at Plant Ft. Myers. 11 Is it your view, or your testimony here today, 0 12 that the Ft. Myers MTHS project is somehow already 13 approved in an overall sense and you are just here 14 seeking a modification? 15 Could you ask the question again? I may not Α 16 have fully understood it. 17 Okay. Is it -- let me ask it a different way. Q 18 Is it your view that -- well, first of all, 19 let me ask it this way: You have a very similar 20 temporary heater system project designed to provide 21 heated environment for manatees at several plants 22 already, is that correct? 23 Α Yes, that is correct. 24 Okay. And is it your testimony that each of 0 those projects is approved by an overall Commission 25

1 approval of this type of project, or are they approved 2 each alone -- each on a stand-alone basis? 3 Α As we have progressed with this project, it 4 started individually with the Riviera Beach project. 5 During the same period in which we requested Commission 6 approval, the Canaveral project was identified, and it was identified as a project approval for both of those 7 8 projects. 9 Since that time, we have had similar approvals 10 by the Commission to add specific projects at specific 11 plants based upon a demonstrated need. Does that -- I 12 apologize, I think that answered your question. 13 I appreciate that. My question -- let me ask 0 14 a follow-up to that. 15 Is it your opinion that there is a generic 16 Commission policy where they have approved any Manatee 17 Temporary Heating System project at any plant if it is a 18 requirement of a permit? 19 The -- FPL is, at this point, seeking Α No. 20 specific Commission approval of this project, or to 21 amend this project based upon the need demonstrated 22 specifically at Ft. Myers and the requirement to meet 23 its National Pollution Discharge Elimination System 24 permit and Manatee Protection Plan obligations at that 25 facility.

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Q Is there any reason why the Ft. Myers project isn't before the Commission on a stand-alone basis just on its own merits, without regard to whether you have had an approval in any other Manatee Temporary Heating System project at another plant?

6 Α The answer is no. It's clear that, in the 7 past, a individual project has been created to deal with 8 addressing Manatee heating systems at plants where it's 9 demonstrated and justified to be needed. The precedence 10 has been established where, in the past, where we've 11 identified that need, we've modified this existing 12 project to include additional projects where needed.

13 That is the case where we are at today in 14 making a recommendation to modify the existing project 15 for Manatee Temporary Heating Systems.

Q So another way of asking that is can you tell me what more you would have to present to have the Ft. Myers MTHS project approved if there were no other MTHS projects at any of the other plants that you describe in your testimony.

MS. MONCADA: Commissioner Clark, I want to lodge an objection. It's been going on for a while, but the first thing established in this line of questioning was that Mr. Sole is not an attorney, and I think it's really reached the point

1 where Mr. Rehwinkel is asking him to make legal 2 determinations about legal requirements. 3 COMMISSIONER CLARK: Mr. Rehwinkel. Thank you, Mr. Chairman. 4 MR. REHWINKEL: Yes. 5 The basis of my question is to understand what he is asking the Commission to approve. 6 His 7 testimony supports the petition, so there is no 8 line between what's a legal opinion and what's not 9 based on the way their case is presented. 10 COMMISSIONER CLARK: I will allow the 11 question. 12 THE WITNESS: There is two fundamental --13 well, ask the question again and make sure I get it 14 I apologize. correct. 15 MR. REHWINKEL: Thank you. And thank you, Mr. 16 Chairman. 17 COMMISSIONER CLARK: Yes, sir. 18 BY MR. REHWINKEL: 19 Mr. Sole, can you tell me what more you would 0 20 have to present to have the Ft. Myers MTHS approved if 21 there were no other MTHS projects at any of the other 22 plants you describe in your testimony? 23 Α The temporary Manatee heating system Yes. 24 obligation is actually confined within the NPDES permit 25 that's issued for this facility. There is an obligation (850) 894-0828 Premier Reporting

1 under that permit, and I can point to that specifically. 2 If you go to my Exhibit MWS-3, page 15 of 48, 3 this is the specific NPDES permit for Plant Ft. Myers. 4 And you look at Condition No. 10, there is a specific 5 obligation that the permittee shall continue compliance 6 with the facility's Manatee Protection Plan approved by 7 the Department on August 18th, 1999. 8 If you then go to MWS-4, which is the Manatee 9 Protection Plan as approved by the Department in 1999, 10 and go to specific page 8 of 9, there is a specific 11 language in the Manatee Protection Plan that obligates 12 FPL from November 15th through March 31 to endeavor to 13 operate in a manner that maintains the water temperature 14 in an adequate portion of the discharge canal at or 15 above 68 degrees Fahrenheit. And there are specific 16 trigger mechanisms in that Manatee Protection Plan that would establish when FPL is to take action. So those 17

18 are the two regulatory requirements that FPL is

19 obligated to meet at Plant Ft. Myers.

If you go to my testimony, you will see that I specifically describe the conditions at Plant Ft. Myers why, under prior operating protocols, our ability to meet that obligation has eroded as a result of changes and to FPL's combined cycle natural gas fleet, and the need to do maintenance, and scheduling that maintenance

1	outside of the manatee season was complicated.
2	Additionally, as a result of the efficiency
3	improvements that we have implemented at FPL, while
4	Plant Ft. Myers, at one time, was one of our very
5	efficient plants, it has actually gone lower in the
6	stack, and therefore, its ability to be dispatched
7	economically efficiently may erode, and therefore,
8	eliminate our ability to provide that warm water during
9	those periods of time.
10	Those two requirements, as I specifically
11	provided in my exhibits, as well as the existing
12	conditions at Plant Ft. Myers now have required us to
13	move forward with a temporary manatee heating system at
14	Plant Ft. Myers.
15	Q So is it essentially your testimony that the
16	way you operate your system and you dispatch that unit,
17	the Ft. Myers unit, is what triggers a requirement that
18	you have to meet these specific conditions that you
19	discuss in MWS-3 and MWS-4?
20	A No, that is not the sole reason. There were
21	combined reasons as it related not only to its economic
22	dispatch, which was just a reason. The more compelling
23	reason is the ability to operate and maintain the
24	system, and not take it out of service during the
25	winter. Our ability to do so has been significantly
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<ul> <li>configurations of FPL's overall fleet.</li> <li>Q Does your testimony present to the Commission</li> <li>a case to support the prudence of the solution that you</li> <li>have selected in order to meet the requirements in the</li> <li>permit and the plan that you have pointed to in MWS-3</li> <li>and MWS-4?</li> <li>A Ask the question again just to make sure I</li> <li>fully understand. I am sorry, Charles Mr.</li> <li>Rehwinkel I apologize.</li> <li>Q That's all right.</li> <li>Does your testimony support the prudence of</li> <li>the method that you have chosen to meet the specific</li> <li>requirements in MWS-3 and MWS-4 that you just testified</li> <li>to?</li> <li>A Yes, I believe it does.</li> <li>Q Okay. Does that mean that you have selected</li> <li>the lowest cost solution to meet the requirements that</li> <li>are in MWS-3 and MWS-4?</li> <li>A Yes. And as provided in interrogatories, I</li> <li>believe FPL also identified alternatives that could be</li> <li>pursued, and demonstrated that the alternatives selected</li> <li>by FPL was some little more than five million CPVRR in</li> <li>the better as compared to a more temporary system.</li> </ul>	1	reduced as compared to past operating and past
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	22	pursued, and demonstrated that the alternatives selected
24 the better as compared to a more temporary system.	23	by FPL was some little more than five million CPVRR in
	24	the better as compared to a more temporary system.
25 And I also believe we provided	25	And I also believe we provided

interrogatories -- I am sorry, I thought I could find it
quickly. Here it is. We provided two responses to
interrogatories, one that identified the comparative
analysis, CPVRR analysis.

5 We also presented information related to the 6 annual average estimated fuel cost for each FPL generating unit and inclusive of Plant Ft. Myers. 7 And 8 more importantly, the capacity factor that Plant Ft. 9 Myers have been incurring during the manatee season 10 itself. And if you go to interrogatory No. 3--11 These are responses to staff interrogatories? 0

12 A Yes, they were. Thank you for that 13 clarification, Mr. Rehwinkel.

14 If you go to the second attachment to that 15 interrogatory, you can see that the capacity factor at 16 Plant Ft. Myers during the manatee season is actually quite low, and it's been quite low during the 2006 --17 18 excuse me, '18-'19 period, and projected to be roughly 19 in the, I am going to say, average 30 percent range 20 throughout the next several years until getting to 21 significantly reduced in roughly 2028. 22 So you are only operating the unit a third of

23 the time during the manatee season. So in so doing, in

24 a situation where conditions merit the need for

25 providing that warm water discharge, it's unclear as to

whether or not you would be actually economically dispatching that plant to achieve the warm water refugia that we are obligated to meet under the NPDES permit and the Manatee Protection Plan.

5 Q So what you just described, the analysis, the 6 CPVRR analysis and the options that you referenced in 7 the interrogatories, that information was not included 8 in your testimony or your exhibits; is that correct?

9 Α That is correct. Well, correction. The 10 premise of it was absolutely addressed in my testimony. 11 My testimony specifically identified two factors. One, 12 the ability to continue to adequately conduct 13 maintenance outside of the manatee season as being no 14 longer achievable, plus the factor of our ability to 15 economically dispatch during the manatee season was 16 similarly challenged. And therefore, in order to 17 maintain compliance during the manatee season, we would 18 have to dispatch, in all probability, during uneconomic 19 And the analysis similarly showed that that times. 20 would be a cost impact to ratepayers and customers. 21 Can you now pick up Exhibit 50, please? Q 22 If I can find it now. Α 23 These are the two petitions. And I want to Q 24 ask you about the February 12th petition. 25 Α Yes, sir. I have it. Thank you.

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1	Q You are familiar with this petition, are you
2	not?
3	A I am.
4	Q Your testimony is specifically designed in
5	part to support the relief requested on this petition,
6	is that correct?
7	A Yes, it is.
8	Q Okay. Can you look at paragraph 2 on page 1
9	of that petition? And do you see where you say where
10	it says: "FPL is requesting to modify its existing,
11	approved MTHS project to include an MTHS at FPL's Ft.
12	Myers plant site (PFM)." Do you see that?
13	A I do.
14	Q Okay. And I read that correctly?
15	A I think so.
16	Q Okay. So I am just trying to understand
17	what's already approved that has a bearing on whether
18	you get cost recovery for the specific Ft. Myers MTHS,
19	if anything.
20	A I believe the intent is to acknowledge an
21	existing Commission approved project addressing
22	temporary manatee heating systems. There is no premise
23	that the Commission has already approved the Plant Ft.
24	Myers project, and FPL is requesting a modification to
25	include that project as part of the Project 41, or
Dromior F	Reporting (850) 894-0828 Reported by: Debbie Kr

temporary Manatee heating system project -- Manatee
 Temporary Heating System project. Sorry.

3 Q So when I think of the word project, it sounds 4 like a singular thing. And I am trying to understand how you view, in terms of what you are asking the 5 6 Commission to approve, the word project is, is there 7 something that's preapproved about your project at all? 8 I think your last answer said no, but I want to 9 understand if that's your testimony. Is there anything 10 that's preapproved, that gives you a head start or a 11 running start on approval of this Ft. Myers MTHS?

12 Α No, I don't believe there is anything, quote, 13 unquote, preapproved as the term you are using. I think 14 the intent is that there are multiple projects often in 15 certain categories, and this project was created as 16 There is the need for FPL to meet both its such. 17 National Pollution Discharge Elimination System permit 18 obligations, as well as meeting its Manatee Protection 19 Plan.

Those obligations that exist at several other plants, the obligation is the same in each. FPL is obligated to ensure and provide adequate warm water refugia for these animals in times where there may be disruption in services. That is the project that there is this need and obligation that FPL is obligated to

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1 pursue.

Individually, we have come to the Commission each time to address the need to do a specific plant project, and that may be the terminology that we are crossing on.

6 0 Okav. And to the extent that you are familiar 7 with this petition, aside from -- on page 4, where there 8 is a footnote to a 1994 order, which I would expect you 9 are familiar with as it is the seminal order dealing 10 with cost recovery for an ECRC; am I correct in that? 11 I am struggling on page 4 of Exhibit 50. Α 12 Q Of February 12th --13 MS. MONCADA: Mr. Rehwinkel and Commissioners, 14 I believe there may have been a duplication error 15 for this exhibit and we only got the odd numbered 16 pages. 17 MR. REHWINKEL: Oh, wow. That's a problem. 18 Okay. Well, I don't think it's fair for me to ask 19 Mr. Sole to look at my microprint. 20 THE WITNESS: I need my uber readers. 21 BY MR. REHWINKEL: 22 Do you have a copy of that petition with you Q 23 in your notebook? 24 Α I do. 25 Okay. 0

1	A I am on page 4.
2	Q Okay. Are you familiar with the PSC-94044
3	0044 order?
4	A I am not.
5	Q You are not, okay.
б	Well, do you know whether any this petition
7	cites any order of the Commission that says there is
8	approved manatee project? And let me ask let me step
9	back and say, when was the first manatee project that
10	the company brought forward? Was it in '99?
11	A I believe it was 1999, associated with no,
12	hold on.
13	I believe it was in 1999, but I could be wrong
14	on that. I know that the first one was Riviera Beach,
15	Mr. Rehwinkel, as part of that project, and then the
16	Canaveral project.
17	Q Okay. But it wasn't in 1994, is that right?
18	A It was not in 1994.
19	Q Okay. So now back to my question, is there an
20	order in here that's cited in this petition that your
21	testimony supports that is the Commission order that
22	approves this project, this overall project that you
23	describe?
24	A As pointed out in my testimony you are
25	asking about my testimony or the actual filing?

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Q

#### Well, the petition.

A Well, the petition clearly points out that there has been projects approved for Cape Canaveral, Riviera Beach, Port Everglades and Fort Lauderdale on the first page of paragraph 2. And each of those have been pursued by FPL to the Commission and have been approved by the Commission.

As we categorize these, this is, I believe, Project 41 under our books. And this is how we manage this project as a individual project, inclusive of all four of the projects that have already been approved by the Commission.

Q Can you cite to me any order of the Commission
 that approves the MTHS in an overall sense?

15 A Other than the approval of the Riviera and 16 Canaveral project as the first project, I believe that 17 is the only thing that I would cite as the initial 18 project that established the temporary -- or the Manatee 19 Temporary Heating System project.

Q Okay. Did that order say that if you brought another one to the Commission, you would have to separately justify it?

A I would have to read that order to validate that question, so I don't know. However, it's very clear, having modified that existing order twice already, or at least modified this project twice already
for now the Port Everglades facility, which was approved
by the Commission, as well as subsequently the Dania
Beach Clean Energy System, or formerly Lauderdale Plant,
this is an established protocol that we have worked with
the Commission on under this project in the past.

Q Based on what you have testified here today, not only in your testimony, your prefiled testimony and exhibits, but in the discovery responses that you have discussed on the record here today, wouldn't you agree that the Ft. Myers Manatee Temporary Heating System project stands on its own?

13 A Yes. I believe in order to pursue cost 14 recovery, we would need to establish that at this 15 hearing.

Q Okay. And so the prudence -- the evidence of prudence that you are submitting to the Commission here is evidence that would stand on its own, regardless of whether you had approved projects at other plants in prior years; is that your testimony?

A My testimony is that we do need to justify the actions in this project, and we have done so both in the petition as well as my individual submitted testimony, not only establishing the obligation to adhere to the permit condition in the Manatee Protection Plan, but

1 n	oting the additional risks that now occur at Plant Ft.
2 M	yers, and our ability to maintain compliance under that
3 e	xisting NPDES permit and Manatee Protection Plan.
4	Q Now, would you agree that the NPDES permit
5 <b>M</b>	anatee Protection Plan and Manatee Protection Plan
6 <b>i</b>	s a preexisting requirement for the Ft. Myers plant?
7	A Mr. Rehwinkel, I apologize, I don't know what
8 y	ou mean by preexisting. Preexisting to what?
9	Q Today.
10	A Yes, it's preexisting to today.
11	Q Was it preexisting before you spent the first
12 <b>d</b>	ollar on the MTHS at the Ft. Myers site?
13	A Yes.
14	Q Okay. In other words, it was not newly
15 <b>i</b>	mposed as part of a new construction or an NPDES
16 <b>1</b>	icense renewal, for example; is that right?
17	A No. This was established in the renewal of
18 t	he permit condition, but it's been there for some time.
19	Q Yeah. I mean, your your purp the
20 <b>r</b>	equirement is not part of a proposed renewal of NPDES
21 <b>p</b>	ermit at Ft. Myers, is that right?
22	A Yes, that is correct.
23	Q Okay. So from the time the requirement became
24 <b>e</b>	stablished in a license or a regulation that applied to
25 <b>t</b>	he Ft. Myers plant, something would have had to have
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changed to make this requirement applicable to the Ft.
 Myers plant, is that correct?

3 A Yes.

Q And that's what you describe in your testimony with respect to the way you dispatch the plant today, or propose to do so; is that right?

7 Α Partially right. It's not just the way we 8 dispatch the plant. It's also related to our ability to 9 conduct maintenance work outside of the manatee season. 10 Our ability to do so has now been significantly reduced, 11 and as such, now we are having to do both planned and 12 maintenance outages during the manatee season, which 13 would then result in our inability to meet the permit 14 requirements in the NPDES permit.

Q So it's dispatching and maintenance issues that are essentially, in a big sense, the trigger that requires you to expend these funds to meet the permit requirements; is that fair?

19 Yes, that is fair. And there is additional Α 20 risk also as it relates to the location of the plant. 21 The plant is in an area that has the higher likelihood 22 of having these lower temperature requirements. There is a requirement that if water conditions, or water 23 24 temperatures get below 61 degrees, it's at that time 25 that we are obligated to take action. Here at Plant Ft.

1 Myers, due to its location, we have a higher propensity 2 of seeing that as compared to other plants in our fleet. 3 Q Okay. And with respect to the Ft. Myers 4 plant, is FPL in violation of any environmental law or 5 regulation with respect to the NPDES and MPP 6 requirements with respect to manatees? 7 Α No. 8 Q And prior to the implementation, or the Okay. 9 beginning of the implementation of the MTHS, has the 10 company been, or will the company have been in violation 11 of any environmental law or regulation with respect to 12 the NPDES and MPP requirements for that plant? 13 Α I misunderstood the beginning of that, just 14 the beginning. Could you -- because you said prior to 15 and then after, and then I got confused which one it 16 was, or maybe I heard it wrong, Mr. Rehwinkel. Ι 17 apologize. 18 Q I didn't mean to ask you about after. I was 19 talking about prior to. 20 Α Prior to what time? 21 Prior to the implementation of the Manatee Q 22 Temporary Heater System project at Ft. Myers. 23 Α Thank you. No. 24 If I asked you the same question about 0 Okay. protecting manatees in the -- under your NPDES permits 25 Premier Reporting

1 at any other FPL power plants in Florida, would the 2 answer be the same? 3 Α I believe so, yes. The answer is we have not 4 seen violations associated with our NPDES permits or 5 Manatee protection plans. 6 0 Okay. And has this project been completed, or 7 are you still using the temporary leased system until --8 Α We are currently using the temporary lease 9 system until a project can be completed. 10 And when is the project expected to be 0 11 completed? 12 Α I do not have the specific timeline, but I do 13 believe it will be subsequent to the end of the current 14 manatee season, which started November 15th. Not quite 15 current, upcoming manatee season. 16 So would it be true that the proposed MTHS 0 17 expenditure is solely for prospective compliance or 18 staying within compliance with an existing regulation? 19 Yes, I would characterize it that way. Α 20 Q With regard to the solution that you chose, 21 did you look at a solar solution, or solar with battery? 22 Α Is the -- do you infer a solar solution to 23 mean the heater itself is powdered by solar or --24 Yes, sir. 0 25 -- that the solar energy is used to heat the Α

1 water?

2 Q Solar energy used to power it.

3 A Okay. No, we did not.

Q Okay. Was there a reason why you didn't?
A Primarily cost-effectiveness, the existing
generation at the site would provide adequate power, or
the grid already established at this facility.

Q Okay. Would you agree that -- well, are there any other plants that FPL has that could potentially require a Manatee Temporary Heater System that don't already have it?

12 A No, I don't believe so. I think this is the 13 fifth and eventual final project that would require a 14 temporary manatee -- a Manatee Temporary Heating System.

Q And I am talking about existing. I am not
 asking about any you might build in the future.

17 A Understood.

18 Q Okay. And with regard to the Manatee 19 Temporary Heating System at Ft. Myers, can you tell me 20 what regulation that you are proposing to comply with that is designed to protect the environment? 21 22 It's combined both the National Α Yes. 23 Pollution Discharge Elimination System obligation, which 24 that permit condition is designed to protect the 25 environment, and specifically the Manatee Protection
1 Plan, which under Fish and Wildlife Conservation 2 Commission obligations we are obligated to maintain, 3 protect for threatened and endangered species. 4 Similarly, the U.S. Fish and Wildlife Service obligation 5 to provide protection to the threatened and endangered 6 species. 7 Q Okay. Thank you. 8 So I think I am done with the manatee issue. 9 I want to return to Plant Scherer. But before -- well, 10 yes, so let's go to Plant Scherer. 11 Is the National Pollution Discharge 12 Elimination System permit -- it's almost easier to say 13 NPDES. 14 That's why I say NPDES. Α 15 Is that permit renewal requirement 0 requirement's project specific to the existing Plant 16 Scherer NPDES renewal or is that for FPL -- for any time 17 18 FPL has to renew a permit at a plant, a project? 19 I understand the question. Α 20 The original NPDES renewal project was 21 designed to address a new requirement associated with 22 all of Florida's -- excuse me, all of FPL's Florida 23 plants. And the new requirements were primarily 24 specific to two new specific obligations, whole effluent 25 toxicity testing, as well as the Stormwater Pollution

Prevention plan obligation. That was approved by the
 Commission. And as new obligations were realized by FPL
 when they renewed their NPDES permit, those costs would
 be addressed specific to that project.

Q Would it be your testimony that -- and let me start over again and ask you to look on page 14 of your testimony, on lines five and six, you describe -- or you give a label for a project. Do you see that?

A I do.

9

10 Q Okay. Is -- that's the project that you just 11 described?

12 Α It is. And it includes a modification that 13 was subsequently approved by the Commission, I believe 14 in 2016, related to a new obligation associated with our 15 NPDES permit for our St. Lucie Power Plant project, 16 where there was a new obligation established by DEP 17 related to a chlorinization study and optimization. 18 Q So is it your testimony there are now three 19 elements of NPDES renewal that are covered by this 20 project, the WET, the SWPP and now this St. Lucie issue? 21 Α That is correct. 22 Is it your testimony that this project Q Okav. 23 is kind of a one-size-fits-all preapproved -preapproval that you just have to update periodically? 24

25 A No, that is not my testimony.

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1 If this project had not been approved by the Q 2 Commission in the past, as you describe it, would you be 3 still asking for the same relief, and making the same 4 justification that you are providing for the Scherer 5 NPDES renewal? 6 Α If I understand the question correctly, yes. 7 If there was no established project to deal with NPDES 8 renewal permit requirements, we would pursue and propose 9 a stand-alone project for the Scherer NPDES renewal 10 project. 11 So what is it about your testimony -- well, 0 12 let me step back and ask it this way. 13 Is there anything in an order that describes 14 this NPDES renewal -- or permit renewal project --15 permit renewal requirements project that states that 16 prudence is assumed for any activities related to 17 renewals regardless of where the plan is? 18 Α I am pretty confident the Commission No. 19 would not put that in the order. 20 Q So it's your testimony that there is no 21 preapproval of prudence for any project? 22 Α Yes. 23 And the only reason the manatee -- I Q Okay. said I was finished, but let me just ask you this just 24 25 so I can understand the scope of the NPDES project. (850) 894-0828 Premier Reporting

1 Is the manatee issue, as it relates to the 2 NPDES project, it wouldn't fall under this umbrella of 3 the renewal because it's not related to a renewal; is 4 that right? 5 Α Yes. And the additional scenario that we have in front of us, that there is an already existing 6 7 Manatee Temporary Heating System project that has been 8 amended -- approved and amended in two additional 9 events. 10 So I understand what these projects are 0 Okay. 11 with respect to what it means that there has been 12 commission action on them in the past. Is it your 13 testimony that they are the type of project or 14 expenditure that the Commission has previously approved? 15 А I think that would be a correct Yes. 16 interpretation of the term project in this case, where we categorize certain activities that have been approved 17 18 by the Commission. And in this case, we are requesting 19 to modify two of those existing categories to include 20 specific projects. 21 Okay. So now I want to ask you to pick up 51. Q 22 And I hope I have copied all the pages in this order 23 this time. 24 I have 51. Α 25 0 Yes.

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1 Α And the good news is there are even pages. 2 0 Well, I am looking at the top, and you should 3 see under the order heading, it will say the order 4 number, the docket number and then it will say page in 5 the top left-hand side. Do you see that? 6 Α What page? I apologize. 7 I am just asking, do you have odd and Q Okay. 8 even numbered pages there? 9 Α Page 2. Page 3. 10 Q Okay. 11 Α Page 4. Page 5. Yes, sir. 12 Okay. Let's look at page 14, if you can. Q 13 I am there. Α 14 All right. I think I have -- that's not the Q 15 right page. Page 12. 16 I am there. Α 17 Q Now, I know why I said page 14, because on 18 page 14 of your order -- if you could keep your finger 19 on page 12 of that Exhibit 51. Page 14, lines 15 and 16, this Exhibit 51 is 20 21 the order that you cite on those lines, is that right? 22 Α It is. 23 And just for the record, I have Q Okay. attached an amendatory order at the very back of this 24 25 exhibit, which I think is not going to impact at all the (850) 894-0828 Premier Reporting

1 questions I am going to ask you, but for completeness I 2 have attached it. 3 Α I understand. 4 And I want to ask you if you could, keeping 0 5 your finger on page 12, if you could flip back to page 6 6 of the order, and tell me if you see that these are 7 stipulated -- that there is a series of stipulated 8 company specific issues under Florida Power & Light, and 9 they have numbered -- or lettered Paragraphs A through 10 And I think I want you to keep your thumb on page 8 Ε. 11 I apologize for the misdirection. and not 12. 12 Α I only have two thumbs, but I will do my best. 13 Do you see -- so paragraph E on page 8 Q Okay. 14 is part of a series that fall under stipulated issues 15 for Florida Power & Light, is that right? 16 I do see that. Α Yes. 17 Q Okay. Now, is paragraph E the specific -- the 18 second paragraph that starts with yes, is that the 19 specific language that is the genesis of the NPDES 20 permit renewal project that you describe in your 21 testimony? 22 Yes, it is. Α 23 And just so I understand -- I am not Q Okay. 24 going to ask you to read this paragraph, but ask you to 25 review it because I want to ask you some questions about

1 1	it.
2	A This whole paragraph E?
3	Q Yeah, that starts with yes.
4	A Understood. I have read it.
5	Q Okay. Would you agree, after reading it, can
6 3	you confirm that this is, indeed, the applicable portion
7 0	of the order that you reference on page 14 of your
8 t	testimony?
9	A It is.
10	Q Okay.
11	A Yes.
12	Q And can you go back to Exhibit 50 oh, you
13 <b>d</b>	can't go to Exhibit 50, but do you have the permit I
14 <b>r</b>	mean the petition that was filed on March 5th that
15 <b>s</b>	supports this project, the NPDES renewal requirement
16 <b>1</b>	project?
17	A I do.
18	Q And I would like you to read aloud the first
19 <b>s</b>	sentence of paragraph 2 of that petition once you have
20	located and had a chance to look at it.
21	A On page 1, sir?
22	Q Yes, sir.
23	A "In 2011, this Commission approved the NPDES
24 r	permit renewal requirement project to allow recovery of
25 c	costs incurred to meet NPDES permit requirements for all
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1 of FPL's Florida plants." 2 Q Okay. 3 Α "FPL requests a modification to the NPDES 4 permit renewal requirement project to allow recovery of 5 costs incurred to meet anticipated NPDES permit 6 conditions and compliance schedules to be imposed on Plant Scherer by the Environmental Protection Division 7 8 of Georgia's Department of Natural Resources." 9 0 Okay. So with that first sentence there, with 10 respect to the phrase for all of FPL's Florida plants, 11 is that language in the order that's Exhibit 51, that it 12 says it applies to all FPL's plants? 13 Α To the extent that a facility has an NPDES 14 permit, yes. 15 So it says that in this order? 0 16 Α That is my read of that provision that you had 17 me read. Yes. 18 Was this renewal for a specific plant, or was Q 19 it generic to all FPL plants in Florida at the time? 20 Α It is not specific to a specific plant, and 21 was generic to the renewal obligations associated with 22 all of Florida's NPDES permits, and the obligation under 23 the renewal provisions that will require Florida plants 24 that have an NPDES permit to conduct and produce both a 25 stormwater protection prevention plan as well as address

1 whole effluent toxicity testing at their facilities. 2 So there is not -- NPDES permits are 0 Okay. 3 specific to plants, is that right? 4 Α Each permit -- excuse me, each plant is 5 obligated to go and get its own NPDES permit. Yes. 6 Q Okay. And it's your testimony that this order 7 applies to multiple plants that were in the renewal 8 process for their NPDES permits at the time that this 9 action was taken by the Commission? 10 I was going to say yes until the latter part Α 11 of your statement. So I am going to say yes, but to 12 clarify, it was to address when FPL renewed its permit 13 and the new obligation occurred, that those activities 14 would be considered ECRC recoverable pursuant to the 15 statute. 16 So we may be renewing a permit in this case in 17 2011, but my next permit might not be renewed until 18 It would still apply to the 2013 project 2013. 19 renewal -- permit renewal. Excuse me. 20 0 So if I look about three-quarters of the way 21 down on the right-hand side, do you see a sentence that 22 starts with the estimated 2011 and 2012? 23 Α I do see that. 24 And would you agree that following this 0 Okay. 25 sentence, there are three O&M expenditure numbers that

1 are contained in the order, one for WET -- and that's 2 all capitals, W-E-T. That's whole effluent --3 Α Toxicity test. 4 -- testing. There is \$77,000. Then there is 0 5 an SWPP activities with \$100,000 estimate? 6 Α I see that. Yes. 7 And then there is a \$30,000 estimate in O&M Q 8 expenditures for -- related to an SWPP for 2012 -- or 9 2011 and 2012. Do you see that? 10 Α I see that, yes. 11 So those are the amounts that the Q Okay. 12 Commission approved for recovery in this case, is that 13 right? 14 These are the amounts that were stipulated in Α 15 this case specific to that ECRC recovery year. There 16 have been subsequent cases that additional amounts, or 17 different amounts have been provided, which I don't 18 happen to have that data in front of me. 19 Is it your testimony that the Plant 0 Okay. 20 Scherer -- now, what you are asking the Commission to do 21 is to add in Plant Scherer to this project because it's 22 not a Florida plant, is that right, and it wasn't 23 covered under this project approval back in 2011? 24 Α No. 25 0 Okay.

1 A The way you have asked the question, I 2 can't -- I have to answer no.

We have asked the Commission to approve this project for two reasons. One, it's clearly not part of the previously approved project that we referenced in the order. And, two, it is a new obligation that we have, or Georgia Power in this case, has identified that is requiring this work to be taken to ensure compliance with both the anticipated NPDES permit.

Q So are the toxicity limitations that you are seeking to comply with on a anticipated basis in Georgia with the EPD there, are they part of WET requirements in the state of Georgia in implementing the CWA, or Clean Water Act?

15 A No. They are not part of the whole effluent 16 toxicity, I do not believe. I think they are specific 17 to ensuring compliance with Georgia's water quality 18 standards specific to Rule 931.

19 So are you asking the Commission to add 0 Okay. 20 a fourth criteria for NPDES permit renewal? Because this order, 2011 order, refers to either WET or SWPP 21 22 requirements under the Clean Water Act that implemented 23 by the Florida DEP; is that right? 24 Yes, but this order that we are talking about Α

25 was also -- or this project was also subsequently

modified to include the chlorinization study obligated by DEP against the St. Lucie plant. So there had been additional obligations that have been identified by regulatory agencies under NPDES renewals that we have sought approval by the Commission to evaluate and either discern as, yes, it is appropriate for ECRC, or, no, it is not.

Q So I thought we had earlier established that prior to you coming before the Commission with the Scherer NPDES modification, or renewal and modification, there were three criteria under the NPDES renewal that you had identified that the Commission had approved in past orders, WET, SWPP and the chlorinization issue in St. Lucie?

15 A Yes. Subsequently, the chlorinization issue16 at St. Lucie.

Q Okay. So now this copper issue in Georgia
would be a fourth?

19 A It would be a specific project at Plant 20 Scherer addressing a copper effluent limit that both 21 Georgia Power and we believe Georgia DNR are going to 22 agree in the upcoming NPDES permit.

Q So in that regard, why couldn't the Georgia project stand on its own without regard to whether there had been any action in Florida if it's not related at

1 all to the two elements that are in the 2011 order, as 2 well as the third element that you say is in the 3 St. Lucie decision, why isn't it just on its own? 4 Α Because that was the path that FPL took in 5 addressing the proposed requirement. 6 When you look at the project itself, it 7 specifically talks to NPDES permit renewal requirements 8 project. It is not a SWPP or whole effluent toxicity 9 project. It is -- in its title, it is specific to NPDES 10 permit renewal requirement projects, which addresses new 11 requirements that are established against FPL as we 12 renew NPDES permit projects -- or permits. Excuse me. 13 Let's put aside Exhibit 51, and Q Okay. 14 actually you can put aside all of the exhibits that I 15 have passed out. And I want to spend the next segment of this talking about your Exhibits MW-5 and MW-6 16 attached to your April 2nd testimony. Do you have that 17 18 before you? 19 Α Yes, sir, I do. 20 Q Okay. And this is going to be somewhat of a walk-thru of these documents, but I need to understand 21 22 for the record here what the factual basis for your 23 statement that the \$9 million that you are asking for 24 deferred -- I quess contingent deferred recovery?

A I am comfortable with that terminology. I am

1 sure Witness Deaton would be the more appropriate one to 2 ask that. 3 0 You are aware that's the amount, right? 4 Α It was \$9 million, yes. 5 Q And I am trying to understand the basis for 6 your asking the Commission to approve it on a contingent 7 basis. Is that what you are asking for? 8 Contingent upon it -- yes. Α 9 0 And it's -- just describe for the Commission 10 that contingency, or why -- it's being deferred, and it 11 would not be recovered in 2019 as you understand it 12 today, is that correct? 13 As requested, and as pointed out in Witness Α 14 Deaton's testimony, the proposal is to gain approval, 15 however, not book it under ECRC until such time as there 16 is a renewed NPDES permit from Georgia EPD that 17 establishes this effluent criterion. 18 Q But you are asking for approval today such 19 that if the permit is renewed and it contains the copper 20 standard in it, then you don't have to come back and get 21 permission, you just book it and start recovering it. Ι 22 am sure you would show it in your filings, but you 23 wouldn't have to get it approved again, is that fair? 24 Is that your understanding? That is my understanding. 25 Α Witness Deaton is

1 the better one to speak to the accounting specific to 2 that, but, yes, that is my understanding. 3 0 But this is the time for it to be approved is 4 today. If they are going to approve it, the Commission 5 is going to approve it, it's in this hearing? 6 Α Yes. 7 Okav. Now, you would agree with me generally Q 8 the duration of an NPDES permit is five years? 9 Α I apologize for the smile. Yes, the duration 10 of an NPDES permit is five years. Unfortunately they 11 are routinely administratively continued, which extends 12 that duration. 13 And I just want to walk you through that 0 14 process real quickly here. 15 As long as the permit holder applies before 16 the expiration date, or a deadline before the expiration 17 date, the existing permit is continued until final 18 action on the renewal; is that right? 19 Yes, that is correct. Α 20 And that's the situation you face in Georgia, Q 21 is that right? 22 Yes, that is correct. Α 23 And when I say you, I mean either you or Q 24 Georgia Power. 25 I am comfortable with that. Α Yes.

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1 And just for the record, Georgia Power Q Okav. 2 does all the work in the environmental area. You are a 3 partner, but they handle the regulation -- environmental 4 regulation in Georgia for this plant? 5 Α Yes. They operate and maintain all facilities 6 at Scherer, all four units. 7 Okay. So when I look at MWS-5 at page 2, this Q 8 shows January 30, 2002 date. And on page 3, you see the 9 permit date is signed as of that date; is that right? 10 That is correct. Α 11 And page 1 of the permit is a November 29, Q 12 2006 letter that shows that the Department acknowledges 13 that you had already applied for renewal. They explain 14 that there is a rotation that the basins in Georgia go 15 through, and that your -- the Ocmulgee River Basin is 16 not up for renewal at this time, so you are continued until they act on it; is that fair? 17 18 Α Yes. We are administratively continued under 19 the existing 2002 permit. 20 0 Okay. And so if I look at page 5 -- well, 21 Look, pages 2 -- 3 through 11 on MWS-5 -let's see. well, first of all, this 2002 permit is the existing 22 permit for Plant Scherer, is that right? 23 24 Α This is the permit in effect at Plant Yes. 25 Scherer.

1 Okay. And let me flip you over real quick. Q Ι am going to come back to five. But if we look at MWS-6 2 3 on page 1, you see under Dear Mr. Dunn, attached is an 4 updated NPDES permit renewal application package for 5 Georgia Power Company's Plant Scherer facility, located 6 in Juliette, Georgia? 7 Α I see it. Yes. 8 Q So when they talk about an updated NPDES 9 permit, that's the update to what happened in 2006, is 10 that right? 11 Well, yes, I believe -- yeah. Α No. And the 12 timeframe is an update to the 2006 renewal application. 13 That's what I mean, yes. Q 14 Α Yes. 15 So they are just now, I guess, getting 0 Okay. 16 around to taking up the basin at the Ocmulgee River is the drainage basin it's in, and so Plant Scherer is up; 17 18 is that right? 19 It is my understanding that Georgia EPD is Α 20 actively working this renewal for this permit. And, in 21 fact, we anticipate seeing a draft permit by the end of 22 this year sometime. 23 But if I go back to MWS-5, under your Q Okay. existing permit, the limitations, if any, that are shown 24 25 in pages 3 through 11 for the various outfalls that

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1	discharge to the navigable waters of the state of
2	Georgia, or any waters of the state of Georgia, I guess,
3	are contained here in part; is that right?
4	A Yes, that is true.
5	Q And then if I go and look, there are some
6	other effluent limitations in the permit on Paragraphs B
7	and C, on pages 25 through 28, that might deal with
8	toxicity and biomonitoring reduction, or is it just the
9	ones on 3 through 11?
10	A No. The provisions on 25 through 28 similarly
11	apply. And did you reference 23? I apologize, I don't
12	remember.
13	Q Is 23 one as well?
14	A Yeah. There are specific requirements that
15	specifically say, for example, on page 23, paragraph 8,
16	nothing in this permit shall be construed to preclude
17	the modification of any condition of this permit when it
18	is determined the effluent limitations specified here
19	and failed to achieve the applicable state water quality
20	standards.
21	And there is specific provisions also on page
22	22 that actually, under paragraph 5, toxic pollutants,
23	the permittee shall comply with effluents standards or
24	prohibitions established pursuant to Section 307.
25	So there are as specific, as you pointed out,
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1 specific monitoring obligations as well as general 2 requirements. 3 0 So this permit doesn't exempt you from 4 requiring -- from applying -- complying with new 5 regulations under the Clean Water Act, or if Georgia 6 modifies their standards to lower them? 7 Α I would not be the best witness to answer that 8 question because there is a very nuanced answer to that, 9 and there is a legal framework in which, if you are in 10 compliance with your permit, you are in compliance with 11 the obligations --12 Q Okay. 13 -- and -- but it would not preclude Georgia Α 14 DNR or EPD to take proactive measures to address an 15 identified issue that may pose a probable noncompliance 16 to water quality standards. 17 0 Okay. Is it your testimony that Plant Scherer 18 is in full compliance with the NPDES requirements of 19 this permit today? 20 Α Yes. 21 Is it also your testimony that with respect to Q 22 any other water quality regulation that would affect 23 whatever amount of copper is in your discharges from 24 that plant, you are in compliance with those beyond or 25 apart from whether they are requirements contained in Premier Reporting

1 your permit? 2 MS. MONCADA: I don't understand the question, 3 Charles. Can you --4 THE WITNESS: I didn't either, so that is the 5 good news. 6 BY MR. REHWINKEL: 7 All right. So put aside the permit, are there 0 8 any other water quality regulations that Plant Scherer 9 is not in compliance with, to your knowledge, today with 10 respect to copper? 11 Thank you for -- no, to my knowledge, there is Α 12 not a specific identified noncompliance event. There 13 are clearly indications that there is a probability that 14 there is a concern, and that is what both Georgia Power 15 and FPL are addressing in this action, to address the 16 probable exceedance of the water quality standards, all 17 be not established. There are work that Georgia Power 18 is doing with Georgia EPD to address those issues, which 19 I don't have at my fingertips here today. 20 0 Is it your testimony here today that Plant 21 Scherer and Georgia Power are not under any enforcement 22 action with respect to discharge of copper from Plant 23 Scherer? 24 To my knowledge, there is not an enforcement Α 25 action as it relates to discharge of copper.

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1 Is it your testimony that there is no copper Q 2 pollution that Georgia Power is required to clean up 3 related to discharges from Plant Scherer? 4 Α No. That would not be my testimony. 5 My testimony is, as part of its renewal application to renew its NPDES permit, Georgia Power 6 7 conducted a suite of samples, like it normally does 8 under its discharge areas. And in this case, Discharge 9 1, which is the discharge that discharges to the 10 Ocmulgee River, and there was an identification of 11 elevated levels of copper. And based upon that 12 identification of elevated levels of copper, Georgia 13 Power identified actions needed to address the water 14 quality standards that exist in Georgia Rule 391 to 15 ensure that it is in compliance with Georgia's water 16 quality standard provisions, acknowledging that it is 17 definitely fully in compliance with its NPDES permit as 18 of today.

19 So the elevated levels of copper that you 0 20 identified from the suite of testing that Georgia Power 21 did related to copper at -- copper from effluent from 22 Plant Scherer, are those elevated levels in any way in 23 violation of any environmental regulation enforced by 24 the State of Georgia or the United States of America? 25 To date, there has been no notice of violation Α

presented to Georgia Power from either the Georgia EPD
 or the USEPA, to my knowledge.

Q Is FPL recovering any costs through the ECRC to meet compliance -- meet environmental regulations imposed by the State of Georgia or the United States of America with respect to the Plant Scherer? And I put copper in there I hope.

8 A You did not say copper.

9

Q That's what I mean.

10 Because, yes, there are several Α Okay. 11 projects under way at Plant Scherer related to both the 12 ELG obligation, as well as coal combustion residue 13 storage that is also part of our ECRC request. But 14 specific to copper, no, there is no other project 15 identified other than the modification to the NPDES 16 renewal permit project.

Q Okay. Now, the request that you are making today with respect to the \$9 million project, is it your testimony that any such limitations, once in effect under a new NPDES permit, would be designed to protect the environment in Georgia?

A Yes. The actions being taken clearly address what is a potential for a water quality exceedance of a surface water body. By taking these actions, it is designed to not only prevent, but remediate an ongoing

1 discharge that is potentially elevated above water 2 quality standards. 3 0 What did you mean when you just said remediate 4 a discharge? 5 Α Currently, the discharges, at least based upon 6 the sampling that I have seen, are elevated and are 7 currently contributing copper to a surface water body in 8 exceedance of what an estimated effluent limit would be 9 for this water body based upon its volume, as well as 10 its discharge rate. 11 So we currently see an elevated condition, and 12 it's been ongoing as we continue to operate the system. 13 So in order to cease that and remediate that, we would 14 like to reduce and remediate the discharge to the point 15 where it no longer has that impact to the Ocmulgee 16 River. 17 0 So when you say remediate, you are not talking 18 about cleaning up copper that's already left your 19 discharge point and entered the environment. You are 20 talking about reducing the amount of copper that enters 21 the environment from your discharge point, is that 22 right? 23 Α That is correct. Yes. 24 And the measures that you are proposing 0 Okay. 25 to take for -- under this \$9 million project, are they

1 tailored to meet any -- only to meet what you think are 2 going to be the new standards for copper discharge from 3 Plant Scherer in the new NPDES permit when it's issued? First clarification, there are not going 4 Α No. 5 to be new standards, to my knowledge, of a copper limit 6 for the Ocmulgee River. That standard has been 7 established in rule with Georgia DNR, and is listed 8 at -- is it five parts per million? 9 The design is to ensure that the discharge --10 The work that is being conducted and I said design. 11 proposed by Georgia Power is to ensure that the 12 discharge effluent limit doesn't result in an exceedance 13 of that level. 14 Q Okay. 15 Α Sorry to --16 I appreciate that clarification, because I was Q 17 under the impression that there might be a new lower 18 standard for copper. 19 It's a little complicated. Α No, sir. 20 There is an established copper standard by 21 rule, but then there is a effluent limitation that you 22 will specifically identify based upon the river body 23 itself, the volume of the water and the flow of the 24 river body, as well as the volume and dilution of your 25 And we have estimated that the total discharge.

1 effluent limitation needed for the Discharge 1 at Plant 2 Scherer would be roughly 60 parts per million, even 3 though the water guality standard is five. So it address delusion and assimilation. 4 5 Q Okay. So let's look on MWS-6, pages 6 through 6 10. 7 MS. MONCADA: Mr. Rehwinkel, I am sorry, can 8 you repeat the number of the exhibit? 9 MR. REHWINKEL: Yes, it's MWS-6, page 6 10 through 10. 11 THE WITNESS: I am there. 12 BY MR. REHWINKEL: 13 Now, would it be fair to say that these pages Q 14 in your -- this is your permit renewal application, is 15 that right? 16 Α It is. And these -- this lists 14 overall outfall 17 Q 18 points from Plant Scherer that discharge effluent of 19 some sort into the waters of the state of Georgia? 20 Α Not all of the discharges discharge to waters 21 of the state. They are just the individual discharges 22 themselves. 23 Q Okay. 24 Discharge 1 is the one, I believe, that is Α 25 relevant to our discussion.

1 Q Okay. And that's one of the questions I had, 2 is at Outfall 1 --3 Α Yes. 4 0 -- and it has, I guess, several subparts? 5 Α It does. Yes. 6 0 But this is where -- this is the only outfall 7 that is impacted by the solution that you are proposing 8 under the \$9 million? 9 Α Thank you. Yes. 10 0 Okay, good. 11 And if I look on pages 14 and 15 of this 12 exhibit, there are some -- I guess is part of what you 13 are asking to be permitted are intermittent discharges. 14 And as described here, if this was approved as written, 15 the Georgia EDP would approve these types of 16 intermittent discharges? 17 Α Yes. 18 Q And are the outfalls, the first two Okay. 19 outfall that starts 1C and then 1E, are these impacted 20 by any of the work that you are proposing to do with the \$9 million? 21 22 Α No. 23 Q Okay. 24 Well, other than the cooling tower overflow Α 25 discharges does also have copper as a result of that

1 activity, but -- so I change my answer.

Yes. The cooling tower overflow does have the potential to have elevated copper if nothing was done. And by taking the actions that we are doing, we would ensure that that similarly does not pose a copper risk.

Q So is what happens is that as the cooling
tower operates, does copper get trapped and condense and
flow back down and then out? Is that how -- is that
sort of, in a very basic overall way what happens?

10 I think the answer is yes. Α In a simple term, 11 the operation of the system over several years, and the 12 use of copper condensing tubes, you saw wear and tear of 13 those copper condensing tubes and degradation, erosion, 14 corrosion, which allowed for copper to become entrained 15 in the cooling tower fill material. And just as it's --16 as there is discharges, that entrained copper would also be released over time, so you see elevated copper levels 17 18 in the discharge itself.

19 Q So this has nothing to do with any copper that 20 might get out through the air?

21 A Correct.

22 Q This is only about what washes back down and 23 out?

A That is correct.

25 **Q Okay.** 

1 COMMISSIONER CLARK: Mr. Rehwinkel, could you 2 just excuse me for the interruption? Any idea how 3 much longer you have got? I am trying to schedule 4 a break here for --5 MR. REHWINKEL: I am not quite there yet. Ι 6 probably have 30 more minutes. 7 COMMISSIONER CLARK: Okay. Then I am going to 8 go ahead and let's take a 10-minute recess and let 9 our court reporter rest just a second. 10 MR. REHWINKEL: Thank you. 11 COMMISSIONER CLARK: Thanks. 12 (Brief recess.) 13 COMMISSIONER CLARK: We will resume. 14 We were trying to make some determinations 15 about how this evening is going to go. We are 16 going to play it by ear for about the next hour, 17 hour-and-a-half and then make a decision as to what 18 the cutoff point is going to be for this evening. 19 If it looks like we can wrap up everything by 6:30, 20 we will stay and wrap up. If not, we will kind of 21 make a determination point at where the cutoff is 22 probably at the end -- right around the end of the 23 07 docket. So that's kind of my leanings and 24 direction for right now. 25 MR. REHWINKEL: Thank you.

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1 COMMISSIONER CLARK: Any questions or 2 concerns? 3 Okav. All right. Let's continue. 4 MR. REHWINKEL: Thank you. 5 BY MR. REHWINKEL: Mr. Sole, I appreciate -- I think you answered 6 0 kind of the overall question about how the copper gets 7 8 from the cooling tower and then out through the Outfall 9 1. Do you recall that? 10 I do. Α Yes. 11 And your testimony is that you, FPL Q Okay. 12 and/or Georgia Power, have proposed and designed the \$9 13 million solution. And there is more spent, but that's 14 on Georgia Power side, right? 9 million is just the FPL 15 piece, right? 16 9 million, as projected, is just the FPL Α 17 piece. There are other participants at Plant Scherer 18 that also are paying for the improvements associated 19 with this copper effluent issue. But the \$9 million that you are 20 Q Okay. 21 proposing is to fix that problem so that you are not in 22 violation of the NPDES permit, whether it's the one --23 the 2002 one or the renewal; is that fair? 24 That's fair. It is a bit more nuanced Α Yes. 25 than that.

25

Q	I wouldn't mind if you explain.
A	I will do my best.

1

2

3

Actions being taken now, which just to be 4 clear, the fill replacement has already been conducted 5 and occurred during the outage of the spring of 2018. 6 Actions being taken now are designed to ensure that upon 7 renewal of the NPDES permit, there is a demonstration 8 that Plant Scherer is able to or on a path to ensure it 9 meets Georgia's water quality requirements for copper.

10 Based upon the information that we had prior 11 to taking these actions, the probability of us being 12 able to meet the water quality requirements was 13 concerning whether we would be able to achieve that. So 14 these actions ensure that we will be, not only in 15 compliance or -- not only in compliance with the water quality standards, but also in concert with an 16 17 anticipated monitoring requirement for copper in a 18 demonstration that the effluent limits will meet the 19 requirements in the upcoming permit.

20 0 Is there a concern by you that whether the 21 standard changes or not, the way measurements are taken 22 in the sampling, or analysis, will somehow put you in 23 jeopardy of being out of compliance once the new permit 24 is issued?

> I am not sure I understood the hypothetical. Α

1 The concern is that without doing this 2 project, the likelihood of us being in compliance, not 3 only with the new permit, but now an obligation to do 4 something specific, would be part of the new NPDES 5 permit. It's known what the water quality standard is 6 in Georgia for the Ocmulgee River. It's estimated what 7 our effluent limitation would be. And based upon 8 sampling that's been done, it's very clear that there is 9 the potential that we will have a water quality problem, 10 and therefore, taking action now is prudent and 11 appropriate, not only as relates to environmental 12 conditions today on the Ocmulgee River, but also as it 13 relates to the obligations in the new NPDES permit. 14 I thought I understood until you gave that 0 15 answer, but it seems to me that the MP -- we've already 16 established that the standard will not change? 17 Α Correct. 18 So what will change? Q 19 Currently, there is no obligation to monitor Α 20 for copper on the discharge 01. There is not a concern 21 of copper as it relates to operating at Plant Scherer. 22 The sampling that we've identified acknowledges, yes, 23 there is now a concern. And based upon the levels 24 that -- in your sample that we've seen, there is a

25 potential that you are harming or exceeding the water

1 quality standards for the Ocmulgee River. 2 So is it possible that you are in violation 0 3 now? 4 Α Of what, sir? 5 Q The Georgia water quality limits for copper. 6 Α Again, water quality standards are a little 7 bit more complicated than a simple numeric number. So 8 as it relates to the estimated 60 parts per billion 9 effluent limitation for copper that we estimated as an 10 effluent limitation, if you look at the sample results 11 that are in MWS-6, you can see were slightly above that 12 level. 13 Show my where that is. 0 14 If you go to MWS-6 -- oh, good, these are Α 15 upside down. 16 21? Q 17 Α Yep. Thank you. 18 Page 21, this is Outfall No. 1. If you look 19 at the copper limit, it shows the actual concentration 20 as being 65 parts per billion. And you can see it only 21 shows -- and that's in the column defined as maximum 22 daily value. 23 The next one is really the volume, or the mass that's based upon the amount of flow in this discharge. 24 25 And you can see that the long-term average, not just a

1 single sample point, is to be below the five parts per 2 billion. 3 This does not take into account the effluent 4 limit that would need to be established and is 5 anticipated to be established as part of the NPDES 6 renewal. 7 And when you say this, you mean the -- under Q 8 Column 5, under concentration, .005? 9 Α Yes. 10 0 Okay. 11 That is the standard. The actual effluent Α 12 limit will be a calculated number, and that calculation 13 will also be set forth also through DNR -- Georgia DNR 14 rules. 15 Now, is there any correspondence or 0 Okay. 16 documentation that Georgia has given you that says that unless you do something that this .657 number, if it 17 18 represents the way you are going to sample on an ongoing 19 basis, will put you in violation? 20 Α No. But if you go to the rule itself, Rule 21 391 is fairly clear -- well, it's a very complicated 22 environmental rule, so I apologize for the word fairly 23 It's generally clear on what you are obligated clear. 24 And in this case, we are obligated to establish, to do. 25 and Georgia DNR or EPD, Environmental Protection

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1 Division, will establish an actual effluent limit. And 2 that effluent limit is going to be based upon, not only 3 the concentration of my discharge, but also the volume 4 of the flow in the Ocmulgee River and its identification 5 of what is the assimilation capacity of the river, so 6 that after you go through a small zone of discharge, you 7 will meet the .05 parts per billion level. 8 So there is provisions in the rule that 9 establish that path. And that has been the 10 conversations that Georgia Power has had with the 11 Georgia DNR EPD. I have not been in those 12 conversations. 13 So I don't have to worry about anything 0 Okay. 14 else after page 21 in this, through page 135, which 15 deals with the remaining 13 outfalls; is that right? 16 Α I think that's fair. There is one cooling 17 tower overflow outfall that would eventually get to; but 18 again, as you pointed out earlier, those are the 19 temporary or intermittent discharges, and the actions 20 that we are taking at the fill to replace the fill would 21 address that as well. 22 So if I go to page -- just to make 0 Okav. 23 sure, page 28 is -- that's -- this is where the 24 discussion starts for Outfall No. 2? 25 You don't need to -- I agree with Α Yeah.

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1 everything you said previously. 2 So from here on, through page 135, it's 0 3 outfalls 2 through 14, which are not at issue at all 4 here? 5 Α Correct. 6 Q Okav. Save some time. Just one kind of last area of 7 Okay. 8 questioning. I just need to ask you these questions to 9 make sure I understand what is and is not involved -- I 10 was going to say entrained, but that would be sort of a 11 stupid pun -- in this issue. 12 We talked a little bit at the beginning with 13 your potential role with Gulf Power as, just like you are NextEra, FPL is a subsidiary of NextEra, and if Gulf 14 15 closed, Gulf Power will be a subsidiary of NextEra, 16 right? 17 Α I recall. 18 Q And would it be true that when the 19 negotiations for making the transaction were being done, 20 you were involved in some due diligence to look at what 21 Gulf Power's environmental regulatory issues and potential liabilities were, is that fair? 22 23 Α Yes, that's fair. 24 And you would also, as part of that, be 0 Okay. 25 aware that Gulf Power had a similar issue about copper,

1	or potential copper exceedances at the Crist plant
2	relative to the discharges at the Escambia River,
3	correct?
4	A Some vague recollection, yes.
5	Q Okay. Are you aware that there is a consent
6	order right now between the FDEP and Gulf Power with
7	respect to copper in the area of Plant Crist?
8	A I am aware of a consent order on Plant Crist.
9	The details I don't recall specifically.
10	Q Okay. Isn't it true that the Commission
11	entertained and approved cost recovery for Gulf Power
12	that required replacing copper tubes, similar to what
13	would be going on at Plant Scherer, in order to mitigate
14	or remediate discharges from Plant Crist to avoid being
15	in violation related to copper exceedances?
16	A Without having that specific order in front of
17	me, I am uncomfortable addressing what the Commission
18	approved or didn't approve.
19	Q Are you aware that there was an issue about
20	copper tube replacement at Gulf Power in the past?
21	A I am aware there was an issue of copper tube
22	replacement at Gulf Power.
23	Q Now, are you also generally aware, as part of
24	the due diligence you had to do with respect to
25	acquiring Gulf Power by NextEra, that the copper

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1 exceedances may not have been as a result of the copper 2 tubes, but some other source of copper in the vicinity 3 of Plant Crist? 4 Α I do not have the details to address that 5 question. 6 0 Okay. So you have no knowledge about that? 7 I don't have enough knowledge to address the Α 8 question. 9 0 Okay. So what I am getting at here is, is 10 there any other -- well, let's look at, in MWS-6, there 11 is a chart on pages 17 -- 16 and 17. Are you familiar 12 with that chart -- flowchart? 13 Α Page 17. I am sorry. 14 Yes, 16 and 17. Q 15 Α Thank you. I am going to it, but slowly. 16 Yes. 17 Q Okay. So there is two charts here, and the 18 second chart is sort of a reconfiguration based on the 19 process that you would have to go to dewater and sort of 20 start decommissioning the ash pond; is that right? 21 Α That is correct. 22 So we can ignore that one? Q 23 Yes, please. Α 24 But this chart on 16, it shows the 0 Okay. 25 various outfalls that all have an 01 in front of them.

1 Do you see that? 2 Α I do. 3 Q And they somehow have to do with coming out of 4 the cooling tower at Plant Scherer, right? 5 Α That is correct. 6 0 And I say coming out of --7 Α That's the ultimate --8 -- that's the source --Q 9 Α -- yes. 10 -- the origination source for those outfalls. 0 11 Is it your testimony that the outfalls that 12 are shown on page 16 are the only source of copper --13 potential copper exceedances that this project would be 14 designed to address? 15 This project -- it is my testimony that this Α 16 project is designed to address Outfall 1 copper 17 exceedances. 18 Q And so is there a potential that copper Okay. 19 exceedances that the Georgia EPD could be concerned 20 about, or that you would test for, could be related to a source other than Outfall 1 that are shown on exhibit --21 I mean, MWS-6, page 16? 22 23 The short answer is yes. Potential is a very Α 24 easy word to say yes to. Is there a potential there is 25 another source? Yes, there is a potential. However, in (850) 894-0828 Premier Reporting

the analysis conducted by Georgia Power, they did share with us it was evident that the source of copper was primarily associated with not only the copper tube condenser tubes, but also the source being entrained in the cooling tower fill itself.

6 We have an interrogatory which I think 7 provides some -- a response to an interrogatory that 8 gives you some better understanding of what the results 9 are since we actually have conducted for Unit 4, the 10 fill replacement, and the results were fairly

11 significant as compared to the pre and post.

Q So maybe another way for me to ask my question is, is the testing that we -- that generated the results that are shown on page 21, that .0657 number, that's the right number?

16 A

Yes.

Q Were those at -- tested at the point of discharge, or were they tested in a more ambient location in the environment down -- out from the

20 discharge point?

A Those were tested at the point of discharge, not in the ambient environment, in order to meet the obligations. But testing also does occur at each of the units, so we could actually kind of chase back, or trace back that source of copper.

1 And as the testing that's been done on a 2 monthly basis, or actually bimonthly basis, has 3 demonstrated that there is a significant reduction in 4 the copper effluent as a result of the fill replacement, 5 going from as high, I believe, as 90 parts per billion pre project to as low as, I think in the low 20s post 6 7 project. So you clearly saw a cause and effect and 8 beneficial result as a result of conducting the fill 9 replacement project. 10 Let me try to wrap this up by going to 0 Okay. 11 page 18 and 19 of your testimony? 12 Α Of the testimony. Thank you. 13 Q Starting at line 17 on page 18. Yes. 14 Now, you state that the past replacements to 15 date of these copper tubes is not being recovered 16 through the ECRC? 17 We are not -- that is correct. We are not Α 18 requesting ECRC recovering for the copper tube 19 replacement. 20 Q Will there be any request for recovery for 21 future copper tube replacements? 22 Α As it relates to Unit 4, the copper tubes No. 23 have been replaced. Their timing of replacement was 24 more associated with was there normal lifespan and it 25 was time to replace the copper tubes. But the decision (850) 894-0828 Premier Reporting

1 that was different was we replaced with titanium tubes 2 in order to avoid a continuing copper source. 3 0 Okay. But since they were part of a normal 4 end-of-life maintenance operation, they did not fall 5 under being required to meet a regulatory obligation, is 6 that fair? 7 Α That is fair. 8 Q Environmental regulatory obligation, okay. 9 MR. REHWINKEL: All right. That's all the 10 questions I have, Mr. Chairman. Thank you. 11 Thank you, Mr. Sole. 12 Thank you. THE WITNESS: 13 COMMISSIONER CLARK: All right. Coming down 14 the line, Mr. Brew. 15 I don't have questions for the FPL MR. BREW: 16 witness. 17 COMMISSIONER CLARK: Okay. Mr. Cavros. 18 MR. CAVROS: Chair, I do, and I have some 19 exhibits I would like to pass out at this time. 20 COMMISSIONER CLARK: Okay. 21 MR. REHWINKEL: Mr. Chairman, while Mr. 22 Cavros' exhibits are being passed out, just for the 23 record, I would like to thank staff. I think they 24 have passed out an exhibit to fix my copying 25 problem for Exhibit 50, which is the two petitions,

1 and I am I am not going to take care of it here, 2 but at the right time, when it comes time to 3 addressing exhibits, I will be seeking to move that 4 substitute exhibit that has an asterisk on it --5 COMMISSIONER CLARK: Thank you. 6 MR. REHWINKEL: -- into the record as 50. 7 Thank you. 8 COMMISSIONER CLARK: We have it marked. Thank 9 you, Mr. Rehwinkel. 10 Mr. Cavros, I have six documents, is that the 11 correct number? 12 MR. CAVROS: That's correct, Chair. 13 COMMISSIONER CLARK: Okay. You want to go 14 ahead and mark these now, or do you want to pick 15 them up as we go through them? 16 MR. CAVROS: I would like to pick them up as 17 we go through them. 18 COMMISSIONER CLARK: All right. Everybody has 19 all their documents. It's all yours. 20 EXAMINATION BY MR. CAVROS: 21 22 Good afternoon, Mr. Sole. Q 23 Α Mr. Cavros. 24 Mr. Sole, your official title is 0 25 Vice-President of Environmental Services for NextEra, is

1	that correct?
2	A Yes.
3	Q Okay. And you provided testimony in support
4	of the Turkey Point Cooling Canal Management Plan
5	project in last year's docket, is that correct?
6	A Yes.
7	MR. CAVROS: Okay. I will go ahead now and I
8	would like to mark the Turkey Point Cooling Canal
9	Management Plan project O&M Expenses and Capital
10	Costs as Exhibit 52.
11	COMMISSIONER CLARK: 52, yes, sir.
12	We will title that TPCCMP project O&M expenses
13	and capital costs.
14	MR. CAVROS: Correct.
15	(Whereupon, Exhibit No. 52 was marked for
16	identification.)
17	BY MR. CAVROS:
18	Q And, Mr. Sole, this is actually an exhibit
19	from your testimony from last year last year's
20	docket, MWS-14, page 1 of 1. And these are the cost
21	projections that you provided to the Commission, both
22	O&M expenses and projected capital cost expenses for the
23	project in last year's docket, correct?
24	A Yes.
25	Q Okay. And by way of background, now, these

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1 columns start in 2017 and move forward, but there were 2 costs related to the Turkey Point Cooling Canal 3 Management project in 2016 as well, is that correct? As a reminder, the Turkey Point Cooling 4 Α Yes. 5 Canal Monitoring Plan project initiated in, I want to sav 2011 or '12 timeframe, so there have been costs 6 7 prior to '16 as well. 8 Q And the costs in 2016, those costs were Okay. 9 related to the Floridan aquifer system to freshen the 10 cooling canal, is that correct? 11 Α I believe -- without having the actual 12 documents, it's difficult to specifically say exactly 13 what each of the costs was, Mr. Cavros. Yes, that was one of the costs encompassed in that year's ECRC 14 15 recovery request, but I believe there are other costs as 16 well --17 Q Okay. 18 -- related to the project. Α 19 All right. So I would like to point your 0 20 attention now to column 2017, specifically to the 21 project capital costs. 22 In 2017, in the first row of that column, you 23 have barge canal turning basin backfill, and the cost of 24 that project is 13,128,375. Do you see that? 25 Α Yes.

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1 Q Okay. Now, those dollars were not expended in 2 2017, were they? 3 Α That is correct. We received our permits from 4 DEP within two months. Unfortunately, it took two years 5 for Miami-Dade County to issue its permits for this 6 restoration project. 7 So are those costs being recovered in 2018? 0 The project is moving forward in 2018. We are 8 Α 9 actually on site. We have awarded the bid, and the 10 project is initiating -- or has initiated for several 11 months now, but beginning to see actual fill material 12 begin to arrive here in the next several weeks, I hope. 13 So is FPL recovering costs for that in -- for Q 14 2018? 15 Α Yes. 16 And it's expected that it will recover costs Q 17 in 2019 as well? 18 Α Yes. 19 Do you foresee any capital cost expenditures 0 20 in 2020? 21 Α At this stage, it's not clearly known whether 22 or not we will be able to fully complete the project. 23 Most of the capital projects associated with overall 24 this part is going to relate to the fill project at 25 Turtle Point and the barge basin backfill. That's the (850) 894-0828 Reported by: Debbie Krick Premier Reporting

1 significant portion of the capital moving forward. 2 We hope to be completed in -- by the end of 3 2019 and not having to pursue it in 2020, but again, 4 it's a big project so... 5 Q And so it's the same answer, then, for the 6 Turkey Point backfill project as well? 7 Α The Turtle Point. 8 Q I am sorry. The Turtle Point, yes, backfill 9 project, you are recovering some costs in 2018? 10 Α Yes. 11 And you expect to have that completed in 2019? Q 12 Α We hope to have it completed in 2019, yes. 13 And how about the recovery well system? Q 14 According to this, there was 20 million -- over \$20 15 million that were to be recovered in 2017. Now, those 16 monies were not recovered in 2017, is that correct? 17 Not all of the monies were recovered in 2017. Α 18 As pointed out in our response to interrogatories, some 19 of the dollars for the recovery well system were moved 20 to 2018. Fortunately, the recovery well system did go 21 fully on-line in May of 2018, and but for the 22 obligations to maintain and operate the facility, any 23 significant capital costs have been concluded. 24 0 The 2018 costs of \$4,331,000 for the recovery 25 well system, is that accurate, Mr. Sole?

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1 Let me refer to the -- because we answered Α 2 this question. Let me refer to that interrogatory. 3 If you go to Interrogatory No. 28, we identify 4 that the cost recovery for the recovery well system 5 costs that were projecting in 2017, that we envisioned 6 2.3 million of that be deferred to 2018. So the dollars 7 that you see there are inclusive of that additional 8 deferral from 2017 to 2018. 9 0 And the capital cost in the 2019 column for 10 the recovery well system of \$118,000, that cost seems to 11 stay static going into the future. What does that cost 12 represent? 13 Α It's the obligation to maintain replacing 14 This is a very challenging environment in pumps. 15 addressing hypersalinity in pumps. So the expectation 16 is we will need to change out pumps on a routine basis 17 for each of the wells. 18 Q And the company has chosen to recover that as 19 a capital expense as opposed to an O&M expense? 20 Α That is a capital item, the pumps themselves, 21 and the replacement value is such that they would be 22 capital, yes. 23 Are there any -- let me ask you this: Q It's 24 possible that the company might have to undertake other 25 backfill activities in order to comply with the Consent (850) 894-0828 Premier Reporting

1 Order or the Consent Agreement or the Consent Agreement 2 Addendum, isn't that true? 3 Α Well, anything is possible in the 4 circumstances that you describe. However, as it stands 5 today, I don't envision the need to do any additional 6 fill projects. We are currently in compliance with the 7 Consent Order and the Consent Agreement and the Consent 8 Agreement Addendum. We've laid out our plans and 9 project scope. And, as it stands, FPL is fully in 10 compliance with those projects and will continue to be 11 so. 12 Q Isn't it true that Miami-Dade County DERM has 13 expressed concern about ammonia exceedances coming from 14 some other canals? 15 The Miami-Dade concern about the ammonia Α 16 exceedances actually is what initiated the Consent Agreement Addendum. And since that time, there has been 17 18 quite a bit of work that FPL has done to quantify and do 19 an assessment of the ammonia, and where its origination 20 was. 21 We submitted several documents to Miami-Dade, 22 as required under the Consent Agreement Addendum, and 23 culminated in an analysis a site assessment report that 24 identified for those areas where there were exceedances 25 FPL's contribution from the cooling canal of ammonia.

1 system was less than two percent, or generally a de minimis contribution, albeit a contribution all the 2 3 same. 4 So as it stands, we have completed the site 5 assessment report, presented that information to 6 Miami-Dade. 7 Okay, Mr. Sole, thank you for that answer. 0 It 8 went a little bit beyond what I was looking for, but we 9 will touch on that in just a little more detail. 10 And if you could, when you are answering the 11 question, if you could look at me, I would appreciate 12 it. And I, in turn, promise not to look at the 13 Commission when I ask them your question. Thank you. 14 So, Mr. Sole, are there any capital projects 15 that aren't listed here that might be based on new 16 circumstances, or new information, or requirements that might be placed on FPL by government agencies? 17 18 Α I am sorry, Mr. Cavros, is the question is --19 can you clarify the question? 20 Q Yeah, I apologize. 21 It's so broad and hypothetical, I mean, I can Α 22 say yes. 23 Q Okay. Let me limit it then. Sure. 24 Are there I any capital projects here that 25 aren't listed that are based on unused circumstances

1	since this since last year's hearing?
2	A No. There currently have been no decisions to
3	pursue any additional capital or projects under a
4	capital cost at this stage.
5	Q Okay. Since this hearing, though, FPL has
б	announced that it has agreed to a joint partnership
7	agreement to build a reclaimed water facility that would
8	link the Miami-Dade County with FPL's Turkey Point
9	plant, and that would presumably enable the sustainable
10	use of up to 60 million gallons of county wastewater; is
11	that an accurate statement?
12	A Yes, that is accurate.
13	Q Okay. And this reclaimed water facility will
14	be placed on FPL land?
15	A It's unknown at this time where the location
16	of the facility will be. We are in the early phases of
17	discussing this with Miami-Dade, and that's why the
18	joint participation agreement was executed, to just
19	basically agree to partner and identify the potential
20	efficacy of a project with Miami-Dade in addressing
21	their reuse requirements, while also addressing water
22	needs at Turkey Point.
23	Q And the water is intended, presumably, to help
24	freshen the water canal cooling system; is that correct?
25	A No. The water is intended to actually just

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1 support Turkey Point facility as a whole. Not only 2 would water be used to freshen the cooling canal 3 systems, but water would be used also for Turkey Point 4 5, which is the fossil plant. Currently it uses source 5 of water from the Floridan aquifer. In lieu of using 6 Floridan aquifer water, we would actually go to reuse 7 water as a source of water.

8 Q So that sort of gets to my next question, 9 because aren't you already recovering costs for a 10 Floridan aquifer system well that's in place to freshen the cooling canal system? 11

12 Α Yes.

13 So would this water, then, replace those --0 14 the investment in those wells?

15 Yes, in time. Clarity on the timeframe in Α 16 which such a project would come to fruition, this is not 17 a project, a new reclaimed water facility to the tune of 18 60 plus mod that would occur in a very short period of 19 time. It would envision to occur several years from 20 now. And so the use and benefit of the Floridan aquifer 21 system that we are currently using to freshen the 22 cooling canal systems are very real, very needed. 23 And do you have a sense of what this Q 24 wastewater facility or this infrastructure might cost? MS. MONCADA: Commissioner Clark, I am going

1	to object. He has asked about, I don't know, four
2	or five questions about this new treatment plant
3	for the water. FPL has not sought ECRC recovery in
4	this docket for that.
5	COMMISSIONER CLARK: Mr. Cavros.
6	MR. CAVROS: Chair, this is a cost recovery
7	docket. It not only looks at costs that have been
8	incurred, but costs that are to be projected as
9	well. I thought it would be helpful to get some
10	information out in full view for the benefit of the
11	Commission to see what might be coming on down the
12	line and
13	COMMISSIONER CLARK: Does Mr. Sole's testimony
14	anywhere go into those aspects?
15	MS. MONCADA: It does not.
16	MR. CAVROS: It does not.
17	COMMISSIONER CLARK: Okay. I am going to
18	sustain the objection.
19	BY MR. CAVROS:
20	Q Mr. Sole, do you still support these
21	projections going forward?
22	A Yes, going forward, I do.
23	I do believe that, in light of the activities
24	and the late timeframe in which we were able to start
25	the Turtle Point and barge basin fill, I do expect to
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see some of the capital costs continue to be deferred until 2019. And you can see in this case, they are all in 2017, so there clearly needs to be a modification of that.
And that's supported by the testimony that we

6 presented in this case, is that there are some deferrals 7 of project costs as a result of regulatory delays, and 8 also as a result of some decisions by FPL not to pursue 9 some of the sediment removal that we originally 10 projected in light of the performance of the system 11 today.

12 So I do support these costs in general. 13 However, that's with the caveat that we've already 14 updated these costs, not only in the filings of Ms. 15 Deaton, but also in some of the responses to 16 interrogatories.

Q Isn't it true that the consent order with DEP has certain compliance milestones that the company has to meet?

20 A Absolutely.

21QFor instance, the company has to meet a 34 PSU22average salinity in the cooling canal system by the23fourth year of freshening activities; is that right?24AThat's correct.

Q Okay. And the company has to also halt the

1 western migration of the hypersaline plume in three 2 years after the start of the recovery well system? 3 Α That is also correct. 4 0 Okay. And the company also has obligations 5 under the Consent Agreement Addendum to fully address 6 areas that have ammonia exceedances as identified by the 7 County? 8 I am not able to say that's correct on that Α 9 issue. That's not the obligation of the Consent 10 Agreement Addendum. 11 Yeah, we will get into that in just a 0 Okay. 12 minute. 13 But as we sit here today, you cannot guarantee 14 that the costs that you put forth before the Commission 15 in 2017 will not increase? 16 No, I cannot guarantee that. As previously Α 17 identified, that's a difficult thing to do under any 18 circumstance, making a guarantee. However, at the same 19 time, I do believe that, in many cases, we are seeing 20 areas where we are actually making cost improvements and 21 decreasing the costs. And that's a factor that we will 22 continue to pursue to ensure not only are we compliant, 23 but we are doing so in a way that improve some of our 24 cost expenditures. Monitoring is a significant one. 25 We spend

1 roughly \$6 million on monitoring. And that's a cost 2 that provides some value, or benefit -- result that 3 provides some value, but admittedly, the value per cost 4 is questionable, and we continue to work with regular 5 regulators to try to keep and dial in the monitoring in 6 such a way that's cost-effective as well as beneficial. 7 Can you agree, sitting here today, that the Q 8 costs will not increase by 20 percent? 9 Α I wouldn't be able to speculate on any generic 10 hypothetical that you propose. 11 Okay. So if I said 30 percent, you would say 0 12 the same? 13 Α I would say the same thing. Yes, sir. 14 Okay. Could you please refer to page 112 of Q 15 your August 24th testimony? 16 Α What number? 17 That would be page 112 of 132. Q I guess that 18 would be Exhibit RBD-4, Appendix 1. 19 Is there an exhibit you are asking me? Α 20 Because my testimony and exhibits are, I think, 21 separately numbered. 22 So this is Exhibit RBD-4, Appendix 1. 0 Sure. 23 Ah, that's not my -- you are meaning Renae Α 24 Deaton's testimony? 25 That is -- this would be -- this 0 I apologize.

<ul> <li>A It depends. There is one provision of Ms</li> <li>Deaton's testimony that I do cosponsor, and that's I</li> <li>42 what do we call this? Form 42-4P.</li> <li>Q Okay. And this would be</li> </ul>	
<ul> <li>4 42 what do we call this? Form 42-4P.</li> <li>5 Q Okay. And this would be</li> </ul>	Form
5 Q Okay. And this would be	
6 A or 5P, excuse me.	
7 Q 5P.	
8 A So I am cosponsoring that.	
9 Q Okay. And if I could just point you to the	he
10 very top of that page. It says that FPL	
11 A I am sorry, Mr. Cavros, I am not with you	•
12 What page are you on?	
13 Q So this is page 112 of 132.	
14 A Okay. Thank you. Let me get there.	
15 <b>Q Sure.</b>	
16 A I apologize.	
17 I am there. And, yes, I do cosponsor this	5.
18 So this is mine.	
19 <b>Q Okay.</b>	
20 A So it took me a while to get with you. I	
21 apologize.	
22 Q Not a problem.	
23 I will go ahead and read it. It says: F	PL
24 continues to move forward with compliance and	
<sup>25</sup> implementation of actions associated with activities	5

1	required under the CO, CA and CAA. Did I read that
2	correctly?
3	A Yes.
4	Q Okay. And the CA refers to the Consent
5	Agreement, is that correct?
6	A That is correct, with Miami-Dade County.
7	Q Okay. And the CAA refers to the Consent
8	Agreement Addendum?
9	A That is correct, also with Miami-Dade County.
10	Q Okay. Great.
11	And, Mr. Sole, as a general rule, you believe
12	that it is important for a regulated entity to deal in
13	good faith with a regulator?
14	A Absolutely.
15	Q And you would agree that it's important for an
16	entity subject to a consent agreement like FPL is to
17	comply in a timely manner with the provisions in the
18	agreement?
19	A I agree with that.
20	Q Okay. And just kind of for background, DERM
21	issued a notice of a violation on October 2nd, 2015, to
22	FPL, alleging violations of Chapter 24 of the code of
23	Miami-Dade County dealing with water quality standards;
24	is that right?
25	A That is correct.

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1	Q Did I get the date right? Okay.
2	And you entered into a consent agreement with
3	DERM on October 7th of 2015, is that right? Subject to
4	check.
5	A Subject to check, yes.
6	Q Okay. And you entered into a subsequent
7	consent agreement addendum on August 15th, 2016, about a
8	year later; is that correct?
9	A August 16th, that is correct.
10	Q Okay. Great.
11	MR. CAVROS: Chairman, I would like to mark
12	DERM Consent Agreement Addendum as Exhibit 53.
13	COMMISSIONER CLARK: All right. Exhibit No.
14	53, DERM Consent Agreement, is it the excerpt?
15	MR. CAVROS: It is not. That is a separate
16	document.
17	COMMISSIONER CLARK: DERM Consent Agreement
18	Addendum.
19	MR. CAVROS: Yes, sir.
20	COMMISSIONER CLARK: Okay. We will give that
21	Exhibit No. 53.
22	(Whereupon, Exhibit No. 53 was marked for
23	identification.)
24	BY MR. CAVROS:
25	Q Mr. Sole, I imagine you are very familiar with

1 this document, but I would like to go through it with 2 you. 3 The focus of this addendum is to address 4 exceedances of ammonia -- of ammonia standards in and 5 around the Turkey Point plant, is that correct? 6 Α I would say it is to address elevated ammonia, 7 yes. 8 Q If I could point to you 30 -- paragraph Okay. 9 34A. And there, it says: Within 30 days of execution 10 of Addendum 1 of this Consent Agreement, the respondents 11 shall submit a site assessment plan to DERM for review 12 and approval. Did I read that correctly? 13 Α Yes. 14 And the site assessment plan effectively Q 15 allows for the identification of ammonia exceedances of 16 surface waters surrounding the facility, is that right? 17 Is that the purpose of the site assessment plan? 18 Α I wouldn't word it that way, no. 19 A site assessment plan is designed to 20 basically assess what the potential cause or 21 contribution of a potential exceedance, and to discern 22 whether or not an exceedance is just in one area or 23 So it's really to assess a specific other areas. 24 chemical of concern, in this case, ammonia. So that's 25 the way I would put it.

1 Q Okay. That was my understanding of the site 2 assessment report but --3 Α The plan is how to do it. 4 0 The plan is how to do it, okay. Yes. 5 And on or about shortly thereafter, on 6 December -- in December 2016, DERM approved a site 7 assessment plan for FPL? 8 Α December -- what year? 9 0 2016. Let me -- hold on a second. 2016 is 10 what I have, is that correct? 11 I believe that's correct. Α 12 Okay. And then if I could point your Q 13 attention to 34B, where it states: Within 60 days of DERM's approval of a site assessment plan, the 14 15 respondent shall implement said plan and submit to DERM 16 a site assessment report for review and approval, et 17 cetera. Did I read that correctly, that first sentence? 18 Generally, yes. Α 19 I didn't finish the sentence. Okay. 0 20 So it wasn't until March 17th, on or about 21 2017, that FPL filed its site assessment report, or its 22 first site assessment report with DERM; is that correct? 23 I don't have the date specific in front of me. Α 24 Okay. I do have just a copy of the cover 0 letter, if that would help with your -- with the 25

1	recollection.
2	MR. CAVROS: Chair, could I have permission
3	just to approach the witness? I have a copy for
4	him and counsel.
5	COMMISSIONER CLARK: Sure.
6	THE WITNESS: Thank you, sir.
7	BY MR. CAVROS:
8	Q So I am effectively just trying to establish a
9	timeline here, Mr. Sole. Does this refresh your
10	recollection that that site assessment report was filed
11	on March 17th, 2017?
12	A Based upon this cover letter, it appears that
13	the site assessment report was submitted March 17, 2017.
14	Q Okay. And that site assessment report that
15	was submitted to the County presumably addressed the
16	concerns regarding ammonia level exceedances; is that
17	correct?
18	A It was submitted in compliance with the
19	requirements of 34B. As I recall, Miami-Dade County did
20	have questions associated with our report, and asked us
21	to do supplemental work, which we also did.
22	Q Okay. Now, on July 17th, a few months after
23	that, DERM responded to the proposed site assessment
24	report and stated that it does not concur with
25	conclusions and recommendations in the site assessment
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1 report by FPL; do you recall that? 2 Α I do. 3 MR. CAVROS: And at this time, Chair, I would 4 like to mark an exhibit entitled DERM letter, 5 July 17th, 2017. 6 COMMISSIONER CLARK: July 7th. 7 MR. CAVROS: July 7th, 2017. There are 8 actually two. 9 COMMISSIONER CLARK: Okay. Make that Exhibit 10 No. 4, titled DERM letter, July 7th, 2017. 54, 11 yes, sir. 12 (Whereupon, Exhibit No. 54 was marked for 13 identification.) 14 BY MR. CAVROS: 15 And do you need a second, Mr. Sole, to review? 0 16 Α I do. It's been over a year since I looked at 17 this document. 18 All right. I have generally familiarized 19 Go ahead with your question. myself. 20 Q Thank you, Mr. Sole. 21 Do you see the -- I am going to read the 22 second and third sentence in the first paragraph of the 23 actual letter. 24 Based on the data and information provided, 25 DERM does not concur at this time with the conclusions (850) 894-0828 Premier Reporting

1	and recommendations presented in the report. The
2	following is required to allow for further evaluation of
3	the SAR conclusions and recommendations.
4	Did I read that correctly?
5	A Yes, you did.
6	Q And then if you turn to the second page, page
7	2 of the letter, in paragraphs 9 and 10, it states the
8	following. Paragraph 9 says: Please provide data and
9	information to support the statements on page 22 of the
10	SAR, quote, that the ammonia appears to be limited in
11	extent, unquote, period.
12	And then in paragraph 10, it also requests
13	that FPL provide specific data from the studies that it
14	undertook, including where the high ammonia
15	concentration versus been detected; is that accurate?
16	Did I
17	A I don't did you read that accurately? Yes,
18	you read that accurate. Is the information Miami-Dade
19	professed accurate? That's another question. We would
20	probably be here for a while.
21	Q Yeah. Okay, but suffice it to say that there
22	is some disagreement here on DERM's part regarding FPL's
23	conclusions in its site assessment report, correct?
24	A Yeah. At this time there is disagreement.
25	Obviously, in response to this letter, FPL provided
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1 supplemental information to DERM. And since that time, 2 I believe the site assessment report has been completed 3 and approved by DERM. And DERM has followed up with their request for us to move forward and asked us what 4 5 our plan was, so --6 0 Okay. Because it is -- that is not my 7 understanding, but let's go on -- let's move further 8 down the timeline. I think it would be very helpful. 9 I would like, at this point -- now, just to 10 stay on this letter for a second. The letter does 11 request for supplemental information to be provided, is 12 that correct? 13 That is correct. Α 14 Okay. And that supplemental information was Q 15 provided on or about November 13th of 2017, is that 16 correct? 17 Generally, I believe that's the date. Α 18 Q Subject to check, okay. 19 And generally -- and I will give you a chance 20 here -- in response, FPL alleges that the ammonia 21 exceedances around the plant are not attributable to 22 cooling canal system factors; is that generally your 23 position? 24 Α It's important to have some clarity on Yeah. 25 this issue. But, yes, FPL has identified that the

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ammonia exceedances surrounding the plant are as a
result of primarily these anthropogenic canals and
stratification of water quality where you have low flow
and low dissolved oxygen areas. And in these areas, you
have accumulation of detrital material, leaf litter,
things of that nature, which is a scenario for
ammonification.

8 You have a nitrogen source. You have low 9 dissolved oxygen because there isn't flushing, and 10 ammonification occurs. And it's very stratified. It's 11 only at the low levels of these, very bottom of these 12 canals. As soon as you get off the bottom in the 13 midpart of the canal, the ammonia levels meet 14 Miami-Dade's water quality requirement.

15 So it is very clear that the predominant source of ammonia is associated with its natural 16 17 conditions. And, in fact, the report that was finally 18 accepted by Miami-Dade, concluded that those areas that 19 have elevated ammonia, FPL's contribution from the 20 cooling canal system, or the groundwater flow from the 21 cooling canal system, was no more than two percent to 22 that source of ammonia. And I think the highest 23 percentage in areas where there was not elevated 24 ammonia, but there was measurable ammonia, was no more 25 thank 16 percent.

1 Miami-Dade has accepted this report and has And we are now moving on and have 2 moved on. 3 professed -- or provided them with our plan on 4 addressing this issue. 5 MR. CAVROS: Chair, I would like to mark a 6 letter, the DERM letter, dated July 10th, 2018, as 7 Exhibit 55. 8 COMMISSIONER CLARK: Okay. Mark it Exhibit 9 55, DERM letter, July 10, 2018. 10 (Whereupon, Exhibit No. 55 was marked for 11 identification.) 12 MS. MONCADA: Commissioner Clark? 13 COMMISSIONER CLARK: Yes. 14 MS. MONCADA: The exhibit that's identified --15 that was just identified as No. 55, the DERM letter 16 dated July 10, 2018, SACE's attorney had advised us 17 a week or two ago that it planned to introduce this 18 letter. 19 There is a response that FPL wrote to this 20 letter. We have advised Mr. Cavros that we would 21 be arguing today, or making the request to you 22 today that -- or let you know that we don't have an 23 objection to this letter going in provided, 24 however, that the response letter also be provided 25 into evidence. I have made copies, enough for

1 everyone. 2 Under the Rule of Completeness, the document 3 of completeness of evidence, we think it is only 4 fair that if the first letter is introduced, that 5 the response letter also be admitted. 6 COMMISSIONER CLARK: Okay. We will make the 7 determination when we decide if this is going into 8 the record or not. 9 MS. MONCADA: Will there be an opportunity for 10 FPL to introduce the response, then? 11 COMMISSIONER CLARK: Yes, ma'am. 12 MS. MONCADA: Thank you. 13 COMMISSIONER CLARK: Mr. Cavros. 14 MR. CAVROS: Okay. So thank you, Chair. 15 BY MR. CAVROS: 16 So we are on DERM letter dated July 10th, 0 17 2018, Mr. Sole. 18 Α I have it. Yes. 19 And I have been reading a lot of these Okay. 0 20 provisions. Would you mind reading paragraph 2 of this letter for the record? 21 22 I would be happy to. Α 23 Paragraph 2, DERM finds that the total ammonia 24 concentrations documented in several sampling locations at the Barge Basin, Turtle Point Canal, Card Sound 25

1	Canal, S-20 Get Away Canal and the Sea-Dade Canal
2	exceeded the applicable Miami-Dade County surface water
3	standard. DERM acknowledges that the documented
4	elevated surface water ammonia concentrations may be
5	attributable to several contributing sources, including
6	factors not directly related to the operation of the
7	CCS. However, based on the evaluation of other
8	associated water quality data, such as tritium
9	concentrations and temperature, DERM finds that the data
10	supports that the CCS is a contributing source to the
11	ammonia concentrations observed in areas which exceeded
12	the applicable standard.
13	Q Great. Thank you for reading that.
14	Could I point your attention to page 2 of that
15	letter?
16	A I am there.
17	Q Okay. And then there is also a paragraph 2
18	there which I will read. Implementation of the FPL
19	proposed plan so let me actually read the paragraph
20	that introduces these subparagraphs.
21	Based on the above, and to address the CCS's
22	contribution of the surface water ammonia exceedances,
23	and to monitor any potential migration of the
24	groundwater ammonia plume, DERM requires the following.
25	And under that paragraph, subparagraph (2), it says:
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1 Implementation of the FPL proposed plan to fill the 2 Barge Basin and Turtle Point canal, as well as submittal 3 of plans to fill or otherwise address water quality impacts in the additional areas as referenced above. 4 5 So this statement here references other canals besides the Turtle Point canal and the Barge Basin, 6 7 correct? 8 Α It makes an inquiry as to whether there are 9 others. It doesn't establish a requirement to do so. 10 And the paragraph that you had read, 0 Right. 11 the DERM indicated that exceedances were found in, not 12 only the Barge Basin in Turtle Point Canal, but also the 13 Card Sound Canal, the S-20 Getaway canal and the 14 Sea-Dade Canal; is that correct? 15 Α That is correct, as did the actual report that 16 we submitted that identified these. And that report 17 also identified that contributions from the CCS were 18 less than two percent, and therefore, de minimis.

19 Admittedly, as found by DERM, even two percent 20 is a contribution. And they have identified that, yes, 21 there is a contribution, but in all reality, that 22 contribution is de minimis.

23 Mr. Sole, you keep referring to an approval, Q or an acceptance by DERM that they have agreed that two 24 25 percent is the contribution coming from the CCS. Is

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## that your testimony here?

A My testimony is that based upon the Consent Agreement Addenda -- and I will read it. It's page 3 of 22 of your exhibit now 53.

5 Within 90 days of approval of the site 6 assessment report, the respondent shall submit to DERM 7 for review and approval of a corrective action plan 8 prepared by the State of Florida.

9 Well, as you note in the letter that you have 10 referenced, on July 10th, they are asking for our plan. 11 They have executed their review within 90 days. And at 12 this stage, I have interpreted this, under the Consent 13 Agreement Addendum, that they have approved our report and asked us to develop a plan. So we are now to the 14 15 point of no longer doing a site assessment report, but 16 now moving forward with what's your plan to address it.

FPL has, in accordance with this obligation under the Consent Agreement Addendum, as well as the July 10 letter, have responded to that, and we presented that plan to Miami-Dade DERM on October 8th of 2018.

Q Mr. Sole, I appreciate your interpretation of this agreement. Let me -- let's go back to paragraph 34B, if we could, and let me read that sentence for you again.

Within 60 days of DERM's approval of the site

assessment plan, the respondent shall implement said
plan and submit to DERM a site assessment report for a
review and approval -- or approval with modifications
which shall address the requirements of Item A above.

5 Have you gotten any affirmative indication 6 from DERM that they have approved the site assessment --7 the latest site assessment report that FPL has provided 8 to them?

9 A Yes, the July 10th letter of 2018. They have 10 gone from asking for additional information. They have 11 gone from asking us to take additional samples, but for 12 one clarifying sample that was required because of an 13 anomaly, and have asked for a plan.

Under the Consent Agreement Addendum, as I read again, and as I will read again to you, Paragraph C says: Within 90 days of approval of the site assessment report, the respondent shall submit to DERM for review and approval a corrective action plan.

As you see in July 10th, 2018, DERM is asking us for a plan within 90 days of receipt of this letter. We have moved from monitoring and conducting a report to now what actions are you going to take to address it. This July 10th letter establishes that they have approved it, and we are moving forward. 25 Q I don't see any affirmative statement of

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approval in this letter. Could you show me where it is?
A The direction to move forward with a plan.
The request on behalf of Miami-Dade County DERM for FPL
to actually move forward and away from an additional
site assessment report or additional monitoring and to
provide a plan.

Q And I apologize. Could you show me what
 8 sentence, or phrase you are referring to?

9 Α Based on the above and address CCS 10 contributions, surface water ammonia exceedance and 11 monitoring potential migration of groundwater ammonia 12 plume, DERM requires the following: Submittal of a plan 13 that identifies strategies or actions FPL shall 14 implement to address CCS nutrient impacts to 15 groundwater/surface water resources beyond the 16 boundaries of the CCS.

17 You would agree in this letter, there is no Q 18 affirmative statement approving the site assessment? 19 I object. That's about the MS. MONCADA: 20 third time he has asked the same question. 21 MR. CAVROS: No, it --22 COMMISSIONER CLARK: Mr. Cavros --23 It's a different question. MR. CAVROS: 24 COMMISSIONER CLARK: Well, it has been asked 25 several times. I think the two of you have have an
1 obvious different interpretation of what the letter 2 says there. If you can get a specific question and 3 Mr. Sole give a specific answer, we can move on. 4 BY MR. CAVROS: 5 0 My specific question is this, is there 6 specific language in this letter that says the 7 following: DERM approves FPL's site assessment report? 8 Α However, it's rare that I ever get No. 9 specific language from DERM that says they approve 10 interim steps, and merely ask me to go on to the next 11 That is the normal course of business from DERM. step. 12 Q It is true, although, Mr. Sole, that there 13 have been interim steps between the site assessment plan 14 and the site assessment review, according to you, the 15 acceptance of the site assessment review, I mean, almost 16 a year has passed, right? You have -- let me stop 17 There have been informal discussions, correct, there. 18 with DERM? 19 Α Absolutely. Yes. And those informal discussions extended beyond 20 0 21 the stated timeframe for approval in the Consent 22 Agreement Addendum, correct? 23 No, I disagree. Α 24 Mr. Sole, as of today, FPL has not 0 Okay. 25 entered into a corrective action plan with DERM,

1 correct?

A No, I disagree. As part of our October 8th response to DERM, we specifically acknowledged that this is anticipated to be compliant with the requirements under the Consent Agreement Addendum.

6 Clearly, based upon the information that we 7 were presented in the site assessment report, it was 8 evident that there was basically a de minimis 9 contribution from the cooling canal system associated 10 with the ammonia.

11 And, in fact, DERM has significantly shifted 12 from what is a more rigid site assessment plan, site 13 assessment report, contamination action plan, 14 contamination action report protocol that was 15 established in the Consent Agreement Addendum to more of 16 now a letter just saying, we still any there is a 17 contribution, and we would like to know what your plan 18 is to address nutrients in the area.

19 FPL has been working on a nutrient management 20 plan for some several years. We testified about that 21 last year, and worked with FDEP as part of the Consent 22 Order to do the fill project, which is also envisioned 23 to help reduce that ammonification process from 24 occurring. 25 And the report that we presented to DERM on

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October 8th, specifically lays out, here's the actions that we have taken and are planning to take to address nutrients in the system. And that is the contamination assessment plan that you are referring to in the Consent Agreement Addendum. And because DERM has significantly reduced that level of obligation based upon the reports that we presided to them.

8 Q The October 8th letter that you allege is a 9 corrective action plan, has there been any affirmative 10 response from DERM to FPL approving that corrective 11 action plan?

12 Α Unfortunately, it takes DERM quite some No. 13 In fact, I think it took them almost a time to review. year to review the report -- the supplemental 14 15 information we gave them prior to the July 10th letter 16 being presented. So I don't know when DERM will 17 actually have commented, if any comment, on our 18 October 8th response.

19 I just want to point you to the very last page 0 20 of that letter. 21 Α Of our October 8 response? 22 No, the July 10th, 2018. Q 23 I am there. I apologize. Α Okay. 24 It says, one paragraph up from the last one: 0 25 Be advised that failure to comply with the above may

1 result, at a minimum, in the assessment of penalties as 2 outlined in the subject consent agreement. 3 If DERM does not view your October 8th letter 4 as compliant, it indicates that the company could be 5 subject to penalties according to this letter, is that 6 correct? It is clearly FPL's obligation to comply with 7 Α 8 the provisions of the Consent Agreement and the Consent 9 Agreement Addendum. It is a true statement, if we fail 10 to comply, that we could be subject to penalties. 11 And if you fail to comply and are assessed Q 12 with penalties, would FPL seek to recover those costs 13 from customers? 14 Mr. Cavros, that's a hypothetical, and I don't Α 15 have the circumstance in which to establish whether or 16 not we would or wouldn't. I think every individual 17 circumstance deserves its story to discern what actions 18 FPL would take. 19 But sitting here today, you cannot discount 0 20 the possibility that you may come to the Commission 21 again to seek recovery of penalties levied by DERM 22 against FPL related to this project, correct? 23 MS. MONCADA: Objection, calls for speculation 24 and --25 MR. CAVROS: Okay, Chair, I would like to move (850) 894-0828 Premier Reporting

1 on to the DERM Consent Agreement excerpt, please. 2 COMMISSIONER CLARK: All right. No. 56, DERM 3 Consent Agreement excerpt. 4 THE WITNESS: I have it, yes, sir. Did we 5 give it a number? 6 MR. CAVROS: It's 56. 7 (Whereupon, Exhibit No. 56 was marked for 8 identification.) 9 BY MR. CAVROS: 10 And I would like to direct your attention, 0 11 well, to the excerpt, if you will. And I think, again, 12 you are probably pretty familiar with this, Mr. Sole. 13 This particular provision is 17, subsection 14 (c)(i) of the Consent Agreement. Does this look 15 familiar to you? 16 Α Yes. 17 Q Okay. Great. 18 And the very first sentence of that 19 requirement says that FPL agrees to undertake -- to 20 raise control elevations in the Everglades Mitigation 21 Bank; is that correct. 22 Α That is correct. 23 Okay. And it's supposed to raise those Q 24 elevations, later on down the paragraph there, to no 25 lower than 0.2 feet lower than the 2.4 trigger of the Premier Reporting

1 S-20 structures. Do you see that? 2 Α I do. 3 0 Okay. Isn't it true that FPL has not 4 maintained that elevation level throughout the term of 5 the Consent Agreement? 6 Α Yes. FPL currently has the elevations at 1.8, 7 as obligated in this provision of the Consent Agreement 8 Addendum, FPL was obligated to raise the elevations to 9 2.2 and maintain them for a year, and do an analysis as 10 to the effect of changing the weir elevations. 11 FPL did conduct that analysis for the year 12 period, and actually determined there was a significant 13 adverse impact on operation of the mitigation bank and 14 water conditions in the mitigation bank. 15 We presented that study to Miami-Dade, and 16 consulted with them. We also presented that information to DEP, because we end up sharing all of our information 17 18 related to Turkey Point with both Miami-Dade and DEP. 19 And subsequently, we received a permit modification 20 requirement to operate the weirs back to the 1.8 mgd 21 elevation by DEP as part of our mitigation permit. Miami-Dade has challenged that, and we are now still 22 23 subject to that hearing. And that's the extent of 24 information I think appropriate to testify on at this 25 stage.

1 Thank you for identifying that DERM has Q 2 challenged the permit modification that DERM -- rather 3 DEP has issued. I think I heard you say that you provided that information to DEP? 4 5 Α Yeah. Most of the -- not most. I think all 6 the monitoring information, whether it's an obligation 7 to provide to determine, or an obligation to provide to 8 DEP, we end up sharing with the regulatory agencies. 9 And this is a truly unfortunate situation, 10 where we are stuck between two regulatory agencies; one 11 telling me it should be 2.2, and one telling me that it 12 should be 1.8. The one that actually drives is the 13 permit, so we need to be in compliance with the FDEP 14 permit. 15 And also, as I testified earlier, FPL did 16 comply with this provision, and did consult with 17 Miami-Dade as relates to the impact of the operating of 18 the weirs at these elevations, and that there was an 19 adverse impact to the mitigation area. 20 Q And you would agree, Mr. Sole, that the lower 21 level -- do you have -- let me step back. 22 Do you now have it at the lower level, at 1.8? 23 Α I believe it's currently operating at 1.8, but 24 I would have to validate that. 25 And you would agree that based on this 0

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1 requirement in the Consent Agreement, that it is 2 currently not compliant with the Consent Agreement? 3 Α No, I would not agree with that at all. In 4 fact, there has been absolutely no information from 5 Miami DERM presented to say that FPL is in violation of 6 any part of the Consent Agreement or Consent Agreement 7 Addendum. 8 This is a situation that has been discussed 9 with DERM. They are aware of the conditions. They are

aware of the challenge that FPL is put in as a result of one regulatory agency saying do it one way, and another regulatory agency saying doing it another. And at this stage, we have seen absolutely nothing from DERM to assert that there is any violation. I do believe there is concern from DERM, and that's why they challenged the permit.

Q And I don't know that I used the word
violation. I used not in compliance.

19 A I don't know what the difference is. You are 20 either in compliance or you are not. In this case, I 21 believe we are in compliance, and we are working with 22 DERM, as well as DEP, on this issue.

Q Mr. Sole, the four corners of this document say that FPL is to raise elevations there to a certain level. They are not at that level. I appreciate your

1 interpretation and some of the challenges you are 2 My question is really very straightforward to facing. 3 you. Based on the language in this provision, FPL is not in compliance, correct? 4 5 MS. MONCADA: Objection. That's the same 6 question he just asked, and Mr. Sole answered it. 7 COMMISSIONER CLARK: I agree. Mr. Sole has 8 answered he believes that they are in compliance, 9 is that correct, Mr. Sole? 10 THE WITNESS: Yes, Mr. Chairman. 11 BY MR. CAVROS: 12 Mr. Sole, I am going to switch gears for a Q 13 second about a matter that will more than likely impact, but I want to hear your opinion on this, the evaporation 14 15 of the CCS. 16 FPL -- subsequent -- well, actually, let me --17 let me retract that. 18 On May 17th, 2017, okay, FPL filed a notice 19 with the NRC to extend the life of the Turkey Point 3 20 and 4 reactors, correct? 21 I believe that's the date. That is correct. Α 22 I guess my first question to you is, Q Okay. 23 it's true that you did not share this information at the time of this last hearing with the Commission, and my 24 25 question to you is why?

1 Objection. MS. MONCADA: I don't think this 2 line of questioning has anything to do with the 3 costs for which FPL is seeking recovery here today. 4 COMMISSIONER CLARK: Mr. Cavros. 5 MR. CAVROS: This is new information. It was 6 available to the company prior to last year's 7 environmental cost recovery clause hearing. It 8 chose not to share that information with the 9 Commission. There are cost implications associated 10 with that, and simply, you know, want to better 11 understand what the company's thinking was in not 12 providing that. 13 COMMISSIONER CLARK: Can you point to anywhere 14 in his direct testimony that this issue is 15 addressed? 16 MR. CAVROS: I think what I would like to do, 17 Commissioner, if it's okay with you, is simply 18 just, you know, to ask him a question and, you 19 know, just get straight to the point. 20 And, you know, our interest here is to know 21 how this will impact the operation of the CCS going 22 You know, customers are paying over \$200 forward. 23 million for this project. FPL did not disclose 24 that it was planning to extend the life of the 25 reactors. They could uprate them. They could

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1 change the operation of the CCS. And I think rather than the way FPL is doing it in providing, 2 3 you know, on a need-to-know basis information, I am 4 trying to get a preview of what the next couple 5 years are looking like. 6 COMMISSIONER CLARK: Well, I think that is a 7 little bit beyond the scope of the testimony specifically here, so I am going to sustain the 8 9 objection. 10 MR. CAVROS: Okay. 11 BY MR. CAVROS: 12 Q Mr. Sole, you have read Ms. Deaton's testimony 13 in this docket, is that correct? 14 Yes, I have. Α 15 And you would agree that FPL is 0 Okay. 16 recovering \$6.5 million in revenue requirement in 2019? 17 I would have to refer to Ms. Deaton's Α 18 testimony to answer that because I don't have all of 19 them memorized. And it's actually -- okay, it's actually on --20 0 21 I had referred you to 42-5P last time. 22 Α Yes. 23 It's really just on the back of that page as Q 24 well. 25 Α Yes. There is a estimated project revenue

1 requirement for the project at 6.534 million. 2 Mr. Sole, do you believe it's fair for 0 3 customers to be paying not only the cost of the 4 remediation but also profits the FPL's follow 5 investments the company was forced to make because it 6 violated the law? 7 MS. MONCADA: Object to this line of 8 questioning. This was litigated at length in the 9 2017 proceeding, and the Commission made its 10 ruling. 11 COMMISSIONER CLARK: Mr. Cavros. 12 MR. CAVROS: I have no further questions. 13 Thank you. 14 COMMISSIONER CLARK: Thank you, sir. 15 All right. There was an issue regarding the exhibit --16 17 Mr. Chairman, I think you need to MS. HELTON: 18 do redirect before we take up any exhibits. 19 COMMISSIONER CLARK: No, ma'am. I am doing 20 the redirect, but I am asking her specifically 21 about --22 MS. HELTON: Oh, okay. 23 COMMISSIONER CLARK: -- an exhibit that she 24 wanted to introduce. 25 MS. HELTON: Okay, I am sorry.

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1 COMMISSIONER CLARK: My question to her was, 2 would you like to do that on redirect? Whatever is your pleasure. 3 MS. MONCADA: Ι can do it now, or I can do it on redirect. 4 5 Whatever you prefer. 6 COMMISSIONER CLARK: If it's okay, I think we 7 will just do it on redirect. 8 MS. MONCADA: I can do that. Thanks. 9 COMMISSIONER CLARK: Thanks. 10 All right. FIPUG, you are up. 11 Thank you. Mr. Chairman, FIPUG MS. PUTNAL: 12 has no questions of the witness. 13 COMMISSIONER CLARK: All right. We are moving right along now. 14 15 All right. Let's move to -- let's Okay. 16 begin with staff next. 17 MR. MURPHY: Staff has no questions. 18 COMMISSIONER CLARK: All right. And 19 Commissioners. 20 Commissioner Polmann, you are recognized. 21 COMMISSIONER POLMANN: Thank you, Mr. 22 Chairman. 23 Good afternoon, Mr. Sole. 24 THE WITNESS: Good afternoon, Commissioner. 25 COMMISSIONER POLMANN: I have a few questions Premier Reporting

regarding Plant Scherer.

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2 Just a basic question, and can you tell us how 3 does FPL receive benefits and bear the costs associated with Plant Scherer? 4 Because it seems 5 like it's not right here in Florida. So just big 6 picture overview, how are we receiving benefits? THE WITNESS: Commissioner, I will do my best 7 8 to answer it on a big picture level, because it 9 goes a little bit beyond my expertise. 10 But the bottom line is, we have energy 11 delivered from Plant Scherer to FPL territory here 12 in Florida. It was a partnership scenario. We 13 have owned 76 percent of one unit at Plant Scherer. 14 JEA, out of Jacksonville, is the other partner. 15 They own the other 23.4 percent. And we deliver 16 power into Florida as part of the benefit to FPL 17 customers, as well as JEA customers. 18 COMMISSIONER POLMANN: Thank you. 19 And you indicated you -- the costs you are 20 seeking recovery is a portion, according to the 21 investment that FPL has, and with partners? 22 Yes, Commissioner, that is THE WITNESS: 23 correct. 24 COMMISSIONER POLMANN: Thank you. 25 The line of questioning from the parties, I Premier Reporting

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1 believe it was Mr. Rehwinkel, if I recall, the 2 copper tubes -- I believe that was the language 3 that was used. I am not quite sure what the 4 correct configuration is. That was replaced with 5 titanium, I think. Do you recall that line of 6 questioning? 7 THE WITNESS: Yes, Commissioner. 8 COMMISSIONER POLMANN: You essentially stated 9 that replacement was considered normal end-of-life 10 cycle -- my words, I am not sure -- is that 11 correct? 12 THE WITNESS: (Witness nods head in the 13 affirmative.) 14 COMMISSIONER POLMANN: There was also 15 discussion regarding packing material, if what was 16 the wording, and that's related to the heat 17 exchange system, is that correct? 18 THE WITNESS: Yes. 19 COMMISSIONER POLMANN: Has that material 20 already been replaced, or is that to be replaced? 21 The packing material was THE WITNESS: 22 replaced during the scheduled outage of 2018, in 23 the spring of 2018. So the project that we are 24 seeking cost recovery has been completed. They 25 have replaced that contaminated, or entrained,

1 copper entrained packing material with clean 2 packing material so as to ensure the effluent discharges are below the requirements. 3 4 COMMISSIONER POLMANN: Thank you. 5 Now, I understand the heat exchange with the 6 copper titanium, but what exactly is the function 7 of the packing material? And I understand it's 8 contaminated, but what's the function? 9 THE WITNESS: So the fill material, when you 10 look at a cooling tower, you see a big space where 11 water goes through and it interacts with air. What 12 the fill material does, it gives it more surface 13 area, to have an increased air/water interaction so 14 it can improve the thermal heat transfer from water 15 to air. 16 So the fill actually just presents that 17 surface area so the water can actually land on, 18 have more interaction with air instead of just 19 falling straight down. 20 COMMISSIONER POLMANN: Thank you. 21 Now, if the tubes were normal end-of-life 22 cycle, why is the packing material, that fill 23 material, not in that category? Why is this an 24 environmental issue? 25 THE WITNESS: It's a completely different

1 component to the system that has a much longer 2 In this case, in fact, much of the lifespan. 3 packing material had already been augmented 4 previously. The original packing material was a --5 I am trying to remember the term -- asbestos concrete board. 6 7 COMMISSIONER POLMANN: Yes. 8 THE WITNESS: And that -- there was some 9 settlement to that. And over the prior years, 10 there was a new PVC packing material added to 11 The system itself operated perfectly augment it. 12 fine, other than this entrainment. There was no 13 need to actually replace the fill but for this 14 copper entrained condition, which resulted in the 15 elevated copper levels in the elevated levels 16 effluents. 17 COMMISSIONER POLMANN: Mr. Chairman, just a 18 few more questions. 19 COMMISSIONER CLARK: Sure. 20 COMMISSIONER POLMANN: Thank you. 21 There was reference, we don't need to look at 22 I think you will recall in your it right now. 23 Exhibit MSW-6, looking at a table, it happened to 24 be on page 21, you may remember that just by --25 THE WITNESS: I do. Yes, sir.

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1 COMMISSIONER POLMANN: -- but there was -- I 2 believe you refer to as an instream standard five 3 parts per million for copper long-term average. 4 And then you were referring to evidence that there 5 is concern about an elevated copper level referring 6 to a number 60 plus or minus.

7 Was that not evident some time ago? Is that a 8 relatively new elevated value? I was trying to 9 understand, is this something that just recently 10 come up because of this packing material, but 11 that's now been changed?

12 THE WITNESS: Two answers to your question. 13 So Georgia Power had been looking at this 14 copper issue for several years, and trying to 15 discern whether or not there was a problem. And as 16 part of that analysis, that was the basis for, yes, 17 it's appropriate to replace the copper tubes with 18 titanium to see if that would reduce the discharge 19 to a point where there wasn't this elevated level 20 in our effluent.

The titanium tube replacement occurred on several of the units, but it didn't completely address the problem. And that rationale was the basis that there had been this entrainment of copper in the fill material of the cooling towers themselves.

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2 So it's been an iterative process as Georgia 3 Power has looked at the problem to try to solve it. 4 And I think at this stage, and the good news is the 5 benefit of the project that we've completed it's 6 very clear that by replacing the cooling tower 7 packing fill material it does solve the problem 8 because we saw that significant reduction of copper 9 effluent in our Unit 4 cooling tower discharge. 10 COMMISSIONER POLMANN: Okay. Thank you. 11 I am trying to understand the stipulation 12 aspect of this, and -- now, there is no copper 13 limit in your NPDES or -- let me ask it. Is there 14 a copper limit in your NPDES discharge now at 15 Outfall 1? 16 THE WITNESS: No. 17 COMMISSIONER POLMANN: Okay. So if there is a 18 future limit set, that's the stipulation issue on 19 the table, is that correct, specific to the copper 20 limit being set or not? 21 Yes, Commissioner, that is the THE WITNESS: 22 stipulation here. 23 COMMISSIONER POLMANN: Okay. Now, if it is to 24 be set in the renewed NPDES permit, is that, to the 25 best of your knowledge and experience with NPDES,

1 will that be set specifically to address the 2 long-term average copper concentration instream 3 regardless of where the copper is coming from? Ιt 4 gets to the discharge at Outfall 1 somehow from 5 somewhere. Can you separate those issues and just 6 say, at Outfall 1, the concentration is X compared 7 to instream, given the mixing zones and all of that 8 magic that occurs in this state determining your 9 number is X? Does it matters where it comes from? 10 THE WITNESS: I think I understand the 11 question.

12 The good news is it really will be a discharge 13 limit from the outfall versus the overall instream 14 what are the concentrations instream. So we will 15 have a outfall discharge limit that we are 16 obligated to ensure that we meet. We will be 17 required to sample it.

18 The clear issue, and when you look at NPDES in 19 Georgia's rules, is what they are going to look for 20 is they are going to set that effluent limitation, 21 which is we project around 60 parts per billion. 22 They are going to discern an obligation to continue 23 to monitor if, obviously, you are above 60. But 24 even if you are above 30, at 50 percent of the 25 concentration, they will say, no, this is an area

1 of concern, we want to continue to monitor it. 2 It's our hope that we can actually get it below that 50 percent concentration to go back to 3 4 where we are today, where there is not an 5 obligation to unnecessarily monitor for copper. 6 So it will be at the pipe. There will be an 7 effluent limitation set in the permit, and it will 8 be subject to Georgia Power and FPL, as a partner, 9 to ensure that we get that reduced below that 10 level. 11 COMMISSIONER POLMANN: So again, the cost will 12 be monitoring at the pipe. The company's issue is 13 to manage the plant in such a way that the 14 concentration at the pipe is as low as prudence 15 tells you as to how you manage the infrastructure 16 and the operation to keep that concentration at the 17 pipe low enough so that you eliminate the 18 monitoring costs? 19 THE WITNESS: That is exactly correct. Yes, 20 sir. 21 COMMISSIONER POLMANN: Thank you. 22 I liked your testimony better THE WITNESS: 23 than mine. 24 COMMISSIONER POLMANN: Thank you, Mr. Sole. 25 Thank you, Mr. Chairman. That's all I have.

1	COMMISSIONER CLARK: Any other Commissioners	
2	have any questions?	
3	All right. We will move to redirect,	
4	Ms. Moncada.	
5	MS. MONCADA: Thank you, Commissioner Clark.	
6	At this time, I believe staff is prepared to	
7	pass around what completes Exhibit 55.	
8	COMMISSIONER CLARK: Okay. We will mark this	
9	as Exhibit No. 57, FPL's October 8th, 2018	
10	response.	
11	(Whereupon, Exhibit No. 57 was marked for	
12 ic	dentification.)	
13	MS. MONCADA: If it's okay with you, Mr.	
14	Chairman, I have other questions that don't relate	
15	to that exhibit, maybe I can get started on those.	
16	COMMISSIONER CLARK: Yes.	
17	MS. MONCADA: Thank you.	
18	FURTHER EXAMINATION	
19 BY	Y MS. MONCADA:	
20	Q I will start with the Manatee Temporary	
21 <b>He</b>	eating System project.	
22	A Yes, ma'am.	
23	Q You had discussions at length with Mr.	
24 <b>Re</b>	ehwinkel about it, and I believe there was just some	
25 <b>o</b> r	pportunity for clarity resulting from the	
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1 cross-examination, so if I could take you through some 2 of that timing. 3 The original Manatee Temporary Heating System 4 project, which plants were involved in connection with 5 that approval? 6 Α The original plant was Riviera Beach. And that was the original filing by FPL just for Riviera 7 8 We amended that filing that same year to include Beach. 9 Canaveral Clean Energy Center. 10 Do Riviera and Cape Canaveral have -- are they 0 11 subject to a Manatee Protection Plan? 12 Α Both facilities are, yes. 13 Do each have their own Manatee Protection Plan 0 14 requirements? 15 They do, and their own National Pollution Α 16 Discharge Elimination System permit. 17 The Manatee Protection Plan, is that something Q 18 that's regulated by DEP? 19 It is part of -- it is an attachment -- the Α 20 short answer is no. It's regulated currently by Fish and Wildlife Conservation Commission. At the time of 21 22 the issuance of the original project, it was regulated 23 by DEP. 24 You mentioned in your discussions with Mr. 0 25 Rehwinkel that after Cape, Riviera and Cape, there was a

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1 subsequent modification. Which plant was involved? 2 So after the original project approval, there Α 3 was an addition to include Port Everglades facility as a 4 project under the Manatee Temporary Heating System 5 project. 6 0 And is Port Everglades subject to a Manatee 7 Protection Plan? 8 Α Yes. 9 0 Is that Manatee Protection Plan substantively 10 similar to that of Cape and Riviera? 11 Α Yes. 12 Okay. Was there a renewal subsequent to Q 13 that -- I am sorry, was there a modification subsequent 14 to that? 15 There was yet another project additionally Α 16 requested. This was later in -- or recently in 2017, and this included the addition of the Lauderdale Plant 17 18 as a result of its conversion to the Dania Beach Clean 19 That project was subsequently approved Energy Center. 20 by the PSC earlier this year. 21 Does Lauderdale have -- is Lauderdale subject Q 22 to a Manatee Protection Plan? 23 Α Yes. 24 Is it substantively similar or dissimilar to 0 25 Cape, Riviera and Port Everglades?

1	A It is substantively similar.
2	Q Okay. The plant that we are requesting
3	recovery for today, that is Plant Ft. Myers, yes?
4	A Yes.
5	Q Is Plant Fort Myers subject to a Manatee
6	Protection Plan?
7	A Yes.
8	Q Is that Manatee Protection Plan similar to
9	Plant Ft. Myers?
10	A Yes.
11	Q Is it substantively similar or dissimilar to
12	the Manatee Protection Plans that were at issue when FPL
13	sought approval for Cape, Riviera, Lauderdale and Port
14	Everglades?
15	A It is substantively similar.
16	Q Is it your position that the PSC's approval
17	for Cape, Riviera, Everglades and Lauderdale meant that
18	FPL did not have to come today to seek PSC approval for
19	ECRC recovery of the Ft. Myers installation?
20	A No.
21	Q Okay. Moving on to Plant Scherer. Just a
22	quick closing of the loop on your discussion with
23	Commissioner Polmann, not that I can improve upon his
24	testimony either.
25	What is if you know, what is the estimated
<u> </u>	

remaining life -- you talked about the life cycle, the end-of-life cycle for the copper tubing. What is the setimated remaining life for the packing material? If you have a range or an estimate.

5 Α So there is two materials in there. So one of 6 them, the PVC, the most recent material that was placed 7 in there, I think had an end-of-life to some 26 to 30 8 It was replaced earlier in, I want to say late vears. 9 2000. I can't remember the exact year. But the short 10 answer is there is at least a couple of, 10 to 15 years 11 left on the packing material that was previously within 12 the cooling towers themselves.

13 Q Thank you.

Moving on to Turkey Point cooling canals. Mr. Cavros spoke with you at length regarding the July 10th letter from DERM and the ammonia standards.

Mr. Sole, if you know -- if you know, the
water within the Turkey Point cooling canal system, does
that water meet or exceed the ammonia standards?
A While it's inside an industrial wastewater
treatment facility, and the water quality standards
don't apply within the cooling canal systems. The
reality is the ammonia within the cooling canal systems

23 reality is the ammonia within the cooling canal systems

24 actually meets the Miami-Dade cooling canal -- or

25 Miami-Dade water quality standards.

1 The ammonia is well below the .5 requirement, and the bottom line, it actually meets the water quality 2 3 standards of Miami-Dade. 4 0 Okay. You have Exhibit 55? 5 Α I do. 6 Mr. Cavros pointed you to the second to last 0 7 paragraph on page 3. 8 Α Yes. 9 0 It refers to the assessment of penalties in 10 the event of a failure to comply. Has FPL been assessed 11 with any penalties? 12 Α No. 13 Staff has passed out Exhibit 57, do you Q Okay. 14 have that? 15 I do. Α 16 Can you point to the pages where FPL sets Q 17 forth --18 MR. CAVROS: Excuse me. Chairman, I am going 19 to object to the introduction of this document for a couple of reasons. 20 21 No. 1, it's well beyond the scope of my 22 cross-examination of the witness. It discusses 23 cooling canal practices, which I did not touch on. 24 It talks about foam removal harvesting, nutrient 25 algae removal, which I did not touch on. It talks

1 about salinity reduction, which I did not touch on. 2 It talks about berm maintenance practices, which I 3 did not address. It talks about seagrass 4 reestablishment, which I did not address. 5 COMMISSIONER CLARK: Mr. Cavros, let me ask 6 you, so you submitted your -- the entire document 7 from the Miami-Dade County, this was the entire document -- I know you didn't go through all of it, 8 9 but you submitted the entire document? 10 That is correct. MR. CAVROS: 11 COMMISSIONER CLARK: Ms. Moncada, you 12 submitted an entire document. Do you intend to go 13 through all aspects in that that are outside of 14 what rebuttal should be limited to here? 15 MS. MONCADA: I don't. No. 16 COMMISSIONER CLARK: Okay. If you stick to 17 that very defined answer that was related to what 18 the initial cross was, we are good there, okay? 19 MS. MONCADA: Thank you. Yep. 20 COMMISSIONER CLARK: Okay. Proceed. 21 BY MS. MONCADA: 22 In your discussions with Mr. Cavros, several 0 23 times you and he mentioned a corrective action plan? 24 Α Yes. 25 0 Can you point to the pages where FPL sets

1 forth its corrective action plan in the October 8th
2 letter?

A As in the first paragraph, if I understood your question, the first paragraph, last sentence, we attempt to clarify that in complying with the July 10th DERM letter, FPL understands that the requirements and obligations of paragraph 34C and D of the August 2000 Consent Agreement Addendum are met.

9 Q And does the letter address your plan -- the 10 plans to address the nutrients in the water?

11 A Yes. This submittal actually provides FPL's 12 plan, which includes several of the actions that are 13 underway, and those actions are that being proposed to 14 address nutrient reductions.

15 Q And just for the sake of clarity, are there 16 specific pages where that appears?

17 A Yes. If you go on to page 3 of 10, you begin 18 to see activities that are addressed within the canal 19 itself, the cooling canal system itself, includes 20 reporting on some of the significant progress made in 21 reducing nitrogen.

If you go to page 4 of 10, you can see where we were at a high of some 15 point -- I want to say -- I think it was 15.6 milligrams per liter of nitrogen within the cooling canal systems to now, in 2018, all the way down to three -- a little over three milligrams per liter. Same holds true for phosphorus. You can see significant reductions in nutrients within the cooling canal system.

5 And then it goes on to talk about some 6 additional biological as well as physical treatments, 7 which include foam collection pilot, which we have 8 identified significant nutrient reduction. We have 9 already started planting seagrasses back in the cooling 10 canal system. We have got three acres growing, and look 11 forward to seeing that continue, along with the fill 12 projects that we have already testified to last year. 13 So it generally shows a significant amount of 14 progress as well as work that is underway. 15 I have no further redirect. MS. MONCADA: 16 COMMISSIONER CLARK: All right. I think that 17 concludes everybody. Let's talk about the 18 exhibits. 19 Exhibits No. 49 through 57, do the parties 20 wish to enter their exhibits, Mr. Cavros? 21 Yes. Chair, I would move to MR. CAVROS: 22 enter Exhibits 52 through 56.

23 COMMISSIONER CLARK: All right. FPL.
24 MS. MONCADA: FPL would like to move in
25 Exhibit 57.

1 COMMISSIONER CLARK: Okay. OPC. MR. REHWINKEL: 2 Mr. Chairman, we would only 3 move Exhibit 50, unless the parties want the other 4 two entered. I think the Commission can take 5 notice of the statute and its orders. 6 COMMISSIONER CLARK: Okay. All right. 7 MR. REHWINKEL: Can I just, for the --8 COMMISSIONER CLARK: Yes. 9 MR. REHWINKEL: -- practice point here. 10 I don't know how Mr. Cavros feels. I have no 11 problem with Exhibit 57 coming in, just as in the 12 normal course of redirect. I don't believe it's a 13 good precedent to admit it on the basis of 14 substantial completion because it is a different 15 document. But I have no problem, based on the 16 predicate that was laid and the discussion that you 17 had with counsel, for it coming in and considered 18 on the basis of what redirect it was addressed to. 19 I just don't think substantial completion is the 20 basis, but I think it's valid to come in. 21 COMMISSIONER CLARK: Thank you. 22 Mr. Cavros. 23 And I would just like to add on MR. CAVROS: 24 to that. I am a little concerned about entering 25 this into the record on redirect. You know, the

1 parties haven't had a chance to review it or cross-examine the witness on it, so I have some 2 3 concerns about entering documents into the record 4 that come in on redirect without the parties' 5 ability to cross-examine the witness on them. Ms. 6 COMMISSIONER CLARK: Ms. Moncada. 7 MS. MONCADA: Thank you. 8 With regards to the parties' ability to review 9 it, I did provide last week, and I think even the 10 week before, a copy of that letter to Mr. Cavros 11 for his review and consideration. 12 And with respect to it coming in during 13 redirect, it -- you know, in our opinion, it should 14 have come in during Mr. Cavros' examination under 15 the Doctrine of Completeness. And I have heard 16 what Mr. Rehwinkel has to say, you know, that he 17 doesn't agree that that's the doctrine that governs 18 here, but I am happy to point to case law that 19 would say otherwise. 20 The Rule of Completeness is there for the 21 purpose of avoiding misleading or incomplete 22 impressions by the Commission or, in a civil 23 context, the jury. And I have a case here out of 24 the Fourth DCA that even says, for example, if one 25 letter in a continuing correspondence between two

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1 individuals is introduced, that letter by itself 2 may be misleading, and that is what we had here 3 today. 4 COMMISSIONER CLARK: Okay. Where it came in 5 the proceedings could be my fault. I asked for it 6 to be brought back in on redirect. So that one is 7 mea culpa. 8 Mary Anne, would you give me some-9 MS. HELTON: In my opinion, Ms. Moncada gave 10 SACE notice that she had a problem with Exhibit 55 11 coming in without the response. It sounds like 12 that Mr. Cavros has had that letter for at least a 13 week or two. And if he had wanted to ask questions 14 about that letter, I think that he probably could 15 have. 16 And to me, it seems that everything is fair, 17 that Exhibit 57, when it goes into the record, you 18 can give it the weight that it is due. And I think 19 that everyone is on notice here that you should use 20 only those portions that we have discussed in the 21 hearing today. 22 We are going to allow it COMMISSIONER CLARK: 23 and enter 49 through 57 into the record as 24 presented. 25 (Whereupon, Exhibit Nos. 49-57 were received (850) 894-0828 Premier Reporting

1 into evidence.) 2 COMMISSIONER CLARK: All right. Any other 3 questions? 4 MS. MONCADA: May the witness be excused? 5 COMMISSIONER CLARK: Yes, the witness may be 6 excused. 7 Thank you. 8 (Witness excused.) 9 COMMISSIONER FAY: Mr. Chairman, I have a 10 quick question. We had a --11 COMMISSIONER CLARK: Commissioner Fay. 12 COMMISSIONER FAY: -- an exhibit, and I 13 apologize, I might have just stepped out and missed 14 It was a DERM letter to DEP on Turkey Point it. 15 Was that -- did we number that wetlands permit. 16 exhibit or was it not brought in? 17 COMMISSIONER CLARK: Which one? Say it again. 18 I am sorry. 19 COMMISSIONER FAY: DERM letter to DEP on 20 Turkey Point wetlands permit. 21 COMMISSIONER CLARK: No, that one was not 22 entered. 23 COMMISSIONER FAY: It was not entered, okay. 24 COMMISSIONER CLARK: We did not enter it. 25 COMMISSIONER FAY: Thank you.

1 COMMISSIONER CLARK: Okay. Let's qo to 2 concluding matters. 3 Staff, are there any matters that we need to 4 address? Charlie? 5 MR. MURPHY: Yes, Commissioner Clark. Ι 6 believe that we are in a posture that we could 7 possibly stipulate a Type 2 stipulation of FPL's Issues 10C and 10D addressing the avian program. 8 9 FPL's language would be stipulated. It's found on 10 page 12 and 13 of the prehearing order, if that's 11 the desire of the Commission to vote that out and 12 make a bench decision on that one. 13 Any objections by the COMMISSIONER CLARK: 14 parties? 15 The Public Counsel would take MR. REHWINKEL: 16 no position, and would not have an objection to 17 whatever action the staff and the company do. 18 COMMISSIONER CLARK: Okay. 19 Likewise for SACE. MR. CAVROS: 20 COMMISSIONER CLARK: Thanks. 21 Everybody is good. Mr. Brew? 22 We will entertain a motion to approve Okay. 23 stipulations on 10C and 10D. 24 COMMISSIONER BROWN: So moved, Mr. Chairman. 25 CHAIRMAN GRAHAM: Second.

1 COMMISSIONER CLARK: I have a motion and a 2 second. 3 Any discussion? 4 All in favor, say aye. 5 (Chorus of ayes.) 6 COMMISSIONER CLARK: All right. The motion 7 carries. 8 MR. MURPHY: Thank you, sir. 9 COMMISSIONER CLARK: All right. Charlie. 10 Post-hearing briefs regarding the MR. MURPHY: 11 contested issues are due on November 16th, and 12 should not exceed 40 pages. 13 There will be a staff recommendation on 14 November 29th, and it should go to the 15 December 11th Agenda. 16 COMMISSIONER CLARK: All right. Any of the 17 parties have any additional concerns that should be 18 addressed at this time? 19 COMMISSIONER POLMANN: Mr. Chairman. 20 COMMISSIONER CLARK: Commissioner Polmann. 21 COMMISSIONER POLMANN: Just a guick closing 22 remark. 23 I appreciate FPL recognizing my comments. Ι 24 assure you I am not here testifying. I truly was 25 trying to clarify for my own understanding, and I

1 just put that on the record. 2 I should have used a different MS. MONCADA: 3 word, Mr. Chairman. I am sorry, Commissioner 4 Polmann. 5 COMMISSIONER POLMANN: Thank you very much. 6 COMMISSIONER CLARK: All right. That does 7 conclude the 07 docket. 8 Before we move, let me do a quick opinion and 9 survey here. I am going to get the Commission's 10 opinion on whether or not to continue. 11 It is 5:30. If this is going to be a lengthy 12 proceeding in the 01 docket, then I think we would 13 just as soon come back tomorrow. If we can wrap 14 this thing up pretty quick, I think I would say 15 within one hour, I think everyone would be subject 16 to -- I am going to propose that to the Commission. 17 Can you guys give me just any -- I am not 18 putting you under any gun or pressure. Just give me a ballpark on what your -- how long you think 19 20 your line of questioning would be. We will start 21 with OPC. 22 MR. REHWINKEL: My questions, at this time, 23 would be in excess of an hour. 24 COMMISSIONER CLARK: Okay. 25 MR. REHWINKEL: Maybe closer to two.

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1 COMMISSIONER CLARK: Okay. That is going to eliminate that little issue then. 2 The rest of you 3 don't need to answer tonight. 4 Commission, is it good with you guys, are 5 y'all comfortable with coming back and let's 6 wrapping this thing up tomorrow morning? Everybody 7 comfortable with it? 8 COMMISSIONER FAY: I am not excited about it. 9 CHAIRMAN GRAHAM: I was going to say, see what 10 you can get done today and then come back and 11 finish up in the morning. 12 COMMISSIONER CLARK: Yeah. 13 MS. MONCADA: And if you are taking comments 14 from the utilities, or the parties, I agree with 15 Chairman Graham. There is much of the fuel docket 16 that will be stipulated, a substantial portion of 17 it will, and maybe some of us can start heading 18 back home tomorrow earlier than --19 COMMISSIONER CLARK: Okay. I have no 20 objection to that. So let me go back to --21 Mr. Brew, any idea? 22 I, for one, would be willing MR. BREW: Yes. 23 to stay as long as it takes, but I have about 40 24 minutes of cross. 25 COMMISSIONER CLARK: Okay. And FIPUG. Okay.

All right. Well, let's give it a run. We are going to go until about 6:30. We will see how that looks. And, staff, I hope you are okay with this. Ι know we are trying to limit this thing and not push it too hard too far for you guys, but let's take a five-minute break and we will come right back and get back on it. (Proceedings concluded at 5:40 p.m.) 

1	CERTIFICATE OF REPORTER
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3	COULT OF HEOR )
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5	I, DEBRA KRICK, Court Reporter, do hereby
б	certify that the foregoing proceeding was heard at the
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11	and that this transcript constitutes a true
12	transcription of my notes of said proceedings.
13	I FURTHER CERTIFY that I am not a relative,
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16	attorney or counsel connected with the action, nor am I
17	financially interested in the action.
18	DATED this 7th day of November, 2018.
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20	Debbri R Krici
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22	DEBRA R. KRICK
23	NOTARY PUBLIC COMMISSION #GG015952
24	EXPIRES JULY 27, 2020
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