



**Kenneth M. Rubin**  
**Senior Counsel**  
**Florida Power & Light Company**  
**700 Universe Boulevard**  
**Juno Beach, FL 33408-0420**  
**(561) 691-2512**  
**(561) 691-7135 (Facsimile)**  
**Ken.Rubin@fpl.com**

August 31, 2018

**-VIA ELECTRONIC FILING -**

Ms. Carlotta S. Stauffer  
Commission Clerk  
Florida Public Service Commission  
2540 Shumard Oak Blvd.  
Tallahassee, FL 32399-0850

**Re: Docket Number: 20180049-EI**  
**Petition by Florida Power & Light Company for Evaluation of Storm Restoration Costs**  
**Related to Hurricane Irma**

Dear Ms. Stauffer:

Please find enclosed for electronic filing in the above referenced docket Florida Power and Light Company's Petition for Evaluation of Storm Restoration Costs Related to Hurricane Irma, together with the prefiled Direct Testimony and Exhibits of FPL witnesses Manuel B. Miranda, Keith Ferguson and Eduardo DeVarona.

Please contact me should you or your Staff have any questions or concerns regarding this filing at (561) 691-2512.

Sincerely,

/s/Kenneth M. Rubin  
Kenneth M. Rubin

Enclosure

**BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**

In re: Evaluation of storm restoration costs for Florida  
Power & Light Company related to Hurricane Irma

Docket No. 20180049-EI

Filed: August 31, 2018

**PETITION BY FLORIDA POWER & LIGHT COMPANY  
FOR EVALUATION OF STORM RESTORATION COSTS  
RELATED TO HURRICANE IRMA**

On February 22, 2018, the Florida Public Service Commission (“Commission”) established a docket for the evaluation of storm restoration costs for Florida Power & Light Company (“FPL” or the “Company”) related to Hurricane Irma (“Hurricane Irma Costs”). On June 7, 2018, the Commission issued an Order Establishing Procedure (“OEP”) requiring FPL to submit Testimony and Exhibits on August 31, 2018. Consistent with the OEP, FPL hereby files this petition (the “Petition”) and supporting testimony and exhibits. Specifically, FPL requests the Commission find that Hurricane Irma Costs were reasonable and that FPL’s activities in restoring power following Hurricane Irma were prudent.

FPL is not seeking through this proceeding to establish a charge for the recovery of the Hurricane Irma Costs or replenishment of the storm reserve. As outlined in FPL’s Petition for Review of Florida Power & Light Company’s Proposed Treatment of Tax Impacts Associated with Tax Cuts and Jobs Act of 2017 in Docket No. 20180046-EI, FPL recorded the Hurricane Irma Costs as a base operation and maintenance (“O&M”) expense and plans to offset this expense with the expected tax savings from the Tax Cuts and Jobs Act of 2017 (“Tax Act”). Rather, FPL files this Petition and supporting testimony in accordance with Order No. PSC-2018-0290-PCO-EI to facilitate an evaluation of the Hurricane Irma Costs and in support of the requested finding.

In support of the Petition, FPL states as follows:

1. The name and address of the Petitioner is:

Florida Power & Light Company  
700 Universe Blvd  
Juno Beach, FL 33408

2. Any pleading, motion, notice, order or other document required to be served upon the Petitioner or filed by any party to this proceeding should be served upon the following individuals:

Kenneth A. Hoffman  
Vice President, Regulatory Affairs  
Florida Power & Light Company  
215 South Monroe Street, Suite 810  
Tallahassee, FL 32301  
Phone: 850-521-3919  
Fax: 850-521-3939  
Email: ken.hoffman@fpl.com

Kenneth M. Rubin  
Senior Counsel  
Kevin I.C. Donaldson  
Senior Attorney  
Christopher T. Wright  
Senior Attorney  
Florida Power & Light Company  
700 Universe Boulevard  
Juno Beach, FL 33408-0420  
Phone: 561-691-2512  
Fax: 561-691-7135  
Email: ken.rubin@fpl.com

3. The Commission has jurisdiction pursuant to Sections 366.04, 366.05, 366.06 and 366.076, Florida Statutes, and Rule 25-6.0431, F.A.C.

4. FPL is a corporation organized and existing under the laws of the State of Florida and is an electric utility as defined in Section 366.02(2), Florida Statutes.

5. This Petition is being filed consistent with Rule 28-106.201, F.A.C. The agency affected is the Commission, located at 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399. This case does not involve reversal or modification of an agency decision or an agency's proposed action. Therefore, subparagraph (c) and portions of subparagraphs (b), (e), (f) and (g) of subsection (2) of that rule are not applicable to this Petition. In compliance with subparagraph (d), FPL states that it is not known which, if any, of the issues of material fact set

forth in the body of this Petition may be disputed by any others who may plan to participate in this proceeding. The discussion below demonstrates how the Petitioner's substantial interests will be affected by the agency determination.

### **Background**

6. On August 30, 2017, Tropical Storm Irma developed more than 400 miles west of the Cape Verde Islands. In the days that followed, as Irma moved westward and intensified into a major hurricane, FPL's emergency preparedness teams monitored the storm closely and began preliminary preparations for addressing internal and external resource requirements, logistics needs and system operations conditions. On Monday, September 4, as forecasts projected potential Florida impacts, Governor Rick Scott declared a state of emergency in all 67 Florida counties.

7. On Tuesday, September 5, Hurricane Irma intensified into a Category 5 hurricane with sustained winds reaching 180 mph, making it one of the strongest hurricanes ever observed in the open Atlantic Ocean.<sup>1</sup> As Hurricane Irma continued westward into the Caribbean, it caused catastrophic damage to the islands of Barbuda, Saint Barthélemy, Saint Martin, Anguilla and the U.S. Virgin Islands. Hurricane Irma's trail of destruction resulted in billions of dollars in damage and left some areas of these islands barely habitable, with thousands of people homeless.

8. Hurricane Irma was a massive slow-moving storm roughly the size of the entire state of Florida, as shown in Exhibit A. Based upon the projected path(s) of the storm, which was forecast to impact FPL's entire service territory, FPL officially activated its Storm

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<sup>1</sup> National Hurricane Center Tropical Cyclone Report, Hurricane Irma, [https://www.nhc.noaa.gov/data/tcr/AL112017\\_Irma.pdf](https://www.nhc.noaa.gov/data/tcr/AL112017_Irma.pdf)

Command Center on September 5, 2017. The FPL Storm Command Center serves as the centralized operations hub to plan and manage restoration efforts as well as communicate with employees, contractors, media, and other stakeholders before, during, and after the storm. FPL initiated customer communications and outreach beginning September 5, urging customers to prepare for Hurricane Irma's impacts, including potentially prolonged power outages.

9. With Hurricane Harvey impacting Texas and Louisiana just two weeks earlier, resources that may have been otherwise available to FPL were still engaged in their restoration efforts or preparing for the potential impact of Hurricane Irma in their own respective service areas. Therefore, FPL requested assistance from its mutual-assistance partners in the southeastern United States and other areas of the nation in order to obtain the resources necessary to prepare and respond to such a massive storm. This preparation involved the pre-positioning of equipment, supplies, and thousands of vegetation and restoration crews necessary to safely and quickly restore power for customers.

10. On Wednesday, September 6, the National Hurricane Center's Hurricane Irma five-day forecast "cone" encompassed the entire Florida peninsula, and voluntary and mandatory evacuation orders were issued in several counties. FPL initiated automated calls and text messages to its approximately 4.9 million customers, urging them to prepare for expected power outages. On the morning of Thursday, September 7, the National Hurricane Center issued its first storm surge and hurricane watches for the southern Florida peninsula. As of Thursday afternoon, FPL had mobilized a restoration workforce of more than 11,000 employees and contractors, activated more than 20 staging sites, and started to pre-position crews in the areas of FPL's service territory anticipated to be hardest hit by Hurricane Irma.

That evening, Governor Scott directed all public K-12 schools, state colleges, state universities, and state offices to close, and the National Hurricane Center issued its first storm surge and hurricane warnings for Florida, extending from Jupiter Inlet southward around the peninsula to Bonita Beach on Florida's Gulf Coast, and including the Florida Keys, Florida Bay, and Lake Okeechobee areas. Storm surge and hurricane watches were extended northward into the Treasure Coast and Sarasota and Manatee counties.<sup>2</sup>

11. As Hurricane Irma approached Florida, forecasts increased in certainty that the state would be seriously impacted, with possible landfall in Miami-Dade County, the most heavily populated area served by FPL. As FPL and its customers proceeded with their final storm preparations, Hurricane Irma continued on its destructive path, making landfall as a Category 5 storm in northern Cuba on Saturday, September 9. At this point, Hurricane Irma's hurricane-force winds and tropical storm-force winds extended outward from its center 70 miles and 195 miles, respectively, and FPL's service territory began to experience the effects of Hurricane Irma. While its interaction with Cuba somewhat weakened Hurricane Irma, the storm regained some intensity, becoming a Category 4 hurricane as it moved toward the Florida Straits.

12. Hurricane Irma made its first direct U.S. landfall in the Florida Keys during the morning of Sunday, September 10, as a Category 4 hurricane, causing extensive damage to, and in many cases, the destruction of structures and knocking out power, telecommunications and other services throughout the area. Those hurricane-force winds extended up to 80 miles and tropical storm-force winds extended up to 220 miles from Hurricane Irma's center.

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<sup>2</sup> National Weather Service Hurricane Irma Forecast Advisory 36, Sept. 7, 10 p.m. Eastern Standard Time (Sept. 8, 0300 Coordinated Universal Time) <http://www.nhc.noaa.gov/archive/2017/all11/all112017.fstadv.036.shtml>

Hurricane Irma made its second direct U.S. landfall in the Marco Island/Naples area of Southwest Florida as a Category 3 hurricane, with sustained winds of 115 mph. Throughout Sunday, virtually all of southern Florida, from the east coast to the west coast, experienced hurricane-force winds, tropical storm-force winds and tornadic activity as Hurricane Irma's reach expanded outward up to 400 miles from its center. Maximum sustained winds of 112 mph and a gust of 130 mph were reported in Marco Island. A 142 mph wind gust was reported at the Naples Municipal Airport. Sustained hurricane force winds extended well inland over the southern Florida peninsula. At Government Cut off of Miami Beach, sustained winds of 75 mph and a wind gust of 112 mph at Deerfield Beach were recorded. Nearly all of the inland observations in the Miami-Dade and Broward County metro area reported sustained winds just below hurricane force. The Opa Locka Airport reported sustained winds of 64 mph with a gust of 85 mph and several other nearby stations reported similar wind speeds.

13. As Hurricane Irma continued northward and its center approached the Tampa and Orlando areas, hurricane conditions began to diminish. However, tropical storm conditions were still experienced on both the west and east coasts of the state. Reports from both sides of the state confirmed Irma's expansive wind field. For example, just offshore of Tampa in the Gulf of Mexico, sustained winds of 51 mph were measured and just off the east coast of Florida at Cape Canaveral, sustained winds of 64 mph were measured. Tropical storm conditions were also reported across much of northern Florida, especially to the east of the center, e.g., sustained winds of 59 mph and a gust of 86 mph were measured at the Jacksonville International Airport. Hurricane Irma also brought storm surge and tremendous amounts of rainfall across the Florida peninsula, with up to 21.66 inches reported in St. Lucie County, and significant flooding in FPL's service area as far north as St. Augustine.

14. During the afternoon and evening of September 10, Hurricane Irma continued moving slowly northward and continued on that track for approximately 24 hours, covering large parts of the Florida peninsula with hurricane-force winds, tropical storm-force winds, and heavy rainfall. Hurricane Irma's slow-moving nature and wide geographic impact were major factors that contributed directly to the extensive damage sustained throughout FPL's service area. For example, because Hurricane Irma impacted FPL's entire service area, FPL had to ensure that restoration crews that had been pre-positioned were out of harm's way to ensure the crews could safely begin the restoration process when the storm passed their area.

15. Hurricane Irma turned out to be the largest and most damaging hurricane event FPL and Florida have ever faced. The destructive storm impacted all 35 counties and 27,000 square miles of FPL's service territory, causing more than 4.4 million FPL customers to lose power. FPL's overall preparation for the hurricane resulted in the assembly and deployment of the largest storm restoration workforce in U.S. history, with workers from 30 states and Canada, a number that grew to more than 28,000 at its peak (more than three times the size of FPL's normal workforce) and spread across 29 staging sites the Company established throughout its service territory.

16. FPL's preparation and ensuing coordinated response enabled the Company to restore service to 50% of customers within one day, 95% of its customers within one week, and 99% of its customers within ten days after the storm left FPL's service territory. This effort represents the fastest post-hurricane restoration of electric service to the largest number of people by any one utility in U.S. history.



17. A comparison of electric service restoration to FPL customers following Hurricanes Irma in 2017 and Wilma in 2005 shows overall improvements for customers and the entire state.<sup>3</sup>

<b>Hurricane Irma vs. Hurricane Wilma</b>		
	<b>Irma</b>	<b>Wilma</b>
<b>Year</b>	<b>2017</b>	<b>2005</b>
<b>Category Storm</b>	3	3
<b>FL Landfall Maximum Sustained Winds</b>	115 mph	120 mph
<b>FPL Counties Impacted</b>	35	21
<b>Customers Affected</b>	4.4 million	3.2 million
<b>% of Total Customers</b>	91%	75%
<b>Average Time Without Power</b>	2.3 days	5.4 days
<b>Essentially Restored<sup>4</sup></b>	10 days	18 days
<b>50% of Customers Restored</b>	1 day	5 days
<b>75% of Customers Restored</b>	3 days	8 days
<b>95% of Customers Restored</b>	7 days	15 days

18. As of the filing of this Petition, FPL is continuing to conduct follow-up work in response to Hurricane Irma; however, FPL has estimated the amount of remaining follow-up work needed and included those amounts in its Hurricane Irma Costs. Examples of this follow-up work include repairing storm-damaged street lights, performing thermo-vision inspections on storm-affected feeders, and repairing/replacing storm-damaged equipment and facilities.

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<sup>3</sup> For comparison, it is important to note that Hurricane Wilma was a much faster forward moving storm, crossing Florida in approximately 5 hours, which would result in less damage than a slower moving storm of a similar intensity, such as Hurricane Irma.

<sup>4</sup> Essentially restored is defined as restoring at least 99% of customers.

19. FPL witness Miranda's pre-filed direct testimony provides an overview of the storm-related preparedness plans and processes utilized during Hurricane Irma. He also provides details of the Transmission and Distribution ("T&D") restoration work and costs incurred as a result of the storm impacting all 35 counties in FPL's service territory.

20. FPL witness Devarona's pre-filed direct testimony provides an overview of FPL's non-T&D business units' storm preparation and restoration activities related to Hurricane Irma. FPL's nuclear, customer service, general corporate administration, and power generation business units incurred costs necessary to the execution and success of FPL's storm response. These costs are related to preparing FPL's non-T&D facilities for the extreme weather brought about by Hurricane Irma and repairing those facilities post-storm. These non-T&D storm related activities and costs were a prudent and reasonable part of FPL's overall Hurricane Irma response.

### **Costs for Restoration**

21. As shown in FPL witness Ferguson's pre-filed direct testimony, FPL incurred a total of \$1.4 billion in storm restoration costs and follow-up work related to Hurricane Irma. Pursuant to Paragraph 6 of the 2016 Rate Case Settlement Agreement ("Settlement Agreement"),<sup>5</sup> FPL is authorized to seek incremental cost recovery of the Hurricane Irma Costs and replenishment of the storm reserve via an interim storm charge in order to restore funding to the reserve at the level approved by the Commission per the Settlement Agreement. Under this recovery mechanism, customers would have begun paying on March 1, 2018 a monthly storm charge equivalent to \$4.00 per 1,000 kWh on a residential bill. That monthly storm charge would have increased to the equivalent of about \$5.40 per 1,000 kWh on a

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<sup>5</sup> Order No. PSC-2016-0560-AS-EI, issued on December 15, 2016.

residential bill, covering the two-year period from January 2019 through December 2020.

22. As explained in FPL's Petition in Docket No. 20180046-EI, because of the enactment of the Tax Act in December 2017, FPL decided to forego seeking incremental recovery of Hurricane Irma Costs under FPL's Settlement Agreement and, instead, recorded the Hurricane Irma Costs to base O&M expense as permitted under Rule 25-6.0143(2)(h), F.A.C.,<sup>6</sup> which will be offset by the expected tax savings, in order to entirely avoid an incremental storm charge to FPL customers. This approach provides customers with a nearly immediate economic benefit from the tax savings, and the benefit of avoiding a multi-year interim storm charge that would increase for customers through 2019 and 2020.

23. As a result of the foregoing, FPL is not seeking through this proceeding to establish a charge for the recovery of the Hurricane Irma Costs or replenishment of the storm reserve. Instead, in accordance with Order No. PSC-2018-0290-PCO-EI, the Company files this Petition and supporting testimony and exhibits to facilitate an evaluation of storm restoration costs incurred by FPL related to Hurricane Irma.

24. FPL charged \$1.4 billion in storm restoration costs (including all actual and estimated follow-up work) related to Hurricane Irma to FERC Account 186, as shown on the schedule attached as FPL witness Ferguson's Exhibit KF-1.<sup>7</sup> FPL witness Ferguson's Exhibit KF-1 breaks down the approximate costs by major category, including regular and overtime

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<sup>6</sup> Part (2)(h) of the Rule allows utilities the option to "charge storm-related costs as operating expenses rather than charging them to Account No. 228.1," which is what FPL opted to do with Hurricane Irma storm restoration costs.

<sup>7</sup> FPL finalized the cost estimate for Hurricane Irma on May 31, 2018, and estimated the amount of remaining follow-up work related to Hurricane Irma. The \$1.4 billion shown on FPL witness Ferguson's Exhibit KF-1 is the total final storm restoration costs incurred for Hurricane Irma.

payroll, payroll overheads, contractor costs, line clearing, vehicle and fuel, materials and supplies, logistics, and other restoration costs.

25. FPL then determined the amount of capital, below-the-line expenses, and third-party reimbursements accumulated in FERC Account 186 and removed those costs from FERC Account 186 and recorded them to the appropriate FERC accounts. As reflected on the schedule attached as FPL witness Ferguson's Exhibit KF-1, after removing the Hurricane Irma related capital, third party reimbursements, and below-the-line expenses from FERC Account 186, the remaining total amount of the Hurricane Irma Costs was \$1.27 billion, which was charged to O&M expense.

26. Because FPL is not seeking through this proceeding to establish a charge for recovery of any Hurricane Irma Costs, nor is it seeking replenishment of the storm reserve, the Incremental Cost and Capitalization Approach ("ICCA") methodology under Rule 25-6.0143, F.A.C., is not applicable to this proceeding. However, to facilitate the Commission's analysis and evaluation of FPL's Hurricane Irma Costs, FPL also has provided a breakdown of those costs as they would have been presented had the ICCA methodology been applicable. The additional non-incremental ICCA adjustments required under the ICCA methodology are provided on the schedule attached as FPL witness Ferguson's Exhibit KF-2. Because the ICCA methodology is not applicable, these adjustments are being provided for informational purposes only and to facilitate review of the Hurricane Irma Costs.

27. FPL's retail recoverable costs (after removing capitalizable costs and accounting for jurisdictional factors and non-incremental costs) that would have been charged to the storm reserve for Hurricane Irma if the ICCA methodology applied would have been approximately \$1.25 billion (Retail Recoverable Incremental Costs), also shown on FPL witness Ferguson's

Exhibit KF-2. Again, however, FPL is not seeking any incremental recovery for the storm costs through either a surcharge or depletion of the storm reserve.

28. FPL witnesses' pre-filed testimonies demonstrate that the Company's actions and activities before, during, and after Hurricane Irma were prudent and consistent with "what a reasonable utility manager would do in light of the conditions and circumstances which he knew or reasonably should have known at the time the decision was made." *In Re Fuel & Purchased Power Cost Recovery Clause*, Docket No. 080001-EI, Order No. PSC-2009-0024-FOF-EI, 2009 WL 692572 (FPSC Jan. 7, 2009) (emphasis added).

**WHEREFORE**, for the above and foregoing reasons, FPL respectfully requests that the Commission find that Hurricane Irma Costs were reasonable and that FPL's activities in restoring power were prudent.

Respectfully submitted,

By: Kenneth M. Rubin  
Kenneth M. Rubin  
Senior Counsel – Regulatory  
Kevin I. C. Donaldson  
Senior Attorney – Regulatory  
Christopher T. Wright  
Senior Attorney - Regulatory  
Florida Power & Light Company  
700 Universe Boulevard  
Juno Beach, Florida 33408-0420



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**BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**  
**FLORIDA POWER & LIGHT COMPANY**  
**DIRECT TESTIMONY OF MANUEL B. MIRANDA**  
**DOCKET NO. 20180049-EI**  
**AUGUST 31, 2018**

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1 **I. INTRODUCTION**

2

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

4 A. My name is Manuel B. Miranda. My business address is Florida Power & Light  
5 Company, 700 Universe Blvd., Juno Beach, Florida, 33408.

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

7 A. I am employed by Florida Power & Light Company (“FPL” or the “Company”) as  
8 Senior Vice President of Power Delivery.

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

10 A. As Senior Vice President of Power Delivery, I am responsible for the planning,  
11 engineering, construction, operation, maintenance, and restoration of FPL’s  
12 transmission and distribution (“T&D”) electric grid. During storm restoration  
13 events, I assume the additional role of FPL’s Area Commander. In this capacity, I  
14 am responsible for the overall coordination of all restoration activities to ensure the  
15 successful implementation of FPL’s restoration strategy, which is to restore service  
16 to our customers safely and as quickly as possible.

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

18 A. I have a Bachelor of Science in Mechanical Engineering from the University of  
19 Miami and a Master in Business Administration from Nova Southeastern  
20 University. I joined FPL in 1982 and have 36 years of technical, managerial and  
21 commercial experience gained from serving in a variety of positions within  
22 Customer Service, Distribution and Transmission. For more than 10 years, I have  
23 held several vice president positions within Distribution and Transmission,

1 including my current position. For storm restoration events, I have served as FPL's  
2 Area Commander for the last five years. Additionally, for the last five years, I have  
3 served as a member on the National Response Executive Committee, a group that  
4 oversees a process designed to enhance the industry's ability to respond to national-  
5 level events by improving access and visibility to resources from all across the  
6 country.

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

8 A. Yes. I am sponsoring the following exhibits:

- 9 • MBM-1 – Satellite View of Hurricane Irma
- 10 • MBM-2 – FPL's T&D Hurricane Irma Restoration Costs

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

12 A. The purpose of my testimony is to provide an overview of FPL's emergency  
13 preparedness plan and restoration process. I will also provide details for the work  
14 and costs incurred by FPL's T&D organization in connection with Hurricane Irma.  
15 Specifically, I will describe FPL's T&D Hurricane Irma storm preparations,  
16 response and restoration efforts, follow-up work activities necessary to restore  
17 FPL's facilities to their pre-storm condition, and details on T&D storm restoration  
18 costs. Finally, I will discuss FPL's overall successful performance in restoring  
19 service to those customers that experienced an outage due to Hurricane Irma. As a  
20 result, my testimony supports the prudence of FPL's activities and the  
21 reasonableness of the Hurricane Irma T&D restoration costs.

22

23

1 **II. EMERGENCY PREPAREDNESS PLAN & RESTORATION PROCESS**

2

3 **Q. What is the objective of FPL’s emergency preparedness plan and restoration**  
4 **process?**

5 A. The primary objective of FPL’s emergency preparedness plan and restoration  
6 process is to safely restore critical infrastructure and the greatest number of  
7 customers in the least amount of time so that FPL can return the communities it  
8 serves to normalcy.

9 **Q. Describe generally how FPL approaches this objective.**

10 A. Achieving this objective requires extensive planning, training, adherence to  
11 established storm restoration processes, and execution that can be scaled quickly to  
12 match each particular storm. To these ends, FPL’s emergency preparedness plan  
13 incorporates comprehensive annual restoration process reviews and includes  
14 lessons learned, new technologies, and extensive training activities to ensure FPL’s  
15 employees are well prepared.

16

17 While FPL has processes in place to manage and mitigate the costs of restoration  
18 (including actions taken prior to a storm event), the objective of safely restoring  
19 electric service as quickly as possible cannot, by definition, be pursued as a “least  
20 cost” process. Said another way, restoration of electric service at the lowest  
21 possible cost will not result in the most rapid restoration.

22

23

1 **Q. What are the key components of FPL’s emergency preparedness plan?**

2 A. FPL’s emergency preparedness plan is the product of years of planning, study, and  
3 refinement based upon actual experience. Key components of this plan include:

- 4 • Disaster response policies and procedures;
- 5 • Scalable internal organizational structures based on the required response;
- 6 • Planned timeline of activities to assure rapid notification and response;
- 7 • Mutual assistance agreements and vendor contracts and commitments;
- 8 • Plans and logistics for the staging and movement of resources, personnel,  
9 materials, and equipment to areas requiring service restoration;
- 10 • Communication and notification plans for employees, customers,  
11 community leaders, emergency operation centers, and regulators;
- 12 • An established centralized command center with an organization for  
13 command and control of emergency response forces;
- 14 • Checklists and conference call agendas to organize, plan, and report  
15 situational status;
- 16 • Damage assessment modeling and reporting procedures;
- 17 • Field and aerial patrols to assess damage;
- 18 • Comprehensive circuit patrols to gather vital information needed to identify  
19 the resources required for effective restoration; and
- 20 • Systems necessary to support outage management processes and customer  
21 communications.

1 This plan is comprehensive and well-suited for the purpose of facilitating prompt  
2 and effective responses to emergency conditions, such as hurricanes, to restore  
3 power as quickly as possible.

4 **Q. Does FPL regularly update its plan?**

5 A. Yes. Each year, prior to storm season, FPL reviews and updates its emergency  
6 preparedness plan. To ensure rapid restoration, key focus areas of this plan are  
7 staffing the storm organization, preparing logistics support, enhancing customer  
8 communication methods, and ensuring that required computer and  
9 telecommunication systems are in place. As part of this process, all business units  
10 within FPL identify personnel for staffing the emergency response organization. In  
11 many cases, employees assume roles different than their regular responsibilities.  
12 Training is conducted for thousands of storm personnel each year, regardless of  
13 whether they are in a new role or a role in which they have served many times.  
14 This includes training on processes that range from clerical and analytical to  
15 reinforcing restoration processes for managers and directors.

16 **Q. What else does FPL do to prepare for each storm season?**

17 A. In the logistics support area, preparations include: 1) increasing material inventory;  
18 2) verifying and securing adequate lodging arrangements; 3) securing staging sites  
19 (temporary work sites that are opened to serve as operation hubs for Incident  
20 Management Teams to plan, coordinate, and execute area restoration plans and also  
21 provide parking, food, laundry service, medical care, hotel coordination, and, if  
22 necessary, housing for large numbers of external and internal restoration  
23 resources); 4) verifying staging site plans; and 5) securing any necessary

1 agreements and contracts for these support services. These activities are important  
2 to ensure availability and on-time delivery of these critical items at a reasonable  
3 cost. All of this planning and preparation provides the foundation to begin any  
4 restoration effort.

5 **Q. Does FPL regularly test its emergency preparedness plan?**

6 A. Yes. Each year, prior to the start of hurricane season, FPL tests its readiness during  
7 a hurricane “dry run” exercise. This event simulates a storm (or multiple storms)  
8 impacting FPL’s service territory. The purpose is to provide a realistic, challenging  
9 scenario that causes the organization to react to situations and to practice functions  
10 not generally performed during normal operations. It is a full-scale exercise,  
11 executed with active participation by employees representing every business unit in  
12 the company as well as external organizations, local government officials, and  
13 media representatives. After months of preparation, the formal exercise activities  
14 begin 96 hours before the mock hurricane’s forecasted date and time of impact.  
15 FPL’s Command Center is fully mobilized and staffed. Field patrollers are  
16 required to complete simulated damage assessments that are then utilized by office  
17 staff to practice updating storm systems, acquiring resources, and developing  
18 estimated times of restoration. The exercise also includes simulating customer and  
19 other external communications as well as updating our outage management system  
20 and other storm-specific applications. Additionally, FPL conducts an annual full-  
21 scale staging site exercise to assess the readiness of staging site processes (e.g.,  
22 communications, logistics, materials, and equipment). This training is conducted in  
23 the course of our ordinary approach to business and the costs of these activities are

1 not charged to storm costs and, therefore, are not part of the evaluation of costs the  
2 Florida Public Service Commission is conducting in this proceeding.

3 **Q. How does FPL respond when a storm threatens its territory?**

4 A. FPL responds by taking well-tested actions at specified intervals prior to a storm's  
5 impacts. When a storm is developing in the Atlantic Ocean or Gulf of Mexico, our  
6 staff meteorologist continuously monitors conditions and various departments  
7 throughout the company initiate preliminary preparations for addressing internal  
8 and external resource requirements, logistics needs, and system operation  
9 conditions.

10

11 At 96 to 72 hours prior to the projected impact to FPL's system, FPL activities  
12 include: activating the FPL Command Center; alerting all storm personnel;  
13 forecasting resource requirements; developing initial restoration plans; activating  
14 contingency resources; and identifying available resources from mutual assistance  
15 utilities. In addition, all FPL sites begin to prepare their facilities for the impact of  
16 the storm.

17

18 At 72 to 48 hours, computer models are run based on the projected intensity and  
19 path of the storm to forecast expected damage, restoration workload, and potential  
20 customer outages. Based on the modeled results, commitments are confirmed for  
21 restoration personnel, materials, and logistics support. Staging site locations are  
22 then identified and confirmed based on the storm's expected path.  
23 Communications lines are ordered for the staging sites and satellite

1           communications are expanded to improve communications efforts. External  
2           resources are activated and begin moving toward the expected damage areas in our  
3           service territory and internal personnel may also be moved closer to the expected  
4           damage.

5  
6           At 24 hours, the focus turns to pre-positioning personnel and supplies to begin  
7           restoration as soon as it is safe to do so. As the path and strength of the storm  
8           changes, FPL continuously re-runs damage models and adjusts plans accordingly.  
9           Also, FPL contacts community leaders and County Emergency Operations Centers  
10          (“EOCs”) for coordination and to review and reinforce FPL’s restoration plans.  
11          This outreach includes confirming the assignment of FPL personnel to the County  
12          EOCs for the remainder of the storm and identifying restoration personnel to assist  
13          with road clearing and search-and-rescue efforts. FPL also has personnel assigned  
14          to the State EOC to support coordination and satisfy information needs.  
15          Throughout the process, FPL also provides critical information (e.g., public safety  
16          messages, storm preparation tips, and guidance if an outage occurs) to the news  
17          media, customers and community leaders.

18   **Q.   Has FPL had any recent past opportunities to execute its emergency**  
19   **preparedness plan and overall restoration process?**

20   A.   Yes. In September and October 2016, FPL was required to implement its full-scale  
21   emergency preparedness plan and restoration process as a result of impacts from  
22   Hurricanes Hermine and Matthew, respectively.



1 **Q. Did FPL implement improvements to its emergency preparedness plans and**  
2 **restoration process based on its experiences from these recent storms?**

3 A. Yes. Consistent with its culture of continuous improvement, FPL implemented  
4 several enhancements to its processes based upon its experience with the 2016  
5 storms. I will discuss these later in my testimony.

6 **Q. How does FPL ensure the emergency preparedness plan and restoration**  
7 **process are consistently followed for any given storm experience?**

8 A. Significant standardization in field operations has been institutionalized including:  
9 work-site organization; work preparation and prioritization; and damage  
10 assessment. For external crew personnel, FPL provides an orientation that includes  
11 safety rules, work practices, and engineering standards. For external personnel  
12 providing patrol and management assistance, training is provided to explain their  
13 duties as well as FPL processes and procedures. Also, procedures to ensure rapid  
14 preparation and mobilization of remote staging sites have been developed to allow  
15 FPL to establish these sites in the most heavily damaged areas.

16

17 Storm plan requirements are documented in a variety of media including manuals,  
18 on-line procedures, checklists, job aids, process maps, and detailed instructions.  
19 System data is continuously monitored and analyzed throughout the storm. FPL  
20 conducts multiple daily conference calls, utilizing structured checklists and  
21 agendas, with FPL Command Center leadership to confirm process discipline,  
22 discuss overall progress, and identify issues that can be resolved quickly because  
23 leaders from all FPL business units participate. Conference calls are also held

1 twice a day with all field restoration and logistics locations to provide a further  
2 mechanism to ensure critical activities are performed as planned and timely  
3 communications occur at all levels throughout the organization. Also, each  
4 organization within FPL conducts its own daily conference call(s) to ensure plans  
5 are executed appropriately and issues are being resolved expeditiously. Overall  
6 monitoring and performance management of field operations are performed  
7 through the FPL Command Center. In addition, FPL Command Center personnel  
8 routinely conduct field visits once restoration has begun to validate restoration  
9 process discipline and application, assess progress at remote work sites, and  
10 identify any adjustments that may be required.

11 **Q. How does FPL assess its workload requirements?**

12 A. There are a variety of factors that impact restoration workload. In each storm, FPL  
13 utilizes its damage forecast model to predict the expected damage and hours of  
14 work to restore service. These forecasts are based on the location of FPL facilities,  
15 the storm's projected path, and the effects of varying wind strengths on the electric  
16 infrastructure. As conditions change, the damage model is updated. The workload  
17 projections are matched with resource factors such as availability and location, and  
18 FPL's capacity to efficiently and safely manage and support available resources.  
19 As soon as the storm passes, certain employees are tasked with driving  
20 predetermined routes to survey damage. Additionally, FPL utilizes damage  
21 assessments obtained through aerial and field patrols and customer outage  
22 information contained in FPL's outage management system.

23

1 **Q. How does FPL begin to acquire resources?**

2 A. Normally, 96 to 72 hours prior to expected storm impact, FPL begins to contact  
3 selected contractors to assess their availability. Additionally, as a member of the  
4 Southeastern Electric Exchange (“SEE”) and Edison Electric Institute (“EEI”), FPL  
5 begins to utilize the formalized industry processes to request mutual assistance  
6 resources. At 72 to 48 hours, depending on the storm track certainty and forecasted  
7 intensity, FPL may begin to financially commit to acquire necessary resources and  
8 request that travel to and within Florida commence. Resource needs are  
9 continually reviewed and adjusted, if necessary, based on the storm’s path,  
10 intensity fluctuations, and corresponding damage model results.

11 **Q. Please provide detail on how FPL acquires additional resources.**

12 A. As previously mentioned, an important component of each restoration effort is  
13 FPL’s ability to scale up its resources to match the increased volume of workload.  
14 This includes acquiring external contractors and mutual assistance from other  
15 utilities, within (e.g., other Florida investor-owned, municipal and cooperative  
16 utilities) as well as outside of Florida. FPL is a participating member of the SEE  
17 Mutual Assistance Group. While this group is a non-binding entity, it provides  
18 FPL and other members with guidelines on how to request assistance from a group  
19 of approximately 50 utilities, primarily located in the southern and eastern United  
20 States. The guidelines require reimbursement for direct costs of payroll and other  
21 expenses, including roundtrip travel costs (i.e., mobilization/demobilization), when  
22 providing mutual aid in times of an emergency. In addition, FPL participates with  
23 EEI and the National Response Event organization to gain access to other utilities

1 and has requested assistance from those companies based on similar mutual  
2 assistance agreements. Resource requests may include line crews, tree trimming  
3 crews, patrol personnel, crew supervisors, material-handling personnel and, in  
4 some cases, logistics support.

5  
6 FPL also has a number of contractual agreements with power line and vegetation  
7 contractors throughout the U.S. Many of these agreements are with contractors that  
8 FPL utilizes during normal operations. Depending on the severity of the storm and  
9 our resource needs, a large number of additional line and vegetation companies  
10 may be contracted to provide additional support pending their release from the  
11 utilities for which they normally work. If these additional power line and  
12 vegetation contractors are needed, FPL negotiates rates with the new contractors on  
13 an as-needed basis prior to the commencement of work.

14 **Q. How does FPL take cost into account when acquiring resources for storm**  
15 **restoration?**

16 A. As indicated earlier, while rapid restoration (the primary restoration objective) does  
17 not permit the least overall cost for restoration, FPL is always mindful of costs  
18 when acquiring resources. For example, prior to storm season, FPL's storm  
19 preparation process includes negotiating contracts with vendors, which include line  
20 contractors, tree trimming contractors, logistics, environmental, and salvage  
21 contractors. For line and tree contractors, we endeavor to acquire resources based  
22 on a low-to-high cost ranking and release these same resources from storm  
23 restoration assistance in reverse cost order subject to the overriding objective of

1           quickest restoration time and related considerations. FPL also considers travel  
2           distance when procuring storm restoration resources, as longer distances require  
3           increased drive times and can result in higher mobilization/demobilization costs.  
4           Final contractor and mutual-aid resource decisions take into consideration the  
5           number, availability, relative labor costs, and travel distances of required resources.  
6           This information is then evaluated relative to the expected time to restore  
7           customers.

8   **Q.   Describe FPL’s plan for the deployment and management of the incoming**  
9   **external resources.**

10  A.   The deployment and movement of resources are coordinated through the FPL  
11   Command Center, utilizing personnel tracking and outage management systems to  
12   monitor execution of the plan. Daily management of the crews is performed by the  
13   field operations organization, which is responsible for executing FPL’s restoration  
14   strategy. Decisions on opening staging sites to position the restoration workforce  
15   in impacted areas are based primarily on the arrival time(s) of external resources.  
16   Daily analysis of workload execution and restoration progress permits dynamic  
17   resource management. This enables a high degree of flexibility and mobility in  
18   allocating and deploying resources in response to changing conditions and  
19   requirements. Another critical factor is FPL’s ability to assemble trained and  
20   experienced management teams to direct field activities. As part of the storm  
21   organization, management teams include Incident Commanders and crew  
22   supervisors to directly oversee field work.

23

1 **Q. What controls are in place for the acquisition of resources?**

2 A. FPL has centralized all external resource acquisition within the FPL Command  
3 Center organization. This organization approves resource acquisition targets,  
4 which are continually monitored by the Planning Section Chief, who reports to me  
5 and keeps me informed during the entire restoration process.

6 **Q. What processes and controls are in place to ensure the proper accounting of  
7 the work performed by these resources and their time?**

8 A. These external resources are assigned to an FPL Storm Production Lead when they  
9 arrive at their designated staging site. The Storm Production Lead is responsible  
10 for verifying crew rosters as FPL accepts these resources on to its system. The  
11 Storm Production Lead is also responsible for reviewing and approving daily  
12 timesheets to ensure that time and personnel counts are recorded accurately. The  
13 timesheets are then provided to the Finance Section Chief (whose role and  
14 responsibilities are described in FPL witness Ferguson's testimony) and sent to  
15 FPL's contractor payment center, where they are used to verify invoices received  
16 from the contracted companies.

17 **Q. What logistics, logistics support personnel, and activities are required to  
18 support the overall restoration effort?**

19 A. Logistic functions serve a key role in any successful restoration effort, i.e., ensuring  
20 that basic needs and supplies are adequately available and provided to the  
21 thousands of restoration personnel involved. These functions include, but are not  
22 limited to, the acquisition, preparation, and coordination of: staging sites,  
23 environmental services, salvage, lodging, laundry, buses, caterers, ice and water,

1 office trailers, light towers, generators, portable toilets, security guards,  
2 communications, and fuel delivery. Agreements with primary vendors are also in  
3 place prior to the storm season as part of FPL's comprehensive storm-planning  
4 process. FPL personnel from all parts of the company meet additional logistics  
5 staffing needs. Most of these employees are pre-identified, trained and assigned to  
6 provide site logistics management and support other restoration workforce needs.  
7 FPL contracts for additional logistics resources for larger restoration efforts that  
8 exceed internal logistics support capabilities.

9 **Q. Does FPL have controls in place to ensure that necessary items for logistics are**  
10 **procured and appropriately accounted for?**

11 A. Yes. FPL's logistics organization is responsible for overseeing and coordinating  
12 the procurement of resources required at our staging sites. The Logistics Section  
13 Chief and logistics team ensure that each staging site's resource requirements are  
14 initially procured and received. The Finance Section Chief also provides guidance  
15 and assistance to help ensure active, real time financial controls are in effect and  
16 adhered to during the restoration event. These points are discussed in more detail  
17 by FPL witness Ferguson.

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1 and hurricane warnings for Florida, extending from Jupiter Inlet southward around  
2 the peninsula to Bonita Beach and including the Florida Keys, Florida Bay, and  
3 Lake Okeechobee areas. Storm surge and hurricane watches were also extended  
4 northward into the Treasure Coast and Sarasota and Manatee counties. As  
5 Hurricane Irma approached Florida, forecasts increased in certainty that the state  
6 would be seriously impacted, with possible landfall in Miami-Dade County, the  
7 most heavily populated area served by FPL.

8  
9 Hurricane Irma continued on its destructive path, making landfall as a Category 5  
10 storm in northern Cuba on Saturday, September 9. At this point, Irma's hurricane-  
11 force winds and tropical storm-force winds extended outward from its center 70  
12 miles and 195 miles, respectively, and FPL's service territory began to experience  
13 the effects of Hurricane Irma. While its interaction with Cuba somewhat  
14 weakened Hurricane Irma, the storm regained some intensity, becoming a  
15 Category 4 hurricane as it moved toward the Florida Straits.

16 **Q. Please provide an overview of Hurricane Irma once it made landfall in**  
17 **Florida.**

18 A. Hurricane Irma made its first direct U.S. landfall in the Florida Keys during the  
19 morning of Sunday, September 10 as a Category 4 hurricane, causing extensive  
20 damage to, and in many cases, the destruction of structures and knocking out  
21 power, telecommunications, and other services throughout the area. The storm's  
22 hurricane and tropical-force winds extended up to 80 and 220 miles, respectively,  
23 from its center. Miami International Airport reported wind gusts of up to 72 mph.

1 Hurricane Irma made its second direct U.S. landfall in the Marco Island/Naples  
2 area of Southwest Florida as a Category 3 hurricane, with sustained winds of 115  
3 mph. Throughout Sunday, virtually all of southern Florida, from the east coast to  
4 the west coast, experienced hurricane-force winds, tropical storm-force winds, and  
5 tornadic activity as Irma's reach expanded outward up to 400 miles from its  
6 center. Maximum sustained winds of 112 mph and a gust of 130 mph were  
7 reported in Marco Island. A 142 mph wind gust was reported at the Naples  
8 Municipal Airport. Sustained hurricane force winds extended well inland over the  
9 southern Florida peninsula. At Government Cut, off of Miami Beach, sustained  
10 winds of 75 mph and a wind gust of 112 mph at Deerfield Beach were recorded.  
11 Nearly all of the inland observations in the Miami-Dade and Broward County  
12 metro area reported sustained winds just below hurricane force. The Opa Locka  
13 Airport reported sustained winds of 64 mph with a gust of 85 mph and several  
14 other nearby stations reported similar wind speeds.

15  
16 As Hurricane Irma continued northward and its center approached the Tampa and  
17 Orlando areas, hurricane conditions began to diminish, however, tropical storm  
18 conditions were still experienced on both the west and east coasts of the state.  
19 Reports from both sides of the state confirmed Irma's expansive wind field. For  
20 example, just offshore of Tampa in the Gulf of Mexico, sustained winds of 51 mph  
21 were measured and just off the east coast of Florida at Cape Canaveral, sustained  
22 winds of 64 mph were measured. Tropical storm conditions were also reported  
23 across much of northern Florida, especially to the east of the center, e.g., sustained

1 winds of 59 mph and a gust of 86 mph were measured at the Jacksonville  
2 International Airport. Irma also brought storm surge and tremendous amounts of  
3 rainfall across the Florida peninsula, with up to nearly 22 inches reported in St.  
4 Lucie County, and significant flooding in FPL's service area as far north as St.  
5 Augustine.

6  
7 During the afternoon and evening of September 10, Irma continued moving slowly  
8 northward for approximately 24 hours. Large parts of the Florida peninsula were  
9 covered with hurricane-force winds, tropical storm-force winds, and heavy rainfall  
10 for nearly two days.

11 **Q. Can you provide any comparisons (e.g., strength, size, path, etc.) between**  
12 **Hurricane Irma and Hurricane Wilma (the last major storm to make landfall**  
13 **in FPL's service territory)?**

14 A. Yes. There are several significant comparisons worth noting. First, the forward  
15 speed and paths of these two storms were very different. Hurricane Irma was a  
16 much slower storm and its path (landfall in the Keys and southwest Florida coast,  
17 exit through north Florida into Georgia) resulted in impacts throughout all of  
18 Florida. In contrast, Hurricane Wilma, cut across the southern portion of the state  
19 (landfall in the southwest Florida coast, exit through the southern east coast of  
20 Florida) and did not impact FPL's entire service territory. Hurricane Irma impacted  
21 some areas with tropical storm force winds for approximately 24 hours, while  
22 Hurricane Wilma, a faster forward moving storm, cut across the southern portion of  
23 Florida in approximately five hours.

1 Hurricane Irma also produced significantly more rainfall than Hurricane Wilma.  
2 For Hurricane Irma, rainfall totals of 10-15 inches were broadly seen within  
3 Florida, with some areas, such as St. Lucie County, sustaining a maximum rainfall  
4 of approximately 22 inches. For Hurricane Wilma, rainfall generally ranged from  
5 3-7 inches, with a maximum rainfall of approximately 11 inches at the Kennedy  
6 Space Center.

7  
8 Tornadoes were also more prevalent in Hurricane Irma than Hurricane Wilma. For  
9 Hurricane Irma, 21 tornados were confirmed within Florida (the vast majority of  
10 which were located in FPL's service territory). For Hurricane Wilma, 10 tornadoes  
11 were confirmed within Florida.

12  
13 Finally, Hurricane Irma was a much more damaging storm than Hurricane Wilma,  
14 as determined by the Cyclone Damage Potential Index (an index developed by the  
15 National Center for Atmospheric Research, which rates a storm's ability to cause  
16 destruction). In fact, based on this index, Hurricane Irma's damage potential was  
17 more than 1.5 times greater than Hurricane Wilma's damage potential.

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1 IV. FPL'S RESPONSE

2

3 Q. How did FPL initially prepare to respond to the potential impacts of  
4 Hurricane Irma?

5 A. Shortly after Tropical Storm Irma formed on August 30, 2017, FPL's emergency  
6 preparedness teams closely monitored the storm and initiated early discussions and  
7 preliminary preparations. On September 5, 2017, one day after Governor Rick  
8 Scott declared a state of emergency in all 67 counties, FPL activated its emergency  
9 response organization, fully staffed its Command Center and initiated the cadence  
10 of daily planning and management meetings to ensure the efficient and timely  
11 execution of all pre-landfall checklists and preparation activities. Also, FPL  
12 initiated customer communications and outreach, urging customers to prepare for  
13 Hurricane Irma's impacts, including potentially prolonged power outages.

14

15 Through its pre-landfall planning activities, and based on the forecasted path and  
16 intensity of the storm, FPL reasonably anticipated the consequences of a massive  
17 and potentially devastating storm and began to commit to resources to be available  
18 to support the anticipated restoration work. In fact, it was the largest pre-staging  
19 of storm resources in FPL's history, exceeding the previous largest pre-staging of  
20 resources established the year before in response to Hurricane Matthew. FPL  
21 began to open staging sites and pre-position resources throughout its service  
22 territory.

1 **Q. What was the magnitude of damage to FPL’s T&D infrastructure and the**  
2 **number of customers that experienced outages as a result of Hurricane Irma?**

3 A. As a result of Hurricane Irma’s path, size, slow movement, strength, rainfall, and  
4 associated tornadic activity, all 35 counties that FPL serves were impacted. As  
5 expected, the damage to FPL’s T&D infrastructure was more extensive and  
6 widespread than the damage experienced from Hurricane Matthew one year earlier.  
7 Additionally, customers experiencing an outage as a result of Hurricane Irma  
8 exceeded 4.4 million.

9 **Q. How did FPL ultimately respond to the impacts of Hurricane Irma?**

10 A. To respond to Hurricane Irma, FPL arranged for approximately 28,000 personnel  
11 (approximately 6,000 FPL employees and 22,000 external resources) – the largest  
12 restoration workforce ever assembled by one utility. External resources came from  
13 30 states and Canada. To support these resources and facilitate the restoration  
14 effort, FPL established 29 staging sites throughout its entire service territory –  
15 more than ever before.

16  
17 As previously mentioned, the damage to FPL’s T&D infrastructure was extensive.  
18 For example, to restore service to customers, FPL replaced over 775 miles of  
19 distribution conductor, more than 4,500 distribution transformers, and over 4,500  
20 distribution poles. As was the case with Hurricane Matthew, tree damage was also  
21 extensive, requiring a significant amount of line-clearing. Additionally, to gain  
22 access to FPL’s facilities during restoration, significant effort was required to  
23 remove fallen trees and tree branches.

1 More than 4.4 million customers experienced an outage from Hurricane Irma.  
2 While all customers were essentially restored within 10 days, the vast majority of  
3 customers were quickly restored. For example, approximately 2.3 million  
4 customers (or more than 50% of the customers experiencing an outage) had their  
5 service restored within one day; approximately 3.3 million customers (or 75% of  
6 the customers experiencing an outage) had their service restored in three days or  
7 less; and approximately 4.3 million customers (or 95% of the customers  
8 experiencing an outage) had their service restored in seven days or less. For all  
9 customers experiencing an outage, the average number of days a customer was out  
10 of service was approximately two days after the storm cleared FPL's service  
11 territory.

12  
13 FPL's effective pre-planning, well-tested and established restoration processes,  
14 together with the dedication and execution of its employees and contracted external  
15 resources, allowed FPL to achieve its goal of safely and restoring critical  
16 infrastructure and the greatest number of customers in the least amount of time.

17  
18 **V. T&D RESTORATION COSTS**

19  
20 **Q. What were the final Hurricane Irma T&D restoration costs?**

21 A. As provided in Exhibit MBM-2, FPL's T&D Hurricane Irma Restoration Costs,  
22 total T&D restoration costs were \$1.321 billion, which includes \$93.2 million for  
23 follow-up work to restore FPL's T&D facilities to their pre-storm condition.

1 Exhibit MBM-2 also contains a breakdown of these costs by function (i.e.,  
2 Transmission and Distribution) and major cost category (i.e., Regular and Overtime  
3 Payroll and Related Costs, Contractors, Vehicle and Fuel, Materials & Supplies,  
4 Logistics and Other).

5  
6 As shown on Exhibit MBM-2, two of the major cost categories (“Contractors” and  
7 “Logistics”) account for \$1.202 billion, or 91% of Total T&D restoration costs.  
8 T&D “Contractors” costs account for \$930.3 million, or 70% of the Total T&D  
9 restoration costs, and include external line contractors, mutual assistance utilities,  
10 FPL embedded contractors, line clearing/tree trimming contractors, and other  
11 contractors (e.g., contractors performing overhead line patrols and environmental  
12 assessments) that supported FPL’s service restoration efforts and follow-up work to  
13 restore facilities to their pre-storm condition. T&D “Logistics” costs totaled  
14 approximately \$272.1 million, or 21% of Total T&D restoration costs, and include  
15 costs associated with staging sites and other support needs, such as lodging, meals,  
16 water, ice, laundry, and buses.

17  
18 The other five cost categories in Exhibit MBM-2 account for the remaining \$118.1  
19 million or 9% of the Total T&D restoration costs. \$45.8 million of the remaining  
20 costs are comprised of “Regular and Overtime Payroll & Related Costs” associated  
21 with FPL employees who directly supported Hurricane Irma T&D service  
22 restoration efforts and follow-up work. This includes FPL linemen, patrol, other  
23 field support personnel, and T&D staff personnel. \$42.6 million of the remaining



1 costs are associated with Materials and Supplies, which includes costs associated  
2 with items such as wire, transformers, poles, and other electrical equipment used to  
3 restore electric service for customers and repair and restore storm-impacted FPL  
4 facilities to their pre-storm condition. The other \$29.7 million includes costs  
5 associated with the “Vehicle and Fuel” and “Other” major cost categories.  
6 “Vehicle and Fuel” covers FPL’s vehicle and associated fuel costs, including costs  
7 for fuel that FPL supplied to line contractors, mutual assistance utilities, and other  
8 contractors. The “Other” category includes costs not previously captured, such as  
9 affiliate payroll and related costs, contractors, freight charges and other  
10 miscellaneous items.

11 **Q. Please describe the follow-up work required for T&D.**

12 A. As previously discussed, the primary objective of FPL’s emergency preparedness  
13 plan and restoration process is to safely restore critical infrastructure and the  
14 greatest number of customers in the least amount of time. At times, this means  
15 utilizing temporary fixes (e.g., bracing a cracked pole or cross arm) and/or delaying  
16 certain repairs (e.g., replacing lightning arrestors and repairing street lights) that are  
17 not required to restore service expeditiously. However, these conditions must be  
18 subsequently addressed during the restoration follow-up work phase, when  
19 facilities are restored to their pre-storm condition.

20  
21 Restoring FPL’s T&D facilities to their pre-storm condition is generally a two-step  
22 process: (1) assessing/identifying the necessary follow-up work to be completed;  
23 and (2) executing the identified work. In total, FPL’s costs for T&D follow-up

1 work associated with Hurricane Irma were \$93.2 million. While costs for T&D-  
2 related follow-up work are spread among most major cost categories,  
3 approximately \$90.6 million, or 97% of these costs, are associated with Contractors  
4 (\$73.0 million) and Materials and Supplies (\$17.6 million). The major drivers for  
5 these two major cost categories are associated with assessments (e.g., overhead line  
6 inspections, thermovision, street lights, etc.) to identify the necessary  
7 repairs/replacements to restore FPL's facilities to their pre-storm condition and the  
8 labor, equipment and materials required to address the identified work.

## 9 10 **VI. EVALUATING FPL'S RESTORATION RESPONSE**

11  
12 **Q. Would you consider FPL's Hurricane Irma's restoration plan and its**  
13 **execution to be effective?**

14 A. Yes. As mentioned before, FPL's primary goal is to safely restore critical  
15 infrastructure and the greatest number of customers in the least amount of time so  
16 that FPL can return the communities it serves to normalcy. Hurricane Irma's path  
17 and large footprint caused outages to more than 4.4 million FPL customer accounts  
18 located in all 35 counties that FPL serves. These widespread outages brought  
19 unique restoration challenges (e.g., logistics and redeploying service restoration  
20 personnel). Fortunately, FPL and the entire restoration team overcame those  
21 challenges, as the average time a customer was out of service was limited to  
22 approximately two days after the storm cleared FPL's service territory. So, yes, I  
23 believe our plan and execution were very effective.

1 **Q. What factors contributed to the effectiveness of FPL's Hurricane Irma**  
2 **restoration plan and execution?**

3 A. The high percentage of restoration accomplished in the first few days after  
4 Hurricane Irma exited FPL's service territory and the overall successful restoration  
5 effort resulted from, among other actions:

- 6 • Strong centralized command, solid plans and processes, and consistent  
7 application of FPL's overall restoration strategy (e.g., focusing first on  
8 restoring critical infrastructure and devices that serve the largest number of  
9 customers);
- 10 • Utilization of FPL's damage-forecasting model, along with aerial patrols  
11 and ground assessments, that allowed us to identify the number and location  
12 of needed resources;
- 13 • Aggressive and prudent acquisition, pre-positioning, and redeployment of  
14 restoration resources;
- 15 • Robust outage management system functionality and real-time information,  
16 which allowed FPL to continually gauge restoration progress and make  
17 adjustments as changing conditions and requirements warranted;
- 18 • Strong alliances with vendors, which assured an ample, readily available  
19 supply of materials; and
- 20 • Previous storm restoration experience, application of lessons learned,  
21 process enhancements, regular practice and training, and employee skill and  
22 commitment.

1 **Q. Were there any key restoration plan/process enhancements that were**  
2 **implemented as a result of recent FPL storm experiences?**

3 A. Yes. Enhancements adopted and utilized by FPL during 2016 as well as several  
4 additional enhancements implemented during Hurricane Irma included:

- 5 • Implementing a more effective acquisition and re-deployment of external  
6 resources -- e.g., committing to acquiring external resources earlier and  
7 having them travel earlier and pre-staging them closer, yet out of danger, to  
8 the areas expected to be affected by the approaching storm to enable FPL to  
9 begin restoration work more quickly;
- 10 • Utilizing alternative lodging (e.g., mobile sleeper trailers and cots at staging  
11 sites/FPL facilities) to eliminate travel time and increase restoration  
12 productivity;
- 13 • Utilizing turnkey, all-inclusive suppliers at staging sites to increase the  
14 speed and efficiency of staging site set-up, operations, and site  
15 dismantlement;
- 16 • Increasing physical fuel inventory and improving fuel delivery capabilities  
17 (both FPL and vendor-supplied resources);
- 18 • Improving coordination with county EOCs, including pre-designating  
19 restoration personnel to assist with road-clearing efforts and ensuring key  
20 critical infrastructure facilities requiring restoration prioritization are  
21 identified, and establishing an online government portal that allows  
22 government officials to obtain the latest news releases and information on  
23 customer outages, estimated restoration times, FPL crew resources, outage

1 maps, and other information. All of these enable EOCs to better serve their  
2 respective communities' needs;

3 • Adding advanced new tools, such as automated voice calls to customers,  
4 increased outreach and storm updates utilizing social and broadcast media,  
5 daily news briefings and embedded reporters at the FPL Command Center,  
6 to better communicate accurate, timely information to FPL customers;

7 • Increasing the utilization of advanced technology, such as using smart grid  
8 technology, drones, and mobile devices to facilitate damage assessments  
9 and deploying FPL's Mobile Command Centers and Community Response  
10 Vehicles (high-tech remote command posts and communication hubs that  
11 quickly relay crucial information, decisions and logistical needs to/from  
12 FPL's Command Center) to impacted areas to provide better, faster and  
13 more efficient support;

14 • Retaining a robust list of staging sites at multiple locations throughout the  
15 state and maintaining contact with site owners to ensure availability and  
16 use; and

17 • Expanding the pre-provisioning of select key staging site locations for faster  
18 set-up and activation, which enabled rapid activation of these sites to  
19 support restoration work.

20 **Q. Did FPL receive national recognition for its overall restoration performance**  
21 **during Hurricane Irma?**

22 A. Yes. In January 2018, the EEI, a national association of investor-owned utilities,  
23 awarded its Emergency Recovery Award to FPL for its efforts and response during

1 Hurricane Irma. EEI's Emergency Recovery Award recognizes its U.S. and  
2 international members for outstanding efforts to restore service promptly following  
3 storms or natural disasters. Winners are chosen by a panel of judges based on a  
4 company's ability to respond to a crisis swiftly and efficiently, overcome difficult  
5 circumstances, utilize unique or innovative recovery techniques, communicate  
6 effectively with customers and restore service promptly.

7 **Q. What are your conclusions regarding FPL's Hurricane Irma restoration**  
8 **efforts?**

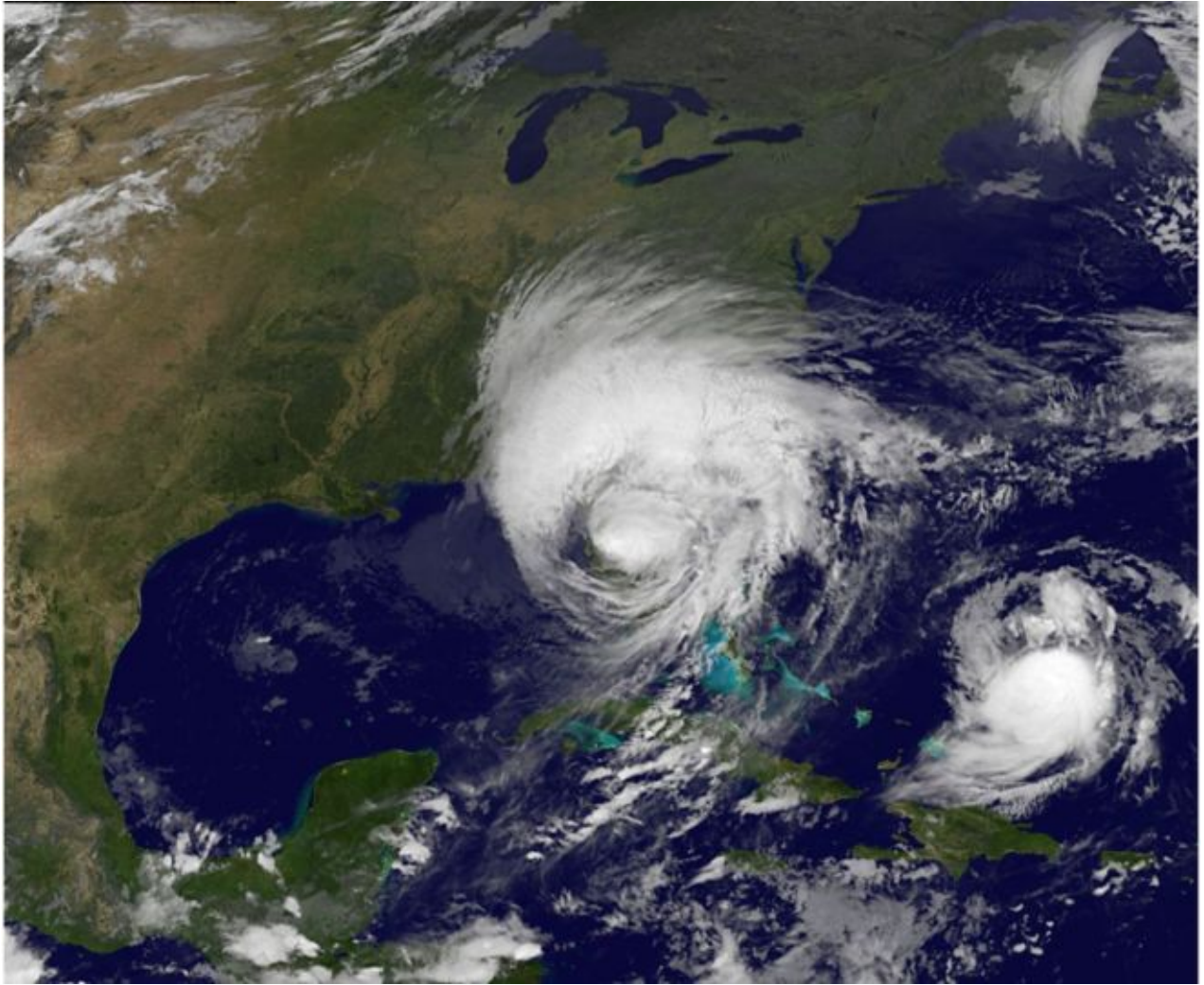
9 A. FPL's restoration performance was excellent and significantly faster than it was  
10 during the 2004 and 2005 storm seasons. Our commitment to continuous  
11 improvement was instrumental in achieving this excellent performance. The  
12 implemented improvements and enhancements provided significant benefits and  
13 contributed to the remarkable achievement of quickly restoring service to the vast  
14 majority of the more than 4.4 million customers experiencing an outage, such that  
15 the average time a customer was without service was limited to approximately two  
16 days after the storm cleared FPL's service territory. This is a remarkable  
17 achievement, especially when considering it was the largest number of customer  
18 outages ever experienced by one U.S. electric utility from a single weather event.

19  
20 Storm restoration is not an exact or precise science and there are always  
21 opportunities for improvement and at FPL we strive to learn from each experience.  
22 However, overall, I believe the entire restoration team, which included FPL  
23 employees, contractors and mutual assistance utilities personnel, performed

1 extremely well. This allowed FPL to meet our overarching objective to safely  
2 restore critical infrastructure and the greatest number of customers in the least  
3 amount of time. Storm restoration is a dynamic and challenging process that tests  
4 the fortitude of each person involved. I am exceptionally proud and extremely  
5 grateful to have been associated with such a committed and dedicated restoration  
6 team.

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

8 A. Yes.





**FPL's T&D Hurricane Irma Restoration Costs (A)**

**(000s)**

<b><u>Major Cost Category</u></b>	<b><u>Transmission</u></b>	<b><u>Distribution</u></b>	<b><u>Total T&amp;D</u></b>	<b><u>% of Total T&amp;D</u></b>
Regular Payroll & Related Costs (B)	\$ 1,656	\$ 12,333	\$ 13,989	1%
Overtime Payroll & Related Costs (B)	2,372	29,490	31,862	2%
Contractors (C)	22,104	908,169	930,273	70%
Vehicle & Fuel	401	23,366	23,767	2%
Materials & Supplies	7,384	35,181	42,565	3%
Logistics	798	271,303	272,101	21%
Other	1,018	4,971	5,989	1%
<b>Total (D)</b>	<b>\$ 35,731</b>	<b>\$ 1,284,813</b>	<b>\$ 1,320,544</b>	<b>100%</b>

(A) Includes costs associated with follow-up work

(B) Represents total payroll charged to business unit (function) being supported - see KF-1, footnote (C).

(C) Includes line clearing - \$1,120 for Transmission and \$138,788 for Distribution

(D) Totals may not add due to rounding

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**BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**

**FLORIDA POWER & LIGHT COMPANY**

**DIRECT TESTIMONY OF KEITH FERGUSON**

**DOCKET NO. 20180049-EI**

**AUGUST 31, 2018**

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1 **I. INTRODUCTION**

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

A. My name is Keith Ferguson, and my business address is Florida Power & Light Company, 700 Universe Boulevard, Juno Beach, Florida 33408.

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

A. I am employed by Florida Power & Light Company (“FPL” or the “Company”) as Vice President, Accounting and Controller.

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

A. I am responsible for financial accounting, as well as internal and external reporting, for FPL. As a part of these responsibilities, I ensure that the Company’s financial reporting complies with requirements of Generally Accepted Accounting Principles (“GAAP”) and multi-jurisdictional regulatory accounting requirements.

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

A. I graduated from the University of Florida in 1999 with a Bachelor of Science Degree in Accounting and earned a Master of Accounting degree from the University of Florida in 2000. Beginning in 2000, I was employed by Arthur Andersen in their energy audit practice in Atlanta, Georgia. From 2002 to 2005, I worked for Deloitte & Touche in their national energy practice. From 2005 to 2011, I worked for Mirant Corporation, which was an independent power producer in Atlanta, Georgia. During my tenure there, I held various accounting and management roles. Most recently and prior to joining FPL in September 2011, I was Mirant’s Director of SEC Reporting and Accounting Research. I am

1 a Certified Public Accountant (“CPA”) licensed in the State of Georgia and a  
2 member of the American Institute of CPAs.

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

4 A. Yes. I am sponsoring Exhibit KF-1 – Hurricane Irma Final Storm Restoration  
5 Costs, which provides the final amount of restoration costs incurred for Hurricane  
6 Irma. As explained in detail below, FPL is not seeking any incremental recovery  
7 for the storm costs through either a surcharge or depletion of the storm reserve  
8 and, therefore, the Incremental Cost and Capitalization Approach (“ICCA”) is not  
9 applicable to the Hurricane Irma storm restoration costs. Notwithstanding, I am  
10 also sponsoring Exhibit KF-2 – Hurricane Irma Incremental Cost and  
11 Capitalization Approach Adjustments, which is being provided for informational  
12 purposes only and to facilitate the review of the storm restoration costs.

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

14 A. The purpose of my testimony is to present the final amount of Hurricane Irma  
15 storm restoration costs incurred by FPL and the accounting treatment for those  
16 costs. In addition, I demonstrate that FPL’s storm restoration and recovery  
17 accounting processes and controls are well established, documented, and  
18 implemented by personnel that are suitably trained, to ensure proper storm  
19 accounting and ratemaking. I will also discuss why the ICCA methodology is not  
20 applicable for the Hurricane Irma storm costs because FPL is not seeking any  
21 incremental recovery for the costs through either a surcharge or depletion of the  
22 storm reserve.

23

24

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

2 A. FPL's long standing control processes and procedures were employed for  
3 Hurricane Irma, and those control processes continue to ensure proper storm  
4 accounting and ratemaking. As a result of the enactment of the Tax Cuts and Jobs  
5 Act of 2017 ("Tax Act") in December 2017, FPL decided to forego seeking  
6 incremental recovery of Hurricane Irma storm restoration costs under FPL's 2016  
7 Stipulation and Settlement Agreement ("Settlement Agreement") and recognized  
8 the costs that would have been charged to the storm reserve as base operations  
9 and maintenance ("O&M") expense. Therefore, the ICCA methodology is not  
10 applicable to the Hurricane Irma O&M expenses. However, to facilitate review of  
11 the storm restoration costs, FPL has calculated the non-incremental O&M  
12 adjustments to its final Hurricane Irma storm restoration costs as of May 31, 2018  
13 on Exhibit KF-2 as if the ICCA methodology had been applied in accordance with  
14 the Rule 25-6.0143, Use of Accumulated Provision Accounts 228.1, 228.2 and  
15 228.4, Florida Administrative Code ("F.A.C") ("the Rule").

16

17 **II. STORM ACCOUNTING PROCESS AND CONTROLS**

18

19 **Q. Please describe the accounting guidance and process that FPL uses for storm**  
20 **costs.**

21 A. FPL's storm accounting process adheres to Accounting Standards Codification  
22 450, Contingencies ("ASC 450"), which prescribes that an estimated loss from a  
23 loss contingency is recognized only if the available information indicates that (1)  
24 it is probable an asset has been impaired or a liability has been incurred at the

1 reporting date, and (2) the amount of the loss can be reasonably estimated. FPL  
2 incurs a liability for a qualifying event, such as a hurricane, because it has an  
3 obligation to customers to restore power and repair damage to its system.  
4 Therefore, once a hurricane event has transpired, FPL makes an assessment of the  
5 estimated cost to restore the system to pre-event conditions and accrues that  
6 liability in full when the amount can be reasonably estimated under ASC 450.  
7 FPL's storm accounting process is well established and consistently applied. This  
8 same storm accounting process was applied for the Hurricane Irma storm  
9 restoration costs.

10 **Q. How does FPL track storm restoration costs?**

11 A. FPL establishes unique functional (i.e., distribution, transmission, etc.) internal  
12 orders ("IOs") for each storm to aggregate the total amount of storm restoration  
13 costs incurred for financial reporting and regulatory recovery purposes. The  
14 Company uses these IOs to account for *all* costs directly associated with  
15 restoration, including costs that would not be recoverable from FPL's storm  
16 reserve based on the Commission's requirements under the ICCA methodology.  
17 All storm restoration costs charged to storm IOs are captured in Federal Energy  
18 Regulatory Commission ("FERC") Account 186, Miscellaneous Deferred Debits.  
19 All costs charged to FERC Account 186 are subsequently cleared and charged to  
20 either the storm reserve, base O&M expense, capital, or below-the-line expense,  
21 as applicable.

1 **Q. When did FPL begin charging costs related to Hurricane Irma to the storm**  
2 **IOs?**

3 A. Due to the expected risk of significant outages and substantial infrastructure  
4 damages, FPL began making financial commitments associated with securing  
5 resources prior to Hurricane Irma's anticipated impact. On September 5, 2017, in  
6 accordance with FPL's Storm Accounting Policy and with authorization from  
7 FPL's President and CEO, FPL established and activated storm IOs to begin  
8 tracking costs for Hurricane Irma. An email communication was sent to all  
9 business units to inform them that storm IOs had been activated for purposes of  
10 collecting storm restoration charges. Attached to the email, FPL also provided:  
11 (1) a listing of IOs by function and location, (2) guidance on recording time for  
12 payroll, and (3) guidance on the types of costs eligible to be charged to storm IOs.  
13 The pre-landfall costs charged to the storm IOs include the acquisition of external  
14 resources (e.g., line and vegetation crews), mobilization and pre-staging of  
15 internal and external resources, opening of staging and processing sites, reserving  
16 lodging, and securing FPL's existing operational facilities in preparation for the  
17 impacts of the storm.

18 **Q. What operational internal controls are in place during a restoration event to**  
19 **ensure storm accounting procedures are followed?**

20 A. Finance and accounting employees are key to storm restoration accounting and  
21 controls. As reflected in the testimony of FPL witness Miranda, the FPL  
22 Command Center organization recognizes the critical role and responsibilities of  
23 these employees. Finance or accounting representatives are assigned to each  
24 staging and processing site (referred to as a "Finance Section Chief") to ensure



1 active, real-time financial controls are in effect and adhered to during the  
2 restoration event. Responsibilities of the Finance Section Chief includes ensuring  
3 procedural compliance with internal cost controls, providing guidance and  
4 oversight to ensure prudent spending, collecting and analyzing data real-time,  
5 such as timesheets, and assisting with the proper accounting of mutual aid  
6 resources. Representatives from FPL's Human Resources department also are  
7 embedded at many sites and perform internal control support tasks such as  
8 providing guidance on the proper information to include on timesheets.

9  
10 In addition, each business unit has a finance representative (referred to as a  
11 "Business Unit Coordinator") performing a storm controllership function for their  
12 respective business units. The responsibilities of the Business Unit Coordinator  
13 include communicating the storm IO instructions to the personnel directly  
14 supporting storm restoration, ensuring that appropriate costs are charged to the  
15 storm IOs, and preparing cost estimates before, during, and after the restoration is  
16 complete.

17  
18 FPL performs extensive training each year in advance of storm season for both  
19 the Finance Section Chiefs and the Business Unit Coordinators, which includes  
20 live training and drills during FPL's "dry run" storm event. Costs associated with  
21 the annual training are not considered storm restoration costs and not included in  
22 the costs presented in this docket.

1 **Q. Does FPL's Accounting department complete a review of all storm**  
2 **restoration costs recorded by each business unit once restoration is**  
3 **complete?**

4 A. Yes. Post storm restoration, the Accounting department reviews the storm loss  
5 estimates compiled by each functional business unit for reasonableness prior to  
6 recording to the financial statements. Accounting will then charge these costs to  
7 either the storm reserve, base O&M expense, capital, or below-the-line expense,  
8 as applicable, to ensure proper ratemaking and recording to the financial  
9 statements.

10

11 **III. ACCOUNTING TREATMENT FOR HURRICANE IRMA**

12

13 **Q. How does FPL typically account for storm restoration costs?**

14 A. FPL typically charges storm restoration costs to the storm reserve by applying the  
15 ICCA methodology and recovering the incremental storm restoration costs  
16 through a storm surcharge.

17

18 As described previously, FPL utilizes unique storm IOs for each function and  
19 location to record and track all storm restoration activities for each event, which  
20 are accumulated in FERC Account 186. All costs charged to FERC Account 186  
21 are subsequently cleared and charged to either the storm reserve, base O&M  
22 expense, capital, or below-the-line expense, as applicable.

23

1 The amount of capital costs for each storm event are determined and removed by  
2 applying part (1)(d) of the Rule, which states that "...the normal cost for the  
3 removal, retirement and replacement of those facilities in the absence of a storm"  
4 should be the basis for calculating storm restoration capital. This amount is  
5 credited from FERC Account 186 and debited to FERC Account 107,  
6 Construction Work in Progress. FPL also reclassifies non-recoverable amounts to  
7 below-the-line expense.

8  
9 When the storm restoration costs are charged to the storm reserve, the ICCA  
10 methodology is used to also remove the non-incremental O&M expenses from the  
11 incremental revenue allowed recovery through a surcharge. The non-incremental  
12 O&M expenses are identified for the costs collected in the IOs and subsequently  
13 credited from FERC Account 186 and debited to base O&M.

14  
15 After the capital costs, non-recoverable costs, and non-incremental O&M  
16 expenses are removed from FERC Account 186, the remaining balance,  
17 representing incremental storm charges, is jurisdictionalized by using retail  
18 separation factors authorized by the Commission in FPL's most recent base rate  
19 case, and credited from FERC Account 186 and debited to FERC Account 228.1,  
20 Accumulated Provision for Property Insurance. The remaining non-retail  
21 component of the incremental storm charges is credited from FERC Account 186  
22 and debited to base O&M expense, leaving a zero balance in FERC Account 186.

23

1 This accounting process is typically used by FPL to charge the storm restoration  
2 costs to the storm reserve by applying the ICCA methodology and recovering the  
3 incremental storm restoration costs through a storm surcharge.

4 **Q. How did FPL account for Hurricane Irma storm restoration costs?**

5 A. FPL accounted for all of the Hurricane Irma storm restoration costs in FERC  
6 Account 186. FPL then determined the amount of capital and below-the-line  
7 expenses accumulated in FERC Account 186 and removed those costs from  
8 FERC Account 186 and recorded them to the appropriate FERC accounts. As  
9 outlined in FPL's Petition for Review of Florida Power & Light Company's  
10 Proposed Treatment of Tax Impacts Associated with Tax Cuts and Jobs Act of  
11 2017 in FPSC Docket No. 20180046-EI, FPL decided to forego seeking  
12 incremental rate recovery of the Hurricane Irma storm restoration costs under the  
13 Settlement Agreement and, instead, recorded the remaining amount of Hurricane  
14 Irma storm restoration costs accumulated in FERC Account 186 to base O&M  
15 expense. This accounting treatment avoided a multi-year storm charge for  
16 recovery of the Hurricane Irma storm restoration costs and replenishment of the  
17 storm reserve.

18 **Q. What types of storm restoration costs did FPL charge to FERC Account 186  
19 for Hurricane Irma?**

20 A. As reflected on page 1 of Exhibit KF-1, FPL charged \$1.4 billion in storm  
21 restoration costs (including follow-up work) related to Hurricane Irma to FERC  
22 Account 186. The categories of costs outlined below are reflected on Lines 1-10  
23 on Exhibit KF-1:

- 1           • **FPL Regular Payroll and Related Costs:** Reflects \$16.8 million of  
2           regular payroll and related payroll overheads for FPL employee time spent  
3           in direct support of storm restoration. This amount excludes bonuses and  
4           incentive compensation.
- 5           • **FPL Overtime Payroll and Related Costs:** Reflects \$38.7 million of  
6           overtime payroll and payroll tax overheads for FPL employee time spent  
7           in direct support of storm restoration.
- 8           • **Contractor and Line Clearing Costs:** Reflects \$965.0 million of costs  
9           primarily related to mutual aid utilities, line contractors and vegetation  
10          contractors.
- 11          • **Vehicle and Fuel:** Reflects \$23.9 million for fuel used by FPL and  
12          contractor vehicles for storm restoration activities.
- 13          • **Materials and Supplies:** Reflects \$45.3 million in materials and supplies  
14          used to repair and restore service and facilities to pre-storm condition.
- 15          • **Logistics Costs:** Reflects \$273.0 million of costs for staging and  
16          processing sites, meals, lodging, buses and transportation, and rental  
17          equipment used by employees and contractors in direct support of storm  
18          restoration.
- 19          • **Other:** Reflects \$15.8 million of other miscellaneous costs, including  
20          payroll and related overheads from affiliate personnel directly supporting  
21          storm restoration.

22

23

1 **Q. How much follow-up work did FPL incur in its transmission and distribution**  
2 **(“T&D”) functions associated with Hurricane Irma?**

3 A. As of the filing of this petition, FPL is continuing to conduct follow-up work in  
4 response to Hurricane Irma; however, FPL finalized the cost estimate as of May  
5 31, 2018. All remaining work is in process or has been fully scoped and is  
6 included in the costs presented on Exhibit KF-1. As reflected on page 2 of  
7 Exhibit KF-1, FPL incurred \$93.2 million of costs in its T&D functions after the  
8 majority of FPL’s customers’ power had been restored. This follow-up work was  
9 necessary to restore FPL’s system to a pre-storm condition. The majority of the  
10 follow-up work was related to streetlight repairs as well as repair and replacement  
11 of damaged conductor and smart grid devices on storm-affected feeders. Of the  
12 total amount of follow-up work related to the T&D functions, \$66.8 million was  
13 capitalized.

14 **Q. Did FPL incur costs associated with follow-up work in functions other than**  
15 **T&D?**

16 A. Yes, FPL incurred follow-up costs associated with replacement and repairs to  
17 company buildings and structures. The follow-up work costs associated with  
18 functions other than T&D are not tracked separately from restoration activities,  
19 but are included in the final cost amounts for the applicable function on page 1 of  
20 Exhibit KF-1.

21 **Q. How did FPL determine the amount of capital costs it recorded on its books**  
22 **and records for Hurricane Irma?**

23 A. The amount of capital costs for each storm event is determined by applying part  
24 (1)(d) of the Rule, which states that “...the normal cost for the removal,

1 retirement and replacement of those facilities in the absence of a storm” should be  
2 the basis for calculating storm restoration capital. As described previously, all  
3 costs related to storm restoration work (including follow-up work) are initially  
4 charged to FERC Account 186, and estimated capital costs were then reclassified  
5 to FERC Account 107, Construction Work In Progress (“CWIP”).

6  
7 For capital costs incurred during storm restoration, FPL employs a capital  
8 estimation process derived from the amount of materials and supplies issued  
9 during a storm less returns of such assets. Once restoration is complete, FPL  
10 utilizes its distribution estimation system to calculate the total amount of capital  
11 costs for the distribution function in accordance with FPL’s capitalization policy,  
12 which includes materials, labor and overheads. The capital costs for follow-up  
13 work, including other functional areas, are determined based on an estimate of the  
14 actual work performed and is then likewise recorded to the balance sheet in  
15 accordance with FPL’s capitalization policy.

16  
17 After the capital jobs are completed, the CWIP account is credited and the  
18 appropriate functional plant account in FERC Account 101, Plant In Service, is  
19 debited based on the estimated cost of installed units of property. Retirements of  
20 fixed assets removed during restoration are recorded when the new incurred  
21 capital costs are placed in service through a new discrete IO. As shown on Line  
22 18 on page 1 of Exhibit KF-1, a total of \$105.1 million (including follow-up  
23 work) were recorded as capital costs for Hurricane Irma.

1 **Q. Did FPL record any below-the-line expenses for Hurricane Irma?**

2 A. Yes. As reflected on Line 22 on page 1 of Exhibit KF-1, FPL identified \$0.8  
3 million of thank you advertisements directed to customers and mutual aid utilities,  
4 which were removed from FERC Account 186 and recorded to below-the-line  
5 expense.

6 **Q. Did FPL receive, or does it expect to receive, any insurance recoveries  
7 associated with storm damage resulting from Hurricane Irma?**

8 A. FPL does not have insurance for its T&D assets and has not received any  
9 insurance recoveries from any source to date. At the time of this filing, FPL is  
10 assessing whether it will be in a position to make a claim under its nuclear  
11 property policy for damage to administrative buildings and other structures  
12 located at its Turkey Point nuclear facility that support nuclear operations but are  
13 not related to nuclear containment. In the event that claim is made, any insurance  
14 recovery would be treated as a reduction to base O&M expenses or capital, as  
15 applicable.

16 **Q. Did FPL receive any third-party reimbursements for storm-related costs?**

17 A. Yes. As shown on Line 17 on page 1 of Exhibit KF-1, AT&T, Inc. (“AT&T”)  
18 reimbursed FPL approximately \$2.4 million for 878 net poles replaced by FPL on  
19 its behalf (936 AT&T poles replaced by FPL less 58 FPL poles replaced by  
20 AT&T).

21 **Q. What was the total amount of Hurricane Irma storm restoration costs  
22 charged to base O&M expense?**

23 A. As reflected on Line 24 on page 1 of Exhibit KF-1, after removing Hurricane  
24 Irma related capital, third-party reimbursements, and below-the-line expenses



1 from FERC Account 186, the remaining total amount of Hurricane Irma storm  
2 restoration costs and follow-up work was \$1.27 billion. As explained above, FPL  
3 is not seeking through this proceeding to establish a charge for the recovery of the  
4 incremental Hurricane Irma costs or replenishment of the storm reserve. Rather,  
5 these storm restoration costs were recorded as base O&M expense.

#### 6 7 **IV. ICCA ADJUSTMENTS RELATED TO HURRICANE IRMA**

8  
9 **Q. Why is it inappropriate to apply the ICCA methodology to the Hurricane**  
10 **Irma storm restoration costs?**

11 A. It is important to understand the ICCA methodology and its purpose. The ICCA  
12 methodology was designed to ensure that the recovery of storm costs as an  
13 incremental charge did not result in the recovery of revenue for costs already  
14 reflected in base rates. If a company were to elect to recover the cost of a storm  
15 event through existing base rate level, there would be no issue or question of  
16 incremental revenue recovery through a storm reserve or surcharge. It would  
17 expense the storm losses and ICCA would not apply. This is exactly the factual  
18 circumstance in the case of Hurricane Irma. In fact, Part (1)(h) of the Rule allows  
19 utilities the option to “charge storm-related costs as operating expenses rather  
20 than charging them to Account No. 228.1,” which is what FPL opted to do with  
21 Hurricane Irma storm restoration costs. Because all of FPL’s storm restoration  
22 costs for Hurricane Irma were recorded as capital, below-the-line expense, or base  
23 O&M expense as explained above, the calculation of non-incremental storm costs  
24 using the ICCA methodology is not applicable and unnecessary.

1 **Q. Did FPL determine the amount of non-incremental storm costs associated**  
2 **with Hurricane Irma pursuant to the ICCA methodology?**

3 A. Yes. Although the ICCA methodology is not applicable for the Hurricane Irma  
4 storm restoration costs for the reasons described above, the non-incremental  
5 ICCA adjustments are provided in Exhibit KF-2 – Hurricane Irma Incremental  
6 Cost and Capitalization Approach Adjustments for informational purposes only.  
7 Lines 26 to 36 on page 1 of Exhibit KF-2 provide the additional non-incremental  
8 ICCA adjustments.

9  
10 Per the ICCA methodology, non-incremental costs are those that are already  
11 included in base O&M expenses. Below is a summary of what the non-  
12 incremental charges would have been if FPL instead had requested incremental  
13 storm recovery through surcharge.

14 • **FPL Regular Payroll:** In general, FPL regular payroll costs recovered  
15 through base O&M are non-incremental. However, FPL regular payroll  
16 normally recovered through capital or cost recovery clauses can be charged  
17 to the storm reserve based on paragraphs 21 and 22 of Order No. PSC-2006-  
18 0464-FOF-EI, Docket No. 20060038-EI: “otherwise, the costs would  
19 effectively be disallowed because there is no provision to recover those costs  
20 in base rate operation and maintenance costs....”

21  
22 FPL determines the non-incremental FPL payroll by calculating the  
23 Company’s budgeted base O&M payroll percentage as compared to total  
24 budgeted payroll for the month in which the storm occurred, including cost

1 recovery clauses and capital by cost center, and then multiplies that percent  
2 by the total actual payroll costs incurred (excluding overtime) for FPL  
3 employees directly supporting storm restoration. The total amount of FPL  
4 regular payroll and related overheads that would be non-incremental under  
5 the ICCA methodology for Hurricane Irma is \$6.8 million. The remaining  
6 regular payroll and related overhead expense is considered incremental as it  
7 would have been incurred as a component of capital or cost recovery clauses  
8 absent the Hurricane Irma storm restoration efforts.

- 9 • **Vegetation Management:** Based on part (1)(f)(8) of the Rule, storm-related  
10 tree trimming expenses must be excluded if the Company's total tree  
11 trimming expense in a storm restoration month is less than the average  
12 expense for the same month in which the storm occurred in the prior three  
13 years. The tree trimming expenses during September 2017, in which  
14 Hurricane Irma restoration work was performed, exceeded the three-year  
15 average for September in prior years by \$134.8 million. Based on this  
16 methodology, of the total \$139.9 million in storm-related tree-trimming  
17 expenses, \$5.1 million would be deemed non-incremental, all of which was  
18 related to the distribution function.
- 19 • **Vehicle Utilization:** All FPL-owned vehicle utilization costs charged to  
20 storm IOs, totaling \$4.2 million, would be considered non-incremental under  
21 the ICCA methodology.
- 22 • **Fuel:** Fuel costs incurred by FPL directly related to storm restoration are  
23 charged to the storm IOs. While the ICCA methodology does not speak  
24 directly to recovery of fuel costs, FPL has conservatively applied the same

1 methodology described above for vegetation management. The fuel  
2 expenses during September 2017, in which Hurricane Irma restoration work  
3 was performed, exceeded the three-year average for September in prior years.  
4 FPL determined \$0.1 million would be non-incremental under this  
5 methodology, all of which is reflected in the distribution function.

6 • **Legal Claims:** Certain claims were paid that primarily related to property  
7 damage caused by FPL personnel and contractors during restoration. None  
8 of the cost of claims is recoverable through the storm reserve; therefore,  
9 claims totaling \$0.2 million in the distribution function would be non-  
10 incremental and charged to base O&M expense under the ICCA  
11 methodology.

12 • **Employee Assistance and Childcare:** Assistance provided to employees,  
13 including childcare for the children of employees on storm duty is not  
14 recoverable under the ICCA methodology. These costs totaling \$0.9 million  
15 would be charged to base O&M expense.

16 **Q. What jurisdictional separation factors would be applied to the total amount**  
17 **of Incremental Storm Losses reflected on Line 47 on page 1 of Exhibit KF-2**  
18 **to determine the amount of Retail Recoverable Incremental Costs that would**  
19 **be charged to the storm reserve had FPL employed the ICCA methodology?**

20 A. As reflected on Line 49 on page 1 of Exhibit KF-2, FPL would have applied the  
21 jurisdictional separation factors from FPL's 2017 Test Year filed in Docket No.  
22 20160021-EI to the total amount of Incremental Storm Losses on Line 47 to  
23 determine the amount of Retail Recoverable Incremental Costs that FPL would  
24 have charged to the storm reserve if it had employed the ICCA methodology.

1 **Q. What is the total amount of Retail Recoverable Incremental Costs that FPL**  
2 **would have charged to the storm reserve if FPL had employed the ICCA**  
3 **methodology?**

4 A. As reflected on Line 51 on page 1 of Exhibit KF-2, FPL's Retail Recoverable  
5 Incremental Costs that would have been charged to the storm reserve for  
6 Hurricane Irma if the ICCA methodology applied was \$1.25 billion.

7 **Q. Is FPL seeking recovery or approval of the Retail Recoverable Incremental**  
8 **Costs calculated under the ICCA methodology?**

9 A. No. The Retail Recoverable Incremental Costs under the ICCA methodology are  
10 a subset of the total Hurricane Irma storm restoration costs that FPL recorded as  
11 base O&M expense. FPL is not seeking any incremental recovery for the storm  
12 costs through either a surcharge or depletion of the storm reserve and, therefore,  
13 the ICCA methodology is not applicable.

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

15 A. Yes.

**Florida Power & Light Company**  
**Hurricane Irma Final Storm Restoration Costs**  
**through May 31, 2018**  
(\$000s)

LINE NO.	Storm Costs By Function (A)						Total (7)	
	Steam & Other (1)	Nuclear (2)	Transmission (3)	Distribution (4)	General (B) (5)	Customer Service (6)		
1	<b>Storm Restoration Costs</b>							
2		\$520	\$513	\$1,656	\$12,333	\$1,231	\$501	\$16,753
3		970	2,305	2,372	29,490	1,946	1,579	38,663
4		9,777	21,187	20,984	769,381	3,003	755	825,088
5		0	0	1,120	138,788	0	0	139,908
6		96	0	401	23,366	13	1	23,876
7		542	1,357	7,384	35,181	628	214	45,305
8		21	213	798	271,303	144	517	272,996
9		190	225	1,018	4,971	7,755	1,657	15,817
10	Total Storm Related Restoration Costs	\$12,116	\$25,801	\$35,731	\$1,284,813	\$14,720	\$5,223	\$1,378,405
11								
12	<b>Less: Capitalizable Costs (E)</b>							
13		\$0	\$0	\$458	\$5,389	\$0	\$0	\$5,847
14		0	6,300	5,511	60,384	208	0	72,404
15		0	0	6,538	21,632	22	204	28,397
16		0	0	47	874	0	0	921
17	Third-Party Reimbursements (F)	0	0	0	-2,440	0	0	-2,440
18	Total Capitalizable Costs	\$0	\$6,300	\$12,554	\$85,839	\$230	\$204	\$105,128
19								
20	Less: Third-Party Reimbursements (F)	0	0	0	2,440	0	0	2,440
21								
22	Less: Below-the-Line/Thank You Ads	0	0	0	0	822	0	822
23								
24	Total Storm Restoration Costs Charged to Base O&M	\$12,116	\$19,501	\$23,177	\$1,196,534	\$13,667	\$5,019	\$1,270,014

Notes:

(A) Storm costs are as of May 31, 2018. Totals may not add due to rounding.

(B) General plant function reflects restoration costs associated with FPL's Human Resources, External Affairs, Information Technology, Real Estate, Marketing and Communications, Energy Marketing & Trading and Legal departments.

(C) Represents total payroll charged to the business unit (function) being supported. For example, an employee that works in Legal but is supporting Distribution during storm restoration would charge their time to

(D) Includes other miscellaneous costs, including payroll and related overheads from affiliate personnel directly supporting storm restoration.

(E) Includes capital associated with follow-up work. See KF-1, page 2 for additional breakout of follow-up work associated with the Transmission and Distribution functions.

(F) Reimbursement from AT&T for net poles replaced by FPL during restoration as a result of the storm.

**Florida Power & Light Company**  
**Hurricane Irma Final Storm Restoration Costs**  
**through May 31, 2018**  
(\$000s)

LINE NO.	Power Delivery Restoration and Follow Up Storm Costs (A)				
	Transmission		Distribution		Total (3)
	Restoration (1)	Follow up	Restoration (2)	Follow up	
1	<u>Storm Restoration Costs</u>				
2					
3	\$1,461	\$195	\$11,822	\$511	\$13,989
4	2,302	70	27,950	1,540	\$31,862
5	17,815	3,169	705,042	64,339	\$790,365
6	961	159	133,447	5,341	\$139,908
7	357	43	23,269	97	\$23,767
8	4,384	3,000	20,610	14,571	\$42,565
9	798	0	271,303	0	\$272,101
10	1,004	14	4,808	163	\$5,989
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
10	\$29,080	\$6,651	\$1,198,252	\$86,562	\$1,320,544
11					
12					
13	\$243	\$215	\$5,075	\$314	\$5,847
14	2,816	2,695	9,634	50,750	65,895
15	4,108	2,430	11,489	10,143	28,170
16	0	47	678	196	921
17	0	0	-2,440	0	-2,440
18	\$7,167	\$5,387	\$24,436	\$61,404	\$98,393
19					
20	0		2,440		2,440
21					
22	\$21,913	\$1,264	\$1,171,375	\$25,158	\$1,219,711

Notes:

(A) Storm costs are as of May 31, 2018. Totals may not add due to rounding.

(B) Represents total payroll charged to the business unit (function) being supported. For example, an employee that works in Legal but is supporting Distribution during storm restoration would charge their time to Distribution.

(C) Includes other miscellaneous costs, including payroll and related overheads from affiliate personnel directly supporting storm restoration.

(D) Reimbursement from AT&T for net poles replaced by FPL during restoration as a result of the storm.

**Florida Power & Light Company**  
**Hurricane Irma Incremental Cost and Capitalization Approach Adjustments**  
**through May 31, 2018**  
**(\$000s)**

LINE NO.	Storm Costs By Function(A)						Total (7)	
	Steam & Other (1)	Nuclear (2)	Transmission (3)	Distribution (4)	General (B) (5)	Customer Service (6)		
1	<b>Storm Restoration Costs</b>							
2		\$520	\$513	\$1,656	\$12,333	\$1,231	\$501	\$16,753
3		970	2,305	2,372	29,490	1,946	1,579	38,663
4		9,777	21,187	20,984	769,381	3,003	755	825,088
5		0	0	1,120	138,788	0	0	139,908
6		96	0	401	23,366	13	1	23,876
7		542	1,357	7,384	35,181	628	214	45,305
8		21	213	798	271,303	144	517	272,996
9		190	225	1,018	4,971	7,755	1,657	15,817
10	Total Storm Related Restoration Costs	\$12,116	\$25,801	\$35,731	\$1,284,813	\$14,720	\$5,223	\$1,378,405
11								
12	<b>Less: Capitalizable Costs (E)</b>							
13		\$0	\$0	\$458	\$5,389	\$0	\$0	\$5,847
14		0	6,300	5,511	60,384	208	0	72,404
15		0	0	6,538	21,632	22	204	28,397
16		0	0	47	874	0	0	921
17		0	0	0	-2,440	0	0	-2,440
18	Total Capitalizable Costs	\$0	\$6,300	\$12,554	\$85,839	\$230	\$204	\$105,128
19								
20	Less: Third-Party Reimbursements (F)	0	0	0	2,440	0	0	2,440
21								
22	Less: Below-the-Line/Thank You Ads	0	0	0	0	822	0	822
23								
24	Total Storm Restoration Costs Charged to Base O&M	\$12,116	\$19,501	\$23,177	\$1,196,534	\$13,667	\$5,019	\$1,270,014
25								
26	<b>Less: ICCA Adjustments</b>							
27		\$587	\$179	\$709	\$2,215	\$1,802	\$1,260	\$6,752
28	Line Clearing:							
29	Vegetation Management	0	0	0	5,080	0	0	5,080
30	Vehicle & Fuel:							
31	Vehicle Utilization	0	0	354	3,837	0	0	4,192
32	Fuel	0	0	0	133	0	0	133
33	Other							
34	Legal Claims	0	0	0	244	0	0	244
35	Employee Assistance and Childcare	0	0	0	0	811	123	934
36	Total ICCA Adjustments	\$587	\$179	\$1,063	\$11,509	\$2,613	\$1,383	\$17,335
37								
38	<b>Incremental Storm Losses</b>							
39	Regular Payroll and Related Costs	\$-67	\$333	\$489	\$4,729	\$-571	\$-760	\$4,153
40	Overtime Payroll and Related Costs	970	2,305	2,372	29,490	1,946	1,579	38,663
41	Contractors	9,777	14,887	15,473	708,997	2,795	755	752,684
42	Line Clearing	0	0	1,120	133,708	0	0	134,828
43	Vehicle & Fuel	96	0	46	19,396	13	1	19,552
44	Materials & Supplies	542	1,357	846	13,549	606	9	16,908
45	Logistics	21	213	798	271,303	144	517	272,996
46	Other	190	225	971	3,854	6,122	1,534	12,896
47	Total Incremental Storm Losses	\$11,530	\$19,322	\$22,114	\$1,185,025	\$11,054	\$3,636	\$1,252,680
48								
49	Jurisdictional Factor (H)	0.9513	0.9335	0.9028	0.9999	0.9682	1.0000	
50								
51	Retail Recoverable Incremental Costs	\$ 10,968	\$ 18,037	\$ 19,964	\$ 1,184,867	\$ 10,703	\$ 3,636	\$ 1,248,174

**Notes:**

(A) Storm costs are as of May 31, 2018. Totals may not add due to rounding.

(B) General plant function reflects restoration costs associated with FPL's Human Resources, External Affairs, Information Technology, Real Estate, Marketing and Communications, Energy Marketing & Trading and Legal departments.

(C) Represents total payroll charged to the business unit (function) being supported. For example, an employee that works in Legal but is supporting Distribution during storm restoration would charge their time to Distribution.

(D) Includes other miscellaneous costs, including payroll and related overheads from affiliate personnel directly supporting storm restoration.

(E) Includes capital associated with follow-up work. See KF-1, page 2 for additional breakout of follow-up work associated with the Transmission and Distribution functions.

(F) Reimbursement from AT&T for net poles replaced by FPL during restoration as a result of the storm.

(G) Represents regular payroll normally recovered through base rate O&M and not charged to the Storm Reserve. The amounts are charged to the employee's normal business unit, which may not be the business unit that the employee supported during the storm. Therefore, in the example in Note C above, if the Legal employee had payroll which cannot be charged to the Storm Reserve, that amount would be charged to Legal (General) whereas the recoverable portion of their time would remain in Distribution.

(H) Jurisdictional Factors are based on factors approved in Docket No. 160021-EI.



**Florida Power & Light Company**  
**Hurricane Irma Incremental Cost and Capitalization Approach Adjustments**  
**through May 31, 2018**  
**(\$000s)**

LINE NO.	Power Delivery Restoration and Follow Up Storm Costs (A)				
	Transmission		Distribution		Total (3)
	Restoration (1)	Follow up	Restoration (2)	Follow up	
1	<u>Storm Restoration Costs</u>				
2					
3					
4					
5					
6					
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11					
12	<u>Less: Capitalizable Costs</u>				
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24	<u>Less: ICCA Adjustments (E)</u>				
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36	<u>Incremental Storm Losses</u>				
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49					

Notes:

(A) Storm costs are as of May 31, 2018. Totals may not add due to rounding.

(B) Represents total payroll charged to the business unit (function) being supported. For example, an employee that works in Legal but is supporting Distribution during storm restoration would charge their time to Distribution.

(C) Includes other miscellaneous costs, including payroll and related overheads from affiliate personnel directly supporting storm restoration.

(D) Reimbursement from AT&T for net poles replaced by FPL during restoration as a result of the storm.

(E) All ICCA adjustments are reflected in Restoration column.

(F) Represents regular payroll normally recovered through base rate O&M and not charged to the Storm Reserve. The amounts are charged to the employee's normal business unit, which may not be the business unit that the employee supported during the storm. Therefore, in the example in Note C above, if the Legal employee had payroll which cannot be charged to the Storm Reserve, that amount would be charged to Legal (General) whereas the recoverable portion of their time would remain in Distribution. All non-incremental analyses are reflected in the "Restoration" column.

(G) Jurisdictional Factors are based on factors approved in Docket No. 160021-EI.

**BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**

**FLORIDA POWER & LIGHT COMPANY**

**DIRECT TESTIMONY OF EDUARDO DEVARONA**

**DOCKET NO. 20180049-EI**

**AUGUST 31, 2018**

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1 I. INTRODUCTION

2  
3 **Q. Please state your name and business address.**

4 A. My name is Eduardo DeVarona. My business address is Florida Power & Light  
5 Company, 700 Universe Boulevard, Juno Beach, Florida 33408.

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

7 A. I am employed by NextEra Energy Resources as Executive Director of Transmission  
8 Business management. At the time that Hurricane Irma impacted Florida, I was  
9 employed by Florida Power & Light Company (“FPL” or the “Company”) as the  
10 Senior Director of Emergency Preparedness Power Delivery.

11 **Q. Please describe your duties and responsibilities as the Senior Director of**  
12 **Emergency Preparedness Power Delivery during the time leading up to and**  
13 **including Hurricane Irma.**

14 A. As the Senior Director of Emergency Preparedness Power Delivery, I was responsible  
15 for ensuring the effectiveness of FPL’s operational emergency plans and procedures  
16 for hurricanes, severe weather, capacity shortfall, and cyber and physical security. In  
17 addition, I was responsible for corporate business continuity across NextEra Energy  
18 in the event of an emergency.

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

20 A. I have a Bachelor of Science degree in Electrical Engineering from the University of  
21 Florida. I joined FPL in 1991 and have served in a number of positions of increasing  
22 responsibility with FPL, NextEra Energy Transmission, and NextEra Energy

1 Resources. Over the last 10 years, I have held several director level positions within  
2 Transmission and Distribution (“T&D”).

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

4 A. No.

5 **Q. What is the purpose of your direct testimony?**

6 A. The purpose of my testimony is to provide an overview of FPL’s non-T&D activities,  
7 restoration efforts, and cost details related to Hurricane Irma. Through this  
8 discussion, I support the prudence of those activities and the reasonableness of the  
9 associated costs.

10

11 **II. FPL’s NON-T&D STORM RESTORATION ACTIVITIES**

12

13 **Q. Please provide an overview of FPL’s non-T&D business units that engaged in**  
14 **storm preparation and restoration activities related to Hurricane Irma, together**  
15 **with the associated costs.**

16 A. As outlined in the testimony of FPL witness Miranda, the great majority of the work  
17 associated with FPL’s preparations for, response to, and restoration following  
18 Hurricane Irma falls within the T&D functional areas. However, virtually every other  
19 business unit within FPL was engaged in pre-storm planning and preparation as well  
20 as post-storm restoration activities, all of which contributed to the overall success of  
21 the restoration efforts. Included within the family of non-T&D business units that  
22 contributed to this effort, together with associated costs, are the following:

23

- 1 • Nuclear - \$25.8 million
- 2 • General - \$14.7 million
- 3 • Power Generation Division (“PGD”) - \$12.1 million
- 4 • Customer Service - \$5.2 million

5

6 The costs referenced above are detailed on FPL witness Ferguson’s Exhibit KF-1.

7

8 These costs were necessary as part of storm preparation and the execution of storm  
9 restoration efforts and support functions. The majority of these costs are related to  
10 payroll (regular and overtime) and for services performed by outside contractors. The  
11 activities and associated costs of each of these business units are addressed separately  
12 in my testimony.

13 **Q. Please describe your review of the activities and associated costs of the various**  
14 **business units discussed in your testimony.**

15 A. In addition to my direct interactions and coordination with the non-T&D business  
16 units before, during, and after Hurricane Irma, I met with representatives of each of  
17 the business units to understand in greater detail the nature of the work and the  
18 associated costs incurred in performing these functions.

19 **Q. Are you familiar with the pre-storm season training undertaken by the various**  
20 **business units addressed in your testimony?**

21 A. Yes. Although I briefly address those activities in my testimony, as FPL witness  
22 Ferguson describes, costs associated with storm preparedness and training activities

1 are not charged to the storm reserve, and therefore they are not part of the evaluation  
2 of costs the Commission is conducting in this proceeding.

3  
4 **III. NUCLEAR**

5  
6 **Q. Please provide an overview of FPL's nuclear operations in Florida.**

7 A. FPL has four nuclear units in Florida – two at the Turkey Point Nuclear Generating  
8 Center (1,632 MW) in Miami-Dade County and two at the St. Lucie Nuclear Power  
9 Plant (1,821 MW FPL share) in St. Lucie County.

10 **Q. Please explain the responsibilities of the Nuclear business unit in preparing for  
11 extreme weather events.**

12 A. Each of the nuclear plants has an emergency plan that is used as the basis for storm  
13 preparedness and response. As part of this plan, the Nuclear business unit must  
14 ensure that each plant and site are secured and adequately staffed for operations  
15 before, during, and after the storm. The emergency plan provides for an emergency  
16 crew to be stationed to ride out a storm, recognizing that requiring a crew to travel to  
17 the plant site during a storm would not be safe. During the storm, crews are housed  
18 in safe areas throughout the plant, including a team in the emergency diesel generator  
19 building. If the storm impacts the station, emergency crews would respond to start,  
20 repair, or troubleshoot any plant equipment to the extent it is safe to do so.

1 **Q. Identify any regulatory requirements that must be taken in advance of the**  
2 **impact of a hurricane.**

3 A. Pursuant to its Station Blackout requirements, the Nuclear Regulatory Commission  
4 (“NRC”) requires FPL to commence a shutdown of its nuclear units two hours prior  
5 to the expected onset of sustained hurricane force winds at the site. FPL has  
6 procedures at the nuclear sites to implement shutdown activities in accordance with  
7 these NRC regulations.

8 **Q. Did FPL shut down either of the nuclear sites prior to the impact of Hurricane**  
9 **Irma?**

10 A. Yes. In accordance with the requirements mentioned above, Turkey Point Units 3  
11 and 4 were brought off-line. In addition, St. Lucie Unit 1 was manually shut down  
12 due to salt buildup caused by Hurricane Irma winds blowing water into the  
13 switchyard.

14 **Q. What actions were taken at Turkey Point Units 3 and 4 in connection with the**  
15 **shutdown?**

16 A. When the hurricane watch or warning was given by the National Hurricane Center,  
17 the nuclear plant site personnel filled all necessary fuel and water tanks, completed all  
18 scheduled maintenance activities, conducted activities and tasks required to secure the  
19 site to weather the storm, and conducted any necessary updates to the training for the  
20 operating crew to ensure they were prepared for potential circumstances they could  
21 face in the hurricane.

22  
23



1 **Q. Did the nuclear plant sites sustain damage or require restoration work as a**  
2 **result of Hurricane Irma?**

3 A. Yes. Because of damage caused by the storm, the St. Lucie site required beach  
4 restoration and dredging of the intake canal from the headwall to the intake bridge.  
5 Both St. Lucie and Turkey Point sustained damage to various buildings and structures  
6 at the sites that required roof replacement, A/C repairs on multiple buildings, and  
7 restoration of the Emergency Siren System control equipment. The Turkey Point site  
8 also sustained damage to additional physical structures resulting in the need to replace  
9 lighting, poles, and fixtures.

10 **Q. Explain the role of Nuclear during restoration following Hurricane Irma.**

11 A. The criteria for restarting the nuclear units following a hurricane are based on reviews  
12 performed by the NRC and the Federal Emergency Management Agency (“FEMA”)  
13 regarding the ability of FPL, the state of Florida, and local governments to effectively  
14 implement their emergency plans. The standard used by the NRC and FEMA to  
15 evaluate the ability to restart the plant following an event such as a hurricane is  
16 whether there is reasonable assurance that both FPL and the state and local  
17 governments can protect the health and welfare of the public in the event of a nuclear  
18 power plant accident.

19

20 The plant systems required for operation must be able to perform their intended  
21 function; the plant has technical specifications that describe what equipment must be  
22 operable. In the community surrounding the plant site, the Alert and Notification  
23 System (i.e., sirens) must be operable and the local government must be able to

1 support the implementation of public protective actions, such as shelter, evacuation,  
2 and the monitoring of evacuees. Additionally, the local government must have the  
3 essential personnel and equipment in place for emergency operations.

4 **Q. Did Nuclear retain any contractors to assist in restarting Turkey Point Units 3  
5 and 4 and St. Lucie Unit 1?**

6 A. Yes. Contracted support assisted in the unit restoration efforts, which included  
7 actions necessary to restart the units to get them back to full power.

8 **Q. Please identify the costs attributable to the activities undertaken by Nuclear.**

9 A. FPL incurred approximately \$25.8 million in storm-related costs related to restoration  
10 activities and repairs at its St. Lucie and Turkey Point nuclear sites. These costs were  
11 related to storm preparations, storm riders, restart activities, mobilization and  
12 demobilization activities, and building repairs.

13

14 **IV. GENERAL**

15

16 **Q. Please provide an overview of the business units included in the “General”  
17 category.**

18 A. The business units grouped in the “General” category primarily include Marketing  
19 and Communications (“Communications”), Information Technology (“IT”), Human  
20 Resources and Corporate Services (“HRCS”), and External Affairs and Economic  
21 Development (“EA”).

22

1 During and after Hurricane Irma, Communications was responsible for all aspects of  
2 communications, both internally with employees and externally with customers and  
3 stakeholders. More than 30 channels of communication were utilized, including but  
4 not limited to email, automated calls, text messaging, media events, news  
5 conferences, news releases to the media, and communications to local leaders, state  
6 and federal elected officials, regulators, and large commercial customers.

7  
8 IT was responsible for the delivery and support of system business solutions,  
9 technology infrastructure (client services, mobile services, servers, network, etc.), and  
10 both wired and wireless technology.

11  
12 HRCS was responsible for overseeing various functions of employee support (e.g.,  
13 recruiting, payroll and benefit administration, employee relations and training), as  
14 well as the maintenance and management of corporate facilities.

15  
16 Lastly, EA worked closely and coordinated with local government partners and  
17 county Emergency Operations Centers (“EOCs”) in FPL’s service territory. EA also  
18 provided oversight of the External Response Team (“ERT”), which is the team that  
19 staffs the EOCs within the FPL service territory that are activated during a storm or  
20 other emergency event.

21 **Q. What did these business units do to prepare for Hurricane Irma?**

22 A. Each of the business units prepared for storm events throughout the year as part of  
23 their participation in annual corporate-level training drills. Additionally,

1 Communications established Core Emergency Response Plans that outlined  
2 emergency communication roles, responsibilities, functional processes, and  
3 messaging for multiple types of incidents, including severe weather. IT was involved  
4 in all aspects of establishing and maintaining communications systems and  
5 applications to facilitate restoration efforts. HRCS supported the storm efforts with a  
6 large focus on employee support and communication, along with the security of FPL  
7 facilities. EA ensured a key point of contact for addressing any questions or issues  
8 raised by local government officials, and established a clear line of communication  
9 with these officials to increase awareness about restoration efforts. EA also managed  
10 the ERT, which reports to the Liaison Officer during emergency and/or extreme  
11 weather events.

12  
13 The ERT is comprised of approximately 70 employees from various business units  
14 who staff the EOCs. The ERT reports to the EA managers for those locations,  
15 coordinates special crews serving the EOCs, and submits any requests for information  
16 or action to EA at FPL's Command Center.

17 **Q. Please explain the role of Communications, IT, HRCS, and EA during the time**  
18 **Hurricane Irma was impacting FPL's service territory.**

19 A. The roles of these non-T&D functional areas are summarized as follows:

- 20 • For Communications, safety and hurricane preparation communications to  
21 customers, stakeholders and employees began 96 hours prior to Irma's  
22 forecasted landfall and continued through and after landfall. The primary  
23 objective of Communications was to help customers understand the

1                   seriousness of the situation and the importance of taking safety precautions.  
2                   Customers were also directed to stay informed of key safety and restoration  
3                   information via FPL’s website and use PowerTracker.

4  
5                   Methods of communications included: TV, radio and digital advertising to  
6                   help provide safety messages to the widest number of customers as quickly as  
7                   possible; an automated voice call was made to every residential customer in  
8                   advance of landfall and immediately after the hurricane passed to provide  
9                   safety messaging and instruct customers on how to stay informed; an  
10                  integrated team of Communications and Customer Service Care Center  
11                  employees monitored social media activity 24 hours a day and responded to  
12                  thousands of individual customers directly via Facebook and Twitter; and  
13                  FPL’s website was updated 24 hours a day with the latest outage and  
14                  restoration information, while government officials were provided additional  
15                  updates on critical infrastructure facilities and transformer maps.

- 16  
17                  • IT resources were deployed at FPL facilities and in the field to provide all  
18                  needed technological support.  
19  
20                  • HRCS prepared and safeguarded physical assets, managed increased janitorial  
21                  demands, completed repairs and clean up at the Company’s facilities  
22                  following the storm, and assisted employees with anything from temporary  
23                  housing to storm-related finances. Additionally, the HRCS compensation and

1 payroll teams provided communication, policy, and procedure updates to  
2 employees and answered their inquiries.

- 3
- 4 • EA proactively and reactively communicated with local elected officials in the  
5 impacted counties and oversaw the EOC representatives staffed in the  
6 impacted EOCs. Specific outreach activities included sending email updates  
7 to local elected stakeholders, fielding and responding to stakeholder questions,  
8 concerns and input, and personally meeting with stakeholders as often as  
9 possible.

10 **Q. Did any of the business units in the “General” category retain contractors to**  
11 **assist?**

12 A. Yes. As part of its hurricane response plan, Communications utilized trained  
13 contractors to provide support for various functions, including: visual communication  
14 support (videography and photography); media relations (responding to incoming  
15 media calls as part of a 24-hour team); social media staffing (monitoring, writing and  
16 posting content in conjunction with Customer Service, also 24 hours a day); and  
17 technical support for digital communications. During Hurricane Irma, the trained  
18 contractors provided essential services to supplement the Communications  
19 employees’ efforts and support the timely communication of safety and  
20 restoration/outage information to customers.

21

1 IT utilized a contractor who provided services to support the Trouble Call  
2 Management System, which tracks outage tickets and trouble reports during  
3 restoration.

4  
5 HRCS retained and managed contractors for building services and maintenance.  
6 After the storm passed, these assets were returned to normal operations, following  
7 damage assessment and necessary repairs. Contractors were also retained for debris  
8 removal at corporate offices, substations, and service centers and the replacement of  
9 any damaged vegetation as required by the towns, cities, and counties.

10

11 EA retained contractors to repair localized solar plant sites and clear debris and lines  
12 to help open roads immediately after the storm passed so that emergency and  
13 restoration personnel could safely navigate the roads as soon as possible. Also, due to  
14 the size of this storm, recent retirees with EOC experience were brought in to help  
15 supplement staffing in EOCs.

16 **Q. Please identify the costs attributable to the activities taken by the business units**  
17 **in the “General” category.**

18 A. Total costs incurred by the business units included in the “General” category were  
19 approximately \$14.7 million, the majority of which was related to payroll and  
20 contractor expenses.

21

22

23

1  
2  
3 **V. PGD**

4 **Q. Please provide an overview of FPL's PGD operations.**

5 A. PGD operates and maintains all non-nuclear power generation for FPL's customers.  
6 The fleet includes approximately 23,000 MW of simple, combined cycle, steam, and  
7 solar units.

8 **Q. Please explain the processes utilized by PGD to prepare for Hurricane Irma.**

9 A. PGD has an emergency response plan that is used to facilitate storm response efforts.  
10 Every plant has site-specific procedures for securing equipment, identifying personnel  
11 that will prepare for and ride out the storm at the plant, and performing storm  
12 restoration as quickly as possible after the storm.

13 **Q. Please explain the role of PGD during restoration following Hurricane Irma.**

14 A. PGD's mission was to ensure that any plants shut down or damaged by Hurricane  
15 Irma were restored to provide electric generation to customers safely and as quickly  
16 as possible.

17 **Q. Did PGD retain contractors to assist?**

18 A. Yes. PGD retained contractors to assist with the preparation and restoration of  
19 generating plants to full capacity, as well as to safely secure jet fuel and perform  
20 restoration to two fuel storage tanks that were damaged at FPL's Port Everglades  
21 facility.



1 All generating sites in the PGD fleet incurred payroll charges for storm preparation  
2 and for storm riders at the plants. Contractors were engaged in multiple restoration  
3 efforts across the fossil and solar generating fleet.

4  
5 The site that incurred the most damage was FPL's combined-cycle unit at the non-  
6 nuclear portion of the Turkey Point facility, where contractors assisted with roof and  
7 equipment repairs, and fence line cleanup. At the Martin plant, contractors assisted  
8 with insulation/lagging repairs, scaffold rental, condenser cleaning, and debris  
9 removal at the cooling pond. At the Manatee plant, contractors assisted with  
10 insulation/lagging repairs, scaffold rental, and various roof repairs. At the West  
11 County Energy Center in western Palm Beach County, contractors assisted with  
12 repairs to roofs, gutters, insulation, and combustion turbine inlet damage.

13  
14 In addition to payroll charges for Incident Command and support staff that worked  
15 on the fuel storage tanks at Port Everglades, contractors were engaged to assist with  
16 site safety, environmental impact assessments, fire prevention, transportation of jet  
17 fuel to and from the facility, restoration of the roofs, and other tank repairs.

18 **Q. Please identify the costs attributable to the activities undertaken by PGD.**

19 A. PGD incurred approximately \$12.1 million in storm-related costs, the majority of  
20 which were related to payroll and contractor services. Included within this total,  
21 approximately \$6.7 million of costs were incurred to replace the roof and restore the  
22 fuel storage tanks at the Port Everglades facility to their pre-storm storage capability.

23

1 **VI. CUSTOMER SERVICE**

2

3 **Q. Please provide an overview of FPL’s Customer Service operations.**

4 A. FPL’s Customer Service organization is responsible for developing and executing  
5 policies, processes, and systems related to contacts with customers. This includes:  
6 customer care centers; customer solutions, which is responsible for account  
7 management for large commercial/industrial and governmental customers and other  
8 field-related activities; complaint resolution; billing and payment processes; smart  
9 meter network operations; development and implementation of FPL’s Demand Side  
10 Management programs; and credit and collections activities.

11 **Q. Please explain what Customer Service does to prepare for extreme weather  
12 events such as Hurricane Irma.**

13 A. In preparation for extreme weather events, Customer Service executes on emergency  
14 response plans that are established well in advance. These plans are tested annually  
15 through both business unit and corporate drills and workshops designed to improve  
16 resiliency and effectiveness. In addition, annual training and awareness of storm  
17 roles and responsibilities begin in March and extend through the beginning of storm  
18 season. Extensive training is conducted in both an instructor-led classroom setting  
19 and through online coursework, where applicable.

20 **Q. Please explain Customer Service’s role when Hurricane Irma was impacting  
21 FPL’s service territory.**

22 A. During the time Hurricane Irma was impacting FPL’s service territory, Customer  
23 Service primarily handled communications from customers reporting outages and

1 hazardous conditions. Customer Service executed a plan that included increasing  
2 staffing at GC Services (FPL’s customer call center partner located in Texas) and  
3 having a group of Customer Care employees “ride the storm” at FPL’s Miami call  
4 center, allowing them to handle outage-related calls in real time as the storm passed  
5 through FPL’s territory. Post landfall, Customer Service employees reported to their  
6 storm roles as soon as it was safe to do so. This included increasing staffing at the  
7 FPL Customer Care centers by bringing in customer service employees from other  
8 departments and extending daily schedules to 12-hour shifts covering 24 hours/day.  
9 FPL was also able to secure additional temporary resources through local staffing  
10 agencies and executed a mutual assistance plan with Pacific Gas & Electric to assist  
11 in handling outage calls.

12  
13 In addition, Customer Service advisors worked with FPL’s governmental and major  
14 accounts to conduct proactive outreach about power restoration efforts and handle  
15 restoration inquiries directly from these customers. Community Action Teams were  
16 also deployed post storm to the hardest hit areas to provide customer service support  
17 to the community. Customer Service representatives set up and staffed tents in the  
18 neighborhoods to assist customers with reporting outages, provide restoration updates  
19 and information on local resources (e.g., Red Cross, FEMA), and provide other  
20 assistance such as cell phone charging stations, WIFI, and water. Customer Service  
21 assessed the impact Hurricane Irma had on FPL’s Smart Meter network and the  
22 communication status of network devices, conducted back-office analyses and field  
23 investigations, and repaired or replaced non-communicating devices. During

1 restoration, Customer Service was also responsible, along with Power Delivery, for  
2 handling customer complaints related to Hurricane Irma.

3 **Q. Did Customer Service retain contractors to assist?**

4 A. Yes. As part of its normal business operations, FPL partners with GC Services to  
5 handle customer calls and also uses electrical contractor services for smart meter  
6 network maintenance and restoration. For Hurricane Irma, FPL contracted with a  
7 local vendor to provide temporary employees to assist with call handling and with a  
8 vendor to provide business continuity trailers that included a complete mobile-  
9 computing environment for Customer Care phone agents to take calls and conduct  
10 business operations. Additionally, as indicated above, FPL executed a mutual  
11 assistance plan with Pacific Gas & Electric to assist in handling outage calls.

12 **Q. Please identify the costs attributable to the activities taken by Customer Service.**

13 A. Customer Service incurred approximately \$5.2 million in storm-related costs, the  
14 majority of which were related to payroll and contractor services.

15

16 **VII. CONCLUSION**

17

18 **Q. Were the activities of Nuclear, Customer Service, PGD, and the business units**  
19 **discussed in the “General” category prudent and the associated costs reasonable**  
20 **as part of FPL’s overall response to Hurricane Irma?**

21 A. Yes.

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

23 A. Yes.