Hurricanes Harvey and Irma: Electric Industry Impacts, Restoration, and Cost Recovery



By Everett Britt

n August 25, 2017, Hurricane Harvey made landfall on the Texas shoreline and began a slow, meandering trek on and off and along the Texas coast. Heavy rains from the storm persisted in southeast Texas until August 31. Harvey's initial impact came from its intense hurricane-force winds, but as those winds lessened and the storm's path slowed to a crawl, the primary danger came from the steady and sustained rainfall that blanketed a wide swath of Texas and created an unprecedented flooding event.

Barely two weeks later, on September 10, 2017, Hurricane Irma made landfall in the Florida Keys and on mainland Florida several hours thereafter, continuing north through Florida and into Georgia before losing its tropical characteristics on September 12. Irma's impact was widespread, with the state's largest utility describing it as the largest hurricane event the utility had ever faced. Tropical force winds were experienced in all but one county in Florida.

This article describes the major impacts of Hurricanes Harvey and Irma on electric companies in their paths, the companies' restoration efforts, and how recovery of the storm-related costs for electric utilities may be addressed under the applicable regulatory frameworks.¹

Hurricane Harvey made landfall near Rockport, Texas, as a Category 4 hurricane with sustained winds of over 100 miles per hour and gusts exceeding 135 miles per hour.² After making landfall on August 25, the storm meandered on shore for several days, returned to the Gulf of Mexico on August 28, and eventually

made a second landfall, this time on August 30, just east of the Texas–Louisiana border before moving further north and east into the rest of the country in a weakened state. Unprecedented rain totals over the course of the storm exceeded 50 inches in parts of Houston and surrounding areas, and more than 3,600 square miles were covered in at least 40 inches of rain.³



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Most customers in the area initially impacted by Hurricane Harvey receive electric utility service from AEP Texas. AEP Texas provides electric delivery service to approximately one million customers. In its report to the Public Utility Commission of Texas (PUCT) regarding storm damage, AEP Texas identified 68 damaged substations, 549 downed transmission structures, 5,726 damaged or replaced distribution structures, and 220,000 customer outages at peak.⁴ The dangers involved with restoration activities were sadly underscored when a contractor lineman for AEP Texas was fatally injured during the recovery efforts.⁵

As Hurricane Harvey moved slowly eastward, the service areas of CenterPoint Energy Houston Electric (CEH) and Entergy Texas were impacted more by the historic level of flooding than by the then-diminished winds. CEH, whose service area includes most of Houston, provides electric delivery service to approximately 2.2 million customers. CEH reported 1.27 million total customer restorations although the peak number of outages at any one given time appears to have been around 100,000.6 CEH also reported 17 substations being out of service or inaccessible due to high water.⁷ Entergy Texas serves approximately 444,000 customers in areas north and east of Houston and reported that, in the week after Harvey first made landfall in Texas, the company restored more than 200,000 outages caused by the storm.8 Entergy Texas reported that extensive flooding damaged its substation infrastructure; 17 substations experienced some flooding, and six were completely flooded.9

The unusual extent of flooding from Harvey also

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resulted in a number of noteworthy impacts on generation. ERCOT, the independent system operator for the Texas Interconnection power grid, issued two "Reliability Unit Commitment" instructions to specific generators during the first two days after the storm made landfall to make sure generation capacity was available for reliability purposes.¹⁰ ERCOT reported a maximum of 10,000 MW of generation outages due to storm-related causes such as rain or floodwaters affecting fuel supplies, outages of transmission facilities at the generator's point of interconnection, or the inability of plant personnel to reach the generating facilities. Despite the outages, however, ERCOT indicated that generation levels were sufficient because load was also diminished due to storm-related customer outages and cooler temperatures.

NRG, one of the state's largest generators, reported approximately \$20 million in damage.11 NRG's Cottonwood generating station was flooded when the Sabine River Authority opened the floodgates of the Toledo Bend reservoir, resulting in downstream flooding along the river.¹² NRG also reported that the coal pile at its W. A. Parish generating station became so saturated with rain water that coal could not be delivered into the silos, and that, in response, natural gas instead of coal was used as the fuel source at two of the plant's units for the first time since 2009.¹³ And although the South Texas Nuclear Project remained fully operational during Harvey, the 250-person storm crew was forced to remain on site for nine days due to flooding that resulted in a prolonged evacuation order in the area of the plant.¹⁴

While the extraordinary nature of Harvey meant that restoration efforts in Texas faced exceptional circumstances, the use of advanced technologies and

other pre-storm efforts appears to have yielded improved recovery results. AEP Texas, for example, explained that flooding, mosquitos, and windy and muddy conditions created special challenges for work crews.¹⁵ To address these challenges, specialized equipment and technology such as ATVs, drones, pictometry, and helicopters were used in the assessment and restoration efforts. According to AEP Texas, the company was able to restore service to 96 percent of impacted customers within two weeks.

CEH has pointed to the benefit of advanced meters and the "Intelligent Grid" in helping to avoid or shorten outages (estimating that 41 million outage minutes were avoided) and to increase efficiency during the storm.¹⁶ CEH also indicated that the use of real-time analytics to assess, monitor, and resolve cases aided in developing better situational awareness and allowed CEH to correlate weather and flooding information with outages, providing its operations team with critical decision-making tools. According to CEH, drones helped to assess damage and evaluate work conditions (500 locations were tracked using 15 drones), and infrared capabilities helped identify equipment that needed further inspection.

An added complication for Entergy Texas was that, due to the extreme flooding, the City of Beaumont lost its water supply system, and Entergy Texas was forced to move its storm command center from Beaumont to ETI facilities in Conroe, Texas, approximately 90 miles away, and its distribution operations center from Beaumont to Baton Rouge,

> Louisiana, approximately 190 miles away, into facilities of affiliated utility Entergy Louisiana.¹⁷ Entergy Texas also reported the use of 16 airboats, seven high-water vehicles, eight helicopters, and 16 tankers for fuel transport during its restoration effort.

Despite the challenges of Harvey's winds and flooding, however, the PUCT's assessment to date is that "Texas utilities generally did an outstanding job responding to the storm."¹⁸

AEP Texas, Entergy Texas, and CEH have reported storm cost estimates topping a combined \$500 million, with AEP Texas's estimate ranging from approximately \$250 million to \$300 million.¹⁹ Insurance, standard base rate revenues, and storm reserve accounts may not always be sufficient to enable a utility to handle major system restoration investment costs without affecting the utility's financial health or integrity. In consideration of this point, and in response to damage caused by Hur-

ricane Rita along the Texas coast in September 2005, Texas enacted legislation that allowed Entergy Gulf States,²⁰ the electric utility in Texas most impacted Hurricane Rita, to petition the PUCT for approval to securitize its "hurricane reconstruction costs" as well as the costs of issuing, supporting, and servicing the securitization bonds. In general, securitization allows the utility to finance storm recovery costs with a lower cost of capital, by using a regulatory guaranty of cost recovery and a capital structure that is primarily debt. Like other states, Texas had previously used securitization to help finance the recovery of billions of dollars of stranded costs for utilities in areas of the state where retail competition was implemented.²¹ In 2007, based on the new

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legislation, the PUCT approved the securitization of up to \$321,359,480 of hurricane reconstruction costs for Entergy Gulf States.²²

In September 2008, Texas utilities were affected by Hurricanes Gustav and Ike. In response, Texas enacted expanded storm cost legislation to allow any electric utility affected by these or future hurricanes, tropical storms, ice storms, or other natural disasters to seek to securitize its system restoration costs or, in certain circumstances, to seek recovery of the system restoration costs through a customer surcharge mechanism. In 2009, both CEH and Entergy Texas filed applications with the PUCT to securitize their respective system restoration costs associated with Hurricanes Ike and/or Gustav. The PUCT ultimately approved the securitization of over \$1.2 billion for these companies combined.²³

Accordingly, the path to securitize costs associated with system restoration after hurricane damage is relatively well established in Texas. However, although securitization provides a means to finance storm cost recovery, the issuance of debt securities and the required regulatory proceedings and financial due diligence can take several months and even longer. Other rate recovery mechanisms, including mechanisms approved or expanded in scope in recent years, may also assist in recovery of system restoration costs associated with Hurricane Harvey. For example, certain cost recovery mechanisms in Texas allow utilities to seek cost recovery for incremental capital investments in transmission plant made between base rate cases. Additionally, in 2011, Texas enacted legislation to enable utilities to seek cost recovery for incremental capital investments in distribution plant

made between base rate cases through a distribution cost recovery factor (DCRF) rider. In recent years, CEH, AEP Texas, and Entergy Texas have availed themselves of the transmission and DCRF mechanisms to recover capital investment incurred between base rate cases.

The transmission and DCRF mechanisms provide additional potential avenues for cost recovery for utilities affected by Hurricane Harvey, and, unlike securitization, these mechanisms would allow the utility to earn its standard return on capital investment over the life of the investments. However, these mechanisms are generally limited to capital investment costs, so expensed costs would not be recovered under these mechanisms (expensed costs may be securitized because they are

Securitization allows the utility to finance storm recovery costs with a lower cost of capital.



included in the Texas statute's definition of "system restoration costs"). Additionally, relying on the transmission and DCRF mechanisms would mean forgoing the more immediate infusion of funds that would occur under securitization after regulatory approvals and bond issuances have been finalized.²⁴

In its third quarter 10-Q, CEH's parent company stated that CEH will defer the uninsured storm restoration costs because management believes it is probable that such costs will be recovered through traditional rate adjustment mechanisms for capital costs and through the next rate proceeding for operation and maintenance expenses. It therefore appears unlikely that CEH will securitize its storm costs. For Entergy Texas and AEP Texas, however, as of the date

of their respective parent companies' third quarter 10-Qs, the companies appear to still be considering their options, with Entergy's parent stating that Entergy Texas "is considering all reasonable avenues to recover storm-related costs from Hurricane Harvey, including, but not limited to, securitization or other alternative financing and traditional retail recovery on an interim and permanent basis."²⁵

Hurricane Irma made landfall in Florida as a Category 4 storm and impacted the entire state²⁶ as well as other portions of the Southeast. Tropical force winds were experienced in all but one county in Florida, and nearly half of the counties experienced hurricane strength winds.²⁷ Maximum sustained winds of 130 mph to 156 mph were recorded.²⁸ Rainfall totals of 10 to 15 inches were experienced in many locations in Florida, and just over 10 inches of rain fell in places in Georgia.²⁹ Hurricane Irma has been described as

an exceptionally intense storm, and one that likely set a "global record for the satellite era as the longest duration that a tropical cyclone has maintained surface wind speeds of at least 185 mph."³⁰ The electric industry mounted an industry-wide response to Irma that, with approximately 60,000 workers, was one of the largest power restoration efforts in U.S. history.³¹

In presentations to the Florida Senate Committee on Communications, Energy, and Public Utilities, Florida's largest electric utilities detailed the damage to their systems. Florida Power & Light (FPL) stated that Hurricane Irma was the largest hurricane event FPL had ever faced, explaining that Irma impacted all 27,000 square miles of FPL's service area.³² Approximately 90 percent of FPL's 4.9 million customers were affected. While there was significant damage from flooding and storm surge, most of the outages from Irma were the result of falling trees, vegetation, and other debris.³³ Duke Energy Florida (DEF) provides service to 1.8 million retail customers in 35 counties in Florida, and DEF reported that Irma was the first hurricane on record to impact all counties served by DEF.³⁴ DEF experienced 1.7 million outages over the course of the storm, including nearly 1.3 million outages at peak.

Other utilities affected by Irma included Tampa Electric, whose outages peaked at 335,000, with roughly 425,000 of its 752,000 customers affected during the event,³⁵ and Georgia Power, which stated that electric service to nearly one million Georgia Power customers was impacted at the height of Hurricane Irma.³⁶ Unfortunately, as happened in Texas with Hurricane Harvey recovery, one lineman suffered a fatal injury in Florida while helping with Irma restoration activities.³⁷

Like the Texas utilities impacted by Harvey, the utilities impacted by Irma have affirmed that advanced technologies and other pre-storm efforts have yielded improved restoration results. According to FPL, its investments in storm hardening are making a significant difference for its customers.³⁸ In particular, FPL reported that, as compared to the response to Hurricane Wilma in 2005, the service restoration time dropped from 18 days to 10 days, and that FPL achieved 50 percent restoration in one day as compared to five days in 2005.

DEF reported restoration of service to one million DEF customers in three days.³⁹ DEF pointed in particular to the benefit of "Self-Healing Technology," which, DEF explained, allows the grid to self-identify problems and react to them by isolating those areas or rerouting power.⁴⁰ According to DEF, this technology serves 22 percent of its customers and helped avoid approximately 5 million outage minutes during Hurricane Irma. DEF also reported that it plans to invest an additional \$3.4 billion over the next 10 years to further modernize the grid, including transmission improvements, advanced metering infrastructure, a new customer information system, and additional advanced self-healing technology.

Florida is certainly no stranger to the challenges of addressing cost recovery for hurricane and tropical storm restoration costs. After Hurricane Andrew struck Florida in 1992, windstorm insurance coverage was no longer practicably available, and accordingly, most Florida investor-owned electric utilities operated thereafter under a self-insurance program for damage to distribution and transmission facilities.⁴¹ Following multiple hurricanes in 2004 and 2005, the Florida Legislature also established securitization as a financing vehicle by which electric utilities could recover their storm restoration costs and replenish their storm reserves.⁴² FPL, which incurred significant damage to its system as a result of four named storms in 2005 (Dennis, Katrina, Rita, and Wilma), requested that the Florida Public Service Commission (FPSC) issue a financing order approving the issuance of storm-recovery bonds. In the end, the FPSC approved issuance of storm-recovery bonds in the amount of up to \$708,000,000.⁴³

In 2007, the FPSC issued an order adopting an amended rule to more broadly allow utilities to establish storm reserve accounts and to capitalize the costs of storm recovery to that account.⁴⁴ A utility may petition the FPSC for recovery of a debit balance in a reserve account plus an amount to replenish the storm reserve through a surcharge, securitization, or other cost recovery mechanism.⁴⁵ A storm damage selfinsurance reserve study must be filed with the FPSC whenever a utility is seeking a change to either the target accumulated balance or the annual accrual amount for the storm reserve account.⁴⁶

FPL's 2016 rate case agreement described the company's mechanism for storm cost recovery.⁴⁷ It explained that the current storm damage cost recovery mechanism allows FPL to collect up to a \$4 per 1,000 kWh charge beginning 60 days after filing a cost recovery petition based on a 12-month recovery period if costs do not exceed \$800 million.⁴⁸ If costs exceed \$800 million, including restoration of the reserve, FPL may petition to increase the charge beyond \$4 per 1,000 kWh.⁴⁹ DEF's recent rate case agreement describes a similar cost recovery mechanism for storm cost recovery, albeit without the particular rate or cost levels included in the FPL agreement provisions.⁵⁰

During the third quarter earnings call of FPL's parent company, the company representative stated that the company's storm costs for Irma are preliminarily estimated to be approximately \$1.3 billion and that, consistent with FPL's 2016 rate agreement, FPL expects to propose a surcharge equivalent to \$4 on a 1,000 kilowatt hour residential bill beginning in March 2018, which equates to an increase of 64 cents from the surcharge related to Hurricane Matthew that rolls off at that time.⁵¹ Subject to a review and prudence determination of final storm costs by the FPSC, the representative indicated, FPL expects this surcharge to increase to approximately \$5.50 per month in 2019 and stay at that level until the storm costs are fully recovered, which is expected by the end of 2020.

During the third quarter earnings call of DEF's parent company, the company representative explained that DEF's initial storm restoration cost estimate for its Florida service territory is almost \$500 million and that the majority of these costs will be recovered through the existing Commission storm rule or transmission tariffs.⁵² According to the company representative, under DEF's current rate agreement, DEF is authorized to begin recovering both the storm impact and reserve replenishment 60 days after filing a petition with the FPSC, and DEF plans to file a petition by year end. Based on initial estimates, the representative indicated, DEF believes the customers would see an approximate \$5 increase on a typical monthly residential bill, assuming a three-year recovery period.

Georgia Power also experienced significant costs from Hurricane Irma. In its third quater 10-Q, Georgia Power's parent company reported that the total amount of incremental restoration costs related to Irma is estimated to be approximately \$150 million.⁵³ Accordingly to the 10-Q, as of September 30, 2017, Georgia Power had deferred approximately \$145 million in a regulatory asset related to storm damage. The rate of storm damage cost recovery is expected to be adjusted as part of Georgia Power's next base rate case, which is required to be filed by July 1, 2019; as a result of this regulatory treatment, the parent company asserted that costs related to storms are not expected to have a material impact on its financial statements.

In sum, existing rate mechanisms in Florida and Georgia appear to be in place and adequate to address storm damage costs, even the significant amounts experienced by the utilities as a result of Hurricane Irma. The geographical situation of Florida in particular has certainly given it extensive experience and opportunity in recent years to develop, explore, and work out several options for disaster-related cost recovery, and these options may provide guidance for other states and utilities that find themselves in similarly costly disasterrelated circumstances in the future.

Endnotes

1. This article focuses on the larger investor-owned utilities in the paths of the storms. Of course, numerous other investorowned utilities, electric cooperatives, and municipally owned utilities and their customers were also impacted. Additionally, other hurricanes struck the United States during this hurricane season. The U.S. mainland was hit by Hurricane Nate as a Category 1 storm on October 8, 2017, while the Commonwealth of Puerto Rico was struck by Hurricane Maria as a Category 4 storm on September 20, 2017.

2. The 2017 Hurricane Season: A Review of Emergency Response and Energy Infrastructure Recovery Efforts: Hearing Before the U.S. House of Representatives Committee on Energy and Commerce Subcommittee on Energy, 115th Congress, Nov. 2, 2017 (statement of DeAnn T. Walker, Chairman of the PUCT), http://docs.house.gov/meetings/IF/IF03/20171102/106573/ HHRG-115-IF03-Wstate-WalkerD-

20171102.pdf.

3. Id.

4. AEP Texas, Hurricane Harvey Update presentation to PUCT (Sept. 28, 2017), http://interchange.puc.state.tx.us/WebApp/I nterchange/Documents/47552_38_957672.PDF.

5. AEP contractor killed during Harvey restoration, VICTO-RIA ADVOCATE, Sept. 5, 2017, https://www.victoriaadvocate.com/ news/2017/sep/05/AEP_contractor_dies_from_injuries_090617/. 6. CEH, CenterPoint Energy's Response to Hurricane Harvey presentation to ERCOT Board of Directors (Oct. 17, 2017), http://www.ercot.com/content/wcm/ key_documents_lists/103998/5.3.2_CenterPoint_Energy_s_ Response_to_Hurricane_Harvey_REVISED_10.12.17.pdf; PUCT Staff, *Hurricane Harvey Impact on Electric Utilities* (Sept. 8, 2017), http://interchange.puc.state.tx.us/WebApp/Interchange/ Documents/47552_25_954234.PDF.

7. Id.

8. Press Release, Entergy Corp, Entergy Texas Continues Harvey Restoration (Sept. 1, 2017), http://www.entergynewsroom.com/blog/entergy-texas/.

9 .Entergy Texas, Response to Hurricane Harvey presentation to PUCT (Sept. 28, 2017), http://interchange.puc.state.tx.us/WebApp/ Interchange/Documents/47552_38_957672.PDF.

10. Issues Related to the Disaster Resulting from Hurricane Harvey, PUCT Docket No. 47552, ERCOT Report Concerning Impacts of Hurricane/Tropical Storm Harvey (Aug. 30, 2017).

11. NRG Energy, Inc., Quarterly Report (Form 10-Q) (Nov. 2, 2017).

12. Id.

13. NRG, Letter to PUCT Commissioners (Sept. 26, 2017), http:// interchange.puc.texas.gov/WebApp/Interchange/

application/dbapps/filings/pgSearch_Results.asp?TXT_CNTR_NO=47552&TXT_ITEM_NO=30.

14. Sean Collins Walsh, *Some Question Decision to Keep Texas Nuclear Plant OpenDuring Harvey*, AUSTIN AM.-STATESMAN, Sept. 19, 2017.

15. AEP Texas presentation to PUCT, supra note 4.

16. CEH presentation to ERCOT Board of Directors, *supra* note 6.

17. Entergy Texas presentation to PUCT, supra note 9.

18. Walker testimony, supra note 2, at 2.

19. American Electric Power Company, Inc., Quarterly Report (Form 10-Q) (Oct. 27, 2017); Entergy Corporation, Quarterly Report (Form 10-Q) (Nov. 3, 2017); CenterPoint Energy Inc., Quarterly Report (Form 10-Q) (Nov. 3, 2017).

20. Entergy Gulf States was separated along state lines at the end of 2007 to become Entergy Texas and Entergy Gulf States Louisiana.

21. PUCT, *Report to the 85th Texas Legislature: Scope of Competition in Electric Markets in Texas* (Jan. 2007), http://www.puc.texas. gov/industry/electric/reports/scope/2017/2017scope_elec.pdf.

22. Application of Entergy Gulf States, Inc. for a Financing Order, PUCT Docket No. 33586, Financing Order (Apr. 2, 2007).

23. Application of CenterPoint Energy Houston Electric, LLC for Financing Order, PUCT Docket No. 37200 (Financing Order Aug.
26, 2009); Application of Entergy Texas, Inc. for a Financing Order, PUCT Docket No. 37247 (Financing Order Sept. 11, 2009).

24. Of course, because even securitization does not provide financial relief concurrent with restoration expenditures, it is no substitute for a financially healthy utility with a financially healthy capital structure. Further, securitization may be of little value without credible regulatory support.

25. American Electric Power Company, Inc., Quarterly Report (Form 10-Q) (Oct. 27, 2017); CenterPoint Energy Inc., Quarterly Report (Form 10-Q) (Nov. 3, 2017). Entergy Corporation, Quarterly Report (Form 10-Q) (Nov. 3, 2017).

26. John Ketchum, Executive Vice President and Chief Financial Officer of NextEra Energy, Third Quarter 2017 Earnings Call Transcript (Oct. 26, 2017), http://phx.corporate-ir.net/External.File?item =UGFyZW50SUQ9MzkyMTQzfENoaWxkSUQ9LTF8VHlwZT0z&t=1 &cb=636446258039629551.

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30. Tom Knutson & Sarah Kapnick, *Hurricanes Harvey and Irma: Did climate change play a role?*, NOAA OAR GEOPHYSICAL FLUID DYNAMICS LABORATORY, http://www.cpo. noaa.gov/News/News-Article/ArtMID/6226/ArticleID/1564/ Harvey-Irma-Part-One-Attribution-Precipitation-Flooding.

31. Edison Electric Institute, *EEI Talking Points: Final Update: 95 Percent of Customer Outages Restored Since Irma's Peak Just One Week Ago*, Sept. 18, 2017.

32. FPL, Hurricane Preparation & Irma Response presentation to Florida Senate Committee on Communications, Energy, and Public Utilities (Oct. 10, 2017).

33. Id.

34. DEF, Hurricane Irma Storm Review presentation to Florida Senate Committee on Communications, Energy, and Public Utilities (Oct. 10, 2017).

35. Tampa Electric Company, Hurricane Irma Preparation & Restoration Report presentation to Florida Senate Committee on Communications, Energy, and Public Utilities (Oct. 10, 2017).

36. Press Release, Georgia Power, Power restored to 99 percent of Georgia Power customers impacted by Hurricane Irma (Sept. 16, 2017), https://www.prnewswire.com/news-releases/ power-restored-to-99-percent-of-georgia-power-customersimpacted-by-hurricane-irma-300520836.html.

37. Linda Trischitta, *Lineman working in South Florida after Hurricane Irma dies in fall from garage*, SUN SENTINAL, Sept. 21, 2017, http://www.sun-sentinel.com/news/weather/ hurricane/fl-reg-lauderdale-lineman-death-investigation-20170920-story.html.

38. FPL, Hurricane Preparation & Irma Response presentation, *supra* note 32.

39. DEF, Hurricane Irma Storm Review, *supra* note 34. 40. *Id.*

41. *In re*: Petition for issuance of a storm recovery financing order, by Florida Power & Light Company, FPSC Docket No. 060038-E, Order No. PSC-06-0464-FOF-E1, Financing Order at 2 (May 30, 2006).

42. Id. at 3.

43. Id. at 3, 14.

44. See Edison Electric Institute, Before and After the Storm, at 37 (Mar. 2014), http://www.eei.org/issuesandpolicy/electricreliability/ mutualassistance/Documents/Before%20and%20After%20the%20 Storm.pdf (citing Florida PSC Docket No. 070011-EI (May 23, 2007), in which the FPSC adopted amendments to FPSC Rule 25-6.0143, F.A.C.: Use of Accumulated Provision Accounts 228.1, 228.2, and 228.4).

45. See FPSC Rule 25-6.0143(1)(j), F.A.C.

46. See FPSC Rule 25-6.0143(1)(1), F.A.C.

47. *In re*: Petition for rate increase by Florida Power & Light Company, FPSC Docket Nos. 160021-EI, 160061-EI, 160062-EI and 160088-EI, Order No. PSC-16-0560-AS-EI, at 3 (Dec. 15, 2016).

48. Id.

49. Id.

50. *In re*: Petition for limited proceeding to approve revised and restated stipulation and settlement agreement by Duke Energy Florida, Inc. d/b/a Duke Energy, FPSC Docket No. 130208-ET, Order No. PSC-13-0598-FOF-EI at 43 (Nov. 12, 2013). A settlement including similar provisions has also been filed in a pending DEF rate proceeding, but an order approving the agreement has not yet been issued. *See* FPSC Docket Nos. 20170183-EI, DEF's Petition for Limited Proceeding to Approve 2017 Second Revised and Restated Stipulation and Settlement Agreement, at 49 (Aug. 29, 2017).

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52. Duke Energy, Third Quarter 2017 Earnings Call Transcript (Oct. 8, 2017), https://seekingalpha.com/ article/4120148-duke-energy-duk-q3-2017-results-earnings-calltranscript.

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