FILED 3/28/2019
DOCUMENT NO. 03372-2019
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Public Service Commission

March 28, 2019

Mr. Matthew Bernier, Esq.
106 East College Avenue, Suite 800
Tallahassee, FL 32301
Matt.Bernier@duke-energy.com

STAFF'S THIRD DATA REQUEST

RE: Docket No. 20180146-EI – Review of 2019-2021 storm hardening plan, Duke Energy Florida, LLC.

Dear Mr. Bernier,

By this letter, the Commission staff requests that Duke Energy Florida, LLC (DEF or Utility) provide responses to the following data requests.

Please refer to DEF's storm hardening plan that was filed in Docket No. 20180146-EI.

National Electric Safety Code (NESC) Compliance

1) Please refer to pages 4 and 5.

   a. What NESC construction grade does DEF use for its distribution and transmission facilities?

   b. Does DEF use the same NESC construction grade for new construction and replacement or relocation of distribution and transmission facilities?

   c. Does DEF use different NESC construction grades for different situations? If yes, please explain.

   d. What is the weakest NESC construction grade that DEF uses for new construction and replacement of its distribution and transmission facilities?

   e. Why is DEF considering that the NESC does not call for the extreme wind design standard for distribution poles that are less than sixty feet in height?

   f. What version of PoleForeman does DEF use to design the distribution and transmission supporting structures?

      i. Does PoleForeman comply with the 2017 NESC?

ii. Does the software's operator need to know the 2017 NESC code to enter the correct information into PoleForeman? Example: Input the correct Basic Wind Speed as specified by Figure 250-2 of the 2017 NESC into the software.

Extreme Wind Loading (EWL) Standards

2) Please refer to pages 4 through 6.

a. Is DEF applying any safety (load or strength) factor to exceed the NESC minimum requirements?

b. How does DEF comply with the 2017 NESC? Please explain the process of how the supporting structures are designed. Is the extreme wind loading calculated before the pole strength for wind?

c. Please provide the height of DEF's transmission and distribution wood poles?

Mitigation of Flooding and Storm Surge Damage

3) Please refer to page 7.

a. Has DEF adopted and/or implemented any new procedure to build underground distribution to mitigate damage due to flooding and Storm Surges?

b. The 2016 Storm Hardening plants indicated that DEF has used its prioritization model to identify areas where certain mitigation projects were going to be put into place to test whether flood mitigation techniques and devices can be used to protect equipment such as switchgears, pad mounted transformers and pedestals. Please provide the stainless steel equipment, submersible connectors, raised mounting boxes, cold shrink sealing tubes and submersible secondary blocks test results. Also please explain your findings.

c. Has DEF learned any lessons from previous underground projects? If yes, please explain the lessons learned.

d. Does DEF consider the terrain's characteristics, soil consistency, historical data and FEMA flooding maps when selecting the Storm hardening underground project selection? Please explain.

Deployment Strategies

4) Please refer to page 9. When will the new software technology be incorporated in DEF's prioritization model?

5) Please refer to page 10. Does the Targeted Underground Program include converting overhead feeders or overhead laterals or both to underground facilities?

6) Please refer to pages 9 through 12.

a. Are the Base Programs listed on pages 11 through 12 included in DEF's Grid Investment Plan?

b. Some of the Base programs listed in the 2016-2018 plan are not included in the 2019-2021 plan. Are those programs complete?

7) Please refer to page 14. For the 2019-2021 plan, DEF changed some the questions that are asked in the determination of the Utility's hardening projects. Why did DEF replace the questions about CAIDI and momentaries with questions about SAIDI and SAIFI?

8) Please refer to page 15. DEF provided "a sampling of the proposed" storm hardening projects for 2019 through 2021. Please provide a complete list of the proposed storm hardening projects for 2019.

9) Please refer to page 16. Please cconfirm that SOG means Self-Optimizing Grid and TUG means Targeted Underground Program.

Ten Initiatives

10) Please refer to Attachment B, page 65 of DEF's 2018 PSC Reliability Report Excerpts. What is the estimated completion date for all of DEF's overhead transmission data to be input into GIS?

11) Please provide an overview of Initiatives Six through Ten as was provided for Initiatives One through Five in Attachment B.

12) Please complete the table attached.

	Activity	Any change from current plan. (Y/N) *	Actual Cost									Estimated Cost								
			2016			2017			2018			2019			2020			2021		
			O&M	Capital	Total	O&M	Capital	Total	O&M	Capital	Total	O&M	Capital	Total	O&M	Capital	Total	O&M	Capital	Total
	8-Year Wooden Pole Inspection Program																			
	10 Storm Hardening Initiatives																			
1	A Three-Year Vegetation Management Cycle for Distribution Circuits																			
2	An Audit of Joint-Use Attachment Agreements																			
3	A Six-Year Transmission Structure Inspection program																			
4	Hardening of Existing Transmission Structures																			
5	Transmission and Distribution GIS																			
6	Post-Storm Data Collection and Forensic Analysis																			
7	Collection of Detailed Outage data Differentiating Between the Reliability Performance of Overhead and Underground Systems																			
8	Increased Utility Coordination with Local Governments																			
9	Collaborative Research on Effects of Hurricane Winds and Storm Surge																			
10	A Natural Disaster Preparedness and Recovery Program **																			
	Totals																			
	Any Other Key Elements or Proposed Initiatives																			

*Please explain any changes from the current plan
** Please provide a copy of the disaster plan

Please file all responses electronically no later than Thursday, April 18, 2019, on the Commission's website at www.floridapsc.com by selecting the Clerk's Office tab and Electronic Filing web Form. Please contact me at (850) 413-6228 or Penelope Buys at (850) 413-6518 if you have any questions.

Sincerely,

Jennifer Crawford, Esq.
Office of the General Counsel

JSC/lms

cc: Office of Commission Clerk