BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Application for limited proceeding for recovery of incremental storm restoration costs related to Hurricanes Irma and Nate by Duke Energy Florida, LLC	Docket No. 20170272-EI Dated: June 8, 2018

DUKE ENERGY FLORIDA, LLC'S RESPONSE TO
STAFF'S FIRST SET OF INTERROGATORIES (NOS. 1-12)

Duke Energy Florida, LLC ("DEF"), responds to the Staff of the Florida Public Service Commission ("Staff") First Set of Interrogatories to DEF (Nos. 1-12) as follows:

For questions 1-5, please refer to DEF's response to OPC Interrogatory No. 6, attachment 20170272-DEF-OPC-ROG 1-6-00001.

1. Based on DEF's response, the cost for streetlight poles replaced during Hurricane Irma ranged from $637 to $22 per pole. Please explain why the per pole cost varied by more than $600 per pole.

   Answer: Street light pole costs can vary significantly based on both size and material. A "Fluted" streetlight pole costs approximately $1,100; a 14' Fiberglass streetlight pole costs approximately $200. In addition, total costs in October were reduced by the return of unused streetlight poles, at which time the material costs that would have been charged to storm reserve were credited back. A more accurate method of computing an average unit cost would be on an overall storm basis, not by a month-by-month comparison.

2. Please explain why the per pole cost for streetlight poles is greater than the per pole cost for non-streetlight poles.

   Answer: Decorative streetlight poles cost more than a standard wood distribution pole due to the materials used to construct decorative poles (aggregated concrete, fiberglass, aluminum, etc.) as well as the manufacturing process itself.

3. Based on DEF's response, the cost of wire replaced during Hurricane Hermine ranged from $0.26 per foot of wire in September to $0.75 per feet of wire in October for Hurricane Hermine. Please explain why the per foot of wire cost varied by almost $0.50.

Answer: Wire costs can vary significantly based on both size and material. In September there was a variety of wire issued and returned that impacted the average unit cost. In October, only one type of wire was issued, Copper 4 AWG, which cost $0.75 cents per foot. A more accurate method of computing an average unit cost would be on an overall storm basis, not by a month-by-month comparison.

4. Based on DEF's response, the cost for crossarms replaced during Hurricane Irma was $113 per crossarm for September and $115 per crossarm for October. The average price for crossarm replacements for the other storms and months listed was $35 per crossarm.

   a. Please explain why the cost per crossarm during Irma was significantly greater the cost per crossarm replacement during other storms.

Answer: The type of cross arms used in 2016 versus 2017 have changed. In 2016, wood cross arms were used, but the standard changed in 2017 to fiberglass arms. This change was created to increase safety, reliability and asset life. The average cost per wood cross arm is approximately $35, the average costs for fiberglass cross arms is $115.

5. Based on DEF's response, the costs for pad mounted transformers replaced during Hurricane Irma were $4,304 per transformer in September and $891 per transformer in October. Please explain why the described costs varied by more than $3,000 per transformer.

Answer: Transformer costs can vary significantly based on both size and voltage. A single phase 25 kva 120/240 transformer costs approximately $1,400; a three phase 1500 kva 277/480 transformer costs approximately $19,000. In addition, total costs in October were reduced by the return of unused transformers, at which time the material costs that would have been charged to storm reserve were credited back. A more accurate method of computing an average unit cost would be on an overall storm basis, not by a month-by-month comparison.

For questions 6-12, please refer to DEF's response to OPC Production of Documents Request No. 4, attachment 20170272-DEF-OPC-POD 1-4-00001 through 20170272-DEF-OPC-POD 1-4-000050.

6. Please explain how the other utilities considered in the Benchmarking Comparison were determined to be appropriate for comparison purposes.

Answer: Accenture's storm benchmarking database contains restoration performances from utilities who were effected by severe thunderstorms, snow/ice storms, tropical storms, and hurricanes from the last 20 years. This analysis selected all category 1-5 hurricanes collected in the database, highlighting restorations performed by Progress Energy and Duke Carolinas.

7. Were the other utilities used for the "storm benchmark database" similar in size and geographical location?

Answer: 5 of the 26 companies benchmarked were of similar size to DEF. (Between 1M-2M customers served)

8. Do the other utilities have transmission and distribution facilities (i.e., percent hardened and percent underground) similar to DEF?

Answer: There are utilities included in this benchmarking that have similar transmission and distributions facilities. Due to the selection of all category 1-5 hurricanes as discussed in response to question 6, most of the utilities selected fall on the eastern and southern coasts of the United States.

9. It appears that 15 of the 26 utilities used in the benchmark have a smaller customer based size than DEF. Please explain why these utilities were included in the benchmark

Answer: Smaller utilities were included but comparisons were normalized beforehand. Looking at the percentage of customers out or poles replaced per customers out at peak allows for a more accurate comparison then just comparing the number of poles replaced or the number of customers out.

10. Does DEF's GIS contain its full inventory of poles? If not, why not?

Answer: Yes.

11. Were any of the 59 percent of broken poles that had attachments, overloaded?

Answer: No.

12. When was DEF's last joint use audit?

Answer: DEF completes an annual Wind Loading audit every year that looks at approximately 55,000 joint use poles to determine existing loading. This cycle is completed over 8 years.

In addition, DEF also completes a full system joint use attachment audit every 5 years with the last completed in 2017. This audit scope counts the number of joint use attachments on distribution poles across the DEF system.

AFFIDAVIT

STATE OF FLORIDA

COUNTY OF PINELLAS

I hereby certify that on this 8th day of JUNE, 2018, before me, an officer duly authorized in the State and County aforesaid to take acknowledgments, personally appeared JASON CUTLIFFE, who is personally known to me, and he acknowledged before me that he provided the answers to interrogatory number(s) 1through 12 of STAFF'S FIRST SET OF INTERROGATORIES TO DUKE ENERGY FLORIDA, LLC (NOS. 1-12) in Docket No. 20170272-EI, and that the responses are true and correct based on his personal knowledge.

In Witness Whereof, I have hereunto set my hand and seal in the State and County aforesaid as of this 8th day of JUNE, 2018.

Jason Cutliffe

JASON CUTLIFFE

ALNOOR KURJI
Notary Public - State of Florida
Commission # GG 022837
My Comm. Expires Aug 25, 2020
Bonded through National Notary Assn.

Notary Public
State of Florida, at Large

My Commission Expires:
AUG 25, 2020