To: Chief Clerk's Office

From: Kim Mitchell

CC: Lynn Jarvis

Date: July11, 2018

Re: Docket Number E-7, Sub 1164 – Duke Energy Carolinas, LLC, Application for Approval of Demand-Side Management and Energy Efficiency Cost Recovery Rider Pursuant to G.S. 62-133.9 and NCUC Rule R8-69.

Stevie/Duff Stipulated Exhibit 6
(Redacted Version)

A public version and a confidential version of Stevie/Duff Stipulated Exhibit 6 should have been included with the exhibits filed on June 20, 2018; however, only a confidential version was included. I have attached the redacted, public version of Stevie/Duff Stipulated Exhibit 6 for the record.

Please note that the confidential spreadsheets in the exhibit do not contain live links.

Steve/Duff Stipulated Exhibit 6
(Redacted)

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BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. E-7, SUB 1164

In the Matter of	)	
	)	RESPONSE OF THE PUBLIC
Application of Duke Energy Carolinas, LLC	)	STAFF TO DUKE ENERGY
for Adjustment of Rates and Charges	)	CAROLINAS, LLC'S FIRST
Applicable to Electric Utility Service in North	)	DATA REQUEST TO THE
Carolina	)	PUBLIC STAFF

The Public Staff – North Carolina Utilities Commission (Public Staff), by and through its legal counsel, hereby submits its Response to the First Data Request to the Public Staff – North Carolina Utilities Commission ("Public Staff") in the above-referenced proceeding.

DATA REQUESTS

1-1. Please provide all supporting workpapers for the testimony of Public Staff witness Eric Williams filed in the above-referenced proceeding on May 22, 2018. Please provide these workpapers (and any other workpapers provided in response to the following requests) in the form of working electronic Microsoft Excel files, with all formulas, cell references, and links left intact.

Response- (Note: Both spreadsheets are CONFIDENTIAL):

2016 IRP Responses 2 (Winter & Summer

Copy of CONFIDENTIAL - DE(

1-2. Please provide all support, including any calculations, analysis and workpapers, for Witness Williams' statement on pages 15-16 of his testimony that "beginning in 2019, only about 40% of the DSM/EE block from the IRP is needed to maintain a 17% reserve margin."

Response (Note: Spreadsheet is CONFIDENTIAL):

Please see "2016 IRP Responses 2 (Winter & Summer Load, Capacity, and Reserve Table 8-C and 8-D_elw.xls," sheet "LCR (S) eedsm" cell F109.

1-3. Please provide all support, including any calculations, analysis and workpapers, for Public Staff witness Eric Williams' statement on page 16 of his testimony that "By 2022, about 74% of the DSM/EE block [from the IRP] is needed [to maintain a 17% reserve margin]."

Response (Note: Spreadsheet is CONFIDENTIAL):

Please see "2016 IRP Responses 2 (Winter & Summer Load, Capacity, and Reserve Table 8-C and 8-D_elw.xls," sheet "LCR (S) eedsm" cell I109.

1-4. Please provide all support, including any calculations, analysis and workpapers, for Witness Williams' statement on page 16 of his testimony that "DSM programs could comprise 100% of the needed DSM/EE resources from 2019 through 2021 and 95% in 2022 in order to maintain a 17% reserve margin (and delay the need for new capacity until 2023)."

Response (Note: Spreadsheet is CONFIDENTIAL):

Please see "2016 IRP Responses 2 (Winter & Summer Load, Capacity, and Reserve Table 8-C and 8-D_elw.xls," sheet "LCR (S) eedsm" cell F126:I126.

1-5. Please provide a narrative description of how Witness Williams derived the "EE/DSM needed to avoid building new capacity until 2023" as depicted on the table on p. 16 of his testimony. Please provide all support, including any calculations, analysis and workpapers, for this table.

Response (Note: Spreadsheet is CONFIDENTIAL):

Mr. Williams used Excel's solver to determine the minimum DSM and EE capacity needed to maintain a 17% reserve margin for 2019 – 2022, based on the spreadsheet provided by the Company as a workpaper supporting Table 8-C and 8-D of the 2016 IRP. Please see "2016 IRP Responses 2 (Winter & Summer Load, Capacity, and Reserve Table 8-C and 8-D_elw.xls" sheet "LCR (S) eedsm" for calculations.

1-6. Please provide a narrative description of how Witness Williams derived the "Breakout of EE and DSM needed to avoid building new capacity until 2023" as depicted on the table on p. 17 of his testimony. Please provide all support, including any calculations, analysis and workpapers, for this table.

Response:

Please see response to DR 1-5.

1-7. Please provide all support, including any calculations, analysis and workpapers, for Witness Williams' statement on page 17 of his testimony that "one DSM program – Power Manager – can contribute nearly the whole required amount [needed to maintain a 17% reserve margin in 2019] by itself (534 MW)."

Response:

Please see "Copy of CONFIDENTIAL – DEC NC EE and DR Financials (v2019)_elw.xls" in which the 2019 Summer Peak reduction of **[BEGIN CONFIDENTIAL]** [redacted] **[END CONFIDENTIAL]** MW for the PowerManager program was provided by the Company. Please also see "2016 IRP Responses 2 (Winter & Summer Load, Capacity, and Reserve Table 8-C and 8-D_elw.xls" sheet "LCR (S) eedsm" for calculations that show that in 2019 **[BEGIN CONFIDENTIAL]** [redacted] **[END CONFIDENTIAL]** MW of DSM/EE contribution to peak is needed to maintain a 17% reserve margin. Mr. Williams maintains that **[BEGIN CONFIDENTIAL]** [redacted] **[END CONFIDENTIAL]** MW is almost as much as **[BEGIN CONFIDENTIAL]** [redacted] **[END CONFIDENTIAL]** MW.

1-8. On page 6, Witness Williams states while the Commission's October 11, 2017 Order in Docket No. E-100, Sub 148 ("Sub 148 Order") is in effect, for "new" QFs seeking to sell their energy and capacity to DEC, "The zero avoided capacity costs for the years through 2022 are combined with positive capacity payments beyond 2023 and levelized such that the avoided capacity cost rates are reduced to reflect the use of zero capacity values." Please state what the levelized avoided cost rates are for "new" QFs under the Sub 148 Order.

Response:

Please see the Company's post-order confidential filing dated November 13, 2017. The relevant **CONFIDENTIAL** spreadsheet is attached.

PS DR4 Post Filing (DKT E-100 Sub 148)

1-9. Please explain why the Public Staff contends it is reasonable for a QF to receive a reduced capacity payment in years when the Company does not have a capacity need, but the Company's DSM and EE programs should not reflect any capacity value.

Response:

It is not the Public Staff's contention that the Company's DSM and EE programs should not reflect any capacity value. The Public Staff believes that the appropriate avoided capacity payment is zero for all years in which capacity is not needed, as found by the Commission in the Sub 148 Order and as enacted by the General Assembly in S.L. 2017-192 (HB 589); this principle is equally applicable to both QFs and DSM/EE. As is explained in witness Williams' testimony on page 7, footnote 6, "Actual DSM/EE avoided capacity rates would be levelized across the life of a given measure, with the levelized calculation including zeros for years prior to 2023. For measure lives that end before 2023, the avoided capacity rate would be zero." Capacity payments for QFs incorporate years where zero capacity is needed by levelizing the years of capacity need/payments with years of no capacity need/payments, thus allowing the QF to have a consistent flow of revenue, as opposed to not receiving any capacity payments during the years where the IRP designates that there is not a need. The levelization of payments to QFs is equal on a net present value basis to the assignment of zero avoided capacity cost to years before 2023 and positive avoided capacity value to years 2023 and after. Consistent with the method used for QFs, the avoided capacity cost values calculated for DSM and EE measures are calculated using zero values for years prior to 2023 and positive avoided capacity cost values for years 2023 and after. Both the PPI and the calculation of ongoing cost-effectiveness are based on the net present value of these avoided capacity costs, just as are the payments to QFs.

1-10. Does the Public Staff contend that the Company should reduce its EE/DSM resources to better align with the Company's reserve margin? If so, how should the Company accomplish this?

Response:

No. Ideally, the Company would, in real time, utilize the least-cost and most reasonable mix of supply-side and demand-side (DSM and EE) resources to meet its target reserve margin. However, the current method of evaluating DSM and EE resources at particular points in time (pursuant to paragraphs 23 & 69 of the Revised Mechanism, i.e., December 31st of the year preceding the DSM/EE rider filing for cost-effectiveness and PPI purposes, respectively), using avoided capacity and energy values "derived from the underlying resource plan, production cost model, and cost inputs that generated the avoided capacity and avoided energy credits reflected in the most recent Commission-approved Biennial

Determination of Avoided Cost Rates for Electric Utility Purchases from Qualifying Facilities" is reasonable at the present time.

1-11. Is it the Public Staff's opinion that the Company should stop pursuing the addition of new EE resources?

Response:

No. The Public Staff is committed to working with the Company to pursue, implement, and continue all cost-effective EE programs.

1-12. Is it the Public Staff's opinion that the Company should shut down its DSM resources?

Response:

No. The Public Staff supports cost effective DSM programs. The Public Staff is committed to working with the Company to pursue, implement, and continue all cost-effective DSM programs.

1-13. In Witness Williams "Qualifications and Experience" addendum to his testimony he states that in 2017, he left the Public Staff for a short-term opportunity to work in Paris and returned to the Public Staff in November 2017. Please state what date Witness Williams left the Public Staff in 2017.

Response:

April 14, 2017

This the 29th day of May, 2018.

/s/ Lucy E. Edmondson
Lucy Everett Edmondson (NC Bar No. 16620)
Staff Attorney
Public Staff – North Carolina Utilities Commission
4326 Mail Service Center
Raleigh NC 27699-4300
(919) 733-6110
lucy.edmondson@psncuc.nc.gov

Counsel for the Public Staff