

McGuireWoods LLP
434 Fayetteville Street
Suite 2600
PO Box 27507 (27611)
Raleigh, NC 27601
Phone: 919.755.6600
Fax: 919.755.6699
www.mcguirewoods.com
E. Brett Breitschwerdt
Direct: 919.755.6563

McGUIREWOODS

bbreitschwerdt@mcguirewoods.com

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Aug 13 2019

August, 13 2019

VIA Electronic Filing

Ms. Janice Fulmore, Deputy Clerk
Ms. Antonia Dunston, Deputy Clerk
North Carolina Utilities Commission
Dobbs Building
430 North Salisbury Street
Raleigh, North Carolina 27603

*Re: Application for Approval of Demand-Side Management and Energy
Efficiency Cost Recovery Rider and Request to Authorize Closure of
Programs
Docket No. E-22, Sub 577*

Dear Ms. Fulmore and Ms. Dunston:

Pursuant to North Carolina General Statutes (“N.C.G.S.”) § 62-133.9 and Rule R8-69 of the Rules and Regulations of the North Carolina Utilities Commission (“Commission”), Virginia Electric and Power Company, d/b/a Dominion Energy North Carolina (the “Company”), hereby files its Application for approval of cost recovery for the Company’s approved and proposed demand-side management and energy efficiency measures and request to authorize closure of programs (“Application”).

Portions of the Application contain confidential information related to program or vendor costs, including Company Exhibit DRK-1, Schedule 5, Company Exhibit JEB-1, Schedules 1, 2, 3, 4, 5, 6, and 7, Company Exhibit AJM-1, Schedules 1 and 2, and Company Exhibit REM-1, Schedules 1 and 3. Information designated by the Company as confidential qualifies as “trade secrets” under N.C.G.S. § 66-152(3). Public disclosure of this information would allow access by external vendors to the projected or actual costs for services that will be or have been competitively bid, which may provide commercial value to such external vendors and may ultimately result in harm to ratepayers. Pursuant to N.C.G.S. § 132-1.2, the Company has redacted this confidential information from this public version of the Company’s Application and is contemporaneously filing these confidential pages under seal. The Company will make this information available to other interested parties pursuant to an appropriate nondisclosure agreement.

Ms. Janice Fulmore, Deputy Clerk
Ms. Antonia Dunston, Deputy Clerk
August 12, 2019
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Please do not hesitate to contact me if you have any questions. Thank you for your assistance in this matter.

Very truly yours,

/s/E. Brett Breitschwerdt

Enclosures

cc: Heather Fennell
Lucy Edmonson
David Drooz



**Dominion
Energy®**

**Application of Virginia
Electric and Power
Company, d/b/a Dominion
Energy North Carolina,
Direct Testimony and
Exhibits**

Before the North Carolina
Utilities Commission

In the Matter of
Application of Virginia Electric
and Power Company, d/b/a
Dominion Energy North Carolina,
for Authority to Adjust its Electric
Rates and Charges Pursuant to
N.C.G.S. § 62-133.9 and NCUC
Rule R8-69

Docket No. E-22, Sub 577

Filed: August 13, 2019

PUBLIC VERSION

**Dominion Energy North Carolina
Application for Approval of Cost Recovery for Demand-Side
Management and Energy Efficiency Measures**

DOCKET NO. E-22, SUB 577

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Appendix A – Non-Participating Customers

**STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH**

DOCKET NO. E-22, SUB 577

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of
Application of Virginia Electric and Power Company, d/b/a Dominion Energy North Carolina, for Authority to Adjust its Electric Rates and Charges Pursuant to N.C.G.S. § 62-133.9 and Commission Rule R8-69) APPLICATION FOR APPROVAL OF DEMAND-SIDE MANAGEMENT AND ENERGY EFFICIENCY COST RECOVERY RIDER AND REQUEST TO AUTHORIZE CLOSURE OF PROGRAMS)

Pursuant to North Carolina General Statutes (“N.C.G.S.”) § 62-133.9 and Rule R8-69 of the Rules and Regulations of the North Carolina Utilities Commission (“NCUC” or the “Commission”), Virginia Electric and Power Company, d/b/a Dominion Energy North Carolina (“Dominion Energy North Carolina” or the “Company”), by counsel, hereby applies to the Commission to establish an updated rider to allow the Company to recover its reasonable and prudent demand-side management (“DSM”) and energy efficiency (“EE”) costs, net lost revenues, and Portfolio Performance Incentive (“PPI”) (the “Application”). Through this Application, the Company is also requesting Commission approval to close the previously-approved Phase III North Carolina-only Non-residential Heating and Cooling Efficiency Program and North Carolina-only Non-residential Lighting Systems and Controls Program to participation as of December 31, 2019, in anticipation of Commission approval of the proposed system-wide Phase VII Non-residential Heating and Cooling Efficiency and Non-residential Lighting Systems & Controls Programs to open for participation January 1, 2020. In support thereof, the Company respectfully asserts as follows:

1. The Company is a public utility operating in the State of North Carolina as Dominion Energy North Carolina and is engaged in the business of generating, transmitting, distributing, and selling electric power and energy to the public for compensation. As such, the Company's operations in the State are subject to the jurisdiction of the Commission. The Company is also a public utility under the Federal Power Act, and certain of its operations are subject to the jurisdiction of the Federal Energy Regulatory Commission ("FERC"). The Company is a wholly-owned subsidiary of Dominion Energy, Inc. Dominion Energy North Carolina serves approximately 120,000 customers in North Carolina, with a service territory of about 2,600 square miles in northeastern North Carolina, including Roanoke Rapids, Albemarle, Ahoskie, Elizabeth City, and the Outer Banks. Dominion Energy North Carolina serves major industrial facilities, as well as commercial, governmental, and residential customers. The post office address of Dominion Energy North Carolina is P.O. Box 26666, Richmond, Virginia 23261.

2. The attorneys for the Company are:

Paul F. Pfeffer
Horace P. Payne, Jr.
Dominion Energy Services, Inc.
Legal Department
120 Tredegar Street, RS-2
Richmond, Virginia 23219
(804) 787-5607 (PFP phone)
(804) 819-2682 (HPP phone)
paul.e.pfeffer@dominionenergy.com
horace.p.payne@dominionenergy.com

E. Brett Breitschwerdt
Kristin M. Athens
McGuireWoods LLP
434 Fayetteville Street, Suite 2600
Raleigh, North Carolina 27601
(919) 755-6563 (EBB Phone)
(919) 835-5909 (KMA Phone)
bbreitschwerdt@mcguirewoods.com
kathens@mcguirewoods.com

Copies of all pleadings, testimony, orders, and correspondence in this proceeding should be served upon the attorneys listed above.

3. N.C.G.S. § 62-133.9(d) authorizes the Commission to approve an annual rider to the rates of electric public utilities to recover all reasonable and prudent costs incurred for the adoption and implementation of new demand-side management and energy efficiency (collectively “DSM/EE”) measures (“DSM/EE Programs”), including, but not limited to, all capital costs, administrative costs, implementation costs, incentive payments to program participants, and operating costs. The annual rider shall recover the utility’s forecasted costs during the February 1, 2020, through January 31, 2021, rate period (“Rate Period”), and an experience modification factor (“EMF”) rider shall recover the difference between the utility’s actual reasonable and prudent costs incurred and actual revenues realized during the January 1, 2018, through December 31, 2018, test period (“Test Period”). The Commission is also authorized, pursuant to N.C.G.S. § 62.133.9(d)(2), to approve incentives to utilities for the adoption and implementation of new DSM/EE Programs.

4. Commission Rule R8-69(b) provides that the Commission will annually conduct a proceeding for each electric public utility to establish a DSM/EE rider to recover DSM/EE related costs. On October 14, 2011, the Commission issued an Order

approving the Company's proposed DSM/EE cost recovery rider, Rider C ("2010 Cost Recovery Order").¹ The 2010 Cost Recovery Order also approved the Agreement and Stipulation of Settlement ("Stipulation") agreed to between the Public Staff and the Company, as well as a cost recovery and incentive mechanism attached as Stipulation Exhibit 1 to the Stipulation. The Commission issued an Order on December 13, 2011, in the Company's 2011 cost recovery proceeding approving an updated Rider C as well as an Addendum to the Stipulation, establishing a jurisdictional allocation methodology for the allocation of DSM/EE Program costs between the Company's North Carolina and Virginia jurisdictions.²

5. On December 14, 2012, in the Company's 2012 cost recovery proceeding, the Commission again approved an updated Rider C along with the Company's initial EMF, Rider CE.³ On December 18, 2013, the Commission approved updated Riders C and CE, as well as a second Addendum to the Stipulation addressing assignment of costs for the Company's North Carolina-only Programs.⁴ On December 19, 2014, the Commission approved Riders C and CE presented in the Company's 2014 cost recovery proceeding.⁵ On December 14, 2015, the Commission approved Riders C and CE presented in the Company's 2015 cost recovery proceeding.⁶ On December 19, 2016, the Commission approved Riders C and CE presented in the Company's 2016 cost recovery

¹ *Order Approving Agreement and Stipulation of Settlement, Approving DSM/EE Rider, and Requiring Compliance Filing*, Docket No. E-22, Sub 464 (Oct. 14, 2011).

² *Order Approving DSM/EE Rider and Requiring Customer Notice*, Docket No. E-22, Sub 473 (Dec. 13, 2011).

³ *Order Approving DSM/EE Rider and DSM/EE EMF Riders and Requiring Customer Notice*, Docket No. E-22, Sub 486 (Dec. 14, 2012).

⁴ *Order Approving DSM/EE and DSM/EE EMF Riders and Requiring Customer Notice*, Docket No. E-22, Sub 494 (Dec. 18, 2013).

⁵ *Order Approving DSM/EE and DSM/EE EMF Riders and Requiring Filing of Proposed Customer Notice*, Docket No. E-22, Sub 513 (Dec. 19, 2014).

proceeding.⁷ On December 21, 2017, in the Company's most recent cost recovery proceeding, the Commission approved the currently-effective updated Riders C and CE.⁸

6. On May 22, 2017, the Commission approved a revised cost recovery and incentive mechanism ("Mechanism"), addressing the manner in which the Company would develop its future Rule R8-69 applications for DSM/EE cost recovery.⁹ The Company has developed this Application in accordance with the provisions of the revised Mechanism.

7. Pursuant to the provisions of N.C.G.S. § 62-133.9 and Commission Rule R8-69, the Company requests approval of an updated Rider C to recover its reasonable and prudent costs projected to be incurred for adoption and implementation of the Company's portfolio of DSM/EE Programs, including certain "Common Costs," which are projected costs for items such as program marketing and internal labor that are shared across the Company's DSM/EE Programs. The Company's portfolio of DSM/EE Programs for which Rate Period cost recovery is sought in this proceeding includes: (a) the previously-approved Phase I Air Conditioner Cycling Program;¹⁰ (b) the previously-approved Phase IV Residential Income and Age Qualifying Home Improvement Program;¹¹ (c) the previously-approved Phase V Small Business

⁶ *Order Approving DSM/EE and DSM/EE EMF Riders and Requiring Filing of Proposed Customer Notice*, Docket No. E-22, Sub 524 (Dec. 14, 2015).

⁷ *Order Approving DSM/EE Rider and Requiring Filing of Proposed Customer Notice*, Docket No. E-22, Sub 536 (Dec. 19, 2016).

⁸ *Order Approving DSM/EE Rider and Requiring Filing of Proposed Customer Notice*, Docket No. E-22, Sub 545 (Dec. 21, 2017).

⁹ *Order Approving Revised Cost Recovery and Incentive Mechanism*, Docket No. E-22, Sub 464 (May 22, 2017).

¹⁰ Docket No. E-22, Sub 465. All other Phase I programs except the Residential Air Conditioner Cycling Program have previously been concluded.

¹¹ Docket No. E-22, Sub 523.

Improvement Program;¹² (d) the previously-approved Phase VI Non-Residential Prescriptive Program;¹³ and (e) the recently proposed Phase VII Programs: Residential Home Energy Assessment, Residential Efficient Products Marketplace, Residential Appliance Recycling, Non-residential Window Film, Non-residential Small Manufacturing, Non-residential Office Programs, Non-residential Lighting Systems & Controls, and the Non-residential Heating and Cooling Efficiency.¹⁴

8. Pursuant to N.C.G.S. § 62-133.9(d)(2) and Commission Rule R8-69(c), the Company also requests recovery of net lost revenues and a PPI for the adoption and implementation of the DSM/EE Programs. However, consistent with the Company's annual DSM/EE cost recovery applications, the Company has not projected net lost revenues for the Rate Period; instead, the Company intends to true up net lost revenues through its annual EMF in future proceedings. The Company is also requesting to true up its Test Period recovery of PPI and net lost revenues in accordance with the Mechanism.

9. Consistent with Paragraph 40 of the Mechanism, the Company has developed its revenue requirement using the capital structure and cost of capital as specified by the Company's Treasury Department for use in the Company's June 30, 2019 NCUC ES-1 Report, incorporating a cost of common equity of 9.90%, as approved in the Company's most recent general rate case on December 22, 2016, in Docket No. E-22, Sub 532.¹⁵

10. The Company's Application and prefiled direct testimony are consistent with the terms and conditions of the Mechanism, as approved by the Commission.

¹² Docket No. E-22, Sub 538.

¹³ Docket No. E-22, Sub 543.

¹⁴ See Applications for Approval of new Phase VII DSM/EE Programs filed on July 12, 2019, in Docket No. E-22, Subs 567, 568, 569, 570, 571, 572, 573 and 574, respectively.

Updated Rider C and the EMF rider, Rider CE, are intended to allow the Company to recover \$3,934,290 of DSM/EE expenses and incentives during the Rate Period. This amount includes an under-collection of \$464,010 during the Test Period and \$3,470,280 for expenses and incentives projected to be incurred during the Rate Period.

11. Pursuant to N.C.G.S. § 62-133.9, the Company requests Commission approval of annual Rider C and CE billing adjustments as follows (all shown on a dollars per kWh basis):

<u>Customer Class</u>	<u>Rider C</u> DSM/EE Customer Class Rate (¢/kWh)	<u>Rider CE</u> DSM/EE EMF Customer Class Rate (¢/kWh)	<u>Total Riders C & CE</u> Customer Class Rate (¢/kWh)
Residential	0.109 ¢/kWh	0.016 ¢/kWh	0.125 ¢/kWh
Small General Service & Public Authority	0.158 ¢/kWh	0.018 ¢/kWh	0.176 ¢/kWh
Large General Service	0.097 ¢/kWh	0.011 ¢/kWh	0.108 ¢/kWh
6VP	0.000 ¢/kWh	0.000 ¢/kWh	0.000 ¢/kWh
NS	0.000 ¢/kWh	0.000 ¢/kWh	0.000 ¢/kWh
Outdoor Lighting	0.000 ¢/kWh	0.000 ¢/kWh	0.000 ¢/kWh
Traffic Lighting	0.000 ¢/kWh	0.000 ¢/kWh	0.000 ¢/kWh

12. Consistent with the Company's 2018 DSM/EE cost recovery application, updated Rider C and Rider CE will be in effect for the 12-month period from February 1, 2020, through January 31, 2021, the proposed Rate Period.

13. Pursuant to Commission Rules R8-69(b) and R8-27, the Company requests approval to defer prudently incurred costs to FERC Account 182.3, "Other Regulatory Assets," until recovered. Pursuant to Commission Rule R8-69(b)(6), the Company requests approval to defer the difference between actual reasonable and prudently incurred incremental costs and the related revenues realized under rates in

¹⁵ See *Order Granting General Rate Increase*, Docket No. E-22, Sub 532 (Dec. 22, 2016).

effect. The Company also requests approval as required under Commission Rule R8-69(b)(6) to defer any Common Costs, including any administrative, general, or other costs not directly related to new DSM/EE Programs. Finally, the Company requests approval to defer costs that the Company incurs in adopting and implementing new DSM/EE measures up to six months prior to the Company filing for Commission approval of such measures in accordance with Commission Rule R8-68.

14. In support of the requested change in rates, the Company has attached hereto, as required by Commission Rule R8-69, the prefiled direct testimony and exhibits of Michael T. Hubbard, Deanna R. Kesler, Jarvis E. Bates, Alan J. Moore, Robert E. Miller, and Debra A. Stephens.

REQUEST TO CLOSE PROGRAMS

15. The Company also hereby requests approval to close the Company's previously-approved Phase III North Carolina-only Non-residential Heating and Cooling Efficiency Program¹⁶ and North Carolina-only Non-residential Lighting Systems and Controls Program¹⁷ to participation as of December 31, 2019 ("Closure Date"), as these Programs are being replaced by the recently proposed system-wide Phase VII Non-residential Heating and Cooling Efficiency and Non-residential Lighting Systems & Controls Programs. The Company further requests that the Commission allow the Company to withdraw rate schedules NRHCE and NRLSC as of the Closure Date.

16. As the Commission is aware, the Company has designed its DSM/EE programs to be managed and operated on a consolidated, system basis in order to minimize program expenses while optimizing program deployment. Specifically, the

¹⁶ See *Order Approving Program*, Docket No. E-22, Sub 507 (Oct. 16, 2018).

¹⁷ See *Order Approving Program*, Docket No. E-22, Sub 508 (Oct. 16, 2018).

Company's Energy Conservation ("EC") group develops the Company's DSM/EE program portfolio to be deployed in phases, with program approval first being sought in Virginia and, if approved in Virginia, then sought in North Carolina. The EC group uses an outside vendor to operate its DSM/EE programs on a system jurisdictional basis. This approach has allowed North Carolina and Virginia to benefit from the efficiencies gained through consolidated operation of the programs, as program expenses have been allocated between the jurisdictions.

17. On May 12, 2019, the VSCC approved the Company's Phase VII Programs, including the Non-residential Heating and Cooling Efficiency and the Non-residential Lighting Systems & Controls replacement Programs.¹⁸ On July 12, 2019, the Company applied for Commission approval to offer the Phase VII Programs on a system-wide basis in North Carolina, including the new Non-residential Heating and Cooling Efficiency Program¹⁹ and Non-residential Lighting Systems & Controls Program.²⁰

18. Closure of the Phase III North Carolina-only Non-residential Heating and Cooling Efficiency and North Carolina-only Non-residential Lighting Systems and Controls Programs to participation as of December 31, 2019, is appropriate as the types of measures currently offered in these North Carolina-only Programs will now be offered through the proposed system-wide Phase VII Non-residential Heating and Cooling Efficiency and Non-residential Lighting Systems & Controls Programs.

¹⁸ *Application of Virginia Electric and Power Company for approval to implement demand-side management programs and for approval of two updated rate adjustment clause pursuant to § 56-585.1 A 5 of the Code of Virginia*, Final Order, PUR-2018-00168 (May 2, 2019).

¹⁹ *Application of Dominion Energy North Carolina for Approval of Non-Residential Heating and Cooling Efficiency Program*, Docket No. E-22, Sub 574 (July 12, 2019).

²⁰ *Application of Dominion Energy North Carolina for Approval of Non-Residential Lighting Systems & Controls Program*, Docket No. E-22, Sub 573 (July 12, 2019).

19. Upon Commission approval of this request, the Company will provide notice on the Company's website that the North Carolina-only Non-residential Heating and Cooling Efficiency and North Carolina-only Non-residential Lighting Systems and Controls Programs will no longer be available for measures that commence installation after the Closure Date, and that the Programs will cease to be in effect as of that date. The Company will also remove its application forms for the North Carolina-only Non-Residential Heating and Cooling Efficiency and North Carolina-only Non-residential Lighting Systems and Controls Programs from the Company's website in order to close the Programs on the Closure Date.

WHEREFORE, Dominion Energy North Carolina respectfully requests that the Commission approve the changes to its rates as set forth in Paragraph eleven (11) above, finding them just and reasonable, and authorize closure of the North Carolina-only Non-Residential Heating and Cooling Efficiency and North Carolina-only Non-residential Lighting Systems and Controls Programs as of December 31, 2019.

Respectfully submitted, this the 13th day of August, 2019.

DOMINION ENERGY NORTH CAROLINA

By: /s/E. Brett Breitschwerdt
Counsel

Counsel for Virginia Electric and Power Company,
d/b/a Dominion Energy North Carolina

Paul Pfeffer
Horace P. Payne, Jr.
Dominion Energy Services, Inc.
Legal Department
120 Tredegar Street, RS-2
Richmond, Virginia 23219
(804) 787-5607 (PFP phone)
(804) 819-2682 (HPP phone)
horace.p.payne@dominionenergy.com
paul.e.pfeffer@dominionenergy.com

E. Brett Breitschwerdt
Kristin M. Athens
McGuireWoods LLP
434 Fayetteville Street, Suite 2600
Raleigh, North Carolina 27601
(919) 755-6563 (EBB Phone)
(919) 835-5909 (KMA Phone)
bbreitschwerdt@mcguirewoods.com
kathens@mcguirewoods.com

**DIRECT TESTIMONY
OF
MICHAEL T. HUBBARD
ON BEHALF OF
DOMINION ENERGY NORTH CAROLINA
BEFORE THE
NORTH CAROLINA UTILITIES COMMISSION
DOCKET NO. E-22, SUB 577**

1 **Q. Please state your name, business address, and position with Virginia**
2 **Electric and Power Company (“Dominion Energy North Carolina” or the**
3 **“Company”).**

4 A. My name is Michael T. Hubbard, and I am Manager-Energy Conservation for
5 the Company. My business address is 600 East Canal Street, Richmond,
6 Virginia 23219. A statement of my background and qualifications is attached
7 as Appendix A.

8 **Q. Please describe your area of responsibility with the Company.**

9 A. I am responsible for overseeing the Company’s Energy Conservation (“EC”)
10 department, which manages the Company’s demand-side management
11 (“DSM”) and energy efficiency (“EE”) programs (“DSM/EE Programs” or
12 “Programs”).

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

14 A. My testimony supports the Company’s request to recover all reasonable and
15 prudent costs incurred in adopting and implementing its authorized Phase I, II,
16 III, IV, V, VI and proposed Phase VII Programs, and its authorized North
17 Carolina-only Residential Retail LED Lighting Program, as well as utility
18 incentives, through updated Rider C and the test period experience

1 modification factor (“EMF”) rider, Rider CE (“Application”). The purpose of
2 my testimony is to: (1) provide an update on the status of the Company’s
3 current DSM/EE Programs in North Carolina, including the Company’s
4 request for approval of eight new Phase VII Programs and request to close
5 two existing Programs; and (2) present the Company’s cost recovery request
6 in this proceeding to the North Carolina Utilities Commission (“NCUC” or
7 “Commission”), which includes the costs for the new Phase VII Programs
8 being brought before the Commission for approval.

9 **I. UPDATE ON DSM/EE PROGRAMS**

10 **Q. Please provide a brief overview of the Company’s approved DSM/EE**
11 **Programs in North Carolina.**

12 **A.** In February 2011, the Commission approved five DSM/EE Programs, which
13 the Company began offering to customers in the spring of 2011.¹ These
14 “Phase I” DSM/EE Programs included the Company’s:

- 15 • Residential Low Income Program;
- 16 • Residential Air Conditioner Cycling Program;
- 17 • Residential Lighting Program;
- 18 • Commercial HVAC Upgrade Program; and
- 19 • Commercial Lighting Program.

20 On December 31, 2011, the Company concluded the implementation phase of
21 its Residential Lighting Program. Further, the Company concluded its North

¹ Orders approving these Programs were issued on February 22, 2011, in Docket No. E-22, Sub 463 (Low Income Program), Sub 465 (Air Conditioner Cycling Program), Sub 467 (Commercial HVAC Upgrade Program), Sub 468 (Residential Lighting Program), and Sub 469 (Commercial Lighting Program).

1 Carolina-only Commercial Lighting Program and Commercial HVAC
2 Upgrade Program on December 31, 2014.²

3 In August 2013, the Company requested Commission approval to implement
4 the following “Phase II” DSM/EE Programs:

- 5 • Non-residential Energy Audit Program;
- 6 • Non-residential Duct Testing and Sealing Program;
- 7 • Residential Home Energy Check-Up Program;
- 8 • Residential Duct Sealing Program;
- 9 • Residential Heat Pump Tune-Up Program; and
- 10 • Residential Heat Pump Upgrade Program.

11 The Commission approved the six Phase II Programs in December 2013, and
12 the Company began accepting new customers in these Programs beginning on
13 January 1, 2014.³ On August 16, 2016, as amended on October 19, 2016, the
14 Company filed a Motion for Commission approval to close the Phase II
15 programs to new applications as of February 7, 2017, contemporaneous with
16 their closure to new participants in Virginia, with the exception of the
17 Residential Heat Pump Upgrade, which the Company asked to suspend as of
18 February 7, 2017. The Commission granted those requests by order issued on

² On December 16, 2013, the Commission also approved the Company’s request to transition the Phase I Commercial HVAC Upgrade Program (Docket No. E-22, Sub 467) and the Commercial Lighting Program (Docket No. E-22, Sub 469) from system-wide Programs to North Carolina-only Programs. By Order issued August 8, 2014, the Commission subsequently approved the Company’s request to close these North Carolina-only Programs as of December 31, 2014.

³ Orders approving these Programs were issued on December 16, 2013, in Docket No. E-22, Sub 495 (Non-Residential Energy Audit Program), Sub 496 (Non-Residential Duct Testing and Sealing Program), 497 (Residential Duct Testing and Sealing Program), Sub 498 (Residential Home Energy Check Up Program), 499 (Residential Heat Pump Tune Up Program), and Sub 500 (Residential Heat Pump Upgrade Program).

1 November 29, 2016.⁴ On July 28, 2017, the Company filed a Motion to close
2 the Residential Heat Pump Upgrade program, which the Commission
3 approved by order issued on September 5, 2017.⁵

4 In June 2014, the Company requested Commission approval to implement the
5 following “Phase III” DSM/EE Programs:

- 6 • Non-residential Heating and Cooling Efficiency Program;
- 7 • Non-residential Lighting Systems and Controls Program; and
- 8 • Non-residential Window Film Program.

9 The Commission approved the three Phase III Programs in October 2014, and
10 the Company began accepting new customers in these Programs beginning on
11 January 1, 2015.⁶ On August 16, 2018, the Company filed a Motion to close
12 the Phase III Non-Residential Window Film Program to new participants as
13 of December 31, 2018,⁷ which the Commission granted by order dated
14 October 16, 2018.⁸ On August 16, 2018, the Company requested
15 Commission approval to transition the Phase III Non-residential Heating and
16 Cooling Efficiency Program and the Non-residential Lighting Systems and
17 Controls Program to be offered on a North Carolina-only basis.⁹ The

⁴ *Order on Motion to Close or Suspend Programs*, Docket No. E-22, Sub 495, Sub 496, Sub 497, Sub 498, Sub 499, and sub 500 (Nov. 29, 2016).

⁵ *Order Cancelling Program*, Docket No. E-22, Sub 500 (Sept. 5, 2017).

⁶ Orders approving these Programs were issued on October 27, 2014, in Docket No. E-22, Sub 507 (Non-Residential Heating and Cooling Efficiency Program), Sub 508 (Non-Residential Lighting Systems and Controls Program), and Sub 509 (Non-Residential Window Film Program).

⁷ Motion to Close Non-Residential Window Film Program and North Carolina-Only Residential Retail LED Lighting Program, Docket No. E-22, Sub 509, Sub 539 (filed Aug. 16, 2018) (“Motion to Close”).

⁸ *Order Canceling Program*, Docket No. E-22, Sub 509 (Oct. 16, 2018).

⁹ Application of Dominion Energy North Carolina for Approval of North Carolina-Only Non-Residential Heating and Cooling Efficiency Program, Docket No. E-22, Sub 507 (filed Aug. 16, 2018); Application of Dominion Energy North Carolina for Approval of North Carolina-Only Non-residential Lighting Systems and Controls Program, Docket No. E-22, Sub 508 (filed Aug. 16, 2018).

1 Commission subsequently granted the Company's request on October 16,
2 2018.¹⁰

3 In July 2015, the Company requested Commission approval to implement the
4 "Phase IV" Residential Income and Age Qualifying Home Improvement
5 Program (RIAQHI). After Commission approval in October 2015, this new
6 Program opened to North Carolina customers on January 1, 2016.¹¹ The
7 "Phase IV" Residential Income and Age Qualifying Home Improvement
8 Program replaced the Phase I North Carolina-only Low Income Program,
9 which concluded on December 31, 2015.¹² On November 6, 2017, the
10 Commission approved the Company's request to suspend the RIAQHI
11 Program since the Program was set to expire in Virginia in early 2018.¹³ The
12 Company stated that if the Virginia State Corporation Commission ("VSCC")
13 granted an extension, it would file a request seeking to reopen the Program in
14 North Carolina in accordance with the Program's system-wide design. On
15 May 31, 2018, the Company filed a motion with the Commission to reopen
16 the RIAQHI Program to customer participation beginning July 1, 2018.¹⁴ On
17 June 26, 2018, the Commission approved reopening the RIAQHI Program.¹⁵

¹⁰ *Order Approving Program*, Docket No. E-22, Sub 507 (Oct. 16, 2018); *Order Approving Program*, Docket No. E-22, Sub 508 (Oct. 16, 2018).

¹¹ *Order Approving Program*, Docket No. E-22, Sub 523 (Oct. 6, 2015).

¹² *Order Granting Motion to Offer North Carolina-Only Low Income Program*, Docket No. E-22, Sub 463 (Sept. 9, 2014).

¹³ *Order Suspending Program*, Docket No. E-22, Sub 523 (Nov. 6, 2017).

¹⁴ *In the Matter of Application of Virginia Electric and Power Company, d/b/a Dominion Energy North Carolina, for Approval of Residential Income and Age Qualifying Home Improvement Program*, Motion to Reopen Program, Docket No. E-22, Sub 523 (May 31, 2018).

¹⁵ *Order Approving Reopening Program*, Docket No. E-22, Sub 523 (June 26, 2018).

1 In July 2016, the Company requested Commission approval to implement the
2 “Phase V” Non-residential Small Business Improvement Program. After
3 Commission approval in October 2016,¹⁶ the Company launched the Program
4 beginning on January 1, 2017.

5 In October 2016, the Company requested Commission approval to implement
6 an instant discount type of North Carolina-only Residential Retail LED
7 Lighting Program during 2017 and 2018. The Commission approved the
8 North Carolina-only Residential Retail LED Lighting Program in December
9 2016.¹⁷ On August 16, 2018, the Company filed a Motion to close the
10 Program effective with the end of the contemplated two-year duration,¹⁸
11 which the Commission approved by order issued October 16, 2018.¹⁹

12 In August 2017, the Company requested Commission approval to implement
13 the “Phase VI” Non-residential Prescriptive Program. After Commission
14 approval in October 2017,²⁰ the Company launched the Program in North
15 Carolina beginning on January 1, 2018.

16 **Q. Please provide a brief update on the Company’s implementation of the**
17 **approved DSM/EE Programs in North Carolina.**

18 A. The approved DSM/EE Programs have been successful in North Carolina.
19 The Company launched the Phase I Residential Lighting Program in May
20 2011, and over 37,000 bulbs were sold through December 31, 2011, when the

¹⁶ *Order Approving Program*, Docket No. E-22, Sub 538 (Oct. 26, 2016).

¹⁷ *Order Approving Program*, Docket No. E-22, Sub 539 (Dec. 20, 2016).

¹⁸ See Motion to Close, *supra* n. 7.

¹⁹ *Order Canceling Program*, Docket No. E-22, Sub 539 (Oct. 16, 2018).

²⁰ *Order Approving Program*, Docket No. E-22, Sub 543 (October 16, 2017).

1 Program was completed. Through the Low Income Program, the Company
2 has performed approximately 930 low income audits and repairs in North
3 Carolina during the period June 2011 through June 30, 2015. Through the Air
4 Conditioner Cycling Program, the Company began installing air conditioner
5 cycling devices in August 2011, and approximately 3,052 customers are
6 participating in the Program as of June 30, 2019.

7 The Phase II Programs launched in North Carolina in January 2014. Since
8 Program launch through suspension of the Phase II Programs in February
9 2017, approximately 5,294 units have been serviced as part of the Residential
10 Heat Pump Tune-Up Program and 1,349 units have been upgraded in North
11 Carolina to more efficient models as part of the Residential Heat Pump
12 Upgrade Program. The Residential Duct Sealing Program has resulted in
13 testing and repair of duct work associated with approximately 554 heat pump
14 units. Approximately 1,049 residential customers have received customized
15 energy audit reports and direct install measures as part of the Residential
16 Home Energy Check-Up Program.

17 Examples of direct install measures include installing compact fluorescent
18 light bulbs, faucet aerators, and door weather-stripping. The Non-residential
19 Energy Audit Program has provided approximately 115 audits to North
20 Carolina customers since Program launch through Program closure in
21 February 2017. Of these 115 audits, 108 customers have installed approved
22 measures and obtained a rebate as part of the Program. The Non-residential

1 Duct Testing & Sealing Program has had approximately 250 participants in
2 North Carolina since Program launch.

3 The Non-residential Phase III Programs launched in North Carolina in January
4 2015. As of June 30, 2019, 259 commercial and industrial customers in North
5 Carolina have participated in the Company's Phase III Programs.

6 The Phase IV Residential Income and Age Qualifying Home Improvement
7 Program launched in North Carolina in January 2016. As of June 30, 2019,
8 320 North Carolina customers have participated in the Company's Phase IV
9 Program.

10 The Phase V Non-residential Small Business Improvement Program became
11 available to qualifying customers in January 2017. As of June 30, 2019, 70
12 North Carolina customers have participated in the Company's Phase V
13 Program.

14 The Phase VI Non-residential Prescriptive Program became available to
15 qualifying customers in January 2018. As of June 30, 2019, 54 North
16 Carolina customers have participated in the Company's Phase VI Program.

17 The Company's North Carolina-only Residential Retail LED Lighting
18 Program launched in 2017. Since Program launch through the closing of the
19 NC only Program in December 2018, there were 82 active stores in North
20 Carolina that have sold over 320,644 bulbs as part of the Residential Retail
21 LED Lighting Program.

1 As of June 30, 2019, the Company has 55 participating contractors delivering
2 its portfolio of DSM/EE Programs and measures to North Carolina customers.

3 **Q. Has the Company proposed additional Programs for Commission**
4 **approval and deployment in North Carolina?**

5 A. Yes. On July 12, 2019, the Company requested Commission approval of the
6 Residential Home Energy Assessment,²¹ Residential Appliance Recycling,²²
7 Residential Efficient Products Marketplace,²³ Non-residential Window Film,²⁴
8 Non-residential Heating and Cooling Efficiency,²⁵ Non-residential Lighting
9 Systems & Controls,²⁶ Non-residential Small Manufacturing,²⁷ and the Non-
10 residential Office Programs²⁸. These programs were recently approved for
11 deployment in the Company's Virginia jurisdiction,²⁹ and will be offered on a
12 system-wide basis after January 1, 2020, if approved by the Commission for
13 deployment in North Carolina. Notably, these residential and non-residential

²¹ Application for Approval of Residential Home Energy Assessment Program, Docket No. E-22, Sub 567 (filed July 12, 2019).

²² Application for Approval of Residential Appliance Recycling Program, Docket No. E-22, Sub 569 (filed July 12, 2019).

²³ Application for Approval of Residential Efficient Products Marketplace Program, Docket No. E-22, Sub 568 (filed July 12, 2019).

²⁴ Application for Approval of Non-residential Window Film Program, Docket No. E-22, Sub 570 (filed July 12, 2019).

²⁵ Application for Approval of Non-residential Heating and Cooling Efficiency Program, Docket No. E-22, Sub 574 (filed July 12, 2019).

²⁶ Application for Approval of Non-residential Lighting Systems & Controls Program, Docket No. E-22, Sub 573 (filed July 12, 2019).

²⁷ Application for Approval of Non-residential Manufacturing Program, Docket No. E-22, Sub 571 (filed July 12, 2019).

²⁸ Application for Approval of Non-residential Office Program, Docket No. E-22, Sub 572 (filed July 12, 2019).

²⁹ *Petition of Virginia Electric and Power Company for approval to implement new demand-side management programs and for approval of two updated rate adjustment clauses pursuant to § 56-585.1 A 5 of the Code of Virginia*, Final Order Case No. PUR-2018-00168 (May 2, 2019) (“2018 Virginia DSM Order”).

1 programs are intended to provide qualifying customers with energy
2 conservation options suited to their residencies and facilities.

3 Furthermore, the Company's proposed DSM Phase VII Non-residential
4 Lighting Systems & Controls and Non-residential Heating and Cooling
5 Efficiency Programs would replace the current DSM Phase III Non-residential
6 Lighting Systems & Controls and Non-residential Heating and Cooling
7 Efficiency Programs, if approved by the Commission. Therefore, the
8 Company's Application requests Commission approval to close these earlier
9 Programs as of December 31, 2019, prior to the Company offering the new
10 DSM Phase VII Non-residential Lighting Systems & Controls and Non-
11 residential Heating and Cooling Efficiency Programs on January 1, 2020.

12 **Q. Does the Company have any additional plans to evaluate future DSM**
13 **Programs?**

14 A. Yes. As a result of an ongoing stakeholder process, the EC group is currently
15 evaluating bids submitted in response to a request for proposals ("RFP")
16 issued in March 2019 for new DSM program design ideas for development
17 into potential future system-wide Programs. As the Commission is aware, the
18 Company's EC group develops the Company's DSM/EE program portfolio to
19 be deployed in "phases," with program approval first being sought in Virginia
20 and, if approved in Virginia, then sought in North Carolina. The Company is
21 currently evaluating the results of the 2019 Program design RFP, and
22 anticipates seeking approval by the VSCC of a number of new residential and
23 non-residential DSM/EE Program designs later this year, which, if approved

1 in Virginia, would then be brought to North Carolina to be offered on a
2 system-wide basis.

3 **II. OVERVIEW OF APPLICATION**

4 **Q. What is the purpose of the Company's Application in this proceeding?**

5 A. In this Application, the Company is filing its annual update and requesting
6 approval of an updated Rider C revenue requirement to be recovered during
7 February 1, 2020, through January 31, 2021, the proposed rate period ("Rate
8 Period"), as well as seeking true up of January 1, 2018, through December 31,
9 2018 ("Test Period"), costs through the Company's EMF rider, Rider CE.

10 **Q. Is the Rate Period in this proceeding the same as the 2018 rate period?**

11 A. Yes. Consistent with the Company's 2018 DSM/EE cost recovery
12 application, DENC is proposing for updated Rider C to be effective for a
13 February 1, 2020, through January 31, 2021 Rate Period, and is proposing the
14 same adjustment in its cost recovery rider applications filed pursuant to Rules
15 R8-55 and R8-67. The Company is requesting this adjustment to the annual
16 Rate Period in order to extend the time for the Commission to issue orders in
17 the Company's three annual rider proceedings filed pursuant to NCUC Rules
18 R8-55, R8-67, and R8-69, respectively, and to then allow the Company
19 additional time to finalize rates and customer notices (including allowing
20 reasonable time for Public Staff review) prior to the updated annual riders'
21 effective date. The Company intends to continue to use a February 1 through
22 January 31 rate period in future rider cases. As discussed further by Company
23 Witness Kesler, because the Company's system for modeling projected costs

1 and benefits is based on the calendar year, in this proceeding the Company is
2 applying the projected costs for calendar year 2020 to the proposed February
3 1, 2020 – January 31, 2021 Rate Period. The Commission approved the
4 Company’s similar proposal by order dated January 10, 2019.³⁰

5 **Q. Please provide a brief overview of the Company’s approach to cost**
6 **recovery for its North Carolina DSM/EE Programs as set forth in this**
7 **Application.**

8 A. The costs of the Company’s approved DSM/EE Programs have been
9 recovered during each annual R8-69 cost recovery proceeding in accordance
10 with the Agreement and Stipulation of Settlement agreed to between the
11 Public Staff and the Company in the Company’s initial 2010 cost recovery
12 proceeding (“Stipulation”), as well as the Cost Recovery and Incentive
13 Mechanism attached as Stipulation Exhibit 1 to the Stipulation.³¹ In the fall
14 of 2014, in accordance with provisions of the original Stipulation, the
15 Commission undertook a review of the Stipulation and Cost Recovery and
16 Incentive Mechanism. On May 7, 2015, after receiving comments from the
17 Company and the Public Staff, the Commission approved a revised Cost
18 Recovery and Incentive Mechanism that governed cost recovery in the 2015
19 and 2016 annual proceedings.³² The 2015 Mechanism Order also required the
20 Company and the Public Staff to file by March 1, 2017, as extended, an

³⁰ *Order Approving DSM/EE Rider and Requiring Filing of Customer Notice*, Docket No. E-22, Sub 556 (January 10, 2019).

³¹ *Order Approving Agreement and Stipulation of Settlement, Approving DSM/EE Rider, and Requiring Compliance Filing*, Docket No. E-22, Sub 464 (Oct. 14, 2011).

³² *Order Approving Revised Cost Recovery and Incentive Mechanism and Granting Waiver*, Docket No. E-22, Sub 464 (May 7, 2015) (“2015 Mechanism Order”).

1 updated performance incentive proposal for Commission review and
2 approval. On April 20, 2017, the Company and the Public Staff filed a Joint
3 Proposal for New PPI, with a revised Mechanism attached as Appendix A
4 (the “Mechanism”). The Commission issued an Order approving the revised
5 Mechanism on May 22, 2017, which governs cost recovery for the instant
6 Application.³³ The revised Mechanism amends the PPI to a “portfolio
7 performance incentive” applicable to measures installed beginning with
8 Vintage Year 2017. The Company has developed its Application and pre-
9 filed testimony in accordance with the procedures set forth in the Mechanism.

10 **Q. Will the Company present other witnesses in this proceeding?**

11 A. Yes. Company Witness Deanna R. Kesler, Regulatory Consultant, Demand-
12 Side Planning, will provide certain information required by NCUC Rule
13 R8-69(f)(1)(ii)(a), (b), (d), and (e), as well as the Utility Cost Test (“UCT”),
14 and supporting documentation for the PPI Test Period and projected Vintage
15 Year calculations made pursuant to the Mechanism. Company Witness Kesler
16 will also present the Company’s evaluation, measurement and verification
17 (“EM&V”) cost projections, and lost energy sales from EE Programs during
18 the EMF Test Period. Company Witness Jarvis E. Bates, Energy
19 Conservation Compliance Consultant, will support the projected Calendar
20 Year 2020 costs associated with the Company’s DSM/EE Programs to be
21 recovered during the Rate Period, actual costs associated with the Company’s
22 DSM/EE Programs during the Test Period, as well as provide information on

³³ *Order Approving Revised Cost Recovery and Incentive Mechanism*, Docket No. E-22, Sub 464 (May 22, 2017).

1 the Company's event sponsorship and consumer education initiatives during
2 the Test Period and customer opt-outs pursuant to Commission Rule
3 R8-69(d)(2). Company Witness Alan J. Moore, Regulatory Analyst III, will
4 present the revenue requirements associated with the DSM/EE Programs for
5 Calendar Year 2020 to be recovered during the Rate Period as well as the
6 EMF revenue requirements associated with the DSM/EE Programs to be
7 recovered during the Rate Period. Company Witness Robert E. Miller,
8 Regulatory Analyst III, will explain the proposed assignment and allocation of
9 costs to the North Carolina jurisdiction for the DSM/EE Programs. Company
10 Witness Debra A. Stephens, Regulatory Advisor, will present the calculation
11 of the proposed updated Rider C and EMF Rider CE.

12 **Q. Are the Company's North Carolina DSM/EE Programs consistent with**
13 **the Company's system-wide integrated resource plan ("Plan")?**

14 A. Yes. The Company has developed its Plan using a least cost modeling
15 methodology of reliable supply-side and demand-side options, pursuant to
16 North Carolina statutory and Commission policies. The Company's
17 operational and proposed Phase VII DSM/EE Programs were included in the
18 Company's corrected 2018 Plan, as filed on March 7, 2019, in Docket No. E-
19 100, Sub 157.

20 **Q. Please discuss the utility incentive the Company proposes for inclusion in**
21 **the DSM/EE Rider.**

22 A. The Company requests to recover a Rate Period PPI representing, as
23 introduced above, a projected portfolio performance incentive as approved in

1 the revised Mechanism. The Company also requests recovery of the Test
2 Period PPI for Vintage Year 2018 and prior years. The PPI for Vintage Years
3 2017-2018 has been calculated under the new portfolio performance incentive
4 approach, while the PPI for prior vintage years has been derived based upon
5 the traditional individualized program-based approach, and is being calculated
6 consistent with the 2015 Mechanism Order and the methodology approved by
7 the Commission in the Company's previous annual cost recovery proceedings.
8 Company Witness Bates supports calculation of a streamlined projected PPI,
9 as allowed in Paragraph 56 of the Mechanism, as well as the true up of the PPI
10 based upon actual installed measurement units during the vintage year 2018,
11 as required by Paragraph 60 of the Mechanism.

12 **Q. Has the Company projected Rate Period net lost revenues in the utility**
13 **incentives to be recovered during the Rate Period?**

14 A. Not at this time in this proceeding. Consistent with the approach taken in
15 recent cost recovery applications, the Company has not projected lost
16 revenues and proposes to include \$0 as the projected Rate Period net lost
17 revenue utility incentive for this proceeding.

18 The current Rider CE will true up the Company's recovery of net lost
19 revenues during the Test Period, as supported by Company Witness Moore's
20 testimony.³⁴

³⁴ Should the Company's projection of net lost revenues again become significant, it could choose to request projected cost recovery in a future proceeding, as provided for in the Mechanism.

- 1 **Q. Has the Company identified any found revenues to offset its request to**
2 **recover net lost revenues?**
- 3 A. No. Consistent with Paragraph 47 of the Mechanism, the Company has
4 evaluated its North Carolina activities for potential found revenues using the
5 decision tree set forth in Attachment A of the Mechanism. Specifically, the
6 Company's EC, Rates, and Customer Solutions departments (which
7 collectively oversee Dominion Energy North Carolina's tariffs, Programs, and
8 utility-funded activities) evaluated the Company's North Carolina activities
9 during the Test Period to determine whether its activities may be causing
10 customers to increase demand or energy consumption, resulting in found
11 revenues. The Company's review of its North Carolina activities under the
12 decision tree has not identified any activities that resulted in found revenues
13 during the Test Period and has not identified any activities that would result in
14 projected found revenues during the Rate Period.

15 **III. OVERVIEW OF COST RECOVERY REQUEST**

- 16 **Q. Please summarize the components of updated Rider C and Rider CE and**
17 **resulting revenue requirements proposed to be recovered in this**
18 **proceeding.**
- 19 A. In accordance with Rule R8-69 and the Mechanism, updated Rider C will
20 recover the Company's North Carolina allocated share (including 100%
21 assigned cost of the North Carolina-only Programs) of the following
22 components during the Rate Period: (i) the Company's projected costs of
23 implementing the approved DSM/EE Programs during calendar year 2020;

1 (ii) the Company's projected Common Costs to be incurred during calendar
2 year 2020; and (iii) the Company's streamlined projected PPI. The
3 Company's updated Rider C revenue requirement for the Rate Period is
4 \$3,470,280, as further detailed in Schedule 1 of Company Witness Moore's
5 testimony.

6 In accordance with Rule R8-69 and the Mechanism, the Company's EMF
7 Rider CE will true up and recover any under-recovery or refund any over-
8 recovery of the Company's North Carolina allocated share (including 100%
9 assigned cost of the North Carolina-only Programs) of the following
10 components: (i) the Company's Test Period costs of implementing the
11 approved DSM/EE Programs; (ii) the Company's Test Period Common Costs;
12 (iii) the Company's Test Period Net Lost Revenues; and (iv) the Company's
13 Test Period PPI. The Company's Rider CE revenue requirement for the Rate
14 Period is \$464,010 as further detailed in Schedule 2 of Company Witness
15 Moore's testimony.

16 **Q. Does that conclude your prefiled direct testimony?**

17 **A.** Yes, it does.

**BACKGROUND AND QUALIFICATIONS
OF
MICHAEL T. HUBBARD**

Michael T. Hubbard is Manager – Energy Conservation for Dominion Energy North Carolina. Since 2008, his responsibilities have included oversight of the design and implementation of new Demand Side Management programs, including vendor retention and oversight. In 2010, he served on the Virginia Governor’s Operational Review Taskforce to reduce costs and improve efficiencies for state government and also served on the board of the Richmond Region Energy Alliance, working with stakeholders on key energy efficiency issues. He is a certified Six Sigma Green Belt.

Mr. Hubbard joined Dominion Virginia Power in 1996 and has served in a number of regulatory and customer service-related leadership roles in the Delivery and Service Company organizations.

While in the position of Underground Damage Prevention Manager, he was appointed to serve on the State Corporation Commission of Virginia’s Advisory Committee for matters concerning the enforcement of the Virginia Underground Utility Line Damage Prevention Act, and also served on the board of directors that formed a new statewide Miss Utility call center.

Mr. Hubbard has a B.S. in History from Hampden-Sydney College and M.S.L.S. (Masters in Library Sciences) from the University of Kentucky, and is a member of the Phi Beta Kappa National Honor Society.

Mr. Hubbard has previously presented testimony before the North Carolina Utilities Commission and the State Corporation Commission of Virginia.

**DIRECT TESTIMONY
OF
DEANNA R. KESLER
ON BEHALF OF
DOMINION ENERGY NORTH CAROLINA
BEFORE THE
NORTH CAROLINA UTILITIES COMMISSION
DOCKET NO. E-22, SUB 577**

1 **Q. Please state your name, business address, and position with Virginia**
2 **Electric and Power Company (“Dominion Energy North Carolina” or the**
3 **“Company”).**

4 A. My name is Deanna R. Kesler and I am a Regulatory Consultant in Demand-
5 Side Planning, which is part of the Company’s Integrated Resource Planning
6 organization. My business address is 120 Tredegar Street, Richmond,
7 Virginia 23219. A statement of my background and qualifications is attached
8 as Appendix A.

9 **Q. Please describe your area of responsibility with the Company.**

10 A. I am responsible for the evaluation of Dominion Energy North Carolina’s
11 demand-side management (“DSM”) and energy efficiency (“EE”) programs
12 (“DSM/EE Programs” or “Programs”). This includes detailed analyses of
13 approved and proposed DSM/EE Programs and the incorporation of DSM and
14 EE measures into the Company’s integrated resource planning (“IRP”)
15 process and long-term integrated resource plan (the “Plan”). My
16 responsibilities also include planning, organizing, and coordinating
17 evaluation, measurement, and verification (“EM&V”) work for all DSM/EE
18 Programs through an independent third-party EM&V contractor, DNV GL.

1 This responsibility includes ensuring EM&V data is collected and made
2 available to DNV GL for review and analysis, reviewing EM&V processes
3 and reports, and coordinating all pertinent EM&V activities.

4 **Q. What is the purpose of your testimony in this proceeding?**

5 A. My testimony supports Dominion Energy North Carolina's request to recover
6 all reasonable and prudent costs incurred in adopting and implementing the
7 Company's portfolio of DSM/EE Programs as well as utility incentives,
8 through its updated Rider C, as well as the Company's experience
9 modification factor ("EMF") rider, Rider CE ("Application"). The purpose of
10 my testimony is to support the true up of lost revenues and the Company's
11 EM&V cost projections, as well as to provide certain information required by
12 North Carolina Utilities Commission ("NCUC" or "Commission") Rule
13 R8-69(f)(1)(ii)(a), (b), (d), and (e), with respect to the Company's DSM/EE
14 Programs. Regarding EM&V, my testimony will: (i) show the energy
15 savings for the previously-approved EE Programs over the EMF period
16 January 1, 2018, through December 31, 2018 ("Test Period"), for purposes of
17 calculating the Company's EMF; (ii) support the Company's EM&V costs
18 over the January 1, 2020, through December 31, 2020, calendar year
19 ("Calendar Year 2020") for the North Carolina jurisdiction, as well as the Test
20 Period; and (iii) provide information on Air Conditioner Cycling Program
21 activation events that occurred during the Test Period as required by Rule
22 R8-69(f)(1)(iii)(g). My testimony will also provide the Utility Cost Test
23 ("UCT") and supporting documentation for the Portfolio Performance

1 Incentive (“PPI”) calculations for the Test Period and the upcoming Calendar
2 Year 2020.

3 My testimony has been developed in accordance with the revised Cost
4 Recovery and Incentive Mechanism (“Mechanism”) approved by the
5 Commission on May 22, 2017, in Docket No. E-22, Sub 464.

6 **Q. Ms. Kesler, are you sponsoring any exhibits or schedules in connection**
7 **with your testimony?**

8 A. Yes. Company Exhibit DRK-1, consisting of Schedules 1-7 (Schedule 5
9 provided in public and confidential versions filed under seal), was prepared
10 under my supervision and is accurate and complete to the best of my
11 knowledge and belief. The Schedules I am sponsoring provide the following
12 information in support of the Company’s Application:

- 13 1. Schedule 1 of my pre-filed direct testimony provides the Company’s
14 total revenue requirement, avoided costs, and Calendar Year 2020
15 summer and winter peak and energy savings per unit measure for the
16 Company’s DSM/EE Programs, as required by Rule R8-69(f)(1)(ii)(a),
17 (b), (d), and (e) and calculated consistent with the Mechanism.
- 18 2. Schedule 2 provides a UCT calculation for each Program and the
19 portfolio of Programs for the projected Vintage Year 2020, as defined
20 in Paragraph 14 of the Mechanism.
- 21 3. Schedule 3 provides a comparison of the forecasted energy and
22 summer and winter capacity reductions for the Company’s ongoing

- 1 Phase I Air Conditioner Cycling Program and Phase IV, V, and VI
2 DSM/EE Programs, as required by Rule R8-69(f)(1)(iii)(h).
- 3 4. Schedule 4 provides the cost-effectiveness test evaluations required by
4 Paragraph 41 of the Mechanism.
- 5 5. Schedule 5 provides the Company's actually-incurred EM&V costs
6 during the Test Period, as well as projected EM&V costs during the
7 Calendar Year 2020.
- 8 6. Schedule 6 supports the calculation of estimated energy savings for all
9 DSM/EE Phase I, II, III, IV, V, and VI programs, and the Residential
10 Retail LED Lighting Program, over the Test Period for the EMF Rider,
11 which is based on actual EM&V data collected and analyzed by DNV
12 GL.
- 13 7. Schedule 7 presents the date, weather conditions, event trigger,
14 customer enrollment and activation data, event duration, hour ending,
15 kW demand requested, and kW demand reductions observed for the
16 Air Conditioner Cycling Program during the Test Period.

17 **Q. Please explain the information you have provided in your Schedule 1.**

18 A. My Schedule 1 first presents the system-level revenue requirement per
19 appropriate capacity, energy, and measure unit metric, for each ongoing

1 Phase I,¹ Phase IV,² Phase V,³ Phase VI⁴ DSM/EE Program, as well as the
2 proposed Phase VII⁵ programs during the Rate Period. This table was
3 developed using the revenue requirement amounts requested for recovery
4 during the upcoming Rate Period, as provided in Company Witness Alan J.
5 Moore's Schedule 1. Next, my Schedule 1 provides the system-level avoided
6 costs per appropriate capacity, energy, and measure unit metric, for each of
7 the approved going-forward Phase I, Phase IV, Phase V, Phase VI and
8 proposed Phase VII Programs. The proposed jurisdictional allocation factors,
9 as required by Rule R8-69(f)(1)(ii)(b), are provided in Company Witness
10 Robert Miller's Schedule 4. Finally, my Schedule 1 shows the total expected
11 system-level energy and summer and winter capacity reductions for each
12 Program in the aggregate and per appropriate capacity, energy, and measure
13 unit metric for Calendar Year 2020. The per unit cost for the Air
14 Conditioning Cycling Program is based on summer demand reductions
15 because the Company is a summer peaking utility.

¹ The Company's Phase I DSM/EE Program is the Residential Air Conditioner Cycling Program (Docket No. E-22, Sub 465).

² The Company's Phase IV Program is the Income and Age Qualifying Home Improvement Program (Docket No. E-22, Sub 523).

³ The Company's Phase V program is the Small Business Improvement Program (Docket No. E-22, Sub 538).

⁴ The Company's Phase VI program is the Non-residential Prescriptive Program (Docket No. E-22, Sub 543).

⁵ As discussed by Company Witness Michael T. Hubbard, the Company filed for Commission approval of the following Phase VII Programs on July 12, 2019: Residential Home Energy Assessment Program (Docket No. E-22, Sub 567), Residential Appliance Recycling Program (Docket No. E-22, Sub 569), Residential Efficient Products Marketplace Program (Docket No. E-22, Sub 568), Non-Residential Heating & Cooling Efficiency Program (Docket No. E-22, Sub 574), Non-Residential Lighting Systems & Controls Program (Docket No. E-22, Sub 573), Non-Residential Window Film Program (Docket No. E-22, Sub 570), Non-Residential Office Program (Docket No. E-22, Sub 572), and Non-Residential Small Manufacturing Program (Docket No. E-22, Sub 571).

1 **Q. By the terms of the Mechanism, how was the UCT developed in support**
2 **of the Calendar Year 2020 PPI calculation?**

3 A. The UCT used to support the calculation of the Calendar Year 2020 PPI for
4 each Vintage Year was developed in accordance with Paragraphs 13-14 of the
5 Mechanism. The Strategist model, a computer modeling and resource
6 optimization tool, was used to calculate a projected UCT based on the 2020
7 Vintage Year (as defined in Paragraph 14 of the Mechanism), using the base
8 case assumptions consistent with the Company's most recent 2018 Integrated
9 Resource Plan, as refiled with the Commission on March 7, 2019, in Docket
10 No. E-100, Sub 157 ("2018 Plan"). Because the Company's system for
11 modeling projected costs and benefits is based on the calendar year, in this
12 proceeding the Company is applying the projected costs for Calendar Year
13 2020 to the proposed February 1, 2020 – January 31, 2021 Rate Period, which
14 is discussed in the direct testimony of Company Witnesses Hubbard and
15 Moore.

16 **Q. Please explain the role of the Total Resource Cost ("TRC") Test in**
17 **calculating PPI under the Mechanism.**

18 A. The Commission approved amendments to the Mechanism on May 22, 2017,⁶
19 which transitioned the PPI to a portfolio-based incentive calculation beginning
20 with Vintage Year 2017. The TRC is one of the four cost/benefit tests
21 required by the Mechanism to be applied in evaluating DSM/EE Programs,

⁶ *Order Approving Revised Cost Recovery and Incentive Mechanism*, Docket No. E-22, Sub 464 (May 22, 2017).

1 and is used in calculating the PPI under the portfolio-based approach
2 applicable to the Test Period and Calendar Year 2020. Strategist values are
3 calculated based on Calendar Year. Pursuant to Paragraph 51 of the pre-
4 existing Mechanism, each individual DSM/EE program is required to have a
5 Vintage Year TRC above 1.00 or that program is presumed ineligible for a
6 PPI. Each of the Company's Program's Vintage Year TRC test results
7 recoverable during the Test Period had a TRC value above 1.00 except for the
8 Residential Income and Age Qualifying Home Improvement Program, which
9 is a program that is in the public interest. The Company is not seeking a PPI
10 for this Program.

11 **Q. Please explain the role of the UCT Test in calculating PPI under the**
12 **Mechanism for Vintage Year 2020 for recovery during the Rate Period.**

13 A. In accordance with Paragraph 53 of the Mechanism, the PPI shall be based on
14 the net dollar savings of the Company's DSM/EE portfolio, as calculated
15 using the UCT. Pursuant to Paragraph 52 of the Mechanism, Low-Income
16 Programs or other programs explicitly approved with expected UCT results
17 less than 1.00 shall not be included in the portfolio for purposes of the PPI
18 calculation. However, for purposes of PPI determination, Low Income
19 Programs shall be included, as appropriate, in dispatch calculations to
20 determine avoided kW and kWh associated with Programs eligible for a PPI.

21 My Schedule 2 presents the 2020 Vintage Year UCT and TRC cost/benefit
22 portfolio scores, as well as the individual program scores pursuant to
23 Paragraphs 52-53 of the Mechanism.

1 **Q. Please explain the information you have provided in your Schedule 3.**

2 A. My Schedule 3 presents forecasted energy and summer and winter capacity
3 reductions at the generator for the Company's ongoing Phase I, Phase IV,
4 Phase V, and Phase VI DSM/EE Programs during Calendar Year 2020.
5 Specifically, Schedule 3 provides a comparison of the Phase I, Phase IV,
6 Phase V, and Phase VI Programs forecasted in the Company's 2018 Plan and
7 the 2017 Plan Update. Also included in this schedule is an update based on
8 the North Carolina DSM Program Applications which were filed July 12,
9 2019. The 2019 IRP update has not been developed or filed as of the date of
10 this filing. Generally, differences in the forecasted energy and capacity
11 reductions can be explained by differences in program modeling assumptions,
12 such as penetrations and load shapes. These differences arise in part from
13 data collected through the EM&V process, changes to implementation
14 schedules, and jurisdictional requirements.

15 **Q. Did the Company perform going-forward cost/benefit results for existing**
16 **Programs as required by Paragraph 41 of the Mechanism?**

17 A. Yes. Going-forward cost/benefit results were performed for the Phase I AC
18 Cycling Program, Phase IV, Phase V, and Phase VI Programs, and are
19 included in my Schedule 4.

20 **Q. What are the Company's objectives for EM&V?**

21 A. The objectives of the Company's EM&V are to provide an assessment of each
22 Program's progress toward its goals, including tracking actual cumulative
23 indicators over time versus the planning assumptions, such as the number of

1 participants, estimated energy (kWh) and demand (kW) savings, and Program
2 costs. EM&V tracking also provides average peak kW reduction per
3 participant, average kWh savings per participant, if appropriate, and average
4 incentive per participant for each Program.

5 **Q. Have you provided the Company's estimated EM&V cost for Calendar**
6 **Year 2020 and actual EM&V costs during the Test Period?**

7 A. Yes. My Schedule 5 provides the Company's projected EM&V costs during
8 Calendar Year 2020, as well as the Company's actual EM&V costs during the
9 Test Period for the North Carolina jurisdiction. The Company intends to
10 continue to file its annual EM&V Report with the Commission on May 1 each
11 year.

12 **Q. Can you please describe the information provided in your Schedule 6?**

13 A. Yes. My Schedule 6 supports the calculation of estimated energy savings for
14 all DSM/EE Phases I, II, III, IV, V, and VI Programs, and the Residential
15 Retail LED Lighting Program, over the Test Period for the EMF Rider, which
16 is based on actual EM&V data collected and analyzed by DNV GL. The lost
17 sales (kWh) reflected in this schedule will be used by Company Witness
18 Moore in the calculation of lost revenues in this proceeding.

1 **Q. Have you provided information on the Air Conditioner Cycling Program**
2 **activation events that occurred during the Test Period, as required by**
3 **Rule R8-69(f)(1)(iii)(g)?**

4 A. Yes. My Schedule 7 reflects event-based data for the Air Conditioner Cycling
5 Program during the Test Period, including the date, weather conditions, event
6 trigger, customer enrollment and switch activation data, event duration, hour
7 ending, kW demand requested, and kW demand reductions observed.

8 **Q. Does this conclude your pre-filed direct testimony?**

9 A. Yes, it does.

**BACKGROUND AND QUALIFICATIONS
OF
DEANNA R. KESLER**

Ms. Kesler has held various positions with Dominion Virginia Power in the Power Operations Management Services, Generation and System Planning, Production Costing, Energy Efficiency, and Integrated Resource Planning areas. She originally joined Dominion Virginia Power in 1984 and returned in 2008. She has also had a variety of leadership roles prior to rejoining the Company both as a consultant and as an internal employee for several major corporations.

Ms. Kesler has a Masters in Business Administration from Virginia Commonwealth University. She also studied Business Administration at Virginia Commonwealth University and Chemical Engineering and Finance at Virginia Polytechnic Institute and State University.

Revenue Requirement per Appropriate Unit^{1 2}
Rule R8-69(f)(1)(ii)(a)

Program	Total Revenue Requirement (000s)	kW Reductions	MWh Reductions	DSM Cost per kW	EE Cost per MWh
Air Conditioner Cycling Program	9,721	53,032	N/A	\$ 183	N/A
Residential Income and Age Qualifying Home Improvement Program	4,419	842	8,758	N/A	\$ 505
Non-Residential Small Business Improvement Program	9,247	11,676	63,520	N/A	\$ 146
Non-Residential Prescriptive Program	6,352	14,904	87,505	N/A	\$ 73
Residential Appliance Recycling Program	1,863	1,041	6,676	N/A	\$ 279
Residential Efficient Products Marketplace Program	6,820	1,672	128,748	N/A	\$ 53
Residential Home Energy Assessment Program	4,337	1,570	9,348	N/A	\$ 464
Non-Residential Lighting Systems & Controls Program	2,960	2,959	14,271	N/A	\$ 207
Non-Residential Heating & Cooling Efficiency Program	1,958	2,041	9,100	N/A	\$ 215
Non-Residential Window Film Program	454	496	2,034	N/A	\$ 223
Non-Residential Small Manufacturing Program	1,250	754	3,524	N/A	\$ 355
Non-Residential Office Program	1,162	455	5,215	N/A	\$ 223

Note: 1) Exclusive of net lost revenues

Note: 2) Based on Individual Program Evaluation

Avoided Costs per Appropriate Unit
Rule R8-69(f)(1)(ii)(b)

Program	Total Avoided Costs (000s)	Capacity Reductions kW	Energy Reductions (MWh)	DSM Avoided Cost per kW	EE Avoided Cost per MWh
Air Conditioner Cycling Program	\$ 25,963	53,032	N/A	\$ 490	\$ -
Residential Income and Age Qualifying Home Improvement Program	\$ 367	842	8,758	\$ 436	\$ 42
Non-Residential Small Business Improvement Program	\$ 3,346	11,676	63,520	\$ 287	\$ 53
Non-Residential Prescriptive Program	\$ 6,488	14,904	87,505	\$ 435	\$ 74
Residential Appliance Recycling Program	\$ 310	1,041	6,676	\$ 297	\$ 46
Residential Efficient Products Marketplace Program	\$ 4,873	1,672	128,748	\$ 2,915	\$ 38
Residential Home Energy Assessment Program	\$ 486	1,570	9,348	\$ 310	\$ 52
Non-Residential Lighting Systems & Controls Program	\$ 735	2,959	14,271	\$ 249	\$ 52
Non-Residential Heating & Cooling Efficiency Program	\$ 502	2,041	9,100	\$ 246	\$ 55
Non-Residential Window Film Program	\$ 115	496	2,034	\$ 232	\$ 56
Non-Residential Small Manufacturing Program	\$ 187	754	3,524	\$ 249	\$ 53
Non-Residential Office Program	\$ 215	455	5,215	\$ 473	\$ 41

Note: Based on Individual Program Evaluation

2020 Summer/Winter Peak & Energy Savings (System-Level at the Meter)
Rule R8-69(f)(1)(ii)(d)(e)

Program	Summer MW Reductions (2020)	Winter MW Reductions (2020)	GWh Reductions (2020)
Air Conditioner Cycling Program	53.03	0.00	0.00
Residential Income and Age Qualifying Home Improvement Program	0.84	1.78	8.76
Non-Residential Small Business Improvement Program	11.68	10.35	63.52
Non-Residential Prescriptive Program	14.90	6.48	87.50
Residential Appliance Recycling Program	1.04	0.34	6.68
Residential Efficient Products Marketplace Program	1.67	1.23	128.75
Residential Home Energy Assessment Program	1.57	-10.71	9.35
Non-Residential Lighting Systems & Controls Program	2.96	1.16	14.27
Non-Residential Heating & Cooling Efficiency Program	2.041	4.78	9.10
Non-Residential Window Film Program	0.496	0.20	2.03
Non-Residential Small Manufacturing Program	0.754	0.41	3.52
Non-Residential Office Program	0.455	1.44	5.22

Note: Based on Individual Program Evaluation

AC Cycling Program UCT
Program Life 15.00

Year	2020 Pen. Benefits	2020 Pen. Costs	Annual Net Benefits (000s)	2020 Vintage Year C/B Scores	
	Total Benefits (000s)	Total Costs (000s)		UCT Ratio	TRC Ratio
NPV	\$ 2,923	\$ 5,997	-\$3,073.44	0.49	0.71
2019	\$ -	\$ -	\$ -		
2020	\$ 125	\$ 617	-\$492		
2021	\$ 217	\$ 200	\$ 17		
2022	\$ 237	\$ 200	\$ 37		
2023	\$ 252	\$ 200	\$ 52		
2024	\$ 267	\$ 200	\$ 67		
2025	\$ 285	\$ 200	\$ 85		
2026	\$ 304	\$ 200	\$ 104		
2027	\$ 326	\$ 200	\$ 126		
2028	\$ 345	\$ 200	\$ 145		
2029	\$ 370	\$ 200	\$ 170		
2030	\$ 394	\$ 200	\$ 194		
2031	\$ 413	\$ 200	\$ 213		
2032	\$ 424	\$ 200	\$ 224		
2033	\$ 436	\$ 200	\$ 236		
2034	\$ 448	\$ 200	\$ 248		
2035	\$ 191	\$ -	\$ 191		

Note: Based on Individual Program Evaluation

Income and Age Qualifying Home Improvement UCT
Program Life 15.00

Year	2020 Pen. Benefits	2020 Pen. Costs	Annual Net Benefits (000s)	2020 Vintage Year C/B Scores	
	Total Benefits (000s)	Total Costs (000s)		UCT Ratio	TRC Ratio
NPV	\$ 683	\$ 4,157	-\$3,473.90	0.16	0.16
2019	\$ -	\$ -	\$ -		
2020	\$ 32	\$ 4,419	-\$4,387		
2021	\$ 61	\$ -	\$ 61		
2022	\$ 62	\$ -	\$ 62		
2023	\$ 65	\$ -	\$ 65		
2024	\$ 62	\$ -	\$ 62		
2025	\$ 68	\$ -	\$ 68		
2026	\$ 72	\$ -	\$ 72		
2027	\$ 76	\$ -	\$ 76		
2028	\$ 77	\$ -	\$ 77		
2029	\$ 81	\$ -	\$ 81		
2030	\$ 83	\$ -	\$ 83		
2031	\$ 86	\$ -	\$ 86		
2032	\$ 90	\$ -	\$ 90		
2033	\$ 95	\$ -	\$ 95		
2034	\$ 96	\$ -	\$ 96		
2035	\$ 48	\$ -	\$ 48		

Note: Based on Individual Program Evaluation

Small Business Improvement Program UCT
Program Life 14.00

Year	2020 Pen. Benefits	2020 Pen. Costs	Annual Net Benefits (000s)	2020 Vintage Year C/B Scores	
	Total Benefits (000s)	Total Costs (000s)		UCT Ratio	TRC Ratio
NPV	\$ 11,855	\$ 8,321	\$3,534.62	1.42	1.07
2019	\$ -	\$ -	\$ -		
2020	\$ 612	\$ 8,846	-\$8,234		
2021	\$ 1,092	\$ -	\$ 1,092		
2022	\$ 1,124	\$ -	\$ 1,124		
2023	\$ 1,173	\$ -	\$ 1,173		
2024	\$ 1,089	\$ -	\$ 1,089		
2025	\$ 1,254	\$ -	\$ 1,254		
2026	\$ 1,332	\$ -	\$ 1,332		
2027	\$ 1,401	\$ -	\$ 1,401		
2028	\$ 1,435	\$ -	\$ 1,435		
2029	\$ 1,514	\$ -	\$ 1,514		
2030	\$ 1,578	\$ -	\$ 1,578		
2031	\$ 1,619	\$ -	\$ 1,619		
2032	\$ 1,678	\$ -	\$ 1,678		
2033	\$ 1,776	\$ -	\$ 1,776		
2034	\$ 800	\$ -	\$ 800		

Note: Based on Individual Program Evaluation

Non-Residential Prescriptive Program UCT
Program Life 6.00

Year	2020 Pen. Benefits	2020 Pen. Costs	Annual Net Benefits (000s)	2020 Vintage Year C/B Scores	
	Total Benefits (000s)	Total Costs (000s)		UCT Ratio	TRC Ratio
NPV	\$ 11,910	\$ 5,960	\$5,949.25	2.00	1.42
2019	\$ -	\$ -	\$ -		
2020	\$ 1,341	\$ 6,336	-\$4,996		
2021	\$ 2,358	\$ -	\$ 2,358		
2022	\$ 2,430	\$ -	\$ 2,430		
2023	\$ 2,552	\$ -	\$ 2,552		
2024	\$ 2,488	\$ -	\$ 2,488		
2025	\$ 2,700	\$ -	\$ 2,700		
2026	\$ 1,285	\$ -	\$ 1,285		

Note: Based on Individual Program Evaluation

Residential Home Energy Assessment Program UCT
Program Life 12.00

Year	2020 Pen. Benefits	2020 Pen. Costs	Annual Net Benefits (000s)	2020 Vintage Year C/B Scores	
	Total Benefits (000s)	Total Costs (000s)		UCT Ratio	TRC Ratio
NPV	\$ 5,863	\$ 4,039	\$1,823.72	1.45	1.06
2019	\$ -	\$ -	\$ -		
2020	\$ 286	\$ 4,294	-\$4,008		
2021	\$ 555	\$ -	\$ 555		
2022	\$ 640	\$ -	\$ 640		
2023	\$ 706	\$ -	\$ 706		
2024	\$ 590	\$ -	\$ 590		
2025	\$ 729	\$ -	\$ 729		
2026	\$ 767	\$ -	\$ 767		
2027	\$ 829	\$ -	\$ 829		
2028	\$ 835	\$ -	\$ 835		
2029	\$ 888	\$ -	\$ 888		
2030	\$ 901	\$ -	\$ 901		
2031	\$ 931	\$ -	\$ 931		
2032	\$ 441	\$ -	\$ 441		

Note: Based on Individual Program Evaluation

Residential Appliance Recycling Program UCT
Program Life 8.00

Year	2020 Pen. Benefits	2020 Pen. Costs	Annual Net Benefits (000s)	2020 Vintage Year C/B Scores	
	Total Benefits (000s)	Total Costs (000s)		UCT Ratio	TRC Ratio
NPV	\$ 1,720	\$ 1,735	-\$15.30	0.99	1.09
2019	\$ -	\$ -	\$ -		
2020	\$ 156	\$ 1,844	-\$1,688		
2021	\$ 271	\$ -	\$ 271		
2022	\$ 280	\$ -	\$ 280		
2023	\$ 294	\$ -	\$ 294		
2024	\$ 302	\$ -	\$ 302		
2025	\$ 312	\$ -	\$ 312		
2026	\$ 331	\$ -	\$ 331		
2027	\$ 353	\$ -	\$ 353		
2028	\$ -	\$ -	\$ -		

Note: Based on Individual Program Evaluation

Residential Efficient Products Marketplace Program UCT
Program Life 16.00

Year	2020 Pen. Benefits	2020 Pen. Costs	Annual Net Benefits (000s)	2020 Vintage Year C/B Scores	
	Total Benefits (000s)	Total Costs (000s)		UCT Ratio	TRC Ratio
NPV	\$ 29,565	\$ 6,351	\$23,213.52	4.65	3.72
2019	\$ -	\$ -	\$ -		
2020	\$ 1,398	\$ 6,752	-\$5,354		
2021	\$ 2,579	\$ -	\$ 2,579		
2022	\$ 2,568	\$ -	\$ 2,568		
2023	\$ 2,600	\$ -	\$ 2,600		
2024	\$ 2,605	\$ -	\$ 2,605		
2025	\$ 2,757	\$ -	\$ 2,757		
2026	\$ 2,935	\$ -	\$ 2,935		
2027	\$ 3,040	\$ -	\$ 3,040		
2028	\$ 3,118	\$ -	\$ 3,118		
2029	\$ 3,242	\$ -	\$ 3,242		
2030	\$ 3,354	\$ -	\$ 3,354		
2031	\$ 3,452	\$ -	\$ 3,452		
2032	\$ 3,636	\$ -	\$ 3,636		
2033	\$ 3,929	\$ -	\$ 3,929		
2034	\$ 4,056	\$ -	\$ 4,056		
2035	\$ 4,305	\$ -	\$ 4,305		
2036	\$ 2,020	\$ -	\$ 2,020		

Note: Based on Individual Program Evaluation

Non-Residential Heating & Cooling Efficiency Program UCT
Program Life 15.00

Year	2020 Pen. Benefits	2020 Pen. Costs	Annual Net Benefits (000s)	2020 Vintage Year C/B Scores	
	Total Benefits (000s)	Total Costs (000s)		UCT Ratio	TRC Ratio
NPV	\$ 5,675	\$ 1,823	\$3,851.44	3.11	1.34
2019	\$ -	\$ -	\$ -		
2020	\$ 254	\$ 1,938	-\$1,684		
2021	\$ 506	\$ -	\$ 506		
2022	\$ 497	\$ -	\$ 497		
2023	\$ 522	\$ -	\$ 522		
2024	\$ 540	\$ -	\$ 540		
2025	\$ 558	\$ -	\$ 558		
2026	\$ 593	\$ -	\$ 593		
2027	\$ 635	\$ -	\$ 635		
2028	\$ 641	\$ -	\$ 641		
2029	\$ 669	\$ -	\$ 669		
2030	\$ 710	\$ -	\$ 710		
2031	\$ 719	\$ -	\$ 719		
2032	\$ 747	\$ -	\$ 747		
2033	\$ 786	\$ -	\$ 786		
2034	\$ 802	\$ -	\$ 802		
2035	\$ 462	\$ -	\$ 462		

Note: Based on Individual Program Evaluation

Non-Residential Lighting Systems & Controls Program UCT
Program Life 11.00

Year	2020 Pen. Benefits	2020 Pen. Costs	Annual Net Benefits (000s)	2020 Vintage Year C/B Scores	
	Total Benefits (000s)	Total Costs (000s)		UCT Ratio	TRC Ratio
NPV	\$ 6,015	\$ 2,757	\$3,258.14	2.18	1.51
2019	\$ -	\$ -	\$ -		
2020	\$ 388	\$ 2,930	-\$2,542		
2021	\$ 675	\$ -	\$ 675		
2022	\$ 696	\$ -	\$ 696		
2023	\$ 730	\$ -	\$ 730		
2024	\$ 748	\$ -	\$ 748		
2025	\$ 779	\$ -	\$ 779		
2026	\$ 829	\$ -	\$ 829		
2027	\$ 872	\$ -	\$ 872		
2028	\$ 892	\$ -	\$ 892		
2029	\$ 945	\$ -	\$ 945		
2030	\$ 978	\$ -	\$ 978		
2031	\$ 438	\$ -	\$ 438		

Note: Based on Individual Program Evaluation

Non-Residential Window Film Program UCT
Program Life 10.00

Year	2020 Pen. Benefits	2020 Pen. Costs	Annual Net Benefits (000s)	2020 Vintage Year C/B Scores	
	Total Benefits (000s)	Total Costs (000s)		UCT Ratio	TRC Ratio
NPV	\$ 844	\$ 422	\$421.54	2.00	1.43
2019	\$ -	\$ -	\$ -		
2020	\$ 60	\$ 449	-\$389		
2021	\$ 102	\$ -	\$ 102		
2022	\$ 106	\$ -	\$ 106		
2023	\$ 112	\$ -	\$ 112		
2024	\$ 116	\$ -	\$ 116		
2025	\$ 119	\$ -	\$ 119		
2026	\$ 126	\$ -	\$ 126		
2027	\$ 132	\$ -	\$ 132		
2028	\$ 137	\$ -	\$ 137		
2029	\$ 147	\$ -	\$ 147		
2030	\$ 63	\$ -	\$ 63		

Note: Based on Individual Program Evaluation

Non-Residential Office Program UCT
Program Life 7.00

Year	2020 Pen. Benefits	2020 Pen. Costs	Annual Net Benefits (000s)	2020 Vintage Year C/B Scores	
	Total Benefits (000s)	Total Costs (000s)		UCT Ratio	TRC Ratio
NPV	\$ 1,213	\$ 1,082	\$130.54	1.12	1.11
2019	\$ -	\$ -	\$ -		
2020	\$ 108	\$ 1,151	-\$1,043		
2021	\$ 210	\$ -	\$ 210		
2022	\$ 214	\$ -	\$ 214		
2023	\$ 224	\$ -	\$ 224		
2024	\$ 225	\$ -	\$ 225		
2025	\$ 235	\$ -	\$ 235		
2026	\$ 250	\$ -	\$ 250		
2027	\$ 133	\$ -	\$ 133		

Note: Based on Individual Program Evaluation

Non-Residential Small Manufacturing Program
Program Life 12.00

Year	2020 Pen. Benefits	2020 Pen. Costs	Annual Net Benefits (000s)	2020 Vintage Year C/B Scores	
	Total Benefits (000s)	Total Costs (000s)		UCT Ratio	TRC Ratio
NPV	\$ 1,671	\$ 1,164	\$507.06	1.44	1.23
2019	\$ -	\$ -	\$ -		
2020	\$ 98	\$ 1,238	-\$1,140		
2021	\$ 174	\$ -	\$ 174		
2022	\$ 179	\$ -	\$ 179		
2023	\$ 186	\$ -	\$ 186		
2024	\$ 191	\$ -	\$ 191		
2025	\$ 199	\$ -	\$ 199		
2026	\$ 213	\$ -	\$ 213		
2027	\$ 230	\$ -	\$ 230		
2028	\$ 229	\$ -	\$ 229		
2029	\$ 242	\$ -	\$ 242		
2030	\$ 252	\$ -	\$ 252		
2031	\$ 261	\$ -	\$ 261		
2032	\$ 120	\$ -	\$ 120		

Note: Based on Individual Program Evaluation

PORTFOLIO
Program Life 16.00

	2020 Pen. Benefits	2020 Pen. Costs		2020 Vintage Year C/B Scores	
Year	Total Benefits (000s)	Total Costs (000s)	Annual Net Benefits (000s)	UCT Ratio	TRC Ratio
NPV	\$ 111,160	\$ 46,004	\$65,155.74	2.42	1.92
2019	\$ -	\$ -	\$ -		
2020	\$ 6,223	\$ 43,148	-\$36,925		
2021	\$ 13,580	\$ 200	\$ 13,380		
2022	\$ 11,598	\$ 200	\$ 11,398		
2023	\$ 12,017	\$ 200	\$ 11,817		
2024	\$ 12,158	\$ 200	\$ 11,958		
2025	\$ 12,654	\$ 200	\$ 12,454		
2026	\$ 11,932	\$ 200	\$ 11,732		
2027	\$ 10,938	\$ 200	\$ 10,738		
2028	\$ 10,749	\$ 200	\$ 10,549		
2029	\$ 11,237	\$ 200	\$ 11,037		
2030	\$ 11,562	\$ 200	\$ 11,362		
2031	\$ 11,283	\$ 200	\$ 11,083		
2032	\$ 10,672	\$ 200	\$ 10,472		
2033	\$ 10,814	\$ 200	\$ 10,614		
2034	\$ 10,104	\$ 200	\$ 9,904		
2035	\$ 9,391	\$ -	\$ 9,391		
2036	\$ 4,052	\$ -	\$ 4,052		

2018 Integrated Resource Plan Forecasted Energy Savings (MWh) (System-Level at the Generator)

Programs	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Air Conditioner Cycling Program	0	0	0	0	0	0	0	0	0	0
Income and Age Qualifying Home Improvement Program	7,677	9,430	11,182	12,935	13,834	13,923	14,010	14,092	14,171	14,247
Small Business Improvement Program	33,401	52,153	61,749	63,212	64,147	64,653	65,149	65,628	66,091	66,541
Non-Residential Prescriptive Program	81,731	134,339	186,946	213,532	216,827	218,822	220,780	222,671	224,498	226,276

2017 Integrated Resource Plan Update Forecasted Energy Savings (MWh) (System-Level at the Generator)

Programs	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Air Conditioner Cycling Program	0	0	0	0	0	0	0	0	0	0
Income and Age Qualifying Home Improvement Program	8,107	10,196	12,284	13,380	13,523	13,665	13,802	13,933	14,058	14,179
Small Business Improvement Program	45,033	63,832	73,452	74,546	75,368	76,188	76,986	77,755	78,502	79,233
Non-Residential Prescriptive Program	188,453	277,136	365,820	408,891	413,399	417,897	422,278	426,504	430,603	434,615

Difference in Forecasted Energy Savings (MWh) (System-Level at the Generator)

Programs	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Air Conditioner Cycling Program	-	-	-	-	-	-	-	-	-	-
Income and Age Qualifying Home Improvement Program	(430)	(766)	(1,102)	(445)	311	258	207	160	113	68
Small Business Improvement Program	(11,631)	(11,679)	(11,703)	(11,334)	(11,221)	(11,535)	(11,837)	(12,127)	(12,411)	(12,692)
Non-Residential Prescriptive Program	(106,722)	(142,797)	(178,873)	(195,359)	(196,572)	(199,075)	(201,498)	(203,833)	(206,105)	(208,339)

2018 Integrated Resource Plan (NC DSM) Forecasted Energy Savings (MWh) (System-Level at the Generator)

Programs	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Air Conditioner Cycling Program	0	0	0	0	0	0	0	0	0	0
Income and Age Qualifying Home Improvement Program	7,272	8,758	10,244	11,730	13,216	14,702	15,460	15,553	15,641	15,726
Small Business Improvement Program	42,377	63,520	74,885	76,540	78,234	79,968	81,012	81,434	81,841	82,237
Non-Residential Prescriptive Program	34,897	87,505	140,112	166,698	171,842	229,281	276,211	277,701	279,140	280,540

Notes:

- Difference in values are the 2018 Integrated Resource Plan Energy Savings less the 2017 Integrated Resource Plan Update Energy Savings.
- 2019 IRP has not been developed or filed as of the date of this filing

2018 Integrated Resource Plan Forecasted Coincident Capacity Savings (kW) (System-Level at the Generator)

Programs	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Air Conditioner Cycling Program	91,285	91,285	91,285	91,285	91,285	91,285	91,285	91,285	91,285	91,285
Income and Age Qualifying Home Improvement Program	1,538	1,883	2,229	2,574	2,728	2,746	2,763	2,779	2,795	2,810
Small Business Improvement Program	8,368	13,747	16,364	16,783	17,043	17,188	17,329	17,466	17,598	17,727
Non-Residential Prescriptive Program	12,524	20,390	28,256	31,956	32,433	32,731	33,023	33,306	33,579	33,844

2017 Integrated Resource Plan Update Forecasted Coincident Capacity Savings (kW) (System-Level at the Generator)

Programs	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Air Conditioner Cycling Program	77,995	77,995	77,995	77,995	77,995	77,995	77,995	77,995	77,995	77,995
Income and Age Qualifying Home Improvement Program	1,575	1,973	2,372	2,553	2,581	2,608	2,634	2,659	2,682	2,705
Small Business Improvement Program	12,990	18,382	21,006	21,315	21,550	21,784	22,012	22,232	22,445	22,654
Non-Residential Prescriptive Program	27,456	40,128	52,799	58,452	59,097	59,739	60,364	60,967	61,552	62,125

Forecasted Coincident Capacity Savings Difference (kW) (System-Level at the Generator)

Programs	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Air Conditioner Cycling Program	13,290	13,290	13,290	13,290	13,290	13,290	13,290	13,290	13,290	13,290
Income and Age Qualifying Home Improvement Program	(38)	(90)	(143)	21	148	138	129	121	112	104
Small Business Improvement Program	(4,622)	(4,636)	(4,642)	(4,532)	(4,507)	(4,596)	(4,683)	(4,765)	(4,847)	(4,927)
Non-Residential Prescriptive Program	(14,932)	(19,737)	(24,543)	(26,496)	(26,664)	(27,008)	(27,341)	(27,661)	(27,974)	(28,281)

2018 Integrated Resource Plan (NC DSM Case) Forecasted Coincident Capacity Savings (kW) (System-Level at the Generator)

Programs	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Air Conditioner Cycling Program	53,515	53,859	53,859	53,859	53,859	53,859	53,859	53,859	53,859	53,859
Income and Age Qualifying Home Improvement Program	703	841	979	1,117	1,256	1,394	1,457	1,465	1,473	1,481
Small Business Improvement Program	7,818	11,677	13,555	13,855	14,163	14,477	14,655	14,731	14,805	14,877
Non-Residential Prescriptive Program	7,036	14,903	22,769	26,469	27,237	35,508	41,309	41,532	41,747	41,956

Notes:

- Difference in values are the 2018 Integrated Resource Plan Capacity Savings less the 2017 Integrated Resource Plan Update Capacity Savings
- 2019 IRP has not been developed or filed as of the date of this filing

Air Conditioner Cycling Program				
	Participant	Utility	TRC	RIM
Total NPV Benefits	\$ 41,898	\$ 116,063	\$ 116,063	\$ 116,065
Total NPV Costs	\$ -	\$ 165,805	\$ 120,234	\$ 165,805
Net Benefits NPV	\$ 41,898	\$ (49,742)	\$ (4,171)	\$ (49,740)
Benefit/Cost Ratio	N/A	0.70	0.97	0.70
Income and Age Qualifying Home Improvement Program				
	Participant	Utility	TRC	RIM
Total NPV Benefits	\$ 21,847	\$ 9,799	\$ 9,799	\$ 9,799
Total NPV Costs	\$ -	\$ 50,560	\$ 50,560	\$ 74,845
Net Benefits NPV	\$ 21,847	\$ (40,761)	\$ (40,761)	\$ (65,045)
Benefit/Cost Ratio	N/A	0.19	0.19	0.13
Small Business Improvement Program				
	Participant	Utility	TRC	RIM
Total NPV Benefits	\$ 118,579	\$ 71,193	\$ 71,193	\$ 71,193
Total NPV Costs	\$ 37,837	\$ 49,929	\$ 46,913	\$ 138,495
Net Benefits NPV	\$ 80,742	\$ 21,265	\$ 24,280	\$ (67,301)
Benefit/Cost Ratio	3.13	1.43	1.52	0.51
Non-Residential Prescriptive Program				
	Participant	Utility	TRC	RIM
Total NPV Benefits	\$ 296,826	\$ 191,721	\$ 191,721	\$ 191,721
Total NPV Costs	\$ 87,580	\$ 82,227	\$ 97,219	\$ 341,256
Net Benefits NPV	\$ 209,246	\$ 109,494	\$ 94,501	\$ (149,535)
Benefit/Cost Ratio	3.39	2.33	1.97	0.56

Note: Based on Individual Program Evaluation

	PORTFOLIO			
	Participant	Utility	TRC	RIM
Total NPV Benefits	\$ 479,150	\$ 404,781	\$ 404,781	\$ 404,781
Total NPV Costs	\$ 125,417	\$ 348,386	\$ 314,791	\$ 720,265
Net Benefits NPV	\$ 353,733	\$ 56,394	\$ 89,989	\$ (315,485)
Benefit/Cost Ratio	3.82	1.16	1.29	0.56

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Aug 13 2019

DSM Program	Actual NC EM&V Costs During Rate Period (12 Months Ended Dec 2018)
Residential Air Conditioner Cycling	[REDACTED]
Non Residential Heating & Cooling Efficiency	[REDACTED]
Non Residential Lighting Systems & Controls	[REDACTED]
Non Residential Solar Window Film	[REDACTED]
Residential Income & Age Qualifying Home Improvement	[REDACTED]
Residential Small Business Improvement Program	[REDACTED]
Residential Retail LED Lighting Program (NC only)	[REDACTED]
Non Residential Prescriptive Program	[REDACTED]

DSM Program	Projected NC EM&V Costs During 2020
Residential Air Conditioner Cycling	[REDACTED]
Residential Income and Age Qualifying	[REDACTED]
Non Residential Small Business Improvement	[REDACTED]
Non-Residential Prescriptive Program	[REDACTED]
Residential Appliance Recycling	[REDACTED]
Residential Efficient Products Marketplace	[REDACTED]
Residential Home Energy Assessment	[REDACTED]
Non Residential Lighting Systems & Controls	[REDACTED]
Non Residential Heating & Cooling Efficiency	[REDACTED]
Non Residential Window Film	[REDACTED]
Non Residential Small Manufacturing	[REDACTED]
Non Residential Office	[REDACTED]

NC GENERAL RATE CASE; DOCKET E-22, SUB 562

Phase II EE Programs: Net Energy Savings (kWh) (Cumulative by Month)	Rate Code	Rate Schedule	2018 Percentage	2018												2018 Total
				1 Jan.	2 Feb.	3 March	4 April	5 May	6 June	7 July	8 Aug.	9 Sept.	10 Oct.	11 Nov.	12 Dec.	
Residential Heat Pump Tune Up Program:																
	163	Schedule 1	99.0%	11,055	11,055	11,055	11,055	11,055	11,055	11,055	11,055	11,055	11,055	11,055	11,055	132,657
	164	Schedule 1P	0.0%	-	-	-	-	-	-	-	-	-	-	-	-	-
	165	Schedule 1T	0.0%	-	-	-	-	-	-	-	-	-	-	-	-	-
	166	Schedule 1DF	1.0%	108	108	108	108	108	108	108	108	108	108	108	108	1,296
Residential Heat Pump Tune Up Sub-Total:			100.0%	11,163	133,953											
Residential Heat Pump Upgrade Program:																
	163	Schedule 1	99.7%	6,352	6,352	6,352	6,352	6,352	6,352	6,352	6,352	6,352	6,352	6,352	6,352	76,226
	164	Schedule 1P	0.3%	21	21	21	21	21	21	21	21	21	21	21	21	248
	166	Schedule 1DF	0.0%	-	-	-	-	-	-	-	-	-	-	-	-	-
Residential Heat Pump Upgrade Sub-Total:			100.0%	6,373	76,474											
Residential Home Energy Check Up Program:																
	163	Schedule 1	93.5%	3,435	3,435	3,435	3,435	3,435	3,435	3,435	3,435	3,435	3,435	3,435	3,435	41,220
	164	Schedule 1P	3.8%	139	139	139	139	139	139	139	139	139	139	139	139	1,667
	165	Schedule 1T	0.0%	-	-	-	-	-	-	-	-	-	-	-	-	-
	166	Schedule 1DF	2.7%	98	98	98	98	98	98	98	98	98	98	98	98	1,178
	195	Schedule 26	0.0%	-	-	-	-	-	-	-	-	-	-	-	-	-
Residential Home Energy Check Up Sub-Total:			100.0%	3,672	44,065											
Residential Duct Sealing Program:																
	163	Schedule 1	98.2%	774	774	774	774	774	774	774	774	774	774	774	774	9,287
	166	Schedule 1DF	1.8%	14	14	14	14	14	14	14	14	14	14	14	14	166
Residential Duct Sealing Sub-Total:			100.0%	774	9,452											
Non-Residential Duct Sealing and Testing Program:																
	168	Schedule 5	48.6%	23,586	23,586	23,586	23,586	23,586	23,586	23,586	23,586	23,586	23,586	23,586	23,586	283,029
	170	Schedule 5P	5.7%	2,770	2,770	2,770	2,770	2,770	2,770	2,770	2,770	2,770	2,770	2,770	2,770	33,237
	176	Schedule 6P	0.0%	-	-	-	-	-	-	-	-	-	-	-	-	-
	182	Schedule 7	0.0%	-	-	-	-	-	-	-	-	-	-	-	-	-
	183	Schedule 10 (Variable Pricing)	23.8%	11,554	11,554	11,554	11,554	11,554	11,554	11,554	11,554	11,554	11,554	11,554	11,554	138,650
	184	Schedule 30	12.5%	6,090	6,090	6,090	6,090	6,090	6,090	6,090	6,090	6,090	6,090	6,090	6,090	73,078
	188	Schedule 42	9.3%	4,535	4,535	4,535	4,535	4,535	4,535	4,535	4,535	4,535	4,535	4,535	4,535	54,425
Non-Residential Duct Sealing and Testing Sub-Total:			100.0%	48,535	582,419											
Non-Residential Energy Audit Program:																
	168	Schedule 5	10.1%	6,262	6,262	6,262	6,262	6,262	6,262	6,262	6,262	6,262	6,262	6,262	6,262	75,147
	170	Schedule 5P	57.4%	35,639	35,639	35,639	35,639	35,639	35,639	35,639	35,639	35,639	35,639	35,639	35,639	427,672
	176	Schedule 6P	9.2%	5,685	5,685	5,685	5,685	5,685	5,685	5,685	5,685	5,685	5,685	5,685	5,685	68,216
	183	Schedule 10 (Variable Pricing)	23.3%	14,485	14,485	14,485	14,485	14,485	14,485	14,485	14,485	14,485	14,485	14,485	14,485	173,816
	184	Schedule 30	0.0%	20	20	20	20	20	20	20	20	20	20	20	20	241
	188	Schedule 42	0.0%	17	17	17	17	17	17	17	17	17	17	17	17	198
	195	Schedule 26	0.0%	-	-	-	-	-	-	-	-	-	-	-	-	-
Non-Residential Energy Audit Sub-Total:			100.0%	62,107	745,290											
Total:				132,624	1,591,654											

NOTES:

- Net energy savings (kWh) are based on DNV GL's analysis of EM&V data from actual program participants.
- 2018 Total Energy savings (kWh) are inclusive of EE measures installed on, or after, June 1, 2016 through December 31, 2018 that are accumulated and realized between January 1, 2018 through December 31, 2018.

NC GENERAL RATE CASE; DOCKET E-22, SUB 562

				2018												2018 Total	
Phase III EE Programs: Net Energy Savings (kWh) (Cumulative by Month)				1	2	3	4	5	6	7	8	9	10	11	12		
Rate Code	Rate Schedule	2018 Percentage		Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.		
Non-Residential Heating and Cooling Efficiency:																	
168	Schedule 5	55.1%		569	569	5,004	10,739	10,739	10,739	10,739	10,739	10,739	10,739	10,739	10,739	102,789	
170	Schedule 5P	0.2%		25	25	25	25	25	25	25	25	25	25	25	25	294	
183	Schedule 10 (Variable Pricing)	0.0%		-	-	-	-	-	-	-	-	-	-	-	-	-	
184	Schedule 30	16.9%		374	374	374	3,374	3,374	3,374	3,374	3,374	3,374	3,374	3,374	3,374	31,487	
188	Schedule 42	27.8%		4,318	4,318	4,318	4,318	4,318	4,318	4,318	4,318	4,318	4,318	4,318	4,318	51,821	
Non-Residential Heating and Cooling Efficiency Sub-Total:				100.0%	5,285	5,285	9,721	18,456	186,391								
Non-Residential Lighting Systems and Controls:																	
168	Schedule 5	34.9%		74,162	80,490	87,278	89,210	91,287	95,528	99,419	99,419	99,419	105,840	105,840	211,309	1,239,201	
169	Schedule 5C	0.1%		-	-	-	-	-	-	-	-	-	1,508	1,508	1,508	4,524	
170	Schedule 5P	34.3%		92,705	92,705	103,179	103,179	103,179	103,179	103,179	103,179	103,179	103,179	103,179	103,179	1,217,201	
176	Schedule 6P	10.4%		4,059	25,049	25,049	25,049	25,049	25,049	25,049	25,049	25,049	25,049	25,049	115,427	369,978	
183	Schedule 10 (Variable Pricing)	11.0%		12,064	12,064	12,064	12,064	12,064	12,064	53,271	53,271	53,271	53,271	53,271	53,271	392,014	
184	Schedule 30	5.2%		15,444	15,444	15,444	15,444	15,444	15,444	15,444	15,444	15,444	15,444	15,444	15,444	185,322	
188	Schedule 42	3.9%		11,669	11,669	11,669	11,669	11,669	11,669	11,669	11,669	11,669	11,669	11,669	11,669	140,033	
Non-Residential Lighting Systems and Controls Sub-Total:				99.9%	210,103	237,421	254,683	256,616	258,693	262,933	308,032	308,032	308,032	315,961	315,961	511,807	3,548,273
Non-Residential Window Film																	
168	Schedule 5	100.0%		-	-	-	-	-	-	-	301	301	301	301	301	1,505	
Non-Residential Window Film Sub-Total:				100.0%	-	-	-	-	-	-	301	301	301	301	301	1,505	
Total:					215,388	242,706	264,404	275,071	277,148	281,389	326,487	326,788	326,788	334,717	334,717	530,564	3,736,170

NOTES:

- Net energy savings (kWh) are based on Dominion's planning attribution assumptions applied to DNV GL's deemed energy savings estimates from actual program participants.
- 2018 Total Energy savings (kWh) are inclusive of EE measures installed on, or after, June 1, 2016 through December 31, 2018 that are accumulated and realized between January 1, 2018 through December 31, 2018.

NC GENERAL RATE CASE; DOCKET E-22, SUB 562

Phase IV EE Programs: Net Energy Savings (kWh) (Cumulative by Month)	Rate Code	Rate Schedule	2018 Percentage	2018												2018 Total	
				1 Jan.	2 Feb.	3 Mar.	4 Apr.	5 May	6 Jun.	7 Jul.	8 Aug.	9 Sep.	10 Oct.	11 Nov.	12 Dec.		
Residential Income and Age Qualifying Home Improvement:																	
	163	Schedule 1	99.4%	14,370	14,370	14,370	14,370	14,370	14,370	14,370	14,370	14,370	14,370	14,370	14,370	14,370	172,444
	168	Schedule 5	0.6%	89	89	89	89	89	89	89	89	89	89	89	89	89	1,073
Residential Income and Age Qualifying Home Improvement Sub-Total:			100.0%	14,460	14,460	14,460	14,460	14,460	14,460	14,460	14,460	14,460	14,460	14,460	14,460	14,460	173,518
Total:				14,460	14,460	14,460	14,460	14,460	14,460	14,460	14,460	14,460	14,460	14,460	14,460	14,460	173,518

NOTES:

1. Net energy savings (kWh) are based on Dominion's planning attribution assumptions applied to DNV GL's deemed energy savings estimates from actual program participants.
2. 2018 Total Energy savings (kWh) are inclusive of EE measures installed on, or after, June 1, 2016 through December 31, 2018 that are accumulated and realized between January 1, 2018 through December 31, 2018.

NC GENERAL RATE CASE; DOCKET E-22, SUB 562				2018												2018 Total
Phase V EE Programs: Net Energy Savings (kWh) (Cumulative by Month)	Rate Code	Rate Schedule	2018 Percentage	1 Jan.	2 Feb.	3 Mar.	4 Apr.	5 May	6 Jun.	7 Jul.	8 Aug.	9 Sep.	10 Oct.	11 Nov.	12 Dec.	
Non-Residential Small Business Improvement	168	Schedule 5	100.0%	12,904	15,867	17,613	20,256	37,805	54,905	63,066	63,066	63,066	88,375	88,375	90,460	615,758
Non-Residential Small Business Improvement Sub-Total:			100.0%	12,904	15,867	17,613	20,256	37,805	54,905	63,066	63,066	63,066	88,375	88,375	90,460	615,758
Residential Retail LED:			100.0%	176,692	224,317	246,250	279,920	298,915	323,349	355,403	394,846	440,594	460,821	525,298	576,111	4,302,517
Residential Retail LED Sub-Total:			100.0%	176,692	224,317	246,250	279,920	298,915	323,349	355,403	394,846	440,594	460,821	525,298	576,111	4,302,517
Total:				189,596	240,185	263,863	300,176	336,720	378,254	418,469	457,912	503,660	549,196	613,673	666,571	4,918,274

NOTES:

1. Net energy savings (kWh) are based on Dominion's planning attribution assumptions applied to DNV GL's deemed energy savings estimates from actual program participants.
2. 2018 Total Energy savings (kWh) are inclusive of EE measures installed on, or after, January 1, 2017 through December 31, 2018 that are accumulated and realized over the same period.

NC GENERAL RATE CASE; DOCKET E-22, SUB 562

Phase VI EE Programs: Net Energy Savings (kWh) (Cumulative by Month)	Rate Code	Rate Schedule	2018 Percentage	2018												2018 Total	
				1	2	3	4	5	6	7	8	9	10	11	12		
				Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.		
Non-Residential Prescriptive																	
	168	Schedule 5	9.8%	-	-	-	-	-	-	-	-	-	-	-	684	1,965	2,649
	170	Schedule 5P	67.7%	-	-	-	-	-	-	-	-	-	-	-	8,135	10,196	18,330
	183	Schedule 10	22.5%	-	-	-	-	-	-	-	-	-	-	-	2,541	3,549	6,090
Non-Residential Prescriptive Sub-Total:			100.0%	-	-	-	-	-	-	-	-	-	-	-	11,360	15,709	27,070
Total:				-	-	-	-	-	-	-	-	-	-	-	11,360	15,709	27,070

NOTES:

1. Net energy savings (kWh) are based on Dominion's planning attribution assumptions applied to DNV GL's deemed energy savings estimates from actual program participants.
2. 2018 Total Energy savings (kWh) are inclusive of EE measures installed on, or after, January 1, 2018 through December 31, 2018 that are accumulated and realized over the same period.

Date	Weather Conditions °F	Event Trigger	Control Mode	Number of Customers Controlled	Number of Customers Enrolled
18-Jun-18	94	Peak Shaving	AC Units	82,260	87,576
19-Jun-18	97	Peak Shaving	AC Units	82,100	87,472
28-Jun-18	90	Peak Shaving	AC Units	81,901	87,078
29-Jun-18	90	Peak Shaving	AC Units	81,834	87,043
2-Jul-18	95	Peak Shaving	AC Units	81,721	86,967
3-Jul-18	94	Peak Shaving	AC Units	81,608	86,857
5-Jul-18	92	Peak Shaving	AC Units	81,529	86,704
10-Jul-18	92	Peak Shaving	AC Units	81,372	86,470
11-Jul-18	91	Peak Shaving	AC Units	81,331	86,433
16-Jul-18	92	Peak Shaving	AC Units	81,239	86,278
17-Jul-18	90	Peak Shaving	AC Units	81,199	86,229
26-Jul-18	88	Peak Shaving	AC Units	69,381	85,966
27-Jul-18	90	Peak Shaving	AC Units	80,997	85,933
6-Aug-18	88	Peak Shaving	AC Units	80,851	85,718
7-Aug-18	92	Peak Shaving	AC Units	80,807	85,658
8-Aug-18	94	Peak Shaving	AC Units	80,751	85,591
9-Aug-18	89	Peak Shaving	AC Units	80,740	85,547
15-Aug-18	89	Peak Shaving	AC Units	80,674	85,434
16-Aug-18	90	Peak Shaving	AC Units	80,671	85,419
17-Aug-18	92	Peak Shaving	AC Units	80,645	85,419
27-Aug-18	91	Peak Shaving	AC Units	80,541	85,248
28-Aug-18	94	Peak Shaving	AC Units	80,506	85,213
29-Aug-18	94	Peak Shaving	AC Units	80,465	85,169
30-Aug-18	92	Peak Shaving	AC Units	80,448	85,130
4-Sep-18	91	Peak Shaving	AC Units	80,384	85,049
5-Sep-18	91	Peak Shaving	AC Units	80,343	85,014
6-Sep-18	91	Peak Shaving	AC Units	80,314	84,956

1. The "Number of Customers Enrolled" is the count of active participants effective the day of the event, defined as gross participants enrolled in the program less deactivations and removals.

2. The "Number of Customers Controlled" further adjusts the "Number of Customers Enrolled" for specific event date opt-outs, participants not in the dispatch log.

Date	Event Duration (minutes)	Hour Ending	kW Demand Requested	kW Demand Reductions Observed
18-Jun-18	180	19:00	50,357	50,357
19-Jun-18	180	17:00	53,382	53,382
28-Jun-18	120	18:00	43,907	43,907
29-Jun-18	180	18:00	40,758	40,758
2-Jul-18	180	18:00	53,136	53,136
3-Jul-18	180	18:00	53,063	53,063
5-Jul-18	180	18:00	46,809	46,809
10-Jul-18	120	18:00	40,528	40,528
11-Jul-18	180	18:00	37,414	37,414
16-Jul-18	180	18:00	49,732	49,732
17-Jul-18	120	16:00	46,619	46,619
26-Jul-18	180	18:00	37,195	37,195
27-Jul-18	180	18:00	46,503	46,503
6-Aug-18	180	18:00	43,344	43,344
7-Aug-18	180	18:00	49,468	49,468
8-Aug-18	180	18:00	49,434	49,434
9-Aug-18	180	18:00	40,213	40,213
15-Aug-18	120	18:00	40,180	40,180
16-Aug-18	180	18:00	43,247	43,247
17-Aug-18	180	17:00	49,369	49,369
27-Aug-18	180	19:00	49,305	49,305
28-Aug-18	180	18:00	43,159	43,159
29-Aug-18	180	18:00	52,319	52,319
30-Aug-18	120	17:00	46,188	46,188
4-Sep-18	180	18:00	49,209	49,209
5-Sep-18	180	18:00	43,071	43,071
6-Sep-18	120	17:00	46,111	46,111

**DIRECT TESTIMONY
OF
JARVIS E. BATES
ON BEHALF OF
DOMINION ENERGY NORTH CAROLINA
BEFORE THE
NORTH CAROLINA UTILITIES COMMISSION
DOCKET NO. E-22, SUB 577**

OFFICIAL COPY

Aug 13 2019

1 **Q. Please state your name, business address, and position with Virginia**
2 **Electric and Power Company (“Dominion Energy North Carolina” or the**
3 **“Company”).**

4 A. My name is Jarvis E. Bates, and my title is Energy Conservation Compliance
5 Consultant for Dominion Energy North Carolina. My business address is 600
6 East Canal Street, Richmond, Virginia 23219. My educational background
7 and experience are detailed in Appendix A.

8 **Q. Please describe your area of responsibility with the Company.**

9 A. I am responsible for cost and reporting compliance matters in the Company’s
10 Energy Conservation (“EC”) department including: (1) cost preparation and
11 cost oversight associated with the demand-side management (“DSM”) and
12 energy efficiency (“EE”) programs (“DSM/EE Programs” or “Programs”);
13 (2) cost compliance with DSM/EE Program related rider requirements; and
14 (3) EC department internal and external regulatory and managerial cost
15 reporting.

16 **Q. What is the purpose of your testimony in this proceeding?**

17 A. My testimony supports the Company’s request to recover all reasonable and
18 prudent costs incurred in adopting and implementing the Company’s portfolio

1 of DSM/EE Programs and utility incentives, through its updated Rider C, as
2 well as the Company's experience modification factor ("EMF") rider, Rider
3 CE ("Application"). In my testimony, I provide cost projections, including
4 Common Costs, for the Company's DSM/EE Programs during January 1,
5 2020, through December 31, 2020, that have been used as a proxy for the
6 projected February 1, 2020, through January 31, 2021 rate period (the "Rate
7 Period"), as well as actual costs incurred during the EMF period January 1,
8 2018, through December 31, 2018 ("Test Period"). My testimony also
9 presents the Portfolio Performance Incentive ("PPI") for each Program in
10 accordance with the revised Cost Recovery and Incentive Mechanism
11 ("Mechanism") approved by the Commission on May 22, 2017, in Docket No.
12 E-22, Sub 464. I also calculate the PPI EMF true up for vintage year 2018 in
13 accordance with the terms of the Mechanism. Additionally, my testimony
14 lists the commercial and industrial customers that have elected to "opt out" of
15 the Company's DSM/EE Programs as required by NCUC Rule R8-69(d)(2).

16 **Q. Mr. Bates, are you sponsoring any exhibits or schedules in connection**
17 **with your testimony?**

18 A. Yes. Company Exhibit JEB-1, consisting of Schedules 1-7 (with all schedules
19 provided in public and confidential versions filed under seal), was prepared
20 under my direction and supervision and is accurate and complete to the best of
21 my knowledge and belief. My Schedules 1-5 support the development of the
22 projected Rate Period revenue requirement: Schedule 1 provides summary
23 system-level Program and system-level Common Costs; Schedule 2 provides

1 details for system-level Program Costs; Schedule 3 provides details for
2 system-level Common Costs; Schedule 4 provides DSM Projected Program
3 Costs which are used by Company Witness Robert Miller for purposes of
4 allocating Common Costs; and Schedule 5 provides the streamlined
5 calculation of the Projected PPI for qualifying Programs. Schedule 6 provides
6 actual cost information in support of the PPI true-up. Schedule 7 provides
7 actual cost information in support of the Test Period EMF revenue
8 requirement developed by Company Witness Alan J. Moore and includes
9 actual system-level Program and system-level Common Costs incurred during
10 the Test Period.

11 **Q. Please identify the Company's DSM/EE Programs for which cost**
12 **recovery is sought in this proceeding.**

13 A. The Company is seeking cost recovery for adopting and implementing:

14 (a) the previously-approved Phase I DSM/EE program: Residential Air

15 Conditioner Cycling Program;¹ (b) the previously-approved Phase III

16 DSM/EE programs: Non-Residential Lighting Systems and Controls, Non-

17 residential Heating and Cooling Efficiency and Non-residential Window

18 Film;² (c) the previously-approved Phase IV Income and Age Qualifying

¹ Docket No. E-22, Sub 465. All other Phase I programs except the Residential Air Conditioner Cycling Program have previously been concluded.

² Docket No. E-22, Sub 507, Sub 508, and Sub 509. On August 16, 2018, the Company filed a motion in Docket No. E-22, Sub 509 to close the Non-residential Window Film Program, and filed applications in Docket No. E-22, Sub 507 and Sub 508 for Commission approval to transition the Non-residential Heating and Cooling Efficiency Program and the Non-residential Lighting Systems and Controls Program to be offered on a North Carolina-only basis. On October 16, 2018, the Commission granted the Company's request to close the Non-residential Window Film Program in Docket No. E-22, Sub 509, as well as the Company's request to offer the Non-residential Heating and Cooling

1 Home Improvement Program;³ (d) the previously-approved Phase V Non-
2 Residential Small Business Improvement Program;⁴ (e) the previously-
3 approved NC-only Residential Retail LED Lighting Program;⁵ (f) the
4 previously-approved Phase VI Non-residential Prescriptive Program,⁶ and
5 (g) the proposed Phase VII Programs: Non-residential Heating and Cooling
6 Efficiency, Non-residential Lighting Systems & Controls, Non-residential
7 Window Film, Non-residential Office, Non-residential Small Manufacturing,
8 Residential Appliance Recycling, Residential Home Energy Assessment, and
9 the Residential Efficient Products Marketplace Programs.

10 **Q. What is the nature of the costs for the DSM/EE Programs?**

11 A. The costs are primarily categorized as direct “Program Costs” and indirect
12 “Common Costs.” These Program Costs and Common Costs are those solely
13 associated with the EC department, which was assigned the responsibility to
14 separately identify and track DSM/EE costs related to the proposed Programs.
15 The projected Program Costs are those costs that are directly attributable to
16 individual Programs and primarily include costs based on signed vendor
17 contracts. Program Costs include design, implementation, marketing,
18 information technology hardware and software, call center, customer
19 incentives, equipment, startup costs, vendor margins, data collection and

Efficiency and Non-residential Lighting Systems and Controls Programs on a North Carolina-only basis in Docket No. E-22, Sub 507 and E-22, Sub 508, respectively.

³ Docket No. E-22, Sub 523.

⁴ Docket No. E-22, Sub 538.

⁵ Docket No. E-22, Sub 539. On August 16, 2018, the Company filed a motion in Docket No. E-22, Sub 539 to close the Residential Retail LED Lighting Program, which the Commission granted by order dated October 16, 2018.

⁶ Docket No. E-22, Sub 543.

1 reporting, promotional events, management and field operations, EM&V
2 costs, and similar vendor and/or internal costs. The majority of these Program
3 Costs are based on contracts with the Company's main Program vendors,
4 Clearesult, Comverge, Inc., Ecova, Honeywell, Nexant, and Reclim. The
5 Company will also incur certain indirect Common Costs that are part of
6 implementation of the DSM/EE Programs, which are not specifically
7 associated with any individual DSM Program. These costs include certain
8 customer communication costs, department labor costs, dues and association
9 costs, and external vendor costs. Company Witness Moore further addresses
10 deferral of DSM/EE Program costs in his direct testimony.

11 **Q. How is the information that you provide related to projected Rate Period**
12 **Program and Common Costs used by the other witnesses in this**
13 **proceeding?**

14 A. The Company is seeking to recover reasonable and prudent costs that are
15 projected for implementation of the DSM/EE Programs during the Rate
16 Period. As discussed above, such costs include the Program Costs and
17 Common Costs. Schedule 1 of my prefiled direct testimony shows both
18 Program Costs and Common Costs, at the system level, associated with
19 implementation of the Phase I, Phase IV, Phase V, Phase VI, and Phase VII
20 Programs for the Rate Period. Company Witness Moore uses these costs to
21 develop the revenue requirement in support of this Application. Company
22 Witness Robert Miller then explains the assignment and allocation of these
23 costs to the North Carolina jurisdictional customers, using penetration and

1 participant percentages from my Schedule 4, which are provided pursuant to
2 NCUC Rule R8-9(f)(1)(ii)(a). Finally, Company Witness Debra A. Stephens
3 develops the DSM/EE Rider, Rider C, for recovery of the projected costs.

4 **Q. How is the information you provide in Schedules 6 and 7 related to actual**
5 **Test Period Program and Common Costs used by the other witnesses in**
6 **this proceeding?**

7 A. Through Rider CE, the Company is seeking to true up all DSM/EE Program
8 and Common Costs incurred during the Test Period with the revenues
9 received through Rider C during the Test Period. Company Witness Moore
10 uses the actually incurred Test Period DSM/EE Program and Common Costs
11 set forth in my Schedules 6 and 7 to develop the EMF revenue requirement to
12 be recovered through Rider CE. Company Witness Miller then explains the
13 assignment and allocation of these costs to the North Carolina jurisdictional
14 customers. Finally, Company Witness Stephens calculates Rider CE to
15 recover these costs.

16 **Q. Please describe the PPI provisions in the Mechanism.**

17 A. The Mechanism has historically provided for a PPI based upon the
18 performance of each individual program, which would be eligible for an
19 incentive if the Program achieved a utility cost test (“UCT”) score above 1.0.
20 Through the revisions to the Mechanism agreed to between the Company and
21 the Public Staff and approved by the Commission on May 22, 2017, the
22 Mechanism now provides for a “portfolio performance incentive” applicable

1 to measures installed beginning with vintage year 2017. Paragraphs 49 – 61
2 of the Mechanism govern calculation and recovery of the PPI.

3 **Q. Please describe Schedule 5 of your prefiled direct testimony, which**
4 **calculates the projected PPI to be recovered during the Rate Period**
5 **consistent with the Mechanism.**

6 A. My Schedule 5 calculates the projected PPI to be recovered during the Rate
7 Period in a manner consistent with Paragraphs 49-61 of the revised
8 Mechanism, and consistent with the Company's approach approved in the
9 2017 cost recovery proceeding, Docket No. E-22, Sub 545 ("2017 DSM
10 Case"). Specifically, my Schedule 5 utilizes two PPI components.
11 First, PPI "actual" results from pertinent vintage years (2016 and prior) were
12 calculated using the methodology identical to past DSM cases. Starting with
13 the 2017 vintage year, PPI "actual" results are calculated using the new
14 portfolio methodology for vintage years 2017 and 2018.

15 Second, Projected PPI "estimates" for vintage year 2020, and for vintage year
16 2019, are calculated in accordance with Paragraph 55(b) of the Mechanism.

17 **Q. Please explain the Company's approach for calculating the projected**
18 **Rate Period PPI.**

19 A. Paragraph 55(b) of the Mechanism provides that the Company may utilize a
20 reasonable, simplified approach to estimated net dollar savings associated
21 with measurement units installed in future vintage years for purposes of
22 projecting the PPI to be recovered during the Rate Period. The Company's

1 approach for producing the projected PPI relies on the two components of the
2 calculation. For the first component, the Company uses the data supporting its
3 PPI calculation in the prior year's DSM cost recovery proceeding to isolate
4 the "actual" PPI dollar amount for the prior vintage year and then continues to
5 use that amount in this current case as the first component of the projected PPI
6 total revenue requirement. Consistent with the Company's approach in the
7 2018 DSM Case, the second component of the PPI estimate is calculated
8 using the current case's operating expense revenue requirement times 1% to
9 produce a dollar amount for "estimated" PPI. Adding the "actual" PPI dollar
10 amount to the "estimated" PPI dollar amount for the Rate Period thus
11 produces a streamlined and reasonably conservative estimate of the projected
12 PPI for each Program. This data would naturally refresh with every new
13 DSM/EE cost recovery proceeding.

14 **Q. Please describe Schedule 6 of your prefiled direct testimony, which**
15 **calculates the PPI EMF true-up consistent with the Mechanism.**

16 A. My Schedule 6 calculates the EMF true-up in a manner consistent with
17 Paragraph 59 of the revised Mechanism. I have obtained the number of actual
18 installed measurement units and the verified kW and kWh savings associated
19 with each Program for vintage year 2018 from the Company's most recently
20 filed EM&V Report, as filed May 1, 2019, in Docket No. E-22, Sub 556.
21 Coupled with the Company's actual costs for vintage year 2018, this
22 information is used to calculate the actual net cost/benefit results for each
23 Program. I then developed a comparison of actual results versus projected

1 cost/benefit results that are used to derive a trued-up PPI. Once a PPI true-up
2 for a given vintage year has been completed based upon final EM&V data
3 filed with the Commission, the Company finalizes its PPI true-up for that
4 vintage year.

5 **Q. Are you providing any updates to the 2017 Vintage Year True Up?**

6 A. Yes. Revised PPI true up calculations have been included in my Schedule 6
7 for the results of the Residential LED NC Only program for vintage year
8 2017. This was not included in the 2018 filing.

9 **Q. Are you also providing information regarding the Company's event**
10 **sponsorship and consumer education and awareness initiatives during the**
11 **Test Period?**

12 A. Yes. As directed by the Commission, the Company provides the following
13 information regarding its event sponsorship and consumer education and
14 awareness initiatives during the Test Period. The EC department actively ties
15 its communication and outreach activities directly to a specific DSM/EE
16 Program, so actual general education and awareness costs are limited.

17 The EC Department also relies heavily on the Dominion Energy, Inc.
18 ("Dominion Energy") website to provide general education to our customers
19 through tips, videos, and online energy audit tools, among other channels.
20 The EC program pages have garnered approximately 71,000 visits in the
21 current Test Period. In addition, the Company's DSM Phase II, III, V, and VI
22 implementation vendor, Honeywell, has created its own program web pages

1 for detailed tracking on marketing efforts. Honeywell's program pages have
2 garnered over 177,000 hits during the Test Period. In addition, the EC
3 Department took advantage of other high-coverage, low-cost channels, such
4 as social media. Dominion Energy is continually growing social media
5 presence on both Facebook and Twitter gaining, since creation, over 91,000
6 fans and 61,000 followers, respectively. Whenever possible, the EC
7 department attempts to utilize low-cost options to communicate general
8 education to our customers.

9 **Q. Please elaborate on the status of DSM/EE opt-out customers.**

10 A. As required to be listed by NCUC Rule R8-69(d)(2), the following customers
11 have elected to opt-out of the Company's DSM/EE Programs pursuant to
12 North Carolina General Statute § 62-133.9(f) and NCUC Rule R8-69(d):
13 Weyerhaeuser (1 account); Nucor Steel-Hertford (1 account); KapStone Paper
14 and Packaging Company (2 accounts); KABA Ilco (1 account); Consolidated
15 Diesel (1 account); Domtar Paper Company LLC (1 account); Enviva Pellets
16 (2 accounts); Flambeau Products Corp. (1 account); Lowes Home Center, Inc.
17 (5 accounts); Hospira, Inc. (1 account), Parkdale America LLC (1 account),
18 WalMart Stores (6 accounts), and State of North Carolina (10 accounts).
19 Company Witness Stephens' direct testimony provides projected North
20 Carolina total retail monthly sales for the Calendar Year for accounts who
21 have chosen to opt-out of the DSM/EE Rider, as required by NCUC Rule
22 R8-69(f)(1)(vii).

- 1 Q. Does that conclude your prefiled direct testimony?
- 2 A. Yes, it does.

**BACKGROUND AND QUALIFICATIONS
OF
JARVIS E. BATES**

Mr. Bates is the Energy Conservation Compliance Consultant for Dominion Energy Virginia / Dominion Energy North Carolina. His responsibilities include demand-side management and energy efficiency (“DSM/EE”) program cost oversight, compliance, and DSM/EE internal and external reporting. He has provided testimony in prior DSM filings in Virginia and North Carolina.

Mr. Bates has a Bachelor of Business Administration degree in Finance from James Madison University. Prior to joining the company in 2007, he had over 14 years of experience in finance, operations management, and leadership in the Telecom, Healthcare, and Retail industries. Since joining Dominion, he has held finance positions supporting the Services Company as well as supporting Energy Conservation.

Demand Side Management (DSM)
 Projected System Costs
Program Cost Details - Phase I
 Rate Yr: Feb 2020 to Jan 2021
 Dollars

CONFIDENTIAL INFORMATION REDACTED

Dominion Energy North Carolina
 Docket No. E-22, Sub 577

Company Exhibit JEB
 Schedule
 Page 1 of

Row	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9	Column 10	Column 11	Column 12	Column 13	
	2020	2020	2020	2020	2020	2020	2020	2020	2020	2020	2020	2020	2021	
Programs	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Rate Year	
1	[REDACTED]													
2														
3														
4														
5														
6														
7														
8														
9														
10	Total all Program Costs													
11	O&M	314,775	314,775	314,775	314,775	1,164,775	1,164,775	1,164,775	1,164,775	314,775	314,775	314,775	314,775	7,177,303
12	Capital	83,333	83,333	83,333	83,333	83,333	83,333	83,333	83,333	83,333	83,333	83,333	83,333	1,000,000
13	Grand Total	\$ 398,109	\$ 398,109	\$ 398,109	\$ 398,109	\$ 1,248,109	\$ 1,248,109	\$ 1,248,109	\$ 1,248,109	\$ 398,109	\$ 398,109	\$ 398,109	\$ 398,109	\$ 8,177,303
14	Notes:													
15	1. System = Total of All Jurisdictions													
16	2. Res. = Residential; Com. = Commercial; Non Res. = Non Residential													
17	3. Costs exclude PPI & Lost Revenues													
18														
19														
20														

Demand Side Management (DSM)

Projected System Costs

Program Cost Details - Phase IV

Rate Yr: Feb 2020 to Jan 2021

Dollars

CONFIDENTIAL INFORMATION REDACTED

Dominion Energy North Carolina
Docket No. E-22, Sub 577

Company Exhibit JEB-1
Schedule 2
Page 2 of 6

Row	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9	Column 10	Column 11	Column 12	Column 13
	2020	2020	2020	2020	2020	2020	2020	2020	2020	2020	2020	2020	2021
Programs	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Rate Year
Phase IV	[Redacted]												
1	[Redacted]												
2	[Redacted]												
3	[Redacted]												
4	[Redacted]												
5	[Redacted]												
6	[Redacted]												
7	[Redacted]												
8	[Redacted]												
9	[Redacted]												
10	[Redacted]												
11	[Redacted]												
12	[Redacted]												
13	[Redacted]												
14	[Redacted]												
15	[Redacted]												
16	[Redacted]												
17	[Redacted]												
18	[Redacted]												
19	[Redacted]												
20	[Redacted]												

Notes:

- 1. System = Total of All Jurisdictions
- 2. Res. = Residential; Com. = Commercial; Non Res. = Non Residential
- 3. Costs exclude PPI & Lost Revenues

Demand Side Management (DSM)

Projected System Costs
Program Cost Details - Phase V
Rate Yr: Feb 2020 to Jan 2021
Dollars

CONFIDENTIAL INFORMATION REDACTED

Dominion Energy North Carolina
Docket No. E-22, Sub 577

Company Exhibit JEB-1
Schedule 2
Page 3 of 6

Row	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9	Column 10	Column 11	Column 12	Column 13
	2020	2020	2020	2020	2020	2020	2020	2020	2020	2020	2020	2021	
	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Rate Year
1	[REDACTED]												
2	[REDACTED]												
3	[REDACTED]												
4	[REDACTED]												
5	[REDACTED]												
6	[REDACTED]												
7	[REDACTED]												
8	[REDACTED]												
9	[REDACTED]												

Notes:

- 1. System = Total of All Jurisdictions
- 2. Res. = Residential; Com. = Commercial; Non Res. = Non Residential
- 3. Costs exclude PPI & Lost Revenues

20

Demand Side Management (DSM)

Projected System Costs
Program Cost Details - Phase VI
Rate Yr: Feb 2020 to Jan 2021
Dollars

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Dominion Energy North Carolina
Docket No. E-22, Sub 577

Company Exhibit JEB-1
Schedule 2
Page 4 of 6

Row	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9	Column 10	Column 11	Column 12	Column 13
	2020	2020	2020	2020	2020	2020	2020	2020	2020	2020	2020	2021	Rate Year
	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	
1	[REDACTED]												
2													
3													
4													
5													
6													
7													
8													
9													
10													
11	[REDACTED]												
12	[REDACTED]												
13	[REDACTED]												
14	[REDACTED]												
15	[REDACTED]												
16	[REDACTED]												
17	[REDACTED]												
18	[REDACTED]												
19	[REDACTED]												
20	[REDACTED]												

Notes:

- 1. System = Total of All Jurisdictions
- 2. Res. = Residential; Com. = Commercial; Non Res. = Non Residential
- 3. Costs exclude PPI & Lost Revenues

Demand Side Management (DSM)

Projected System Costs
Program Cost Details - Phase VII
Rate Yr: Feb 2020 to Jan 2021
Dollars

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Dominion Energy North Carolina
Docket No. E-22, Sub 577

Company Exhibit JEB-1
Schedule 2
Page 5 of 6

Row	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9	Column 10	Column 11	Column 12	Column 13
	2020	2020	2020	2020	2020	2020	2020	2020	2020	2020	2020	2021	Rate Year
	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	
1	[REDACTED]												
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4													
5													
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Demand Side Management (DSM)
 Projected System Costs
Program Cost Details - Phase VII
 Rate Yr: Feb 2020 to Jan 2021
 Dollars

CONFIDENTIAL INFORMATION REDACTED

Dominion Energy North Carolina
 Docket No. E-22, Sub 577

Row	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9	Column 10	Column 11	Column 12	Column 13					
	2020	2020	2020	2020	2020	2020	2020	2020	2020	2020	2020	2021	Rate Year					
	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan						
1	[REDACTED]																	
2																		
3																		
4																		
5																		
6																		
7																		
8																		
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22																		
23																		
24																		
25																		
26																		
27																		
37	Total all Program Costs																	
38	Grand Total																	
39	\$	1,716,435	\$	1,716,435	\$	1,716,435	\$	1,716,435	\$	1,716,435	\$	1,716,435	\$	1,716,435	\$	1,716,435	\$	20,597,216

- Notes:
1. System = Total of All Jurisdictions
 2. Res. = Residential; Com. = Commercial; Non Res. = Non Residential
 3. Costs exclude PPI & Lost Revenues

Demand Side Management (DSM)
Program Cost Details - Non NC DSM Programs

CONFIDENTIAL INFORMATION REDACTED

Company Exhibit JEB-1
Schedule 4
Page 1 of 1

Rate Yr: Feb 2020 to Jan 2021
Dollars

These are programs not in the NC Jurisdiction

Dominion Energy North Carolina
Docket No. E-22, Sub 577

Row	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9	Column 10	Column 11	Column 12	Column 13	
	2020	2020	2020	2020	2020	2020	2020	2020	2020	2020	2020	2021	Rate Year	
	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan		
5	DSM Phase II Program													
6														
7														
8														
9	Total	\$ 51,605	\$ 51,605	\$ 51,605	\$ 51,605	\$ 51,605	\$ 109,942	\$ 109,942	\$ 109,942	\$ 109,942	\$ 51,605	\$ 51,605	\$ 51,605	\$ 852,609

Notes:

1. System = Total of All Jurisdictions
2. Res. = Residential; Com. = Commercial; Non Res. = Non Residential
3. All the costs on this page are only for the purpose of allocating projected common costs among programs. Dominion Energy NC is not requesting any cost recovery for DSM Phase II DG program.
The DSM program costs shown above are direct costs. However, the total types of costs for these programs that are not requested in this filing include: direct costs, common costs, PPI, lost revenues, etc.

Row
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Projected by Program Total			Year 2019	Year 2020	Total										
			Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	
DSM I	Res	Lighting	3,388	3,388	3,388	3,388	3,388	3,388	3,388	3,388	3,388	3,388	3,388	3,388	40,653
DSM I	Res	Air Conditioner Cycling	409	409	409	409	409	409	409	409	409	409	409	409	4,913
DSM I	Res	Low Income	-	-	-	-	-	-	-	-	-	-	-	-	-
DSM I	Com	Lighting	2,280	2,280	2,280	2,280	2,280	2,280	2,280	2,280	2,280	2,280	2,280	2,280	27,365
DSM I	Com	HVAC	435	435	435	435	435	435	435	435	435	435	435	435	5,215
DSM I	Com	Lighting NC	367	367	367	367	367	367	367	367	367	367	367	367	4,399
DSM I	Com	HVAC Upgrade NC	-	-	-	-	-	-	-	-	-	-	-	-	-
DSM II	Res	Heat Pump Tune-Up	-	-	-	-	-	-	-	-	-	-	-	-	-
DSM II	Res	Heat Pump Upgrade	288	288	288	288	288	288	288	288	288	288	288	288	3,455
DSM II	Res	Duct Sealing	-	-	-	-	-	-	-	-	-	-	-	-	-
DSM II	Res	Home Energy Check-Up	16	16	16	16	16	16	16	16	16	16	16	16	194
DSM II	Non Res.	Duct Testing & Sealing	5,543	5,543	5,543	5,543	5,543	5,543	5,543	5,543	5,543	5,543	5,543	5,543	66,517
DSM II	Non Res.	Energy Audit	527	527	527	527	527	527	527	527	527	527	527	527	6,319
DSM III	Non Res.	Lighting Systems & Controls	5,101	5,101	5,101	5,101	5,101	5,101	5,101	5,101	5,101	5,101	5,101	5,101	61,216
DSM III	Non Res.	Heating & Cooling Efficiency	3,279	3,279	3,279	3,279	3,279	3,279	3,279	3,279	3,279	3,279	3,279	3,279	39,342
DSM III	Non Res.	Window Film	673	673	673	673	673	673	673	673	673	673	673	673	8,079
DSM III	Non Res.	Lighting Systems & Controls - NC Only	180	180	180	180	180	180	180	180	180	180	180	180	2,160
DSM III	Non Res.	Heating & Cooling Efficiency - NC Only	80	80	80	80	80	80	80	80	80	80	80	80	955
DSM IV	Res.	Income and Age Qualifying Home Improve	-	-	-	-	-	-	-	-	-	-	-	-	-
DSM V	Non Res.	Qualifying Small Business Improvement	1,999	1,999	1,999	1,999	1,999	1,999	1,999	1,999	1,999	1,999	1,999	1,999	23,991
DSM V	Res.	LED Lighting - NC Only	4,779	4,779	4,779	4,779	4,779	4,779	4,779	4,779	4,779	4,779	4,779	4,779	57,342
DSM VI	Non Res.	Prescriptive	76	76	76	76	76	76	76	76	76	76	76	76	915
DSM VII	Res.	Appliance Recycling	92	92	92	92	92	92	92	92	92	92	92	92	1,101
DSM VII	Res.	Customer Engagement	-	-	-	-	-	-	-	-	-	-	-	-	-
DSM VII	Res.	Efficient Products Marketplace	336	336	336	336	336	336	336	336	336	336	336	336	4,033
DSM VII	Res.	Home Energy Assessment	214	214	214	214	214	214	214	214	214	214	214	214	2,564
DSM VII	Res.	Smart Thermostat - DR	-	-	-	-	-	-	-	-	-	-	-	-	-
DSM VII	Res.	Smart Thermostat - EE	-	-	-	-	-	-	-	-	-	-	-	-	-
DSM VII	Non Res.	Lighting Systems & Controls	146	146	146	146	146	146	146	146	146	146	146	146	1,750
DSM VII	Non Res.	Heating & Cooling Efficiency	96	96	96	96	96	96	96	96	96	96	96	96	1,158
DSM VII	Non Res.	Window Film	22	22	22	22	22	22	22	22	22	22	22	22	268
DSM VII	Non Res.	Small Manufacturing	62	62	62	62	62	62	62	62	62	62	62	62	739
DSM VII	Non Res.	Office	57	57	57	57	57	57	57	57	57	57	57	57	687
Projected	Total		30,444	30,444	30,444	30,444	30,444	30,444	30,444	30,444	30,444	30,444	30,444	30,444	365,331

Demand Side Management (DSM)

NC Program Performance Incentive (PPI) Estimates
 Projected for Vintage Years 2019 and 2020

Dollars

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Dominion Energy North Carolina
 Docket No. E-22, Sub 577

Company Exhibit JEB-1
 Schedule 5
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From DSM E-22, Sub 556
 Company Exhibit No. JEB-1
 Schedule 1
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		Year 2019			
System Program Projected Direct Costs					
Res.	Air Conditioner Cycling			1.0%	\$ 4,058
Non Res.	Heating & Cooling Efficiency			1.0%	955
Non Res.	Lighting Systems & Controls			1.0%	2,160
Non Res.	Qualifying Small Business Improvement			1.0%	4,667
Res.	LED Lighting - NC Only			1.0%	-
Non Res.	Prescriptive			1.0%	3,810
Total		\$ 21,908,839			\$ 15,650

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		Year 2020			
System Program Projected Direct Costs					
Res.	Air Conditioner Cycling			1.0%	\$ 4,166
Non Res.	Heating & Cooling Efficiency - NC Only			1.0%	-
Non Res.	Lighting Systems & Controls - NC Only			1.0%	-
Non Res.	Qualifying Small Business Improvement			1.0%	5,282
Res.	LED Lighting - NC Only			1.0%	-
Non Res.	Prescriptive			1.0%	3,784
Res.	Appliance Recycling			1.0%	1,101
Res.	Efficient Products Marketplace			1.0%	4,033
Res.	Home Energy Assessment			1.0%	2,564
Non Res.	Lighting Systems & Controls			1.0%	1,750
Non Res.	Heating & Cooling Efficiency			1.0%	1,158
Non Res.	Window Film			1.0%	268
Non Res.	Small Manufacturing			1.0%	739
Non Res.	Office			1.0%	687
		\$ 42,956,473			\$ 25,533

Demand Side Management
Program Performance Incentive (PPI) Trueup for Year 2018
AC Cycling Program
Dollars

Row	Col1		Col2	
	Vintage Year		Vintage Year	
	2018		2018	
	Planned		Actual	
1				
2				
3				
4	System Net Benefit			(\$2,907,367)
5	Jurisdictional Allocation %			5.8046%
6				
7	NC Net Benefit			(\$168,761)
8	NC DR Program Incentive %	9.08%		9.08%
9	NC DR Program Incentive %	\$0		(\$15,324)
10				
11	Years to Spread Benefit	10		10
12	Financial Rate	6.31%		6.31%
13	Amortized Benefit	\$3,854		(\$2,112)

Notes:

- 1 Jurisdictional allocation factors are from Rate Department.
- 2 From the NC Stipulation: 9.08% incentive; 10 year benefit amortization
- 3 The financial rate for the amortization is from the Planning Department.
- 4 Starting in 2015, the Planned Benefit was estimate of 1% of NC program costs

System Benefits:

- 1 Using measure life years from the program summaries in the original DSM case filing.
- 2 Using "KW verified per unit savings" from EM&V filing
- 3 Counts from EM&V filing.

System Costs:

- 1 Program costs include direct costs.

Demand Side Management
Program Performance Incentive (PPI) Trueup for Year 2018
Non Res Lighting & Controls
Dollars

Row	Col1 Vintage Year 2018 Planned	Col2 Vintage Year 2018 Actual
1		
2		
3		
4	System Net Benefit	\$6,326,409
5	Jurisdictional Allocation %	5.9718%
6		
7	NC Net Benefit	\$377,801
8	NC EE Program Incentive %	14.76%
9	NC EE Program Incentive \$	\$0
10		
11	Years to Spread Benefit	10
12	Financial Rate	6.31%
13	Amortized Benefit	\$3,854

Notes:

- 1 Jurisdictional allocation factors are from Rate Department.
- 2 From the NC Stipulation: 14.76% incentive; 10 year benefit amortization
- 3 The financial rate for the amortization is from the Planning Department.
- 4 Starting in 2015, the Planned Benefit was estimate of 1% of NC program costs

System Benefits:

- 1 Using measure life years from the program summaries in the original DSM case filing.
- 2 Using "KWH verified per unit savings" from EM&V filing
- 3 Counts from EM&V filing.

System Costs:

- 1 Program costs include direct costs.

Demand Side Management
Program Performance Incentive (PPI) Trueup for Year 2018
Non Res HVAC
Dollars

Row	Col1		Col2	
	Vintage Year		Vintage Year	
	2018		2018	
	Planned		Actual	
1				
2				
3				
4	System Net Benefit		\$3,814,617	
5	Jurisdictional Allocation %		5.9718%	
6				
7	NC Net Benefit		\$227,801	
8	NC EE Program Incentive %	14.76%	14.76%	
9	NC EE Program Incentive \$	\$0	\$33,623	
10				
11	Years to Spread Benefit	10	10	
12	Financial Rate	6.31%	6.31%	
13	Amortized Benefit	\$1,212	\$4,635	

Notes:

- 1 Jurisdictional allocation factors are from Rate Department.
- 2 From the NC Stipulation: 14.76% incentive; 10 year benefit amortization
- 3 The financial rate for the amortization is from the Planning Department.
- 4 Starting in 2015, the Planned Benefit was estimate of 1% of NC program costs

System Benefits:

- 1 Using measure life years from the program summaries in the original DSM case filing.
- 2 Using "KWH verified per unit savings" from EM&V filing
- 3 Counts from EM&V filing.

System Costs:

- 1 Program costs include direct costs.

Demand Side Management
Program Performance Incentive (PPI) Trueup for Year 2018
Non Res Window Film
Dollars

Row	Col1		Col2	
	Vintage Year		Vintage Year	
	2018		2018	
	Planned		Actual	
1				
2				
3				
4	System Net Benefit			(\$251,822)
5	Jurisdictional Allocation %			5.9718%
6				
7	NC Net Benefit			(\$15,038)
8	NC EE Program Incentive %	14.76%		14.76%
9	NC EE Program Incentive \$	\$0		(\$2,220)
10				
11	Years to Spread Benefit	10		10
12	Financial Rate	6.31%		6.31%
13	Amortized Benefit	\$1,371		(\$306)

Notes:

- 1 Jurisdictional allocation factors are from Rate Department.
- 2 From the NC Stipulation: 14.76% incentive; 10 year benefit amortization
- 3 The financial rate for the amortization is from the Planning Department.
- 4 Starting in 2015, the Planned Benefit was estimate of 1% of NC program costs

System Benefits:

- 1 Using measure life years from the program summaries in the original DSM case filing.
- 2 Using "KWH verified per unit savings" from EM&V filing
- 3 Counts from EM&V filing.

System Costs:

- 1 Program costs include direct costs.

Demand Side Management
Program Performance Incentive (PPI) Trueup for Year 2018
Non Res Small Business
Dollars

Row		Col1	Col2
		Vintage Year 2018 Planned	Vintage Year 2018 Actual
1			
2			
3			
4	System Net Benefit		\$4,616,787
5	Jurisdictional Allocation %		5.9718%
6			
7	NC Net Benefit		\$275,705
8	NC EE Program Incentive %	14.76%	14.76%
9	NC EE Program Incentive \$	\$0	\$40,694
10			
11	Years to Spread Benefit	10	10
12	Financial Rate	6.31%	6.31%
13	Amortized Benefit	\$4,013	\$5,610

Notes:

- 1 Jurisdictional allocation factors are from Rate Department.
- 2 From the NC Stipulation: 14.76% incentive; 10 year benefit amortization
- 3 The financial rate for the amortization is from the Planning Department.
- 4 Starting in 2015, the Planned Benefit was estimate of 1% of NC program costs

System Benefits:

- 1 Using measure life years from the program summaries in the original DSM case filing.
- 2 Using "KWH verified per unit savings" from EM&V filing
- 3 Counts from EM&V filing.

System Costs:

- 1 Program costs include direct costs.

Demand Side Management
Program Performance Incentive (PPI) Trueup for Year 2018
North Carolina-only Residential Retail LED Lighting Program
Dollars

Row		Col1	Col2
		Vintage Year 2018 Planned	Vintage Year 2018 Actual
1			
2			
3			
4	System Net Benefit		\$2,211,682
5	Jurisdictional Allocation %		100.00%
6			
7	NC Net Benefit		\$2,211,682
8	NC EE Program Incentive %	14.76%	14.76%
9	NC EE Program Incentive \$	\$0	\$326,444
10			
11	Years to Spread Benefit	10	10
12	Financial Rate	6.31%	6.31%
13	Amortized Benefit	\$11,181	\$45,000

Notes:

- 1 Jurisdictional allocation factors are from Rate Department.
- 2 From the NC Stipulation: 14.76% incentive; 10 year benefit amortization
- 3 The financial rate for the amortization is from the Planning Department.
- 4 Starting in 2015, the Planned Benefit was estimate of 1% of NC program costs

System Benefits:

- 1 Using measure life years from the program summaries in the original DSM case filing.
- 2 Using "KWH verified per unit savings" from EM&V filing
- 3 Counts from EM&V filing.

System Costs:

- 1 Program costs include direct costs.

Demand Side Management
Program Performance Incentive (PPI) Trueup for Year 2018
Non Res Prescriptive
Dollars

Row		Col1	Col2
		Vintage Year 2018 Planned	Vintage Year 2018 Actual
1			
2			
3			
4	System Net Benefit		(\$5,496,680)
5	Jurisdictional Allocation %		5.9718%
6			
7	NC Net Benefit		(\$328,251)
8	NC EE Program Incentive %	14.76%	14.76%
9	NC EE Program Incentive \$	\$0	(\$48,450)
10			
11	Years to Spread Benefit	10	10
12	Financial Rate	6.31%	6.31%
13	Amortized Benefit	\$3,828	(\$6,679)

Notes:

- 1 Jurisdictional allocation factors are from Rate Department.
- 2 From the NC Stipulation: 14.76% incentive; 10 year benefit amortization
- 3 The financial rate for the amortization is from the Planning Department.
- 4 Starting in 2015, the Planned Benefit was estimate of 1% of NC program costs

System Benefits:

- 1 Using measure life years from the program summaries in the original DSM case filing.
- 2 Using "KWH verified per unit savings" from EM&V filing
- 3 Counts from EM&V filing.

System Costs:

- 1 Program costs include direct costs.

Demand Side Management
Program Performance Incentive (PPI) Trueup for Year 2017
North Carolina-only Residential Retail LED Lighting Program
Dollars

Row		Col1	Col2
		Vintage Year 2017 Planned	Vintage Year 2017 Actual
1			
2			
3			
4	System Net Benefit		\$608,969
5	Jurisdictional Allocation %		100.00%
6			
7	NC Net Benefit		\$608,969
8	NC EE Program Incentive %	14.76%	14.76%
9	NC EE Program Incentive \$	\$0	\$89,884
10			
11	Years to Spread Benefit	10	10
12	Financial Rate	6.22%	6.22%
13	Amortized Benefit	\$0	\$12,342

Notes:

- 1 Jurisdictional allocation factors are from Rate Department.
- 2 From the NC Stipulation: 14.76% incentive; 10 year benefit amortization
- 3 The financial rate for the amortization is from the Planning Department.
- 4 Starting in 2015, the Planned Benefit was estimate of 1% of NC program costs

System Benefits:

- 1 Using measure life years from the program summaries in the original DSM case filing.
- 2 Using "KWH verified per unit savings" from EM&V filing
- 3 Counts from EM&V filing.

System Costs:

- 1 Program costs include direct costs.

Demand Side Management (DSM)
 System DSM Program & Common Cost O&M Expense Actuals (1)
 Test Period: Jan 2018 to Dec 2018
 in Dollars

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Company Exhibit JEB-1
 Schedule 7
 Page 1 of 1

**Dominion Energy North Carolina
 Docket No. E-22, Sub 577**

Row		Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9	Column 10	Column 11	Column 12	Column 13
		Year 2018 Jan	Year 2018 Feb	Year 2018 Mar	Year 2018 Apr	Year 2018 May	Year 2018 Jun	Year 2018 Jul	Year 2018 Aug	Year 2018 Sep	Year 2018 Oct	Year 2018 Nov	Year 2018 Dec	12 Month Total
1														
2														
3	Program Costs O&M													
4														
5														
6														
7														
8														
9														
10	Subtotal 3	228,055	687,057	479,794	354,538	928,429	503,316	749,493	891,247	708,900	1,063,909	573,106	1,030,023	8,197,868
11														
12														
13														
14														
15														
16	Subtotal 4	322,422	485,931	380,707	366,321	315,211	403,195	326,214	315,694	266,766	621,707	338,909	435,241	4,578,318
17														
18														
19														
20														
21														
22														
23	Subtotal 5	31,886	34,178	37,046	29,952	79,317	54,039	76,232	50,129	21,547	63,154	38,763	61,906	578,150
24														
25	Common Costs	145,396	151,707	179,198	148,603	142,054	163,283	128,252	136,915	146,164	154,561	149,957	(22,511)	1,623,580
26														
27	Total All O&M Costs	\$ 1,224,975	\$ 2,778,502	\$ 2,075,800	\$ 1,508,272	\$ 2,448,583	\$ 2,798,842	\$ 3,206,699	\$ 3,293,060	\$ 2,842,089	\$ 2,444,740	\$ 1,631,372	\$ 2,425,338	\$ 28,678,273
28														

Notes:
 1 This schedule does not include PPI, Lost Revenues or Capital. Nor does it include Electric Vehicles (which is Virginia only).
 2 The Virginia only costs are for purposes of allocating common costs among programs. Dominion Energy NC is not requesting cost recovery for DSM Phase IV Appliance Recycling or the DG program in this filing.

**DRAFT - DIRECT TESTIMONY
OF
ALAN J. MOORE
ON BEHALF OF
DOMINION ENERGY NORTH CAROLINA
BEFORE THE
NORTH CAROLINA UTILITIES COMMISSION
DOCKET NO. E-22, SUB 577**

OFFICIAL COPY

Aug 13 2019

1 **Q. Please state your name, position, and business address with Virginia**
2 **Electric and Power Company (“Dominion Energy North Carolina” or the**
3 **“Company”).**

4 A. My name is Alan J. Moore. I am a Regulatory Analyst III in the Regulatory
5 Accounting Department for Dominion Energy North Carolina. My business
6 address is 701 East Cary Street, Richmond, Virginia 23219. A statement of
7 my background and qualifications is attached as Appendix A.

8 **Q. Please describe your area of responsibility with the Company.**

9 A. I am responsible for analyzing and calculating revenue requirements for
10 Dominion Energy North Carolina.

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

12 A. My testimony supports the Company’s request to recover all reasonable and
13 prudent costs incurred in adopting and implementing the Company’s portfolio
14 of North Carolina demand-side management (“DSM”) and energy efficiency
15 (“EE”) programs (“DSM/EE Programs” or “Programs”) and utility incentives,
16 through its updated Rider C, as well as the Company’s experience
17 modification factor (“EMF”) rider, Rider CE (“Application”).

1 The purpose of my testimony is to address the development of the updated
2 Rider C and Rider CE revenue requirements in support of the Application.
3 Pursuant to North Carolina Utilities Commission (“NCUC” or the
4 “Commission”) Rule R8-69, the Company’s Rider C revenue requirement
5 includes projected costs associated with: (a) the previously-approved Phase I
6 Air Conditioner Cycling Program;¹ (b) the previously-approved Phase III
7 DSM/EE programs: Non-residential Lighting Systems and Controls Program,
8 Non-residential Heating and Cooling Efficiency Program, and Non-residential
9 Window Film Program;² (c) the previously-approved Phase IV Residential
10 Income and Age Qualifying Home Improvement Program;³ (d) the
11 previously-approved Phase V Small Business Improvement Program;⁴ (e) the
12 previously-approved Residential Retail LED Lighting program;⁵ (f) the
13 previously-approved Phase VI Non-Residential Prescriptive Program⁶ and
14 (g) the proposed Phase VII Programs: Residential Appliance Recycling
15 Program,⁷ Residential Efficient Products Marketplace Program,⁸ Residential
16 Home Energy Assessment Program,⁹ Non-Residential Lighting Systems &

¹ Docket No. E-22, Sub 465. All other Phase I programs except the Residential Air Conditioner Cycling Program have previously been concluded.

² Docket No. E-22, Sub 507, Sub 508, and Sub 509. On October 16, 2018, the Commission in Docket No. E-22, Sub 509 closed the Non-residential Window Film Program and in Docket No. E-22, Sub 507 and Sub 508 approved the transition of the Non-residential Heating and Cooling Efficiency Program and the Non-residential Lighting Systems and Controls Program to deployment on a North Carolina-only basis.

³ Docket No. E-22, Sub 523.

⁴ Docket No. E-22, Sub 538.

⁵ Docket No. E-22, Sub 539. On August 16, 2018, the Company filed a motion in Docket No. E-22, Sub 539 requesting Commission approval to close the Residential Retail LED Lighting Program.

⁶ Docket No. E-22, Sub 543.

⁷ Docket No. E-22, Sub 569.

⁸ Docket No. E-22, Sub 568.

⁹ Docket No. E-22, Sub 567.

1 Controls Program,¹⁰ Non-Residential Heating and Cooling Efficiency
2 Program,¹¹ Non-Residential Window Film Program,¹² Non-Residential Small
3 Manufacturing Program,¹³ and Non-Residential Office Program¹⁴.

4 Pursuant to Paragraph 28 of the revised Cost Recovery and Incentive
5 Mechanism (“Mechanism”) approved by the Commission’s May 22, 2017
6 Order issued in Docket No. E-22, Sub 464, the Rider CE revenue requirement
7 includes a true-up of the Company’s DSM/EE Rider C rates in effect for the
8 Phase I, Phase III, Phase IV, Phase V, and Phase VI Programs, and the
9 Residential Retail LED Lighting Program, during the 12-month period of
10 January 1, 2018, through December 31, 2018 (“Test Period”).

11 The Rider C and Rider CE revenue requirements presented in this filing are
12 developed in accordance with the revised Mechanism. Development of these
13 revenue requirements is also consistent with development of the revenue
14 requirements approved in the Company’s 2012 – 2018 DSM/EE cost recovery
15 proceedings, except as modified to comply with the new Mechanism.

16 **Q. Mr. Moore, are you sponsoring any exhibits or schedules in connection**
17 **with your testimony?**

18 A. Yes. Company Exhibit AJM-1, consisting of Schedules 1 – 3 (Schedules 1
19 and 2 provided in public and confidential versions filed under seal), was
20 prepared under my supervision and direction and is accurate and complete to

¹⁰ Docket No. E-22, Sub 573.

¹¹ Docket No. E-22, Sub 574.

¹² Docket No. E-22, Sub 570.

¹³ Docket No. E-22, Sub 571.

¹⁴ Docket No. E-22, Sub 572.

1 the best of my knowledge and belief. My Schedule 1 supports the projected
2 rate period revenue requirement for Rider C, and Schedule 2 presents the
3 revenue requirement for EMF Rider CE. Schedule 3 contains my supporting
4 workpapers pursuant to NCUC Rule R8-69(f)(1)(viii).

5 **Q. Please summarize the key components of the two revenue requirements**
6 **presented in this case.**

7 A. The pre-filed direct testimony of Company Witness Jarvis E. Bates provides
8 the projected costs and Portfolio Performance Incentive (“PPI”) related to
9 each of the previously-identified DSM/EE Programs. I have used those cost
10 projections pursuant to NCUC Rule R8-69 to calculate the expected revenue
11 requirement to be recovered through Rider C, from February 1, 2020, through
12 January 31, 2021, the proposed rate period (the “Rate Period”) in this case. In
13 particular, in order to calculate the projected revenue requirement for Rider C,
14 I incorporated the following cost components: (1) operating expenses
15 projected to be incurred during the Rate Period; (2) capital costs (including
16 related depreciation expense) projected to be incurred during the Rate Period;
17 and (3) PPI projected for the Rate Period pursuant to the revised Mechanism.
18 As noted by Company Witness Michael T. Hubbard, and consistent with the
19 Company’s last five annual cost recovery proceedings,¹⁵ the Company is not
20 projecting net lost revenues for the Rate Period in this proceeding. Each of
21 these other cost components will be discussed in more detail later in my
22 testimony.

¹⁵ Docket No. E-22, Sub 513, Sub 524, Sub 536, Sub 545, and Sub 556.

1 For the DSM/EE EMF Rider CE, I have incorporated actual costs (both
2 capital and O&M components) and PPI as provided by Company Witness
3 Bates for the Test Period. I have also included measured net lost revenues in
4 the Rider CE revenue requirement for the Test Period as described in more
5 detail later in my testimony.

6 **Q. How did you determine what the Rate Period and Test Period should be**
7 **for this proceeding?**

8 A. Pursuant to NCUC Rule R8-69(a), the Rate Period is the same as the period
9 during which the rider established under Commission Rule R8-55, the
10 Company's fuel factor, is in effect. As explained by Company Witness
11 Hubbard, in previous years, the Company has proposed Rider C rates to be
12 effective for a calendar year Rate Period, consistent with the rate period
13 previously used for fuel factor riders under Rule R8-55. Based on discussions
14 with the Public Staff following the conclusion of the Company's 2017 rider
15 proceedings, the Company is proposing for updated Rider C to be effective for
16 a February 1, 2020, through January 31, 2021 Rate Period similar to the 2018
17 Cost Recovery Rider proceeding.

18 The Test Period for this proceeding will be the 12-month period ending
19 December 31, 2018, as provided for in Paragraph 28 of the Mechanism.

1 **Q. What capital structure and rate of return on common equity has the**
2 **Company used to calculate the capital related costs for the Test Period**
3 **and Rate Period in this proceeding?**

4 A. Consistent with Paragraph 40 of the Mechanism, the Company has calculated
5 the capital-related costs for the Test Period using the actual capital structure
6 and cost of capital for the 12-month period ended December 31, 2018,
7 incorporating a 9.90% return on common equity (“ROE”) that was approved
8 in the Company’s most recent general rate case on December 22, 2016, in
9 Docket No. E-22, Sub 532.¹⁶ For calculating the projected Rate Period in this
10 proceeding, the Company has utilized the most recently filed NCUC ES-1
11 capital structure and cost of capital for the period ending June 30, 2019,
12 incorporating the 9.90% ROE.

13 **Q. Do the Rider C and Rider CE revenue requirements include recovery of**
14 **net lost revenues?**

15 A. As addressed by Company Witness Hubbard, only Rider CE includes a
16 request to recover measured net lost revenues, as allowed by Commission
17 Rule R8-69(c)(1) and the Mechanism. As noted above, the Company has not
18 projected Rate Period net lost revenues for recovery in this proceeding. Going
19 forward, all net future Test Year lost revenues will be appropriately recovered
20 through a future EMF Rider CE true-up cost recovery factor. As I will discuss
21 in greater detail below, Rider CE provides for the recovery of actual

¹⁶ See *Order Granting General Rate Increase*, Docket No. E-22, Sub 532 (Dec. 22, 2016).

1 incremental North Carolina jurisdictional kWh energy reductions for the Test
2 Period.

3 **Q. Are there any other limitations on the eligibility of energy savings as a**
4 **result of the Company's approved EE programs to count towards**
5 **recovery of net lost revenues?**

6 A. Paragraph 43 of the Mechanism provides that kWh sales reductions achieved
7 by a measurement unit installed in a given Vintage Year are eligible for use in
8 calculating lost revenues for only the first 36 months after installation of the
9 measurement unit. Further, Paragraph 46 of the Mechanism provides that
10 notwithstanding this 36-month period of kWh sales reductions, any installed
11 measurement unit shall cease being eligible for use in calculating net lost
12 revenues as of the effective date of (a) a Commission-approved alternative
13 cost recovery mechanism that accounts for the eligible recoverable net lost
14 revenues associated with eligible kWh sales reductions, or (b) the
15 implementation of new base rates approved in a general rate case or
16 comparable proceeding to the extent that the rates set in that proceeding are
17 set to explicitly or implicitly recover the net lost revenues associated with an
18 installed measurement unit's kWh sales reductions.

1 **Q. Did the installation of the measurement units used to calculate the actual**
2 **net lost revenues for the Test Period in this filing fall within the 36-month**
3 **limitation provided for under Paragraph 43 of the Mechanism?**

4 A. Yes. As part of the DSM/EE EMF Rider CE, the Company is seeking to
5 recover net lost revenues resulting from measures installed up through the end
6 of the 2018 Test Period.

7 **Q. Has a portion of kWh energy savings associated with previously-installed**
8 **measures already been captured in the Company's non-fuel base rates?**

9 A. Yes. The rates approved in the Company's 2016 general rate case were
10 designed to include the cumulative kWh sales reductions recognized in the net
11 lost revenues related to EE measurement units installed through June 30,
12 2016, to be recovered through base rates beginning on November 1, 2016.
13 Therefore, consistent with Paragraph 46 of the Mechanism, beginning
14 November 1, 2016, the Company excludes from total kWh energy savings, the
15 June 30, 2016 total cumulative monthly level of kWh sales reductions that
16 were incorporated into base rates effective November 1, 2016. The net lost
17 revenues proposed for recovery in this filing for January 1, 2018, through
18 December 31, 2018, include only incremental kWh energy savings resulting
19 from energy efficiency measures installed subsequent to June 30, 2016.

1 **Q. Mr. Moore, can you describe in more detail the projected Rate Period**
2 **revenue requirement to be recovered through Rider C requested in this**
3 **case?**

4 A. Yes. The projected revenue requirement begins with the projected operating
5 expense revenue requirement as reflected on line 1 of page 1 of my
6 Schedule 1. The projected operating expenses for the Rate Period, as
7 supported in the pre-filed direct testimony of Company Witness Bates, are
8 presented for current recovery by program on line 1 of page 2 of my
9 Schedule 1. Line 2 of page 2 of my Schedule 1 presents the system level
10 common costs that are allocated to each program in accordance with the
11 methodology described by Company Witness Robert E. Miller. The projected
12 operating expenses and proportionate share of common costs for each
13 program are then allocated to the North Carolina jurisdiction using the
14 jurisdictional allocation factors supported by Company Witness Miller, to
15 derive the projected North Carolina jurisdictional operating expense revenue
16 requirement presented on line 5 of page 3 of my Schedule 1.

17 The second component of the projected Rate Period revenue requirement is
18 the projected capital costs revenue requirement as presented on line 2 of
19 page 1 of my Schedule 1. Lines 6 through 9 of page 3 of my Schedule 1
20 present the projected North Carolina jurisdictional depreciation expense,
21 amortization of the excess deferred income taxes (“EDIT”) that were a result
22 of the Tax Cuts and Jobs Act of 2017 (“TCJA”), property taxes, and rate base
23 costs, respectively, related to the Air Conditioner Cycling Program. The

1 projected rate base for the Rate Period as depicted on page 4 of my Schedule 1
2 includes the actual system level net plant balances as of June 30, 2019, and
3 projected monthly system level capital expenditures as supported by Company
4 Witness Bates. The Air Conditioner Cycling Program is the only DSM/EE
5 program with capital expenditures being presented for recovery in this current
6 filing. The capital expenditures, projected to be closed to plant-in-service
7 each month, are added to the actual June 30, 2019 plant balance, and
8 accumulated throughout the Rate Period. The projected monthly depreciation
9 expense is projected using a 7.15% annual depreciation factor from the
10 Company's most recent depreciation study. This projected annual
11 depreciation rate factor assumes an estimated depreciable life of 15 years with
12 0% net salvage and includes interim retirement assumptions. The resulting
13 depreciation expenses projected to be incurred during the Rate Period are
14 included for current recovery as shown on line 5 of page 4 of my Schedule 1,
15 and the projected accumulated depreciation balances are shown as a reduction
16 to average rate base as reflected on line 6 of page 4. The monthly
17 accumulated deferred income taxes ("ADIT"), as supported by my
18 Schedule 3, also serve as monthly reductions to the projected rate base for the
19 Rate Period as reflected on line 8 of page 4 of my Schedule 1. These ADIT
20 balances include the EDIT balances that resulted from the TCJA. These
21 system level projected amounts are then allocated to the North Carolina
22 jurisdiction as explained by Company Witness Miller in his direct testimony
23 in this proceeding.

1 The projected North Carolina jurisdiction rate base financing costs are
2 determined by multiplying each two-month average rate base for the Rate
3 Period by the Company's cost of capital as presented on line 4 of page 5 of
4 my Schedule 1. As discussed above, for purposes of this Application, the
5 Company has used the capital structure and cost of capital as provided in its
6 June 30, 2019 NCUC ES-1 Report, incorporating a rate of return on common
7 equity of 9.90%, which resulted in a weighted average cost of capital of
8 7.353% as presented on page 5 of my Schedule 1. The equity component for
9 purposes of determining the return on rate base is grossed up to a revenue
10 level in developing the common equity including income taxes revenue
11 requirement on rate base as presented on line 20 of page 4 of my Schedule 1.

12 The final component of my Rate Period revenue requirement is the projected
13 PPI revenue requirement shown on line 4 of page 1 of my Schedule 1.

14 Company Witness Bates provides the PPI calculation, which is incorporated
15 into the revenue requirement and reflected on line 11 of page 3 of my
16 Schedule 1.

17 **Q. Please provide an overview of the DSM/EE EMF Rider CE revenue**
18 **requirement.**

19 A. Consistent with Paragraph 37 of the Mechanism, this DSM/EE EMF requests
20 recovery of the "difference between the reasonable and prudent Costs incurred
21 or amortized during the applicable test period and the revenues actually
22 realized during such test period under the DSM/EE rider then in effect." The
23 DSM/EE EMF Rider CE also includes a true-up of the PPI and net lost

1 revenues components for this same Test Period. Finally, the DSM/EE EMF
2 Rider CE includes a return on the over- or under-recovery balance up and
3 until the effective date of the Rate Period on February 1, 2020, calculated at
4 the rate of return approved in the Company's most recent general rate case in
5 Docket No. E-22, Sub 532. Commission Rule R8-69(e)(3) provides that the
6 EMF will remain in effect for a fixed 12-month period and will continue as a
7 rider to rates established in any intervening general rate case.

8 **Q. Mr. Moore, can you now describe the details of the DSM/EE EMF Rider**
9 **CE revenue requirement calculation presented on page 1 of your**
10 **Schedule 2?**

11 A. Yes. Page 1 of my Schedule 2 presents the DSM/EE EMF Rider CE revenue
12 requirement requested for recovery during the Rate Period. The monthly
13 revenue requirement on line 1 of page 1 of my Schedule 2 reflects the
14 reasonable and prudent costs actually incurred during the Test Period in this
15 proceeding. This actual monthly revenue requirement is calculated on pages 2
16 and 3 of my Schedule 2 and will be discussed in greater detail below. The
17 actual monthly Rider C revenues included on line 4 of page 1 of my
18 Schedule 2 were obtained from the Company's Accounting Department. As
19 first established in the Company's 2013 DSM/EE cost recovery proceeding,
20 pursuant to NCUC Rule R8-69(c)(3), lines 2 and 5 eliminate utility incentives
21 from the calculation of carrying costs on the EMF Test Period over/under-
22 recovery deferral. The net monthly over- or under-recovered amount as
23 presented on line 7 of page 1 of my Schedule 2 will be refunded or collected

1 over the Rate Period. In addition, as prescribed by Rule R8-69(b)(6), carrying
2 costs are calculated on the over- or under-recovered deferral amounts net of
3 utility incentives at the rate of return approved in the Company's most recent
4 general rate case in Docket No. E-22, Sub 532. Also pursuant to Commission
5 Rule R8-69(b)(6), the equity component has been grossed up to reflect the
6 necessary recovery of income taxes. The total carrying costs calculated on the
7 monthly over- or under-recovered amounts net of utility incentives for the
8 Test Period are presented on line 13 of page 1 of my Schedule 2.

9 Also pursuant to Rule R8-69(b)(6), financing costs are calculated for the
10 current EMF Test Period over-recovery amount, exclusive of utility
11 incentives, as presented on line 8 of page 1 of my Schedule 2. Line 15 reflects
12 these carrying costs which are calculated on line 5 of page 6 of my Schedule 2
13 for the deferral period of January 2019 through January 2020 at the net-of-tax
14 rate of return approved in the Company's most recent general rate case in
15 accordance with Rule R8-69(b)(6).

16 The carrying costs net of utility incentives to be refunded on line 13 of page 1,
17 combined with the related 2018 financing costs on line 15, are offset by the
18 net monthly under-recovered amounts calculated on line 7, to reflect the total
19 DSM/EE EMF Rider CE revenue requirement amount to be recovered over
20 the Rate Period.

- 1 **Q. Please describe the remaining pages of Schedule 2 that support the**
2 **DSM/EE EMF Rider CE revenue requirement presented on page 1 of**
3 **your Schedule 2.**
- 4 A. Pages 2 and 3 of my Schedule 2 present the monthly revenue requirement for
5 the reasonable and prudent costs actually incurred during the Test Period. The
6 actual operating expenses provided by Company Witness Bates for each
7 Program include a proportionate share of Common Costs allocated according
8 to the methodology described by Company Witness Miller, and are included
9 on line 2 of page 2 of my Schedule 2. This Common Cost allocation
10 methodology is in compliance with the Mechanism and is also consistent with
11 the methodology employed in the Company's previous DSM filings. The
12 resulting system level amounts are then allocated to the North Carolina
13 jurisdiction as explained by Company Witness Miller to derive the North
14 Carolina jurisdictional operating expenses including Common Costs presented
15 on line 5 of page 3 of my Schedule 2. Line 6 of page 3 of my Schedule 2
16 presents the monthly property taxes related to the air conditioner cycling
17 program assets, line 7 presents the actual North Carolina jurisdictional
18 depreciation expense, line 8 presents the amortization of EDIT that resulted
19 from the TCJA, and line 9 shows the return on rate base as calculated on page
20 4 of my Schedule 2. Next, the North Carolina jurisdictional net lost revenues
21 calculated on page 5 of my Schedule 2 are included on line 10 of page 3 of my
22 Schedule 2. Finally, the actual PPI amounts for the Test Period, as calculated
23 by Company Witness Bates, are included on line 11 of page 3 of my

1 Schedule 2. The resulting monthly revenue requirement by program
2 calculated on line 12 and totaled on line 13 of page 3 of my Schedule 2
3 reflects the reasonable and prudent costs actually incurred during the Test
4 Period.

5 The revenue requirement on Rate Base Costs for the Test Period is calculated
6 on page 4 of my Schedule 2. Actual monthly Net Plant balances and ADIT
7 were provided by the Fixed Assets Department and Tax Department,
8 respectively. As explained previously, the ADIT balances include the EDIT
9 balances that resulted from the TCJA. Depreciation expenses incurred during
10 the Test Period are included in the actual costs, and the accumulated balances
11 are shown as a reduction to plant-in-service to derive cumulative system level
12 of net plant as presented on line 4 of page 4 of my Schedule 2. The monthly
13 accumulated deferred income taxes on line 5 of page 4, as supported by my
14 Schedule 3, also serve as monthly reductions to the rate base for the Test
15 Period. These system level amounts are then allocated to the North Carolina
16 jurisdiction as explained by Company Witness Miller to derive the monthly
17 North Carolina jurisdictional AC Cycling rate base amounts as included on
18 line 8.

19 The 2-month average North Carolina jurisdictional rate base over the Test
20 Period is presented on line 9 of page 4. As described earlier in my testimony,
21 to determine the return on rate base for the Test Period, the 2-month rate base
22 averages on line 9 of page 4 were multiplied by the Company's cost of capital
23 based on the capital structure and cost of capital for the 12-month period

1 ended December 31, 2018. The Company utilized the Commission-approved
2 ROE of 9.90% which resulted in a weighted average cost of capital of
3 7.355%, as presented on line 4 of page 7 of my Schedule 2. The equity
4 component is grossed up to a revenue level for purposes of calculating the
5 revenue requirement on rate base costs during the Test Period as presented on
6 line 17 of page 4 of my Schedule 2.

7 Page 5 of my Schedule 2 presents the calculation of the actual net lost
8 revenues for the Test Period, based upon the actual North Carolina
9 jurisdictional energy reductions as presented by Company Witness Deanna R.
10 Kesler. Company Witness Debra A. Stephens provides the billing rates
11 applied to these North Carolina jurisdictional net kWh energy savings as
12 presented on line 2 of page 5 of my Schedule 2. The actual net lost revenues
13 are then reduced for variable O&M savings and found revenues. The variable
14 O&M savings presented on line 4 of page 5 were provided by the Company's
15 Integrated Resource Planning Department. As discussed by Company
16 Witness Hubbard, there were no actual found revenues for the Test Period as
17 indicated on line 5 of page 5 of my Schedule 2. Line 6 of page 5 provides the
18 net lost revenues by program for the Test Period.

19 As previously mentioned, page 6 of my Schedule 2 presents the calculation of
20 financing costs on the Rider CE net of utility incentives over-recovery to be
21 refunded over the Rate Period, pursuant to NCUC Rules R8-69(b)(3) and (6),
22 and Paragraph 39 of the Mechanism.

1 **Q. What is the total revenue requirement for Riders C and CE?**

2 A. As summarized on page 1 of my Schedule 1, the Company is requesting
3 recovery of projected operating expenses of \$2,970,724, and projected capital
4 cost revenue requirement of \$134,225. These amounts combined with the
5 projected PPI of \$365,331 provide for a total Rider C revenue requirement of
6 \$3,470,280.

7 As depicted on page 1 of my Schedule 2, the Rider CE revenue requirement
8 presents the amount of \$464,010, which will be recovered by the Company
9 over the Rate Period. The combined revenue requirements for the two riders,
10 Rider C and Rider CE, for the Rate Period totals \$3,934,290, representing a
11 \$415,933 decrease over the rates currently in effect.

12 **Q. Does this conclude your pre-filed direct testimony?**

13 A. Yes, it does.

**BACKGROUND AND QUALIFICATIONS
OF
ALAN J. MOORE**

Alan J. Moore received his undergraduate degree from Longwood University with a Bachelor of Science in Business Administration with an Accounting concentration in 2007. Mr. Moore received his Masters of Business Administration degree from Longwood University in 2015. Mr. Moore was hired by the Company in 2007 as an Internal Auditor prior to joining the Regulatory Accounting Department in April 2014. His current position of Regulatory Analyst III in the Regulatory Accounting Department includes responsibility for analyzing and calculating revenue requirements for Dominion Energy North Carolina rate proceedings.

**Dominion Energy North Carolina
Docket No. E-22, Sub 577
Projected Revenue Requirement for DSM/EE Rider C
For the Rate Period February 1, 2020 - January 31, 2021**

<u>line no.</u>	<u>Rider C</u>	<u>Item Location / Formula</u>
1 Projected Operating Expense Revenue Requirement	\$ 2,970,724	Sch 1, Page 3, Line 5
2 Projected Capital Costs Revenue Requirement	\$ 134,225	Sch 1, Page 3, Line 6 + Line 7 + Line 8 + Line 9
3 Projected Net Lost Revenues	\$ -	Sch 1, Page 3, Line 10
4 Projected Program Performance Incentive Revenue Requirement	\$ <u>365,331</u>	Sch 1, Page 3, Line 11
5 Total Revenue Requirement	\$ 3,470,280	Line 1 + Line 2 + Line 3 + Line 4

CONFIDENTIAL INFORMATION HIGHLIGHTED IN YELLOW
Dominion Energy North Carolina
Docket No. E-22, Sub 577
Projected Revenue Requirement for DSM/EE Rider C
For the Rate Period February 1, 2020 - January 31, 2021

line no.		Projection Feb-20	Projection Mar-20	Projection Apr-20	Projection May-20	Projection Jun-20	Projection Jul-20	Projection Aug-20	Projection Sep-20	Projection Oct-20	Projection Nov-20	Projection Dec-20	Projection Jan-21	Rate Period Total
1	System Program Projected Operating Expenses													
Phase I	Air Conditioner Cycling Program													
Phase IV	Residential Income and Age Qualifying Home Improvement Program													
Phase V	Qualifying Small Business Improvement Program													
Phase VI	Non-Residential Prescriptive Program													
Phase VII	Residential Appliance Recycling Program													
Phase VII	Residential Efficient Products Marketplace Program													
Phase VII	Residential Home Energy Assessment Program													
Phase VII	Non-Residential Lighting Systems & Controls Program													
Phase VII	Non-Residential Heating & Cooling Efficiency Program													
Phase VII	Non-Residential Window Film Program													
Phase VII	Non-Residential Small Manufacturing Program													
Phase VII	Non-Residential Office Program													
2	Allocate System Common Costs to Programs													
Phase I	Air Conditioner Cycling Program	\$ 38,822	\$ 38,822	\$ 38,822	\$ 38,822	\$ 38,822	\$ 38,822	\$ 38,822	\$ 38,822	\$ 38,822	\$ 38,822	\$ 38,822	\$ 38,822	\$ 465,866
Phase IV	Residential Income and Age Qualifying Home Improvement Program	\$ 19,407	\$ 19,407	\$ 19,407	\$ 19,407	\$ 19,407	\$ 19,407	\$ 19,407	\$ 19,407	\$ 19,407	\$ 19,407	\$ 19,407	\$ 19,407	\$ 232,887
Phase V	Qualifying Small Business Improvement Program	\$ 38,844	\$ 38,844	\$ 38,844	\$ 38,844	\$ 38,844	\$ 38,844	\$ 38,844	\$ 38,844	\$ 38,844	\$ 38,844	\$ 38,844	\$ 38,844	\$ 466,132
Phase V	Residential LED Lighting - NC Only	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Phase VI	Non-Residential Prescriptive Program	\$ 27,826	\$ 27,826	\$ 27,826	\$ 27,826	\$ 27,826	\$ 27,826	\$ 27,826	\$ 27,826	\$ 27,826	\$ 27,826	\$ 27,826	\$ 27,826	\$ 333,909
Phase VII	Residential Appliance Recycling Program	\$ 8,099	\$ 8,099	\$ 8,099	\$ 8,099	\$ 8,099	\$ 8,099	\$ 8,099	\$ 8,099	\$ 8,099	\$ 8,099	\$ 8,099	\$ 8,099	\$ 97,192
Phase VII	Residential Efficient Products Marketplace Program	\$ 29,653	\$ 29,653	\$ 29,653	\$ 29,653	\$ 29,653	\$ 29,653	\$ 29,653	\$ 29,653	\$ 29,653	\$ 29,653	\$ 29,653	\$ 29,653	\$ 355,841
Phase VII	Residential Home Energy Assessment Program	\$ 18,857	\$ 18,857	\$ 18,857	\$ 18,857	\$ 18,857	\$ 18,857	\$ 18,857	\$ 18,857	\$ 18,857	\$ 18,857	\$ 18,857	\$ 18,857	\$ 226,282
Phase VII	Non-Residential Lighting Systems & Controls Program	\$ 12,869	\$ 12,869	\$ 12,869	\$ 12,869	\$ 12,869	\$ 12,869	\$ 12,869	\$ 12,869	\$ 12,869	\$ 12,869	\$ 12,869	\$ 12,869	\$ 154,428
Phase VII	Non-Residential Heating & Cooling Efficiency Program	\$ 8,512	\$ 8,512	\$ 8,512	\$ 8,512	\$ 8,512	\$ 8,512	\$ 8,512	\$ 8,512	\$ 8,512	\$ 8,512	\$ 8,512	\$ 8,512	\$ 102,144
Phase VII	Non-Residential Window Film Program	\$ 1,972	\$ 1,972	\$ 1,972	\$ 1,972	\$ 1,972	\$ 1,972	\$ 1,972	\$ 1,972	\$ 1,972	\$ 1,972	\$ 1,972	\$ 1,972	\$ 23,667
Phase VII	Non-Residential Small Manufacturing Program	\$ 5,435	\$ 5,435	\$ 5,435	\$ 5,435	\$ 5,435	\$ 5,435	\$ 5,435	\$ 5,435	\$ 5,435	\$ 5,435	\$ 5,435	\$ 5,435	\$ 65,215
Phase VII	Non-Residential Office Program	\$ 5,053	\$ 5,053	\$ 5,053	\$ 5,053	\$ 5,053	\$ 5,053	\$ 5,053	\$ 5,053	\$ 5,053	\$ 5,053	\$ 5,053	\$ 5,053	\$ 60,640
3	System Projected Operating Expenses Including Allocated Common Costs													
Phase I	Air Conditioner Cycling Program													
Phase IV	Residential Income and Age Qualifying Home Improvement Program													
Phase V	Qualifying Small Business Improvement Program													
Phase VI	Non-Residential Prescriptive Program													
Phase VII	Residential Appliance Recycling Program													
Phase VII	Residential Efficient Products Marketplace Program													
Phase VII	Residential Home Energy Assessment Program													
Phase VII	Non-Residential Lighting Systems & Controls Program													
Phase VII	Non-Residential Heating & Cooling Efficiency Program													
Phase VII	Non-Residential Window Film Program													
Phase VII	Non-Residential Small Manufacturing Program													
Phase VII	Non-Residential Office Program													
4	Jurisdictional Assignment Factors													
Phase I	Air Conditioner Cycling Program	5.8046%	5.8046%	5.8046%	5.8046%	5.8046%	5.8046%	5.8046%	5.8046%	5.8046%	5.8046%	5.8046%	5.8046%	5.8046%
Phase IV	Residential Income and Age Qualifying Home Improvement Program	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%
Phase V	Qualifying Small Business Improvement Program	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%
Phase VI	Non-Residential Prescriptive Program	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%
Phase VII	Residential Appliance Recycling Program	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%
Phase VII	Residential Customer Engagement Program	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%
Phase VII	Residential Efficient Products Marketplace Program	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%
Phase VII	Residential Home Energy Assessment Program	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%
Phase VII	Non-Residential Lighting Systems & Controls Program	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%
Phase VII	Non-Residential Heating & Cooling Efficiency Program	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%
Phase VII	Non-Residential Window Film Program	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%
Phase VII	Non-Residential Small Manufacturing Program	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%
Phase VII	Non-Residential Office Program	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%

Dominion Energy North Carolina
Docket No. E-22, Sub 577

Projected Revenue Requirement for DSM/EE Rider C
For the Rate Period February 1, 2020 - January 31, 2021

line no.		Projection Feb-20	Projection Mar-20	Projection Apr-20	Projection May-20	Projection Jun-20	Projection Jul-20	Projection Aug-20	Projection Sep-20	Projection Oct-20	Projection Nov-20	Projection Dec-20	Projection Jan-21	Rate Period Total
5	Projected NC Jurisdiction Operating Expenses (Line 3 * Line 4)													
	Phase I Air Conditioner Cycling Program													
	Phase IV Residential Income and Age Qualifying Home Improvement Program													
	Phase V Qualifying Small Business Improvement Program													
	Phase VI Non-Residential Prescriptive Program													
	Phase VII Residential Appliance Recycling Program													
	Phase VII Residential Efficient Products Marketplace Program													
	Phase VII Residential Home Energy Assessment Program													
	Phase VII Non-Residential Lighting Systems & Controls Program													
	Phase VII Non-Residential Heating & Cooling Efficiency Program													
	Phase VII Non-Residential Window Film Program													
	Phase VII Non-Residential Small Manufacturing Program													
	Phase VII Non-Residential Office Program													
6	Projected NC Jurisdiction Depreciation Expense (Page 4, Line 5 * Line 10)	\$ 7,038	\$ 7,067	\$ 7,096	\$ 7,125	\$ 7,154	\$ 7,182	\$ 7,211	\$ 7,240	\$ 7,269	\$ 7,298	\$ 7,326	\$ 7,355	\$ 86,361
	Air Conditioner Cycling Program													
7	Projected NC Jurisdiction Excess Deferred Income Tax Amortization	\$ (708)	\$ (708)	\$ (708)	\$ (708)	\$ (708)	\$ (708)	\$ (708)	\$ (708)	\$ (708)	\$ (708)	\$ (708)	\$ (736)	\$ (8,522)
	Air Conditioner Cycling Program													
8	Projected NC Jurisdiction Property Taxes	\$ 848	\$ 848	\$ 848	\$ 848	\$ 848	\$ 848	\$ 848	\$ 848	\$ 848	\$ 848	\$ 848	\$ 848	\$ 10,180
	Air Conditioner Cycling Program													
9	Projected NC Jurisdiction Rate Base Costs (Page 4, Line 21)	\$ 3,898	\$ 3,894	\$ 3,888	\$ 3,882	\$ 3,873	\$ 3,863	\$ 3,853	\$ 3,841	\$ 3,827	\$ 3,812	\$ 3,796	\$ 3,779	\$ 46,206
	Air Conditioner Cycling Program													
10	NC Jurisdiction Projected Net Lost Revenues	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
11	NC Jurisdiction Projected Program Performance Incentive (PPI)	\$ 3,388	\$ 3,388	\$ 3,388	\$ 3,388	\$ 3,388	\$ 3,388	\$ 3,388	\$ 3,388	\$ 3,388	\$ 3,388	\$ 3,388	\$ 3,388	\$ 40,653
	Residential Lighting (PPI Only)	\$ 409	\$ 409	\$ 409	\$ 409	\$ 409	\$ 409	\$ 409	\$ 409	\$ 409	\$ 409	\$ 409	\$ 409	\$ 4,913
	Phase I Air Conditioner Cycling Program	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Phase I Residential NC Only Low Income Program	\$ 435	\$ 435	\$ 435	\$ 435	\$ 435	\$ 435	\$ 435	\$ 435	\$ 435	\$ 435	\$ 435	\$ 435	\$ 5,215
	Phase I Commercial HVAC Upgrade Program	\$ 2,647	\$ 2,647	\$ 2,647	\$ 2,647	\$ 2,647	\$ 2,647	\$ 2,647	\$ 2,647	\$ 2,647	\$ 2,647	\$ 2,647	\$ 2,647	\$ 31,764
	Phase I Commercial Lighting Program	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Phase II Residential Heat Pump Tune-up Program	\$ 288	\$ 288	\$ 288	\$ 288	\$ 288	\$ 288	\$ 288	\$ 288	\$ 288	\$ 288	\$ 288	\$ 288	\$ 3,455
	Phase II Residential Heat Pump Upgrade Program	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Phase II Residential Duct Testing & Sealing Program	\$ 16	\$ 16	\$ 16	\$ 16	\$ 16	\$ 16	\$ 16	\$ 16	\$ 16	\$ 16	\$ 16	\$ 16	\$ 194
	Phase II Residential Home Energy Check-Up Program	\$ 5,543	\$ 5,543	\$ 5,543	\$ 5,543	\$ 5,543	\$ 5,543	\$ 5,543	\$ 5,543	\$ 5,543	\$ 5,543	\$ 5,543	\$ 5,543	\$ 66,517
	Phase II Non-Residential Duct Testing & Sealing Program	\$ 527	\$ 527	\$ 527	\$ 527	\$ 527	\$ 527	\$ 527	\$ 527	\$ 527	\$ 527	\$ 527	\$ 527	\$ 6,319
	Phase II Non-Residential Energy Audit Program	\$ 673	\$ 673	\$ 673	\$ 673	\$ 673	\$ 673	\$ 673	\$ 673	\$ 673	\$ 673	\$ 673	\$ 673	\$ 8,079
	Phase III Non-Residential Heating & Cooling Efficiency Program	\$ 3,358	\$ 3,358	\$ 3,358	\$ 3,358	\$ 3,358	\$ 3,358	\$ 3,358	\$ 3,358	\$ 3,358	\$ 3,358	\$ 3,358	\$ 3,358	\$ 40,297
	Phase III Non-Residential Lighting Systems & Controls Program	\$ 5,281	\$ 5,281	\$ 5,281	\$ 5,281	\$ 5,281	\$ 5,281	\$ 5,281	\$ 5,281	\$ 5,281	\$ 5,281	\$ 5,281	\$ 5,281	\$ 63,376
	Phase IV Residential Income and Age Qualifying Home Improvement Program	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Phase V Qualifying Small Business Improvement Program	\$ 1,999	\$ 1,999	\$ 1,999	\$ 1,999	\$ 1,999	\$ 1,999	\$ 1,999	\$ 1,999	\$ 1,999	\$ 1,999	\$ 1,999	\$ 1,999	\$ 23,991
	Phase V Residential LED Lighting - NC Only	\$ 4,779	\$ 4,779	\$ 4,779	\$ 4,779	\$ 4,779	\$ 4,779	\$ 4,779	\$ 4,779	\$ 4,779	\$ 4,779	\$ 4,779	\$ 4,779	\$ 57,342
	Phase VI Non-Residential Prescriptive Program	\$ 76	\$ 76	\$ 76	\$ 76	\$ 76	\$ 76	\$ 76	\$ 76	\$ 76	\$ 76	\$ 76	\$ 76	\$ 915
	Phase VII Residential Appliance Recycling Program	\$ 92	\$ 92	\$ 92	\$ 92	\$ 92	\$ 92	\$ 92	\$ 92	\$ 92	\$ 92	\$ 92	\$ 92	\$ 1,101
	Phase VII Residential Efficient Products Marketplace Program	\$ 336	\$ 336	\$ 336	\$ 336	\$ 336	\$ 336	\$ 336	\$ 336	\$ 336	\$ 336	\$ 336	\$ 336	\$ 4,033
	Phase VII Residential Home Energy Assessment Program	\$ 214	\$ 214	\$ 214	\$ 214	\$ 214	\$ 214	\$ 214	\$ 214	\$ 214	\$ 214	\$ 214	\$ 214	\$ 2,564
	Phase VII Non-Residential Lighting Systems & Controls Program	\$ 146	\$ 146	\$ 146	\$ 146	\$ 146	\$ 146	\$ 146	\$ 146	\$ 146	\$ 146	\$ 146	\$ 146	\$ 1,750
	Phase VII Non-Residential Heating & Cooling Efficiency Program	\$ 96	\$ 96	\$ 96	\$ 96	\$ 96	\$ 96	\$ 96	\$ 96	\$ 96	\$ 96	\$ 96	\$ 96	\$ 1,158
	Phase VII Non-Residential Window Film Program	\$ 22	\$ 22	\$ 22	\$ 22	\$ 22	\$ 22	\$ 22	\$ 22	\$ 22	\$ 22	\$ 22	\$ 22	\$ 268
	Phase VII Non-Residential Small Manufacturing Program	\$ 62	\$ 62	\$ 62	\$ 62	\$ 62	\$ 62	\$ 62	\$ 62	\$ 62	\$ 62	\$ 62	\$ 62	\$ 739
	Phase VII Non-Residential Office Program	\$ 57	\$ 57	\$ 57	\$ 57	\$ 57	\$ 57	\$ 57	\$ 57	\$ 57	\$ 57	\$ 57	\$ 57	\$ 687
12	Projected Revenue Requirement (Sum Lines 5 through 10)	\$ 272,635	\$ 272,660	\$ 272,683	\$ 272,706	\$ 272,729	\$ 272,752	\$ 272,775	\$ 272,798	\$ 272,821	\$ 272,844	\$ 272,867	\$ 272,890	\$ 3,470,280
	Residential Lighting (PPI Only)													
	Phase I Air Conditioner Cycling Program													
	Phase I Residential NC Only Low Income Program													
	Phase I Commercial HVAC Upgrade Program													
	Phase I Commercial Lighting Program													
	Phase II Residential Heat Pump Tune-up Program													
	Phase II Residential Heat Pump Upgrade Program													
	Phase II Residential Duct Testing & Sealing Program													
	Phase II Residential Home Energy Check-Up Program													
	Phase II Non-Residential Duct Testing & Sealing Program													
	Phase II Non-Residential Energy Audit Program													
	Phase III Non-Residential Window Film Program													
	Phase III Non-Residential Heating & Cooling Efficiency Program													
	Phase III Non-Residential Lighting Systems & Controls Program													
	Phase IV Residential Income and Age Qualifying Home Improvement Program													
	Phase V Qualifying Small Business Improvement Program													
	Phase V Residential LED Lighting - NC Only													
	Phase VI Non-Residential Prescriptive Program													
	Phase VII Residential Appliance Recycling Program													
	Phase VII Residential Efficient Products Marketplace Program													
	Phase VII Residential Home Energy Assessment Program													
	Phase VII Non-Residential Lighting Systems & Controls Program													
	Phase VII Non-Residential Heating & Cooling Efficiency Program													
	Phase VII Non-Residential Window Film Program													
	Phase VII Non-Residential Small Manufacturing Program													
	Phase VII Non-Residential Office Program													

Aug 13 2019

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Dominion Energy North Carolina
Docket No. E-22, Sub 577
Revenue Requirement for DSM/EE Rider C
Projected Rate Base Cost For the Period June 1, 2019 - January 31, 2021

Company Exhibit AJM-1
Schedule 1
Page 4 of 6

line no.	Actual Jun-19	Projection Jul-19	Projection Aug-19	Projection Sep-19	Projection Oct-19	Projection Nov-19	Projection Dec-19	Projection Jan-20	Projection Feb-20	Projection Mar-20	Projection Apr-20	Projection May-20	Projection Jun-20	Projection Jul-20	Projection Aug-20	Projection Sep-20	Projection Oct-20	Projection Nov-20	Projection Dec-20	Projection Jan-21	
1 System Level Actual Plant In Service																					
Air Conditioner Cycling Program	\$ 19,683,469	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2 Projected Capital Expenditures																					
Air Conditioner Cycling Program	0	\$ 83,333	\$ 83,333	\$ 83,333	\$ 83,333	\$ 83,333	\$ 83,333	\$ 83,333	\$ 83,333	\$ 83,333	\$ 83,333	\$ 83,333	\$ 83,333	\$ 83,333	\$ 83,333	\$ 83,333	\$ 83,333	\$ 83,333	\$ 83,333	\$ 83,333	\$ 83,333
3 Cumulative Gross Plant (Line 1 + Line 2)																					
Air Conditioner Cycling Program	\$ 19,683,469	\$ 19,766,802	\$ 19,850,136	\$ 19,933,469	\$ 20,016,802	\$ 20,100,136	\$ 20,183,469	\$ 20,266,802	\$ 20,350,136	\$ 20,433,469	\$ 20,516,802	\$ 20,600,136	\$ 20,683,469	\$ 20,766,802	\$ 20,850,136	\$ 20,933,469	\$ 21,016,802	\$ 21,100,136	\$ 21,183,469	\$ 21,266,802	\$ 21,350,136
4 Monthly Depreciation Percentages																					
Air Conditioner Cycling Program	0.5958%	0.5958%	0.5958%	0.5958%	0.5958%	0.5958%	0.5958%	0.5958%	0.5958%	0.5958%	0.5958%	0.5958%	0.5958%	0.5958%	0.5958%	0.5958%	0.5958%	0.5958%	0.5958%	0.5958%	0.5958%
5 Projected System Monthly Depreciation Expense (Line 3 * Line 4)																					
Air Conditioner Cycling Program	\$	\$ 117,777	\$ 118,274	\$ 118,770	\$ 119,267	\$ 119,763	\$ 120,260	\$ 120,756	\$ 121,253	\$ 121,749	\$ 122,246	\$ 122,742	\$ 123,239	\$ 123,736	\$ 124,232	\$ 124,729	\$ 125,225	\$ 125,722	\$ 126,218	\$ 126,715	\$ 127,211
6 Actual/Projected System Level of Accumulated Depreciation																					
Air Conditioner Cycling Program	\$ 8,590,750	\$ 8,708,527	\$ 8,826,304	\$ 8,944,081	\$ 9,061,858	\$ 9,179,635	\$ 9,297,412	\$ 9,415,189	\$ 9,532,966	\$ 9,650,743	\$ 9,768,520	\$ 9,886,297	\$ 10,004,074	\$ 10,121,851	\$ 10,239,628	\$ 10,357,405	\$ 10,475,182	\$ 10,592,959	\$ 10,710,736	\$ 10,828,513	\$ 10,946,290
7 Actual/Projected Cumulative Net Plant (Line 3 - Line 6)																					
Air Conditioner Cycling Program	\$ 11,092,719	\$ 11,058,275	\$ 11,023,831	\$ 10,989,387	\$ 10,954,943	\$ 10,920,499	\$ 10,886,055	\$ 10,851,611	\$ 10,817,167	\$ 10,782,723	\$ 10,748,279	\$ 10,713,835	\$ 10,679,391	\$ 10,644,947	\$ 10,610,503	\$ 10,576,059	\$ 10,541,615	\$ 10,507,171	\$ 10,472,727	\$ 10,438,283	\$ 10,403,839
8 Actual/Projected Accumulated Deferred Income Tax																					
Air Conditioner Cycling Program	\$ (2,218,188)	\$ (2,186,520)	\$ (2,154,852)	\$ (2,123,184)	\$ (2,091,516)	\$ (2,059,848)	\$ (2,028,180)	\$ (1,996,512)	\$ (1,964,844)	\$ (1,933,176)	\$ (1,901,508)	\$ (1,869,840)	\$ (1,838,172)	\$ (1,806,504)	\$ (1,774,836)	\$ (1,743,168)	\$ (1,711,500)	\$ (1,679,832)	\$ (1,648,164)	\$ (1,616,496)	\$ (1,584,828)
9 Monthly Actual/Projected Rate Base (Line 7 + Line 8):																					
Air Conditioner Cycling Program	\$ 8,874,531	\$ 8,871,755	\$ 8,868,979	\$ 8,866,203	\$ 8,863,427	\$ 8,860,651	\$ 8,857,875	\$ 8,855,099	\$ 8,852,323	\$ 8,849,547	\$ 8,846,771	\$ 8,843,995	\$ 8,841,219	\$ 8,838,443	\$ 8,835,667	\$ 8,832,891	\$ 8,830,115	\$ 8,827,339	\$ 8,824,563	\$ 8,821,787	\$ 8,819,011
10 Jurisdictional Allocation Factors																					
Air Conditioner Cycling Program	5.8046%	5.8046%	5.8046%	5.8046%	5.8046%	5.8046%	5.8046%	5.8046%	5.8046%	5.8046%	5.8046%	5.8046%	5.8046%	5.8046%	5.8046%	5.8046%	5.8046%	5.8046%	5.8046%	5.8046%	5.8046%
11 North Carolina Actual/Projected Rate Base (Line 9 x Line 10)																					
Air Conditioner Cycling Program	\$ 515,131	\$ 514,970	\$ 514,810	\$ 514,649	\$ 514,488	\$ 514,327	\$ 514,166	\$ 514,005	\$ 513,844	\$ 513,683	\$ 513,522	\$ 513,361	\$ 513,200	\$ 513,039	\$ 512,878	\$ 512,717	\$ 512,556	\$ 512,395	\$ 512,234	\$ 512,073	\$ 511,912
12 Rate Base (2 month average)																					
13 Cost of Capital									0.1727%	0.1727%	0.1727%	0.1727%	0.1727%	0.1727%	0.1727%	0.1727%	0.1727%	0.1727%	0.1727%	0.1727%	0.1727%
14 Net Operating Income									\$ 3,125	\$ 3,122	\$ 3,117	\$ 3,112	\$ 3,105	\$ 3,097	\$ 3,089	\$ 3,079	\$ 3,068	\$ 3,056	\$ 3,043	\$ 3,029	\$ 3,015
Less Interest Expense LTD																					
15 Weighted Cost of Debt									0.1727%	0.1727%	0.1727%	0.1727%	0.1727%	0.1727%	0.1727%	0.1727%	0.1727%	0.1727%	0.1727%	0.1727%	0.1727%
16 Rate Base									\$ 509,992	\$ 509,442	\$ 508,892	\$ 508,342	\$ 507,792	\$ 507,242	\$ 506,692	\$ 506,142	\$ 505,592	\$ 505,042	\$ 504,492	\$ 503,942	\$ 503,392
17 Revenue Requirement - Interest Expense on Debt									\$ 881	\$ 880	\$ 878	\$ 877	\$ 875	\$ 873	\$ 870	\$ 868	\$ 864	\$ 861	\$ 857	\$ 853	\$ 849
18 Net Income Related to Common Equity									\$ 2,244	\$ 2,242	\$ 2,239	\$ 2,235	\$ 2,230	\$ 2,224	\$ 2,219	\$ 2,211	\$ 2,204	\$ 2,195	\$ 2,186	\$ 2,176	\$ 2,166
19 North Carolina Jurisdictional Income Tax Gross-up Factor									74.38%	74.38%	74.38%	74.38%	74.38%	74.38%	74.38%	74.38%	74.38%	74.38%	74.38%	74.38%	74.38%
20 Revenue Requirement - Common Equity Including Income Taxes									\$ 3,017	\$ 3,014	\$ 3,010	\$ 3,005	\$ 2,998	\$ 2,990	\$ 2,983	\$ 2,973	\$ 2,963	\$ 2,951	\$ 2,939	\$ 2,926	\$ 2,913
21 Revenue Requirement on Rate Base (Line 17 + Line 20)									\$ 3,898	\$ 3,894	\$ 3,888	\$ 3,882	\$ 3,873	\$ 3,863	\$ 3,853	\$ 3,841	\$ 3,827	\$ 3,812	\$ 3,796	\$ 3,779	\$ 3,762

¹ Includes Excess Deferred Income Tax balance

For Collection During the Rate Period February 1, 2020 - January 31, 2021

**Cost of Capital and Capital Structure (000s)
As of June 30, 2019**

line
no.

Description	Average Capitalization	Average Capitalization Ratio	Average Embedded Cost%	Overall Cost Rate
1 Total Long-Term Debt	\$11,302,846	46.653%	4.441%	2.072%
2 Total Preferred Stock	\$0	0.000%	0.000%	0.000%
3 Common Equity	\$12,924,646	53.347%	9.900%	5.281%
4 Total	<u>\$24,227,492</u>	<u>100.000%</u>		<u>7.353%</u>

Dominion Energy North Carolina

Docket No. E-22, Sub 577

Projected Revenue Requirement For DSM/EE Rider C
For the Rate Period February 1, 2020 - January 31, 2021

R8-69 (f)(1)(ii)(a) System Rate Period Revenue Requirement per Program (excludes net lost revenue)

Program	O&M (1)	Depreciation Expense	Cost of Capital	Utility Incentives	Total Costs and Incentives
Air Conditioner Cycling Program		\$1,487,806	\$796,017	\$84,640	
Residential NC Only Low Income Program		\$0	\$0	\$0	
Commercial HVAC Upgrade Program		\$0	\$0	\$87,323	
Commercial Lighting Program		\$0	\$0	\$531,907	
Residential Heat Pump Tune-up Program		\$0	\$0	\$0	
Residential Heat Pump Upgrade Program		\$0	\$0	\$57,849	
Residential Duct Testing & Sealing Program		\$0	\$0	\$0	
Residential Home Energy Check-Up Program		\$0	\$0	\$3,255	
Non-Residential Duct Testing & Sealing Program		\$0	\$0	\$1,113,860	
Non-Residential Energy Audit Program		\$0	\$0	\$105,810	
Non-Residential Window Film Program		\$0	\$0	\$135,281	
Non-Residential Heating & Cooling Efficiency Program		\$0	\$0	\$674,786	
Non-Residential Lighting Systems & Controls Program		\$0	\$0	\$1,061,261	
Residential Income and Age Qualifying Home Improvement Progr		\$0	\$0	\$0	
Qualifying Small Business Improvement Program		\$0	\$0	\$401,741	
Residential LED Lighting - NC Only		\$0	\$0	\$57,342	
Non-Residential Prescriptive Program		\$0	\$0	\$15,319	
Residential Appliance Recycling Program		\$0	\$0	\$18,443	
Residential Customer Engagement Program		\$0	\$0	\$0	
Residential Efficient Products Marketplace Program		\$0	\$0	\$67,526	
Residential Home Energy Assessment Program		\$0	\$0	\$42,940	
Residential Smart Thermostat - DR Program		\$0	\$0	\$0	
Residential Smart Thermostat - EE Program		\$0	\$0	\$0	
Non-Residential Lighting Systems & Controls Program		\$0	\$0	\$29,305	
Non-Residential Heating & Cooling Efficiency Program		\$0	\$0	\$19,383	
Non-Residential Window Film Program		\$0	\$0	\$4,491	
Non-Residential Small Manufacturing Program		\$0	\$0	\$12,375	
Non-Residential Office Program		\$0	\$0	\$11,507	
Common Costs	\$2,584,204				\$2,584,204

R8-69 (f)(1)(ii)(a) North Carolina Jurisdictional Rate Period Revenue Requirement per Program (excludes net lost revenue)

Program	O&M (1)	Depreciation Expense (2)	Cost of Capital	Utility Incentives	Total Costs and Incentives
Residential Lighting Program (PPI Only)		\$0	\$0	\$40,653	
Air Conditioner Cycling Program		\$77,839	\$46,206	\$4,913	
Residential NC Only Low Income Program		\$0	\$0	\$0	
Commercial HVAC Upgrade Program		\$0	\$0	\$5,215	
Commercial Lighting Program		\$0	\$0	\$31,764	
Residential Heat Pump Tune-up Program		\$0	\$0	\$0	
Residential Heat Pump Upgrade Program		\$0	\$0	\$3,455	
Residential Duct Testing & Sealing Program		\$0	\$0	\$0	
Residential Home Energy Check-Up Program		\$0	\$0	\$194	
Non-Residential Duct Testing & Sealing Program		\$0	\$0	\$66,517	
Non-Residential Energy Audit Program		\$0	\$0	\$6,319	
Non-Residential Window Film Program		\$0	\$0	\$8,079	
Non-Residential Heating & Cooling Efficiency Program		\$0	\$0	\$40,297	
Non-Residential Lighting Systems & Controls Program		\$0	\$0	\$63,376	
Residential Income and Age Qualifying Home Improvement Progr		\$0	\$0	\$0	
Qualifying Small Business Improvement Program		\$0	\$0	\$23,991	
Residential LED Lighting - NC Only		\$0	\$0	\$57,342	
Non-Residential Prescriptive Program		\$0	\$0	\$915	
Residential Appliance Recycling Program		\$0	\$0	\$1,101	
Residential Customer Engagement Program		\$0	\$0	\$0	
Residential Efficient Products Marketplace Program		\$0	\$0	\$4,033	
Residential Home Energy Assessment Program		\$0	\$0	\$2,564	
Residential Smart Thermostat - DR Program		\$0	\$0	\$0	
Residential Smart Thermostat - EE Program		\$0	\$0	\$0	
Non-Residential Lighting Systems & Controls Program		\$0	\$0	\$1,750	
Non-Residential Heating & Cooling Efficiency Program		\$0	\$0	\$1,158	
Non-Residential Window Film Program		\$0	\$0	\$268	
Non-Residential Small Manufacturing Program		\$0	\$0	\$739	
Non-Residential Office Program		\$0	\$0	\$687	

(1) O&M Includes AC Cycling Property Taxes

(2) Depreciation Expense includes EDIT Amortization

Dominion Energy North Carolina
Docket No. E-22, Sub 577
DSM/EE Experience Modification Factor (Rider CE) for the Test Period January 1, 2018 through December 31, 2018
For (Refund)/Recovery in the Rate Period February 1, 2020 - January 31, 2021

Company Exhibit AJM-1
Schedule 2
Page 1 of 7

line no.	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Rider CE Total
1 Monthly Revenue Requirement (Page 3; Line 13)	\$ 233,522	\$ 331,569	\$ 304,371	\$ 240,680	\$ 278,025	\$ 342,630	\$ 377,621	\$ 365,502	\$ 311,466	\$ 502,976	\$ 288,023	\$ 409,486	\$ 3,985,871
2 Less: Portion Related to Utility Incentives (Page 3, Lines 10 & 11)	\$ (57,447)	\$ (62,540)	\$ (65,571)	\$ (68,296)	\$ (70,897)	\$ (79,491)	\$ (87,365)	\$ (90,632)	\$ (94,477)	\$ (87,962)	\$ (94,739)	\$ (111,221)	\$ (970,637)
3 Monthly Revenue Requirement Net of Incentives (Line 1 + Line 2)	\$ 176,075	\$ 269,030	\$ 238,800	\$ 172,384	\$ 207,128	\$ 263,139	\$ 290,256	\$ 274,871	\$ 216,989	\$ 415,014	\$ 193,285	\$ 298,265	\$ 3,015,234
4 Monthly Rider C Revenues	\$ 400,621	\$ 257,248	\$ 252,226	\$ 238,027	\$ 239,862	\$ 303,265	\$ 346,882	\$ 293,685	\$ 354,527	\$ 230,152	\$ 300,086	\$ 279,404	\$ 3,495,984
5 Less: Portion Related to Utility Incentives (Rev Req in Previous Rider C Filings)	\$ (35,466)	\$ (22,773)	\$ (22,329)	\$ (21,072)	\$ (21,234)	\$ (26,847)	\$ (30,708)	\$ (25,999)	\$ (31,385)	\$ (20,375)	\$ (26,566)	\$ (24,735)	\$ (309,488)
6 Monthly Rider C Revenues Net of Incentives (Line 4 + Line 5)	\$ 365,155	\$ 234,475	\$ 229,897	\$ 216,955	\$ 218,628	\$ 276,418	\$ 316,174	\$ 267,686	\$ 323,142	\$ 209,778	\$ 273,520	\$ 254,669	\$ 3,186,496
7 Monthly (Over)/Under Recovery Before Carrying Costs (Line 1 - Line 4)	\$ (167,099)	\$ 74,321	\$ 52,145	\$ 2,653	\$ 38,163	\$ 39,365	\$ 30,738	\$ 71,817	\$ (43,061)	\$ 272,824	\$ (12,063)	\$ 130,081	\$ 489,887
8 Monthly (Over)/Under Recovery Excluding Utility Incentives (Line 3 - Line 6)	\$ (189,080)	\$ 34,555	\$ 8,903	\$ (44,572)	\$ (11,500)	\$ (13,279)	\$ (25,918)	\$ 7,185	\$ (106,153)	\$ 205,236	\$ (80,236)	\$ 43,595	\$ (171,263)
9 Deferred Income Tax	\$ (48,448)	\$ 8,854	\$ 2,281	\$ (11,420)	\$ (2,947)	\$ (3,402)	\$ (6,641)	\$ 1,841	\$ (27,199)	\$ 52,587	\$ (20,559)	\$ 11,170	\$ (43,882)
10 Net Monthly (Over)/Under Recovery Net of ADIT and Incentives (Line 8 - Line 9)	\$ (140,632)	\$ 25,701	\$ 6,622	\$ (33,151)	\$ (8,553)	\$ (9,876)	\$ (19,277)	\$ 5,344	\$ (78,954)	\$ 152,649	\$ (59,677)	\$ 32,425	\$ (127,380)
11 Cumulative Net Monthly (Over)/Under Recovery (Net of Incentives)	\$ (140,632)	\$ (114,931)	\$ (108,310)	\$ (141,461)	\$ (150,014)	\$ (159,890)	\$ (179,167)	\$ (173,824)	\$ (252,777)	\$ (100,128)	\$ (159,805)	\$ (127,380)	
12 Two Month Average Cumulative Net (Over)/Under Recovery (Net of Incentives)	\$ (70,316)	\$ (127,782)	\$ (111,621)	\$ (124,885)	\$ (145,737)	\$ (154,952)	\$ (169,529)	\$ (176,495)	\$ (213,300)	\$ (176,453)	\$ (129,967)	\$ (143,593)	
13 Carrying Cost on Cumulative (Over)/Under Recovery [1]	\$ (535)	\$ (972)	\$ (849)	\$ (950)	\$ (1,109)	\$ (1,179)	\$ (1,290)	\$ (1,343)	\$ (1,623)	\$ (1,343)	\$ (989)	\$ (1,093)	\$ (13,275)
14 DSM EE/EMF to be (refunded)/collected during the Rate Period (Line 7 + Line 13)	\$ (167,634)	\$ 73,349	\$ 51,296	\$ 1,703	\$ 37,054	\$ 38,186	\$ 29,448	\$ 70,474	\$ (44,684)	\$ 271,481	\$ (13,052)	\$ 128,988	\$ 476,612
Revenue Requirement for Financing Costs on Current Rider CE (Over) Recovery Net of Utility Incentives and ADIT for Jan 2018 - Dec 2018 (Page 6, Line 5)													\$ (12,602)
Total DSM EE EMF Rider CE Revenue Requirement to be (Refunded)/Collected over the February 1, 2020 - January 31, 2021 Rate Year													\$ 464,010

[1] Pre-tax Overall Weighted Rate of Return Jan - Oct, Approved in Docket No. E-22, Sub 479. Nov and Dec Approved in Docket No. E-22, Sub 532.

Actual Revenue Requirement for DSM/EE EMF Rider CE
For the Test Period January 1, 2018 - December 31, 2018

line no.	Actual Jan-18	Actual Feb-18	Actual Mar-18	Actual Apr-18	Actual May-18	Actual Jun-18	Actual Jul-18	Actual Aug-18	Actual Sep-18	Actual Oct-18	Actual Nov-18	Actual Dec-18	Total Test Period
1 System Program Operating Expenses													
Air Conditioner Cycling Program													
Residential Lighting Program													
Residential Low Income Program (NC Only)													
Commercial HVAC Upgrade Program (NC Trailing EMV Costs Only)													
Commercial Lighting Program (NC Trailing EMV Costs Only)													
Residential Heat Pump Tune-up Program													
Residential Heat Pump Upgrade Program													
Residential Duct Testing & Sealing Program													
Residential Home Energy Check-up Program													
Non-Residential Duct Testing & Sealing Program													
Non-Residential Energy Audit Program													
Non-Residential Lighting Systems and Controls													
Non-Residential Heating & Cooling Efficiency													
Non-Residential Window Film													
Residential Income & Age Qualifying Home Improvement Program													
Commercial Small Business Improvement													
Residential LED													
Non Residential Prescriptive													
2 Allocate System Common Costs to Programs													
Air Conditioner Cycling Program	\$ 37,382	\$ 39,004	\$ 46,072	\$ 38,206	\$ 36,523	\$ 41,981	\$ 32,974	\$ 35,201	\$ 37,579	\$ 39,738	\$ 38,554	\$ (5,788)	\$ 417,428
Residential Lighting Program	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Residential Low Income Program (NC Only)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Commercial HVAC Upgrade Program (NC Trailing EMV Costs Only)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Commercial Lighting Program (NC Trailing EMV Costs Only)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Residential Heat Pump Tune-up Program	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Residential Heat Pump Upgrade Program	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Residential Duct Testing & Sealing Program	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Residential Home Energy Check-up Program	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Non-Residential Duct Testing & Sealing Program	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Non-Residential Energy Audit Program	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Non-Residential Lighting Systems and Controls	\$ 31,053	\$ 32,401	\$ 38,272	\$ 31,738	\$ 30,339	\$ 34,873	\$ 27,391	\$ 29,242	\$ 31,217	\$ 33,010	\$ 32,027	\$ (4,808)	\$ 346,756
Non-Residential Heating & Cooling Efficiency	\$ 8,739	\$ 9,118	\$ 10,771	\$ 8,932	\$ 8,538	\$ 9,814	\$ 7,709	\$ 8,229	\$ 8,785	\$ 9,290	\$ 9,013	\$ (1,353)	\$ 97,586
Non-Residential Window Film	\$ 1,854	\$ 1,934	\$ 2,284	\$ 1,894	\$ 1,811	\$ 2,082	\$ 1,635	\$ 1,745	\$ 1,863	\$ 1,970	\$ 1,912	\$ (287)	\$ 20,697
Residential Income & Age Qualifying Home Improvement Program	\$ 6,961	\$ 7,264	\$ 8,580	\$ 7,115	\$ 6,801	\$ 7,818	\$ 6,141	\$ 6,555	\$ 6,998	\$ 7,400	\$ 7,180	\$ (1,078)	\$ 77,736
Commercial Small Business Improvement	\$ 17,047	\$ 17,787	\$ 21,010	\$ 17,423	\$ 16,655	\$ 19,144	\$ 15,037	\$ 16,053	\$ 17,137	\$ 18,121	\$ 17,582	\$ (2,639)	\$ 190,356
Residential LED	\$ 6,211	\$ 6,481	\$ 7,655	\$ 6,348	\$ 6,068	\$ 6,975	\$ 5,479	\$ 5,849	\$ 6,244	\$ 6,603	\$ 6,406	\$ (962)	\$ 69,358
Non Residential Prescriptive	\$ 33,212	\$ 34,654	\$ 40,933	\$ 33,945	\$ 32,449	\$ 37,298	\$ 29,296	\$ 31,275	\$ 33,387	\$ 35,305	\$ 34,254	\$ (5,142)	\$ 370,865
3 System Operating Expenses Including Allocated Common Costs													
Air Conditioner Cycling Program													
Residential Lighting Program													
Residential Low Income Program (NC Only)													
Commercial HVAC Upgrade Program (NC Trailing EMV Costs Only)													
Commercial Lighting Program (NC Trailing EMV Costs Only)													
Residential Heat Pump Tune-up Program													
Residential Heat Pump Upgrade Program													
Residential Duct Testing & Sealing Program													
Residential Home Energy Check-up Program													
Non-Residential Duct Testing & Sealing Program													
Non-Residential Energy Audit Program													
Non-Residential Lighting Systems and Controls													
Non-Residential Heating & Cooling Efficiency													
Non-Residential Window Film													
Residential Income & Age Qualifying Home Improvement Program													
Commercial Small Business Improvement													
Residential LED													
Non Residential Prescriptive													
4 Jurisdictional Assignment Factors													
Air Conditioner Cycling Program	5.8046%	5.8046%	5.8046%	5.8046%	5.8046%	5.8046%	5.8046%	5.8046%	5.8046%	5.8046%	5.8046%	5.8046%	5.8046%
Residential Lighting Program	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%
Residential Low Income Program (NC Only)	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%
Commercial HVAC Upgrade Program (NC Trailing EMV Costs Only)	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%
Commercial Lighting Program (NC Trailing EMV Costs Only)	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%
Residential Heat Pump Tune-up Program	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%
Residential Heat Pump Upgrade Program	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%
Residential Duct Testing & Sealing Program	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%
Residential Home Energy Check-up Program	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%
Non-Residential Duct Testing & Sealing Program	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%
Non-Residential Energy Audit Program	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%
Non-Residential Lighting Systems and Controls	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%
Non-Residential Heating & Cooling Efficiency	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%
Non-Residential Window Film	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%
Residential Income & Age Qualifying Home Improvement Program	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%
Commercial Small Business Improvement	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%
Residential LED	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%
Non Residential Prescriptive	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%	5.9718%

Dominion Energy North Carolina

For the Test Period January 1, 2018 - December 31, 2018

line no.	Actual Jan-18	Actual Feb-18	Actual Mar-18	Actual Apr-18	Actual May-18	Actual Jun-18	Actual Jul-18	Actual Aug-18	Actual Sep-18	Actual Oct-18	Actual Nov-18	Actual Dec-18	Total Test Period
5 NC Jurisdiction Operating Expenses (Line 3 * Line 4)													
Air Conditioner Cycling Program													
Residential Lighting Program													
Residential Low Income Program (NC Only)													
Commercial HVAC Upgrade Program (NC Trailing EMV Costs Only)													
Commercial Lighting Program (NC Trailing EMV Costs Only)													
Residential Heat Pump Tune-up Program													
Residential Heat Pump Upgrade Program													
Residential Duct Testing & Sealing Program													
Residential Home Energy Check-up Program													
Non-Residential Duct Testing & Sealing Program													
Non-Residential Energy Audit Program													
Non-Residential Lighting Systems and Controls													
Non-Residential Heating & Cooling Efficiency													
Non-Residential Window Film													
Residential Income & Age Qualifying Home Improvement Program													
Commercial Small Business Improvement													
Residential LED													
Non Residential Prescriptive													
6 NC Jurisdiction Property Taxes													
Air Conditioner Cycling Program	\$ 827	\$ 827	\$ 827	\$ 827	\$ 827	\$ 827	\$ 827	\$ 827	\$ 827	\$ 827	\$ 827	\$ 827	\$ 9,918
7 NC Jurisdiction Depreciation Expense (Page 4, Line 2 * Line 7)													
Air Conditioner Cycling Program	\$ 6,734	\$ 6,740	\$ 6,740	\$ 6,742	\$ 6,746	\$ 6,749	\$ 6,754	\$ 6,762	\$ 6,756	\$ 6,757	\$ 6,759	\$ 6,759	\$ 80,997
8 NC Jurisdiction Excess Deferred Income Tax Amortization													
Air Conditioner Cycling Program	\$ (677)	\$ (677)	\$ (677)	\$ (677)	\$ (677)	\$ (677)	\$ (677)	\$ (677)	\$ (677)	\$ (677)	\$ (677)	\$ (677)	\$ (8,127)
9 NC Jurisdiction Rate Base Costs (Page 4, Line 18)													
Air Conditioner Cycling Program	\$ 4,497	\$ 4,467	\$ 4,433	\$ 4,396	\$ 4,363	\$ 4,330	\$ 4,297	\$ 4,267	\$ 4,234	\$ 4,199	\$ 4,197	\$ 4,165	\$ 51,845
10 NC Jurisdiction Net Lost Revenues (Page 5, Line 6)													
Residential Lighting Program	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Residential Low Income Program (NC Only)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Commercial HVAC Upgrade Program (NC Trailing EMV Costs Only)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Commercial Lighting Program (NC Trailing EMV Costs Only)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Residential Heat Pump Tune-up Program	\$ (0)	\$ (0)	\$ (0)	\$ (0)	\$ (0)	\$ (1)	\$ (1)	\$ (2)	\$ (0)	\$ (0)	\$ (1)	\$ (2)	\$ (8)
Residential Heat Pump Upgrade Program	\$ (0)	\$ (0)	\$ (0)	\$ (0)	\$ (0)	\$ (1)	\$ (1)	\$ (1)	\$ (0)	\$ (0)	\$ (0)	\$ (1)	\$ (5)
Residential Duct Testing & Sealing Program	\$ (0)	\$ (0)	\$ (0)	\$ (0)	\$ (0)	\$ (0)	\$ (0)	\$ (0)	\$ (0)	\$ (0)	\$ (0)	\$ (0)	\$ (1)
Residential Home Energy Check-up Program	\$ (0)	\$ (0)	\$ (0)	\$ (0)	\$ (0)	\$ (0)	\$ (0)	\$ (1)	\$ (0)	\$ (0)	\$ (0)	\$ (1)	\$ (3)
Non-Residential Duct Testing & Sealing Program	\$ (1)	\$ (1)	\$ (1)	\$ (1)	\$ (1)	\$ (5)	\$ (5)	\$ (10)	\$ (2)	\$ (1)	\$ (2)	\$ (7)	\$ (37)
Non-Residential Energy Audit Program	\$ (2)	\$ (1)	\$ (2)	\$ (1)	\$ (2)	\$ (6)	\$ (6)	\$ (13)	\$ (2)	\$ (1)	\$ (3)	\$ (9)	\$ (47)
Non-Residential Lighting Systems and Controls	\$ 15,914	\$ 17,457	\$ 18,623	\$ 18,416	\$ 18,668	\$ 19,488	\$ 23,782	\$ 23,804	\$ 23,648	\$ 21,546	\$ 22,936	\$ 35,525	\$ 259,806
Non-Residential Heating & Cooling Efficiency	\$ 303	\$ 286	\$ 501	\$ 937	\$ 929	\$ 1,024	\$ 1,460	\$ 1,355	\$ 1,474	\$ 905	\$ 872	\$ 879	\$ 10,925
Non-Residential Window Film	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 18	\$ 18	\$ 16	\$ 29	\$ 28	\$ 109
Residential Income & Age Qualifying Home Improvement Program	\$ 1,022	\$ 1,021	\$ 1,021	\$ 1,021	\$ 1,020	\$ 1,224	\$ 1,224	\$ 1,222	\$ 1,225	\$ 1,021	\$ 1,020	\$ 1,020	\$ 13,060
Commercial Small Business Improvement	\$ 745	\$ 938	\$ 1,047	\$ 1,165	\$ 2,195	\$ 3,434	\$ 3,883	\$ 3,928	\$ 3,867	\$ 4,982	\$ 5,100	\$ 5,223	\$ 36,506
Residential LED	\$ 12,454	\$ 15,827	\$ 17,371	\$ 19,747	\$ 21,077	\$ 27,322	\$ 30,016	\$ 33,320	\$ 37,240	\$ 32,483	\$ 37,039	\$ 40,565	\$ 324,461
Non Residential Prescriptive	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,723
11 NC Jurisdiction Program Performance Incentive (PPI)													
Air Conditioner Cycling Program	\$ (276)	\$ (276)	\$ (276)	\$ (276)	\$ (276)	\$ (276)	\$ (276)	\$ (276)	\$ (276)	\$ (276)	\$ (276)	\$ (276)	\$ (3,311)
Residential Lighting Program	\$ 3,388	\$ 3,388	\$ 3,388	\$ 3,388	\$ 3,388	\$ 3,388	\$ 3,388	\$ 3,388	\$ 3,388	\$ 3,388	\$ 3,388	\$ 3,388	\$ 40,653
Residential Low Income Program (NC Only)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Commercial HVAC Upgrade Program (NC Trailing EMV Costs Only)	\$ 435	\$ 435	\$ 435	\$ 435	\$ 435	\$ 435	\$ 435	\$ 435	\$ 435	\$ 435	\$ 435	\$ 435	\$ 5,215
Commercial Lighting Program (NC Trailing EMV Costs Only)	\$ 2,647	\$ 2,647	\$ 2,647	\$ 2,647	\$ 2,647	\$ 2,647	\$ 2,647	\$ 2,647	\$ 2,647	\$ 2,647	\$ 2,647	\$ 2,647	\$ 31,764
Residential Heat Pump Tune-up Program	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Residential Heat Pump Upgrade Program	\$ 288	\$ 288	\$ 288	\$ 288	\$ 288	\$ 288	\$ 288	\$ 288	\$ 288	\$ 288	\$ 288	\$ 288	\$ 3,455
Residential Duct Testing & Sealing Program	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Residential Home Energy Check-up Program	\$ 16	\$ 16	\$ 16	\$ 16	\$ 16	\$ 16	\$ 16	\$ 16	\$ 16	\$ 16	\$ 16	\$ 16	\$ 194
Non-Residential Duct Testing & Sealing Program	\$ 5,543	\$ 5,543	\$ 5,543	\$ 5,543	\$ 5,543	\$ 5,543	\$ 5,543	\$ 5,543	\$ 5,543	\$ 5,543	\$ 5,543	\$ 5,543	\$ 66,517
Non-Residential Energy Audit Program	\$ 527	\$ 527	\$ 527	\$ 527	\$ 527	\$ 527	\$ 527	\$ 527	\$ 527	\$ 527	\$ 527	\$ 527	\$ 6,319
Non-Residential Lighting Systems and Controls	\$ 5,101	\$ 5,101	\$ 5,101	\$ 5,101	\$ 5,101	\$ 5,101	\$ 5,101	\$ 5,101	\$ 5,101	\$ 5,101	\$ 5,101	\$ 5,101	\$ 61,216
Non-Residential Heating & Cooling Efficiency	\$ 3,279	\$ 3,279	\$ 3,279	\$ 3,279	\$ 3,279	\$ 3,279	\$ 3,279	\$ 3,279	\$ 3,279	\$ 3,279	\$ 3,279	\$ 3,279	\$ 39,342
Non-Residential Window Film	\$ 673	\$ 673	\$ 673	\$ 673	\$ 673	\$ 673	\$ 673	\$ 673	\$ 673	\$ 673	\$ 673	\$ 673	\$ 8,079
Residential Income & Age Qualifying Home Improvement Program	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Commercial Small Business Improvement	\$ 1,170	\$ 1,170	\$ 1,170	\$ 1,170	\$ 1,170	\$ 1,170	\$ 1,170	\$ 1,170	\$ 1,170	\$ 1,170	\$ 1,170	\$ 1,170	\$ 14,042
Residential LED	\$ 4,779	\$ 4,779	\$ 4,779	\$ 4,779	\$ 4,779	\$ 4,779	\$ 4,779	\$ 4,779	\$ 4,779	\$ 4,779	\$ 4,779	\$ 4,779	\$ 57,342
Non Residential Prescriptive	\$ (557)	\$ (557)	\$ (557)	\$ (557)	\$ (557)	\$ (557)	\$ (557)	\$ (557)	\$ (557)	\$ (557)	\$ (557)	\$ (557)	\$ (6,679)
12 Revenue Requirement (Sum Lines 5 through 10)													
Air Conditioner Cycling Program													
Residential Lighting Program													
Residential Low Income Program (NC Only)													
Commercial HVAC Upgrade Program (NC Trailing EMV Costs Only)													
Commercial Lighting Program (NC Trailing EMV Costs Only)													
Residential Heat Pump Tune-up Program													
Residential Heat Pump Upgrade Program													
Residential Duct Testing & Sealing Program													
Residential Home Energy Check-up Program													
Non-Residential Duct Testing & Sealing Program													
Non-Residential Energy Audit Program													
Non-Residential Lighting Systems and Controls													
Non-Residential Heating & Cooling Efficiency													
Non-Residential Window Film													
Residential Income & Age Qualifying Home Improvement Program													
Commercial Small Business Improvement													
Residential LED													
Non Residential Prescriptive													
13 Total Revenue Requirement All Programs	\$ 233,522	\$ 331,569	\$ 304,371	\$ 240,680	\$ 278,025	\$ 342,630	\$ 377,621	\$ 365,502	\$ 311,466	\$ 502,976	\$ 288,023	\$ 409,486	\$ 3,985,871

Dominion Energy North Carolina
Docket No. E-22, Sub 577
Rate Base Costs For the Test Period January 1, 2018 - December 31, 2018

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line no.	Actual Dec-17	Actual Jan-18	Actual Feb-18	Actual Mar-18	Actual Apr-18	Actual May-18	Actual Jun-18	Actual Jul-18	Actual Aug-18	Actual Sep-18	Actual Oct-18	Actual Nov-18	Actual Dec-18
1 System Level Plant In Service Air Conditioner Cycling Program	\$ 19,454,944	\$ 19,469,044	\$ 19,488,469	\$ 19,486,369	\$ 19,492,969	\$ 19,505,569	\$ 19,514,644	\$ 19,529,119	\$ 19,549,969	\$ 19,554,694	\$ 19,561,144	\$ 19,575,394	\$ 19,590,319
2 System Depreciation Expense Air Conditioner Cycling Program	\$ 115,919	\$ 116,003	\$ 116,119	\$ 116,107	\$ 116,146	\$ 116,221	\$ 116,275	\$ 116,361	\$ 116,485	\$ 116,389	\$ 116,399	\$ 116,446	\$ 116,450
3 System Accumulated Depreciation Air Conditioner Cycling Program	\$ 6,496,627	\$ 6,612,630	\$ 6,728,749	\$ 6,844,856	\$ 6,961,002	\$ 7,077,223	\$ 7,193,498	\$ 7,309,859	\$ 7,426,344	\$ 7,542,733	\$ 7,659,133	\$ 7,775,579	\$ 7,892,029
4 Cumulative System Net Plant (Line 1 - Line 3) Air Conditioner Cycling Program	\$ 12,958,317	\$ 12,856,414	\$ 12,759,720	\$ 12,641,513	\$ 12,531,967	\$ 12,428,346	\$ 12,321,146	\$ 12,219,260	\$ 12,123,625	\$ 12,011,961	\$ 11,902,011	\$ 11,799,815	\$ 11,698,290
5 System Accumulated Deferred Income Tax Air Conditioner Cycling Program	\$ (2,782,760)	\$ (2,751,337)	\$ (2,720,469)	\$ (2,689,602)	\$ (2,658,734)	\$ (2,627,867)	\$ (2,596,999)	\$ (2,566,132)	\$ (2,535,264)	\$ (2,504,397)	\$ (2,473,530)	\$ (2,442,662)	\$ (2,411,797)
6 Monthly Rate Base System (Line 4 + Line 5): Air Conditioner Cycling Program	\$ 10,175,557	\$ 10,105,077	\$ 10,039,251	\$ 9,951,911	\$ 9,873,233	\$ 9,800,479	\$ 9,724,147	\$ 9,653,128	\$ 9,588,361	\$ 9,507,564	\$ 9,428,481	\$ 9,357,153	\$ 9,286,493
7 Jurisdictional Allocation Factor Air Conditioner Cycling Program	5.8046%	5.8046%	5.8046%	5.8046%	5.8046%	5.8046%	5.8046%	5.8046%	5.8046%	5.8046%	5.8046%	5.8046%	5.8046%
8 North Carolina Rate Base (Line 6 x Line 7) Air Conditioner Cycling Program	\$ 590,650	\$ 586,559	\$ 582,738	\$ 577,669	\$ 573,102	\$ 568,879	\$ 564,448	\$ 560,325	\$ 556,566	\$ 551,876	\$ 547,286	\$ 543,145	\$ 539,044
9 North Carolina Rate Base (2 month average)		\$ 588,605	\$ 584,649	\$ 580,203	\$ 575,385	\$ 570,990	\$ 566,663	\$ 562,387	\$ 558,446	\$ 554,221	\$ 549,581	\$ 545,215	\$ 541,095
10 Cost of Capital (Page 7, Line 4/12)		0.6129%	0.6129%	0.6129%	0.6129%	0.6129%	0.6129%	0.6129%	0.6129%	0.6129%	0.6129%	0.6129%	0.6129%
11 Net Operating Income (Line 9 * Line 10)	\$ 3,608	\$ 3,583	\$ 3,556	\$ 3,527	\$ 3,500	\$ 3,473	\$ 3,447	\$ 3,423	\$ 3,397	\$ 3,368	\$ 3,342	\$ 3,316	
Less Interest Expense LTD													
12 Weighted Cost of Debt (Page 7, Line 1/12)		0.1742%	0.1742%	0.1742%	0.1742%	0.1742%	0.1742%	0.1742%	0.1742%	0.1742%	0.1742%	0.1574%	0.1574%
13 Rate Base (2 Month Average = Line 9)	\$ 588,605	\$ 584,649	\$ 580,203	\$ 575,385	\$ 570,990	\$ 566,663	\$ 562,387	\$ 558,446	\$ 554,221	\$ 549,581	\$ 545,215	\$ 541,095	
14 Revenue Requirement - Interest Expense on Debt	\$ 1,025	\$ 1,018	\$ 1,011	\$ 1,002	\$ 995	\$ 987	\$ 980	\$ 973	\$ 965	\$ 957	\$ 858	\$ 852	
15 Net Income Related to Common Equity (Line 11 - Line 14)	\$ 2,582	\$ 2,565	\$ 2,546	\$ 2,524	\$ 2,505	\$ 2,486	\$ 2,467	\$ 2,450	\$ 2,432	\$ 2,411	\$ 2,483	\$ 2,464	
16 North Carolina Jurisdictional Income Tax Gross-up Factor		74.38%	74.38%	74.38%	74.38%	74.38%	74.38%	74.38%	74.38%	74.38%	74.38%	74.38%	
17 Revenue Requirement - Common Equity Including Income Taxes	\$ 3,472	\$ 3,449	\$ 3,422	\$ 3,394	\$ 3,368	\$ 3,343	\$ 3,317	\$ 3,294	\$ 3,269	\$ 3,242	\$ 3,339	\$ 3,313	
18 Revenue Requirement on Rate Base (Line 14 + Line 17)	\$ 4,497	\$ 4,467	\$ 4,433	\$ 4,396	\$ 4,363	\$ 4,330	\$ 4,297	\$ 4,267	\$ 4,234	\$ 4,199	\$ 4,197	\$ 4,165	

Dominion Energy North Carolina
Docket No. E-22, Sub 577
Actual Net Lost Revenues
For the Test Period January 1, 2018 - December 31, 2018

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 Schedule 2
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line no.	Actual Jan-18	Actual Feb-18	Actual Mar-18	Actual Apr-18	Actual May-18	Actual Jun-18	Actual Jul-18	Actual Aug-18	Actual Sep-18	Actual Oct-18	Actual Nov-18	Actual Dec-18	Total Test Period
1 Jurisdictional Energy Reductions (kWh)													
Residential Lighting Program	-	-	-	-	-	-	-	-	-	-	-	-	-
Residential Low Income Program (NC Only)	-	-	-	-	-	-	-	-	-	-	-	-	-
Commercial HVAC Upgrade Program (NC Trailing EMV Costs Only)	-	-	-	-	-	-	-	-	-	-	-	-	-
Commercial Lighting Program (NC Trailing EMV Costs Only)	-	-	-	-	-	-	-	-	-	-	-	-	-
Residential Heat Pump Tune-up Program	11,163	11,163	11,163	11,163	11,163	11,163	11,163	11,163	11,163	11,163	11,163	11,163	133,953
Residential Heat Pump Upgrade Program	6,373	6,373	6,373	6,373	6,373	6,373	6,373	6,373	6,373	6,373	6,373	6,373	76,474
Residential Duct Testing & Sealing Program	774	774	774	774	774	774	774	774	774	774	774	774	9,287
Residential Home Energy Check-up Program	3,672	3,672	3,672	3,672	3,672	3,672	3,672	3,672	3,672	3,672	3,672	3,672	44,065
Non-Residential Duct Testing & Sealing Program	48,535	48,535	48,535	48,535	48,535	48,535	48,535	48,535	48,535	48,535	48,535	48,535	582,419
Non-Residential Energy Audit Program	62,107	62,107	62,107	62,107	62,107	62,107	62,107	62,107	62,107	62,107	62,107	62,107	745,290
Non-Residential Lighting Systems and Controls	210,103	237,421	254,683	256,616	258,693	262,933	308,032	308,032	308,032	315,961	315,961	511,807	3,548,273
Non-Residential Heating & Cooling Efficiency	5,285	5,285	9,721	18,456	18,456	18,456	18,456	18,456	18,456	18,456	18,456	18,456	186,391
Non-Residential Window Film	-	-	-	-	-	-	-	301	301	301	301	301	1,505
Residential Income & Age Qualifying Home Improvement Program	14,460	14,460	14,460	14,460	14,460	14,460	14,460	14,460	14,460	14,460	14,460	14,460	173,518
Commercial Small Business Improvement	12,904	15,867	17,613	20,256	37,805	54,905	63,066	63,066	63,066	88,375	88,375	90,460	615,758
Residential LED	176,692	224,317	246,250	279,920	298,915	323,349	355,403	394,846	440,594	460,821	525,298	576,111	4,302,517
Non Residential Prescriptive	-	-	-	-	-	-	-	-	-	11,360	-	-	27,070
2 Billing Rate													
Residential Lighting Program	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Residential Low Income Program (NC Only)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Commercial HVAC Upgrade Program (NC Trailing EMV Costs Only)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Commercial Lighting Program (NC Trailing EMV Costs Only)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Residential Heat Pump Tune-up Program	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Residential Heat Pump Upgrade Program	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Residential Duct Testing & Sealing Program	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Residential Home Energy Check-up Program	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Non-Residential Duct Testing & Sealing Program	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Non-Residential Energy Audit Program	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Non-Residential Lighting Systems and Controls	\$ 0.07577	\$ 0.07354	\$ 0.07315	\$ 0.07178	\$ 0.07219	\$ 0.07421	\$ 0.07731	\$ 0.07748	\$ 0.07681	\$ 0.06821	\$ 0.07264	\$ 0.06955	\$ 0.06955
Non-Residential Heating & Cooling Efficiency	\$ 0.05745	\$ 0.05407	\$ 0.05158	\$ 0.05078	\$ 0.05035	\$ 0.05560	\$ 0.07920	\$ 0.07363	\$ 0.07989	\$ 0.04903	\$ 0.04730	\$ 0.04778	\$ 0.04778
Non-Residential Window Film	\$ 0.05512	\$ 0.05354	\$ 0.05483	\$ 0.05153	\$ 0.05305	\$ 0.05945	\$ 0.05911	\$ 0.05981	\$ 0.05883	\$ 0.05330	\$ 0.09727	\$ 0.09248	\$ 0.09248
Residential Income & Age Qualifying Home Improvement Program	\$ 0.07069	\$ 0.07063	\$ 0.07061	\$ 0.07062	\$ 0.07058	\$ 0.08471	\$ 0.08478	\$ 0.08470	\$ 0.08473	\$ 0.07062	\$ 0.07061	\$ 0.07065	\$ 0.07065
Commercial Small Business Improvement	\$ 0.05779	\$ 0.05912	\$ 0.05946	\$ 0.05755	\$ 0.05808	\$ 0.06264	\$ 0.06167	\$ 0.06248	\$ 0.06135	\$ 0.05639	\$ 0.05776	\$ 0.05788	\$ 0.05788
Residential LED	\$ 0.07051	\$ 0.07057	\$ 0.07057	\$ 0.07056	\$ 0.07054	\$ 0.08459	\$ 0.08456	\$ 0.08459	\$ 0.08456	\$ 0.07051	\$ 0.07056	\$ 0.07055	\$ 0.07055
Non Residential Prescriptive	\$ 0.06760	\$ 0.06838	\$ 0.06765	\$ 0.06604	\$ 0.06668	\$ 0.06497	\$ 0.06898	\$ 0.06953	\$ 0.06815	\$ 0.06389	\$ 0.06486	\$ 0.06296	\$ 0.06296
3 Jurisdictional Lost Revenues (Line 1 x Line 2)													
Residential Lighting Program	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Residential Low Income Program (NC Only)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Commercial HVAC Upgrade Program (NC Trailing EMV Costs Only)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Commercial Lighting Program (NC Trailing EMV Costs Only)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Residential Heat Pump Tune-up Program	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Residential Heat Pump Upgrade Program	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Residential Duct Testing & Sealing Program	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Residential Home Energy Check-up Program	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Non-Residential Duct Testing & Sealing Program	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Non-Residential Energy Audit Program	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Non-Residential Lighting Systems and Controls	\$ 15,919	\$ 17,460	\$ 18,630	\$ 18,420	\$ 18,675	\$ 19,512	\$ 23,814	\$ 23,866	\$ 23,660	\$ 21,552	\$ 22,951	\$ 35,596	\$ 260,056
Non-Residential Heating & Cooling Efficiency	\$ 304	\$ 286	\$ 501	\$ 937	\$ 929	\$ 1,026	\$ 1,462	\$ 1,359	\$ 1,474	\$ 905	\$ 873	\$ 882	\$ 10,938
Non-Residential Window Film	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 18	\$ 18	\$ 16	\$ 29	\$ 28	\$ 109
Residential Income & Age Qualifying Home Improvement Program	\$ 1,022	\$ 1,021	\$ 1,021	\$ 1,021	\$ 1,021	\$ 1,225	\$ 1,226	\$ 1,225	\$ 1,225	\$ 1,021	\$ 1,021	\$ 1,022	\$ 13,071
Commercial Small Business Improvement	\$ 746	\$ 938	\$ 1,047	\$ 1,166	\$ 2,196	\$ 3,439	\$ 3,889	\$ 3,940	\$ 3,869	\$ 4,983	\$ 5,105	\$ 5,236	\$ 36,554
Residential LED	\$ 12,459	\$ 15,830	\$ 17,378	\$ 19,751	\$ 21,085	\$ 27,352	\$ 30,053	\$ 33,400	\$ 37,257	\$ 32,492	\$ 37,065	\$ 40,645	\$ 324,767
Non Residential Prescriptive	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 737	\$ -	\$ 989	\$ 1,726
4 Variable O&M Savings	\$ (15)	\$ (8)	\$ (19)	\$ (11)	\$ (21)	\$ (76)	\$ (91)	\$ (189)	\$ (38)	\$ (20)	\$ (55)	\$ (188)	\$ (732)
5 Found Revenues	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6 Net Lost Revenues (Line 3 + Line 4 + Line 5)													
Residential Lighting Program	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Residential Low Income Program (NC Only)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Commercial HVAC Upgrade Program (NC Trailing EMV Costs Only)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Commercial Lighting Program (NC Trailing EMV Costs Only)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Residential Heat Pump Tune-up Program	\$ (0)	\$ (0)	\$ (0)	\$ (0)	\$ (0)	\$ (1)	\$ (1)	\$ (2)	\$ (0)	\$ (0)	\$ (1)	\$ (2)	\$ (8)
Residential Heat Pump Upgrade Program	\$ (0)	\$ (0)	\$ (0)	\$ (0)	\$ (0)	\$ (1)	\$ (1)	\$ (1)	\$ (0)	\$ (0)	\$ (0)	\$ (1)	\$ (5)
Residential Duct Testing & Sealing Program	\$ (0)	\$ (0)	\$ (0)	\$ (0)	\$ (0)	\$ (0)	\$ (0)	\$ (0)	\$ (0)	\$ (0)	\$ (0)	\$ (0)	\$ (1)
Residential Home Energy Check-up Program	\$ (0)	\$ (0)	\$ (0)	\$ (0)	\$ (0)	\$ (0)	\$ (0)	\$ (1)	\$ (0)	\$ (0)	\$ (0)	\$ (1)	\$ (3)
Non-Residential Duct Testing & Sealing Program	\$ (1)	\$ (1)	\$ (1)	\$ (1)	\$ (1)	\$ (5)	\$ (5)	\$ (10)	\$ (2)	\$ (1)	\$ (2)	\$ (7)	\$ (37)
Non-Residential Energy Audit Program	\$ (2)	\$ (1)	\$ (2)	\$ (1)	\$ (2)	\$ (6)	\$ (6)	\$ (13)	\$ (2)	\$ (1)	\$ (3)	\$ (9)	\$ (47)
Non-Residential Lighting Systems and Controls	\$ 15,914	\$ 17,457	\$ 18,623	\$ 18,416	\$ 18,668	\$ 19,488	\$ 23,782	\$ 23,804	\$ 23,648	\$ 21,546	\$ 22,936	\$ 35,525	\$ 259,806
Non-Residential Heating & Cooling Efficiency	\$ 303	\$ 286	\$ 501	\$ 937	\$ 929	\$ 1,024	\$ 1,460	\$ 1,355	\$ 1,474	\$ 905	\$ 872	\$ 879	\$ 10,925
Non-Residential Window Film	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 18	\$ 18	\$ 16	\$ 29	\$ 28	\$ 109
Residential Income & Age Qualifying Home Improvement Program	\$ 1,022	\$ 1,021	\$ 1,021	\$ 1,021	\$ 1,020	\$ 1,224	\$ 1,224	\$ 1,222	\$ 1,225	\$ 1,021	\$ 1,020	\$ 1,020	\$ 13,060
Commercial Small Business Improvement	\$ 745	\$ 938	\$ 1,047	\$ 1,165	\$ 2,195	\$ 3,434	\$ 3,883	\$ 3,928	\$ 3,867	\$ 4,982	\$ 5,100	\$ 5,223	\$ 36,506
Residential LED	\$ 12,454	\$ 15,827	\$ 17,371	\$ 19,747	\$ 21,077	\$ 27,322	\$ 30,016	\$ 33,320	\$ 37,240	\$ 32,483	\$ 37,039	\$ 40,565	\$ 324,461
Non Residential Prescriptive	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 736	\$ 987	\$ 1,723	\$ 1,723
Total Lost Revenues All Programs	\$ 30,434	\$ 35,527	\$ 38,559	\$ 41,284	\$ 43,885	\$ 52,479	\$ 60,352	\$ 63,619	\$ 67,465	\$ 60,950	\$ 67,726	\$ 84,209	\$ 646,489

Dominion Energy North Carolina

Docket No. E-22, Sub 577

Refund of Financing Costs on Current Rider CE EMF Over-Recovery Over the Period of January 2018 - December 2018
To Be Refunded Over the Rate Period February 1, 2020 - January 31, 2021

Company Exhibit AJM-1

Schedule 2

Page 6 of 7

line

no.

1	Test Period (Over)/Under Recovery - Net of Utility Incentives (Net of ADIT), R8-69(b)(6) (Shedule 2, Page 1, Line 10)	\$ (127,381)
2	Overall Cost of Capital Approved in Docket No. E-22, Sub 479 Grossed Up for Taxes	<u>9.13%</u>
3	Monthly Interest Rate (Line 2/12)	<u>0.7610%</u>
4	Number of Months Refund is Outstanding (January 2019 - January 2020)	<u>13</u>
5	Interest to be Paid on Test Period (Over) Recovery Net of ADIT	<u><u>\$ (12,602)</u></u>

VIRGINIA ELECTRIC AND POWER COMPANY

**Cost of Capital and Capital Structure
13-Month Average
As of December 31, 2018**

line no.	Description	Average Capitalization	Average Capitalization Ratio	Average Embedded Cost%	Overall Cost Rate
1	Total Long-Term Debt	11,104,493	46.821%	4.4642%	2.090%
2	Total Preferred Stock	0	0.000%	0.0000%	0.000%
3	Common Equity	12,612,372	53.179%	9.9000%	5.265%
4	Total	<u>\$23,716,865</u>	<u>100.000%</u>		<u>7.355%</u>

file: To Rates Summary ADIT AC Cycling Pro Rata 2019 Filing 8.2.2019

Virginia Power
Estimated ADIT
Dec 2017 - Jan 2020

Year	Month	ADIT
2017	Dec	(2,782,760)
2018	Jan	(2,751,337)
2018	Feb	(2,720,469)
2018	Mar	(2,689,602)
2018	Apr	(2,658,734)
2018	May	(2,627,867)
2018	Jun	(2,596,999)
2018	Jul	(2,566,132)
2018	Aug	(2,535,264)
2018	Sep	(2,504,397)
2018	Oct	(2,473,530)
2018	Nov	(2,442,662)
2018	Dec	(2,411,797)
2019	Jan	(2,376,520)
2019	Feb	(2,344,853)
2019	Mar	(2,313,188)
2019	Apr	(2,281,520)
2019	May	(2,249,854)
2019	Jun	(2,218,188)
2019	Jul	(2,186,520)
2019	Aug	(2,154,854)
2019	Sep	(2,123,188)
2019	Oct	(2,146,879)
2019	Nov	(2,115,213)
2019	Dec	(2,083,546)
2020	Jan	(2,051,226)
2020	Feb	(2,021,237)
2020	Mar	(1,993,827)
2020	Apr	(1,968,913)
2020	May	(1,946,580)
2020	Jun	(1,926,742)
2020	Jul	(1,909,484)
2020	Aug	(1,894,805)
2020	Sep	(1,882,624)
2020	Oct	(1,873,022)
2020	Nov	(1,865,916)
2020	Dec	(1,861,390)
2021	Jan	(1,859,407)

**Virginia Power
State Apportionment
2018**

		<u>Non Current Def</u>
NC	0.03687300	
Current	2.500000%	
Def Current	2.500000%	
Non Current	2.500000%	
	0.092183%	0.00092183
WV	0.02278800	
Current	6.500000%	
Def Current	6.500000%	
Non Current	6.500000%	
	0.148122%	0.00148122
VA	0.93523000	
Current	6.000000%	
Def Current	6.000000%	
Non Current	6.000000%	
		0.05611380
DC	0.00000000	
Current	8.250000%	
Def Current	8.250000%	
Non Current	8.250000%	
		0.00000000
	State Rate	0.05851685
	State Tax Effectd	0.04622831
	Federal Rate	0.21000000
	Transactional Rate	0.25622831

Dominion Energy North Carolina
Docket No. E-22, Sub 577
Monthly Revenues - Rider C
For the Test Period January 1, 2018 - December 31, 2018

<u>Revenue Class</u>	<u>Jan-18</u>	<u>Feb-18</u>	<u>Mar-18</u>	<u>Apr-18</u>	<u>May-18</u>	<u>Jun-18</u>	<u>Jul-18</u>	<u>Aug-18</u>	<u>Sep-18</u>	<u>Oct-18</u>	<u>Nov-18</u>	<u>Dec-18</u>	<u>2018 Totals</u>
Residential	\$ 242,210	\$ 150,188	\$ 125,242	\$ 128,467	\$ 123,943	\$ 160,263	\$ 194,320	\$ 187,497	\$ 160,490	\$ 130,324	\$ 129,174	\$ 165,044	\$ 1,897,162
Commercial	\$ 84,572	\$ 78,817	\$ 83,798	\$ 76,015	\$ 90,806	\$ 99,948	\$ 108,175	\$ 114,187	\$ 106,067	\$ 102,262	\$ 82,658	\$ 84,049	\$ 1,111,353
Industrial	\$ 57,797	\$ 13,583	\$ 27,236	\$ 21,365	\$ 9,711	\$ 26,796	\$ 28,255	\$ (25,937)	\$ 71,056	\$ (18,831)	\$ 75,442	\$ 17,028	\$ 303,501
COV	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Co/Muni	\$ 16,041	\$ 14,660	\$ 15,951	\$ 12,180	\$ 15,401	\$ 16,257	\$ 16,132	\$ 17,938	\$ 16,914	\$ 16,397	\$ 12,812	\$ 13,283	\$ 183,968
St & Traffic (COVA)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Federal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Revenue by Month	\$ 400,621	\$ 257,248	\$ 252,226	\$ 238,027	\$ 239,862	\$ 303,265	\$ 346,882	\$ 293,685	\$ 354,527	\$ 230,152	\$ 300,086	\$ 279,404	\$ 3,495,984

**DIRECT TESTIMONY
OF
ROBERT E. MILLER
ON BEHALF OF
DOMINION ENERGY NORTH CAROLINA
BEFORE THE
NORTH CAROLINA UTILITIES COMMISSION
DOCKET NO. E-22, SUB 577**

1 **Q. Please state your name, business address, and position with Virginia**
2 **Electric and Power Company (“Dominion Energy North Carolina” or the**
3 **“Company”).**

4 A. My name is Robert E. Miller, and I am a Regulatory Analyst III for Dominion
5 Energy North Carolina. My business address is 701 East Cary Street,
6 Richmond, Virginia 23219. A statement of my background and qualifications
7 is attached as Appendix A.

8 **Q. Please describe your area of responsibility with the Company.**

9 A. I am responsible for the preparation of the Company’s cost of service studies,
10 distribution allocation factors, and minimum system analysis.

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

12 A. My testimony supports the Company’s request to recover all reasonable and
13 prudent costs incurred in adopting and implementing the Company’s portfolio
14 of North Carolina demand-side management (“DSM”) and energy efficiency
15 (“EE”) programs (“DSM/EE Programs” or “Programs”) and utility incentives,
16 through its updated Rider C, as well as the Company’s experience
17 modification factor (“EMF”) rider, Rider CE (“Application”). The purpose of
18 my testimony is to explain the jurisdiction and customer class responsibility of

1 costs for the approved and proposed DSM/EE Programs for which the
2 Company seeks approval for cost recovery in this proceeding.

3 **Q. Mr. Miller, are you sponsoring any exhibits or schedules in connection**
4 **with your testimony?**

5 A. Yes. Company Exhibit No. REM-1, consisting of Schedules 1-4 (Schedules 1
6 and 3 provided in public and confidential versions filed under seal) has been
7 prepared under my direction and supervision and is accurate and complete to
8 the best of my knowledge and belief. Schedules 1-4 support the jurisdictional
9 allocation and customer class allocation of DSM/EE costs for the development
10 of Rider C and Rider CE, as follows:

- 11 • Schedule 1 shows the allocation or assignment of system-level Common
12 Costs to each individual DSM and EE Program and the determination of
13 jurisdictional responsibility of system costs for approved Programs,
14 including allocated Common Costs.
- 15 • Schedule 2 shows the factors for allocating total Program revenue
16 requirements to customer classes.
- 17 • Schedule 3 shows how total Program revenue requirements are allocated
18 to customer classes.
- 19 • Schedule 4 provides the documents to be filed in accordance with NCUC
20 Rule R8-69(f)(1)(ii)(b) and NCUC Rule R8-69(f)(1)(viii).

1 **Q. Before describing how you propose to determine the jurisdictional and**
2 **customer class responsibility for DSM/EE costs, is the manner you**
3 **propose consistent with the allocation approach approved in last year’s**
4 **DSM/EE rider proceeding, Docket No. E-22, Sub 556?**

5 A. Yes. The methodology that I will describe is consistent with the methodology
6 approved by the North Carolina Utilities Commission’s (“Commission”)
7 January 10, 2019 Order in the Company’s most recent cost recovery
8 proceeding in Docket No. E-22, Sub 556. This methodology is also consistent
9 with the updated Cost Recovery and Incentive Mechanism (“Mechanism”)
10 approved by the Commission’s May 22, 2017 Order issued in Docket No. E-
11 22, Sub 464.

12 **I. ALLOCATION OF COMMON COSTS TO**
13 **DSM/EE PROGRAMS**

14 **Q. Please explain Common Costs and how such costs are allocated to the**
15 **DSM and EE Programs.**

16 A. Certain costs including internal labor and related costs, program marketing
17 costs, and information gathering costs are not directly attributable to specific
18 Programs. The Company characterizes these costs as “Common Costs,”
19 which are needed to design, implement, and operate the Programs. The DSM
20 and EE Programs are administered in the Company’s Virginia and North
21 Carolina service territories that comprise the PJM designated DOM Zone.
22 Therefore, these costs will be incurred and recovered on the DOM Zone
23 system-level basis.

1 According to Paragraphs 29 – 30 of the revised Mechanism, system-level
2 Common Costs are to be allocated to each DSM/EE Program on the basis of
3 the estimated relative operating costs of each individual program including
4 O&M, depreciation, property taxes, and insurance expenses.

5 Schedule 1, Page 1 provides a general description of how system-level
6 Common Costs are allocated to each Program. Page 2 provides the allocation
7 of these costs to the Programs for the January 1, 2018, to December 31, 2018
8 test period (“Test Period”) through the EMF for recovery through Rider CE.
9 Page 3 provides the allocation of these costs for the projected calendar year
10 2020 “to be recovered during the February 1, 2020, to January 31, 2021 rate
11 period (“Rate Period”) through Rider C.

12 **II. JURISDICTIONAL ALLOCATION OF**
13 **PROGRAM COSTS**

14 **Q. Please describe how the system costs for approved DSM/EE Programs,**
15 **including allocated Common Costs, will be allocated to the North**
16 **Carolina jurisdiction according to the Mechanism.**

17 A. System-level costs for the approved DSM/EE Programs, including allocated
18 Common Costs, are allocated or assigned to the North Carolina jurisdiction
19 according to Paragraph 30 of the Mechanism. Paragraph 30 provides for the
20 cost of DSM programs to be allocated on the basis of the Company’s
21 coincident peak and for the cost of EE programs to be allocated on the basis of
22 energy. In the case of both the DSM and EE allocation factors, the following
23 retail jurisdictions are included in the development of each factor: (i) the

1 North Carolina retail jurisdiction; (ii) the Virginia retail jurisdiction; and
2 (iii) Virginia non-jurisdictional customers excluding contract classes that have
3 elected not to participate and excluding customers in participating contract
4 classes that have elected not to participate and excluding customers in
5 participating contract classes that are exempt or have opted out.

6 Schedule 1, Page 1 provides a general description of how DSM/EE costs are
7 allocated or assigned to the North Carolina jurisdiction. Schedule 1, Page 4
8 provides the development of jurisdictional allocation factors for DSM and EE
9 Programs. Coincident peak and energy allocation factors are calculated as
10 described above to allocate costs from the system to the North Carolina retail
11 jurisdiction. For the updated EMF Test Period, the allocation factors for
12 determining jurisdictional costs are based on the 12 months ended
13 December 31, 2018, and are shown on Schedule 1, Page 4. For the Rate
14 Period, the allocation factors are based on the 12 months ended December 31,
15 2018, and are shown on Schedule 2, Page 2.

16 **III. ASSIGNMENT AND ALLOCATION OF**
17 **JURISDICTIONAL COSTS TO CUSTOMER CLASSES**

18 **Q. Once costs have been determined for the North Carolina jurisdiction,**
19 **how will the revenue requirements be assigned or allocated to the**
20 **customer classes according to the Mechanism?**

21 A. Retail jurisdictional costs for the Company's DSM/EE Program portfolio,
22 including allocated Common Costs, shall be assigned or allocated to North
23 Carolina retail customer classes based on the particular classes at which each

1 program is targeted according to Paragraph 33 of the Mechanism. The cost of
2 residential Programs is assigned to the residential class as shown in
3 Schedule 2, Page 1. The costs of non-residential Programs are allocated to
4 targeted non-residential customer classes using an energy-based allocation
5 factor as shown in Schedule 2, Page 1.

6 Schedule 2, Page 2 provides the development of the coincident peak and
7 energy allocation factors for the non-residential Programs. I have developed
8 class allocation factors for the non-residential programs for both the true-up
9 through the EMF and the projected Rate Period consistent with the time
10 periods used to allocate costs from the system to the jurisdiction. For the
11 updated EMF, the allocation factors for determining customer class
12 responsibility for jurisdictional costs are based on the 12 months ended
13 December 31, 2018, and are shown on Schedule 2, Page 2. I have developed
14 class allocation factors for these same programs. For the projected Rate
15 Period, the allocation factors for determining customer class responsibility for
16 jurisdictional costs are also based on the 12 months ended December 31,
17 2018, and are shown on Schedule 2, Page 2.

18 **Q. How will the Test Period and Rate Period revenue requirements to be**
19 **recovered through the EMF Rider CE and Rider C be assigned or**
20 **allocated for the residential Programs to the customer classes?**

21 A. The total amount to be recovered through the DSM/EE EMF Rider CE for the
22 residential Programs will be assigned to the residential class. The total
23 revenue requirement for DSM/EE Programs Rider C for the residential

1 Programs will also be assigned to the residential class for cost recovery
2 purposes. Please refer to Schedule 2, Page 1 for further explanation of this
3 assignment.

4 **Q. How will the Test Period and Rate Period revenue requirements to be
5 recovered through the EMF Rider CE and Rider C be assigned or
6 allocated for the non-residential Programs to the customer classes?**

7 A. The total amount to be recovered through the DSM/EE EMF Rider CE for the
8 non-residential Programs will be allocated to the non-residential customer
9 classes eligible to participate in such Programs. The total revenue
10 requirement for DSM/EE Programs Rider C for the non-residential Programs
11 will also be allocated to the non-residential customer classes eligible to
12 participate in such Programs.

13 Regarding the development of allocation factors, these Programs are not
14 limited to commercial customers as other non-residential customers, including
15 industrial customers, are eligible to participate. The allocation factors used to
16 allocate these revenue requirements will be adjusted for customers who elect
17 to opt out as provided for under N.C.G.S. § 62-133.9(f). In addition, no costs
18 will be allocated to the Street and Outdoor Lighting class or the Traffic
19 Lighting class since such classes will not be targeted by these Programs.

20 Neither class will experience a reduction in energy consumption or demand
21 resulting from these Programs and will, therefore, not experience a benefit due
22 to a change in their production demand allocation factor if all other things
23 remain the same. Other non-residential customer classes that do participate in

1 the Programs will experience reductions in energy consumption and/or
2 demand and may receive a benefit due to a change in their production demand
3 allocation factor. It is appropriate to not allocate any costs to customer classes
4 that will not benefit from participation in a program or programs.

5 Page 1 of my Schedule 2 summarizes the factor used to allocate the costs of
6 the DSM/EE commercial Programs to the customer classes.

7 **Q. Do you have a schedule which shows the allocation to the customer classes**
8 **of the amounts to be recovered through the DSM/EE EMF Rider CE and**
9 **DSM/EE Programs Rider C?**

10 A. Yes. Schedule 3, Pages 1 and 2 provide the allocation to the customer classes
11 of the amount that needs to be collected for the Test Period true-up through
12 the DSM/EE EMF Rider CE. Schedule 3, Pages 3 and 4 provide the
13 allocation of the revenue requirement to the customer classes for recovery
14 during the Rate Period through DSM/EE Programs Rider C. These total
15 revenue requirements are obtained from Company Witness Alan J. Moore's
16 Schedule 1 and Schedule 2 for Rider C and Rider CE, respectively.

17 **Q. To summarize, what is the total revenue requirement for DSM/EE**
18 **Programs by customer class for recovery under the proposed DSM/EE**
19 **EMF Rider CE and DSM/EE Rider C?**

20 A. Schedule 3, Page 2, line 9 provides the amount to be recovered by each
21 customer class under the proposed DSM/EE EMF Rider CE. Schedule 3,

1 Page 4, line 2 provides the total revenue requirement by customer class under
2 the proposed DSM/EE Rider C.

3 **Q. Please outline what is included in Schedule 4 of your testimony.**

4 A. In accordance with NCUC Rule R8-69(f)(1)(ii)(b), the total cost that the
5 utility does not expect to incur during the Rate Period as a direct result of the
6 DSM/EE measures in the aggregate to the North Carolina jurisdiction are
7 shown on Pages 1 and 2 of my Schedule 4. Expenses not expected to be
8 incurred are provided by Company Witness Deanna R. Kesler. In this
9 Schedule, I provide the North Carolina jurisdictional allocation factors that
10 were produced in the Company's most recent SWP&A year ending December
11 31, 2018 cost of service study, as filed on March 29, 2019 and updated on
12 August 5, 2019, in Docket No. E-22, Sub 562. These are factors that would
13 be used to allocate these costs had they been incurred. As shown on Schedule
14 4, Pages 1 and 2, separate demand and energy weighted factors should be used
15 to allocate the demand-related expenses not expected to be incurred and the
16 energy-related expenses not expected to be incurred, respectively. These
17 factors are Factor 1 (demand-weighted) and Factor 3 (energy).

18 Also included in Schedule 4 are Pages 3 through 5, which are workpapers
19 filed in accordance with NCUC Rule R8-69(f)(1)(viii). These pages show the
20 development of allocation factors used to allocate system expenses not
21 expected to be incurred during the Rate Period (Pages 4 and 5).

1 Q. Does this conclude your direct testimony?

2 A. Yes, it does.

**BACKGROUND AND QUALIFICATIONS
OF
ROBERT E. MILLER**

Robert E. Miller received a Bachelor of Arts degree in English Literature and Philosophy from the University of Virginia in 2007. He received a post-baccalaureate undergraduate certificate in accounting in 2015. Mr. Miller is also a Certified Public Accountant in Virginia.

Mr. Miller joined the Customer Rates Department in 2015, beginning as a part-time intern and then becoming a full-time employee as a Regulatory Analyst I in 2016, working with the Company's cost of service model. In June of 2018, Mr. Miller was promoted to his current position as a Regulatory Analyst III. His job duties include calculation of distribution plant related allocation factors and preparation of cost of service studies for the Company's Virginia and North Carolina regulated customers and the Company's Non-Jurisdictional customers.

DOMINION ENERGY NORTH CAROLINA
ASSIGNMENT AND ALLOCATION OF COSTS TO NORTH CAROLINA JURISDICTION
DOCKET NO. E-22, SUB 577

Company Exhibit REM-1
Schedule 1
Page 1 of 4

Basis for Determining Cost for North Carolina Jurisdiction

<u>Line</u>	<u>Name of System Program</u>	<u>Program Category</u>	<u>Assignment</u>	<u>Allocation to NC Juris</u>	<u>If Allocated, Allocation Factor</u>
North Carolina Programs (2)					
1	Air Conditioner Cycling Program	Peak-Clipping		X	1CP
2	Residential Income and Age Qualifying Home Improvement Program	Energy Efficiency		X	Energy
3	Qualifying Small Business Improvement Program	Energy Efficiency		X	Energy
4	Residential LED Lighting - NC Only	Energy Efficiency	X		
5	Non-Residential Prescriptive Program	Energy Efficiency		X	Energy
6	Residential Appliance Recycling Program	Energy Efficiency		X	Energy
7	Residential Efficient Products Marketplace Program	Energy Efficiency		X	Energy
8	Residential Home Energy Assessment Program	Energy Efficiency		X	Energy
9	Non-Residential Lighting Systems & Controls Program	Energy Efficiency		X	Energy
10	Non-Residential Heating & Cooling Efficiency Program	Energy Efficiency		X	Energy
11	Non-Residential Window Film Program	Energy Efficiency		X	Energy
12	Non-Residential Small Manufacturing Program	Energy Efficiency		X	Energy
13	Non-Residential Office Program	Energy Efficiency		X	Energy
14	Non-North Carolina Programs (3)	Non-North Carolina Programs			
15	Common Costs	All Programs	X (1)	X (1)	<u>Σ Prog Cost \$</u> <u>Σ Sys Prog Cost \$</u>

Notes

- 1) Allocation of System-level Common Costs to each Program on the basis of individual Program Costs to System Program Costs. All common costs for NC-only programs are assigned to NC.
- 2) For the projected rate period, refer to Company Exhibit AJM-1, Rider C, Schedule 1, Page 2, Line 4.
- 3) For the projected rate period, refer to Company Exhibit JEB-1, Schedule 4, Page 1

CONFIDENTIAL INFORMATION REDACTED
DOMINION ENERGY NORTH CAROLINA
ALLOCATION OF COMMON COSTS TO PROGRAMS
FOR THE EMF TRUE-UP FOR RIDER CE
DOCKET NO. E-22, SUB 577

Company Exhibit REM-1
Schedule 1
Page 2 of 4

JANUARY 1, 2018 - DECEMBER 31, 2018

Allocate Common Cost to Programs: (1)

Common Costs

Costs Applicable to All
of the DSM/EE Programs

System Program Cost \$
Σ System Program Cost \$

An allocation factor is developed for each Program.

Line	Name of System Program	Program Category	Approved in NC Jurisdiction	Operating Cost (2)	Depreciation Expense (3)	Property Taxes (4)	Total (5)	Allocation Factors
1	Air Conditioner Cycling Program	Peak-Clipping	X					
2	Residential Lighting Program	Energy Efficiency	X					
3	Residential Low Income Program (NC Only)	Energy Efficiency	X					
4	Commercial HVAC Upgrade Program (NC Trailing EMV Costs Only)	Energy Efficiency	X					
5	Commercial Lighting Program (NC Trailing EMV Costs Only)	Energy Efficiency	X					
6	Residential Heat Pump Tune-up Program	Energy Efficiency	X					
7	Residential Heat Pump Upgrade Program	Energy Efficiency	X					
8	Residential Duct Testing & Sealing Program	Energy Efficiency	X					
9	Residential Home Energy Check-up Program	Energy Efficiency	X					
10	Non-Residential Duct Testing & Sealing Program	Energy Efficiency	X					
11	Non-Residential Energy Audit Program	Energy Efficiency	X					
12	Non-Residential Lighting Systems and Controls	Energy Efficiency	X					
13	Non-Residential Heating & Cooling Efficiency	Energy Efficiency	X					
14	Non-Residential Window Film	Energy Efficiency	X					
15	Residential Income & Age Qualifying Home Improvement Program	Energy Efficiency	X					
16	Commercial Small Business Improvement	Energy Efficiency	X					
17	Residential LED	Energy Efficiency	X					
18	Non-Residential Prescriptive	Energy Efficiency	X					
19	Non-North Carolina Programs (6)							

Sum of Program Costs

Note

- 1) The allocation of the Common cost revenue requirement to the DSM/EE Programs is provided in the testimony of Company witness Moore.
- 2) For the true-up period ending December 31, 2018, refer to Company Exhibit AJM - 1, Rider CE, Schedule 2, Page 2, Line 1
- 3) For the true-up rate period, refer to Company Exhibit AJM-1, Rider CE, Schedule 2, Page 4, Line 2.
- 4) For the true-up rate period, refer to Company Exhibit AJM-1, Rider CE, Schedule 2, Page 3, Line 6 divided by Schedule 2, Page 2, Line 4
- 5) If formula results in a negative value, the allocation should be zero because this program does not share common costs.
- 6) For the true-up rate period, refer to Company Exhibit JEB-1, Schedule 7, Page 1

**DOMINION ENERGY NORTH CAROLINA
 JURISDICTIONAL ALLOCATION FACTORS
 FOR THE PROJECTED RATE PERIOD FOR RIDER C AND RIDER CE
 TWELVE MONTHS ENDED DECEMBER 31, 2018
 DOCKET NO. E-22, SUB 577**

Company Exhibit REM-1
 schedule 1
 page 4 of 4

**Dominion Energy North Carolina
 Year ending December 31, 2018
 1CP Methodology - 4 Jurisdiction**

NC DSM FACTOR

	<u>Total DOM Zone</u>	<u>VA Juris</u>	<u>VA Non-Juris</u>	<u>FERC</u>	<u>NC Juris</u>
(1) CP (kW) loads at time of DOM Zone Peak (NSPL)	18,059,584	15,164,029	1,574,418	385,220	935,916
(2) Less Non-participating Contract Classes and Exempt/Opt-out MS Customers	1,935,853	0	1,550,633	385,220	0
(3) Adjusted CP loads	16,123,731	15,164,029	23,785	0	935,916
(4) NC DSM FACTOR	100.0000%	94.0479%	0.1475%	0.0000%	5.8046%

NC EE FACTOR

	<u>Total DOM Zone</u>	<u>VA Juris</u>	<u>VA Non-Juris</u>	<u>FERC</u>	<u>NC Juris</u>
(1) Annual Energy (MWh)	91,495,232	71,920,962	12,258,874	2,736,338	4,579,058
(2) Less Non-participating Contract Classes and Exempt/Opt-out MS Customers	14,817,718	0	12,081,380	2,736,338	0
(3) Adjusted energy	76,677,514	71,920,962	177,494	0	4,579,058
(4) NC DSM FACTOR	100.0000%	93.7967%	0.2315%	0.0000%	5.9718%

DOMINION ENERGY NORTH CAROLINA
ALLOCATION FACTORS FOR THE COSTS OF THE APPROVED DSM PROGRAMS TO THE CUSTOMER CLASSES
DOCKET NO. E-22, SUB 577

Company Exhibit REM-1
Schedule 2
Page 1 of 2

<u>Line</u>	<u>Name of Program</u>	<u>Program Category</u>	<u>Total Rider Revenue Requirement</u> <u>Customer Class Assignment or Allocation Factor</u>	
1	Air Conditioner Cycling Program	Peak-Clipping	Assigned - Residential Class	
2	Residential Income and Age Qualifying Home Improvement Program	Energy Efficiency	Assigned - Residential Class	
3	Qualifying Small Business Improvement Program	Energy Efficiency	Allocated to Non-Residential Customers Using Energy Factor	(1)
4	Residential LED Lighting - NC Only	Energy Efficiency	Assigned - Residential Class	
5	Non-Residential Prescriptive Program	Energy Efficiency	Assigned - Residential Class	
6	Residential Appliance Recycling Program	Energy Efficiency	Assigned - Residential Class	
7	Residential Efficient Products Marketplace Program	Energy Efficiency	Assigned - Residential Class	
8	Residential Home Energy Assessment Program	Energy Efficiency	Assigned - Residential Class	
9	Non-Residential Lighting Systems & Controls Program	Energy Efficiency	Allocated to Non-Residential Customers Using Energy Factor	(1)
10	Non-Residential Heating & Cooling Efficiency Program	Energy Efficiency	Allocated to Non-Residential Customers Using Energy Factor	(1)
11	Non-Residential Window Film Program	Energy Efficiency	Allocated to Non-Residential Customers Using Energy Factor	(1)
12	Non-Residential Small Manufacturing Program	Energy Efficiency	Allocated to Non-Residential Customers Using Energy Factor	(1)
13	Non-Residential Office Program	Energy Efficiency	Allocated to Non-Residential Customers Using Energy Factor	(1)

Note

1) Energy Allocation Factor for Test Year is Adjusted for Opt-Out customers and for customer classes not participating in the program (Residential, Street and Outdoor Lights, Traffic Lights). Allocation Factors are calculated in Company Exhibit REM-1, Schedule 2, Page 2 for the EMF true-up and for the Projected Rate Period.

DOMINION ENERGY NORTH CAROLINA
 FOR THE PROJECTED RATE PERIOD FOR RIDER C AND RIDER CE
 ADJUSTED FOR OPT - OUT CUSTOMERS AND CUSTOMER CLASSES NOT PARTICIPATING IN PROGRAMS
 TWELVE MONTHS ENDED DECEMBER 31, 2018
 DOCKET NO. E-22, SUB 577

Dominion Energy North Carolina

Year ending December 31, 2018

1CP Methodology (NSPL) NC Class

NC DSM FACTOR

	Total NC Class	Residential	SGS	LGS	6VP	Schedule NS	ST & Outdoor Lighting	Traffic Lighting
(1) CP (kW) loads at time of DOM Zone Peak (NSPL)	935,916	670,355	136,647	63,415	27,528	37,906	0	64
(2) Less Opt-out customers and directly assigned classes	771,446	670,355	940	34,652	27,528	37,906	0	64
(3) Adjusted CP loads	164,471	0	135,708	28,763	0	0	0	0
(4) Factor 1 NC DSM	100.0000%	0.0000%	82.5118%	17.4882%	0.0000%	0.0000%	0.0000%	0.0000%

NC EE FACTOR

	Total NC Class	Residential	SGS	LGS	6VP	Schedule NS	ST & Outdoor Lighting	Traffic Lighting
(1) Annual Energy (MWh)	4,579,058	1,781,071	873,326	686,156	280,465	932,119	25,368	552
(2) Less Opt-out customers and directly assigned classes	3,391,937	1,781,071	10,326	362,036	280,465	932,119	25,368	552
(3) Adjusted energy	1,187,121	0	863,001	324,120	0	0	0	0
(4) Factor 3 NC DSM	100.0000%	0.0000%	72.6970%	27.3030%	0.0000%	0.0000%	0.0000%	0.0000%

DOMINION ENERGY NORTH CAROLINA
 DSM/EE EXPERIENCE MODIFICATION FACTOR (RIDER CE) FOR THE TEST PERIOD JANUARY 1, 2018 THROUGH DECEMBER 31, 2018
 ASSIGNMENT AND ALLOCATION TO CUSTOMER CLASSES
 DOCKET NO. E-22, SUB 577

Company Exhibit No. REM-1
 Schedule 3
 Page 2 of 4

Line																																																																								
1	Jurisdictional Program Revenue Requirement																																																																							
	<u>From Exhibit No. REM-1 Sch 3 Pg 1 Ln 4</u>																																																																							
	Residential Programs																																																																							
	Non-residential Programs																																																																							
	Jurisdictional Program Revenue Requirement AJM-1 Sch 2 Pg 1 Ln 1																																																																							
		\$2,309,413																																																																						
		<u>\$1,676,458</u>																																																																						
		\$3,985,871																																																																						
2	<u>Monthly Rider C Revenues</u>																																																																							
	Residential Programs																																																																							
	Non-residential Programs																																																																							
	Monthly Revenue From Exhibit No. AJM-1 Sch 2 Pg 1 Ln 4																																																																							
		\$2,025,572																																																																						
		<u>\$1,470,412</u>																																																																						
		\$3,495,984																																																																						
3	<u>(Over) / Under Recovery (Ln 1 - Ln 2)</u>																																																																							
	Residential Programs																																																																							
	Non-residential Programs																																																																							
	(Over) / Under Recovery From Exhibit No. AJM-1 Rider CE Sch 2 Pg 1 Ln 7																																																																							
		\$283,840																																																																						
		<u>\$206,047</u>																																																																						
		\$489,887																																																																						
4	<u>Deferred Income Tax</u>																																																																							
	Residential Programs																																																																							
	Non-residential Programs																																																																							
	Deferred Income Tax From Exhibit No. AJM-1 Rider CE Sch 2 Pg 1 Ln 9																																																																							
		(\$25,425)																																																																						
		<u>(\$18,457)</u>																																																																						
		(\$43,882)																																																																						
5	<u>Net (Over) / Under Recovery (Ln 3 - Ln 4)</u>																																																																							
	Residential Programs																																																																							
	Non-residential Programs																																																																							
	Net (Over) / Under Recovery From all Programs																																																																							
		\$309,266																																																																						
		<u>\$224,503</u>																																																																						
		\$533,769																																																																						
6	Carrying Cost on Cumulative (Over) / Under Recovery																																																																							
	Residential Programs																																																																							
	Non-residential Programs																																																																							
	From Exhibit No. AJM-1 Rider CE Sch 2 Pg 1 Ln 13																																																																							
		(\$7,692)																																																																						
		<u>(\$5,583)</u>																																																																						
		(\$13,275)																																																																						
7	Financing Costs Rider CE (Over)-recovery																																																																							
	Residential Programs																																																																							
	Non-residential Programs																																																																							
	From Exhibit No. AJM-1 Rider CE Sch 2 Pg 1 Ln 15																																																																							
		(\$7,301)																																																																						
		<u>(\$5,300)</u>																																																																						
		(\$12,602)																																																																						
8	DSM EE/EMF to be (refunded)/collected during the																																																																							
	<u>Rate Period January 1, 2018 - December 31, 2018 (Ln 3 + Ln 6 + Ln 7)</u>																																																																							
	Residential Programs																																																																							
	Non-residential Programs																																																																							
	DSM EE/EMF to be (refunded)/collected																																																																							
	From Exhibit No. AJM-1 Rider CE Sch 2 Pg 1 Ln 16)																																																																							
		\$268,847																																																																						
		\$195,163																																																																						
		\$464,010																																																																						
9	<table border="0" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; vertical-align: bottom;">Assignment / Allocation of DSM / EE EMF Rider CE Revenue Requirement to Customer Classes</th> <th style="text-align: center; vertical-align: bottom;">North Carolina Jurisdiction</th> <th style="text-align: center; vertical-align: bottom;">Residential</th> <th style="text-align: center; vertical-align: bottom;">SGS Co & Muni</th> <th style="text-align: center; vertical-align: bottom;">LGS</th> <th style="text-align: center; vertical-align: bottom;">6 VP</th> <th style="text-align: center; vertical-align: bottom;">Schedule NS</th> <th style="text-align: center; vertical-align: bottom;">ST & Outdoor Lighting</th> <th style="text-align: center; vertical-align: bottom;">Traffic Lighting</th> </tr> </thead> <tbody> <tr> <td>Residential Programs</td> <td style="text-align: right;">\$268,847</td> <td style="text-align: right;">\$268,847</td> <td style="text-align: right;">\$0</td> </tr> <tr> <td><u>Non-residential Programs</u></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Factor to Allocate Energy Efficiency Programs</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>From Exhibit No. REM-1 Sch 2 Pg 2</td> <td style="text-align: right;">100.0000%</td> <td style="text-align: right;">0.0000%</td> <td style="text-align: right;">72.6970%</td> <td style="text-align: right;">27.3030%</td> <td style="text-align: right;">0.0000%</td> <td style="text-align: right;">0.0000%</td> <td style="text-align: right;">0.0000%</td> <td style="text-align: right;">0.0000%</td> </tr> <tr> <td>Non-residential Programs</td> <td style="text-align: right;">\$195,163</td> <td style="text-align: right;">\$0</td> <td style="text-align: right;">\$141,877</td> <td style="text-align: right;">\$53,285</td> <td style="text-align: right;">\$0</td> <td style="text-align: right;">\$0</td> <td style="text-align: right;">\$0</td> <td style="text-align: right;">\$0</td> </tr> <tr> <td>Check</td> <td style="text-align: right;">\$464,010</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>									Assignment / Allocation of DSM / EE EMF Rider CE Revenue Requirement to Customer Classes	North Carolina Jurisdiction	Residential	SGS Co & Muni	LGS	6 VP	Schedule NS	ST & Outdoor Lighting	Traffic Lighting	Residential Programs	\$268,847	\$268,847	\$0	\$0	\$0	\$0	\$0	\$0	<u>Non-residential Programs</u>									Factor to Allocate Energy Efficiency Programs									From Exhibit No. REM-1 Sch 2 Pg 2	100.0000%	0.0000%	72.6970%	27.3030%	0.0000%	0.0000%	0.0000%	0.0000%	Non-residential Programs	\$195,163	\$0	\$141,877	\$53,285	\$0	\$0	\$0	\$0	Check	\$464,010							
Assignment / Allocation of DSM / EE EMF Rider CE Revenue Requirement to Customer Classes	North Carolina Jurisdiction	Residential	SGS Co & Muni	LGS	6 VP	Schedule NS	ST & Outdoor Lighting	Traffic Lighting																																																																
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From Exhibit No. REM-1 Sch 2 Pg 2	100.0000%	0.0000%	72.6970%	27.3030%	0.0000%	0.0000%	0.0000%	0.0000%																																																																
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Check	\$464,010																																																																							

DOMINION ENERGY NORTH CAROLINA
DSM/EE (RIDER C) FOR THE PROJECTED RATE PERIOD FEBRUARY 1, 2020 THROUGH JANUARY 31, 2021
ASSIGNMENT AND ALLOCATION TO CUSTOMER CLASSES
DOCKET NO. E-22, SUB 577

Line	Description	North Carolina Jurisdiction	North Carolina Jurisdiction	North Carolina Jurisdiction	North Carolina Jurisdiction	North Carolina Jurisdiction	North Carolina Jurisdiction
		Operating Expenses From Exhibit No. AJM-1 Rider C Sch 1 Pg 3 Ln 5	Depreciation Expense From Exhibit No. AJM-1 Rider C Sch 1 Pg 3 Ln 6	EDIT Amortization From Exhibit No. AJM-1 Rider C Sch 1 Pg 3 Ln 7	Property Tax From Exhibit No. AJM-1 Rider C Sch 1 Pg 3 Ln 8	Rate Base Costs From Exhibit No. AJM-1 Rider C Sch 1 Pg 3 Ln 9	PPI From Exhibit No. AJM-1 Rider C Sch 1 Pg 3 Ln 11
1	Operating Expenses, Depreciation, Rate Base Costs, PPI	Total					
	Residential Lighting (PPI Only)						
	Air Conditioner Cycling Program (Phase I)						
	Residential NC Only Low Income Program (Phase I)						
	Commercial HVAC Upgrade Program (Phase I)						
	Commercial Lighting Program (Phase I)						
	Residential Heat Pump Tune-up Program (Phase II)						
	Residential Heat Pump Upgrade Program (Phase II)						
	Residential Duct Testing & Sealing Program (Phase II)						
	Residential Home Energy Check Up Program (Phase II)						
	Non-Residential Duct Testing & Sealing Program (Phase II)						
	Non-Residential Energy Audit Program (Phase II)						
	Non-Residential Window Film Program (Phase III)						
	Non-Residential Heating & Cooling Efficiency Program (Phase III)						
	Non-Residential Lighting Systems & Controls Program (Phase III)						
	Residential Income and Age Qualifying Home Improvement Program (Phase IV)						
	Qualifying Small Business Improvement Program (Phase V)						
	Residential LED Lighting - NC Only (Phase V)						
	Non-Residential Prescriptive Program (Phase VI)						
	Residential Appliance Recycling Program (Phase VII)						
	Residential Efficient Products Marketplace Program (Phase VII)						
	Residential Home Energy Assessment Program (Phase VII)						
	Non-Residential Lighting Systems & Controls Program (Phase VII)						
	Non-Residential Heating & Cooling Efficiency Program (Phase VII)						
	Non-Residential Window Film Program (Phase VII)						
	Non-Residential Small Manufacturing Program (Phase VII)						
	Non-Residential Office Program (Phase VII)						
	Jurisdictional Lost Revenues From Exhibit No. AJM-1 Rider C Sch 1 Pg 3 Ln 10						
2	Jurisdictional Lost Revenues	Total					
	Residential Lighting (PPI Only)						
	Air Conditioner Cycling Program (Phase I)						
	Residential NC Only Low Income Program (Phase I)						
	Commercial HVAC Upgrade Program (Phase I)						
	Commercial Lighting Program (Phase I)						
	Residential Heat Pump Tune-up Program (Phase II)						
	Residential Heat Pump Upgrade Program (Phase II)						
	Residential Duct Testing & Sealing Program (Phase II)						
	Residential Home Energy Check Up Program (Phase II)						
	Non-Residential Duct Testing & Sealing Program (Phase II)						
	Non-Residential Energy Audit Program (Phase II)						
	Non-Residential Window Film Program (Phase III)						
	Non-Residential Heating & Cooling Efficiency Program (Phase III)						
	Non-Residential Lighting Systems & Controls Program (Phase III)						
	Residential Income and Age Qualifying Home Improvement Program (Phase IV)						
	Qualifying Small Business Improvement Program (Phase V)						
	Residential LED Lighting - NC Only (Phase V)						
	Non-Residential Prescriptive Program (Phase VI)						
	Residential Appliance Recycling Program (Phase VII)						
	Residential Efficient Products Marketplace Program (Phase VII)						
	Residential Home Energy Assessment Program (Phase VII)						
	Non-Residential Lighting Systems & Controls Program (Phase VII)						
	Non-Residential Heating & Cooling Efficiency Program (Phase VII)						
	Non-Residential Window Film Program (Phase VII)						
	Non-Residential Small Manufacturing Program (Phase VII)						
	Non-Residential Office Program (Phase VII)						
	Total From Exhibit No. AJM-1 Rider C Sch 1 Pg 1 Ln 3						
3	Jurisdictional Program Revenue Requirement (Ln 1 + Ln 2)	Targeted Classes		Res./Non-Res. Allocation Factors			
	Residential Lighting (PPI Only)	Residential					
	Air Conditioner Cycling Program (Phase I)	Residential	51.3026%	Residential			
	Residential NC Only Low Income Program (Phase I)	Residential	48.6974%	Non-Residential			
	Commercial HVAC Upgrade Program (Phase I)	Non-Residential					
	Commercial Lighting Program (Phase I)	Non-Residential					
	Residential Heat Pump Tune-up Program (Phase II)	Residential					
	Residential Heat Pump Upgrade Program (Phase II)	Residential					
	Residential Duct Testing & Sealing Program (Phase II)	Residential					
	Residential Home Energy Check Up Program (Phase II)	Residential					
	Non-Residential Duct Testing & Sealing Program (Phase II)	Non-Residential					
	Non-Residential Energy Audit Program (Phase II)	Non-Residential					
	Non-Residential Window Film Program (Phase III)	Non-Residential					
	Non-Residential Heating & Cooling Efficiency Program (Phase III)	Non-Residential					
	Non-Residential Lighting Systems & Controls Program (Phase III)	Non-Residential					
	Residential Income and Age Qualifying Home Improvement Program (Phase IV)	Residential					
	Qualifying Small Business Improvement Program (Phase V)	Non-Residential					
	Residential LED Lighting - NC Only (Phase V)	Residential					
	Non-Residential Prescriptive Program (Phase VI)	Non-Residential					
	Residential Appliance Recycling Program (Phase VII)	Residential					
	Residential Efficient Products Marketplace Program (Phase VII)	Residential					
	Residential Home Energy Assessment Program (Phase VII)	Residential					
	Non-Residential Lighting Systems & Controls Program (Phase VII)	Non-Residential					
	Non-Residential Heating & Cooling Efficiency Program (Phase VII)	Non-Residential					
	Non-Residential Window Film Program (Phase VII)	Non-Residential					
	Non-Residential Small Manufacturing Program (Phase VII)	Non-Residential					
	Non-Residential Office Program (Phase VII)	Non-Residential					
	Total From Exhibit No. AJM-1 Rider C Sch 1 Pg 1 Ln 5			100.0000%			
	Total Residential						
	Total Non-Residential						

DOMINION ENERGY NORTH CAROLINA
DSM/EE (RIDER C) FOR THE PROJECTED RATE PERIOD FEBRUARY 1, 2020 THROUGH JANUARY 31, 2021
ASSIGNMENT AND ALLOCATION TO CUSTOMER CLASSES
DOCKET NO. E-22, SUB 577

Line

1	NC Jurisdiction Program Revenue Requirement From Exhibit No. REM-1 Sch 3 Pg 3 Ln 3	
	Residential Programs	\$1,780,344
	Non-residential Programs	\$1,689,935
	NC Class Revenue Requirement	\$3,470,280

		North Carolina Jurisdiction	Residential	SGS Co & Muni	LGS	6 VP	Schedule NS	ST & Outdoor Lighting	Traffic Lighting
2	Assignment / Allocation of DSM / EE <u>Rider C Revenue Requirement to NC Customer Classes</u>								
	Residential Programs	\$1,780,344	\$1,780,344	\$0	\$0	\$0	\$0	\$0	\$0
	Non-residential Programs								
	Factor to Allocate Energy Efficiency Programs								
	From Exhibit No. REM-1 Sch 2 Pg 2	100.0000%	0.0000%	72.6970%	27.3030%	0.0000%	0.0000%	0.0000%	0.0000%
	Non-residential Programs	\$1,689,936	\$0	\$1,228,533	\$461,403	\$0	\$0	\$0	\$0
	Check								
									\$3,470,280

**DOMINION ENERGY NORTH CAROLINA
 DOCKET NO. E-22, SUB 577**

Rule R8-69(f) Filing Requirements and Procedure.

- (1) Each utility shall submit to the Commission all of the following information and data in its application:
 - ii) For each measure for which cost recovery is requested through the DSM/EE rider:
 - b. total costs that the utility does not expect to incur during the rate period as a direct result of the measure in the aggregate and broken down by type of cost, per appropriate capacity, energy and measure unit metric, and the proposed jurisdictional allocation factors, as well as any changes in the estimate future amounts since last filed with the Commission;

In the table below, the Company shows factors that allocate the total system expenses directly attributable to the measures which the Company requests cost recovery through the DSM/EE rider that are not expected to be incurred during the rate period February 1, 2020 through January 31, 2021. The demand allocation factor is based on the summer/winter peak and average methodology and is provided for the twelve months ended December 31, 2018. The energy allocation factor is provided for the twelve months ended December 31, 2018.

Program	NC Jurisdictional Demand Allocator	NC Jurisdictional Energy Allocator
Residential Lighting (PPI Only)	4.9507%	5.0924%
Air Conditioner Cycling Program	4.9507%	5.0924%
Residential NC Only Low Income Program	4.9507%	5.0924%
Commercial HVAC Upgrade Program	4.9507%	5.0924%
Commercial Lighting Program	4.9507%	5.0924%
Residential Heat Pump Tune-up Program	4.9507%	5.0924%
Residential Heat Pump Upgrade Program	4.9507%	5.0924%
Residential Duct Testing & Sealing Program	4.9507%	5.0924%
Residential Home Energy Check-Up Program	4.9507%	5.0924%
Non-Residential Duct Testing & Sealing Program	4.9507%	5.0924%

**DOMINION ENERGY NORTH CAROLINA
 DOCKET NO. E-22, SUB 577**

Program	NC Jurisdictional Demand Allocator	NC Jurisdictional Energy Allocator
Non-Residential Energy Audit Program	4.9507%	5.0924%
Non-Residential Window Film Program	4.9507%	5.0924%
Non-Residential Heating & Cooling Efficiency Program	4.9507%	5.0924%
Non-Residential Lighting Systems & Controls Program	4.9507%	5.0924%
Residential Income and Age Qualifying Home Improvement Program	4.9507%	5.0924%
Qualifying Small Business Improvement Program	4.9507%	5.0924%
Residential LED Lighting - NC Only	4.9507%	5.0924%
Non-Residential Prescriptive Program	4.9507%	5.0924%
Residential Appliance Recycling Program	4.9507%	5.0924%
Residential Efficient Products Marketplace Program	4.9507%	5.0924%
Residential Home Energy Assessment Program	4.9507%	5.0924%
Non-Residential Lighting Systems & Controls Program	4.9507%	5.0924%
Non-Residential Heating & Cooling Efficiency Program	4.9507%	5.0924%
Non-Residential Window Film Program	4.9507%	5.0924%
Non-Residential Small Manufacturing Program	4.9507%	5.0924%
Non-Residential Office Program	4.9507%	5.0924%

Company Exhibit REM-1
Schedule 4
Page 3 of 5

**DOMINION ENERGY NORTH CAROLINA
DOCKET NO. E-22, SUB 577**

Rule R8-69 (f) Filing Requirements and Procedure.

(1) Each utility shall submit to the Commission all of the following information and data in its application:

viii) All workpapers supporting the calculations and adjustments described above:

Pages 3 - 4 of this Schedule 4 calculate the allocation factors listed below:

Used to Allocate System Expenses Not Expected to Be Incurred During the Rate Period

- 1) Factor 1 Summer Winter Peak and Average ("SWPA") — System to Jurisdiction
 - a. NC Juris = 4.9507%
- 2) Factor 3 — System to Jurisdiction
 - a. NC Juris = 5.0924%

DOMINION ENERGY NORTH CAROLINA
DOCKET NO. E-22 , SUB 577
 12 MONTHS ENDING DECEMBER 31, 2018
 SUMMER WINTER PEAK AND AVERAGE

Dominion Energy North Carolina 12 Months Ending December 31, 2018 Summer Winter Peak & Average							
FACTOR 1		Total System	Va Juris	Va Non-Juris	FERC	N C Juris	
(1)	Energy-Production		89,918,644	71,450,024	12,258,874	1,630,688	4,579,058
(2)	Ave. Demand (Ln 1 / # hrs in year)		10,264,685	8,156,395	1,399,415	186,152	522,723
(3)	Class Avg. Demand as % of system		100.0000%	79.4607%	13.6333%	1.8135%	5.0924%
(4)	Winter Coincident Peak		17,887,645	15,142,090	1,574,418	235,220	935,916
	Sunday, January 07, 2018	800					
(5)	Summer Coincident Peak		16,958,384	14,061,656	1,881,941	296,382	718,405
	Monday, July 02, 2018	1700					
(6)	Avg. Peak Demand [(Lns 4+5)/2]		17,423,014	14,601,873	1,728,180	265,801	827,161
(7)	Avg. Peak Demand as % of system		100.0000%	83.8080%	9.9189%	1.5256%	4.7475%
(8)	Sys. Ln 2 / Sys Ln 6 =	58.9145%	6,047,390	4,805,301	824,459	109,670	307,960
	Class Ave. Dem.% Ln 3 x	58.9145%	58.9145%	46.8139%	8.0320%	1.0684%	3.0002%
(9)	1 - Sys. Line 8 =	41.0855%	7,158,329	5,999,250	710,031	109,206	339,843
	Class Ave. Pk. Dem. % Ln 7 x	41.0855%	41.0855%	34.4329%	4.0752%	0.6268%	1.9505%
(10)	Factor 1/61 (8+ 9)		99.9999%	81.2468%	12.1072%	1.6952%	4.9507%
(11)	Rounding			0.0001%	0.0000%	0.0000%	0.0000%
(12)	Factor 1/61		100.0000%	81.2469%	12.1072%	1.6952%	4.9507%

DOMINION ENERGY NORTH CAROLINA
DOCKET NO. E-22 , SUB 577
 12 MONTHS ENDING DECEMBER 31, 2018
 SUMMER WINTER PEAK AND AVERAGE

Dominion Energy North Carolina						
12 Months Ending December 31, 2018						
Summer Winter Peak & Average						
FACTOR 3/63		Total System	Va Juris	Va Non-Juris	FERC	N C Juris
Energy production		89,918,644	71,450,024	12,258,874	1,630,688	4,579,058
Factor 3/63		99.9999%	79.4607%	13.6333%	1.8135%	5.0924%
			0.0001%	0.0000%	0.0000%	0.0000%
Factor 3/63		100.0000%	79.4608%	13.6333%	1.8135%	5.0924%

**DIRECT TESTIMONY
OF
DEBRA A. STEPHENS
ON BEHALF OF
DOMINION ENERGY NORTH CAROLINA
BEFORE THE
NORTH CAROLINA UTILITIES COMMISSION
DOCKET NO. E-22, SUB 577**

1 **Q. Please state your name, business address, and your position with Virginia**
2 **Electric and Power Company (“Dominion Energy North Carolina” or the**
3 **“Company”).**

4 A. My name is Debra A. Stephens, and I am a Regulatory Specialist for
5 Dominion Energy North Carolina. My business address is 701 East Cary
6 Street, Richmond, Virginia 23219.

7 **Q. Please describe your area of responsibility with the Company.**

8 A. I provide support and analysis for base rate schedules and Demand Side
9 Planning Riders for the Company’s retail jurisdictions. A statement of my
10 background and qualifications is attached as Appendix A.

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

12 A. My testimony supports the Company’s request to recover all reasonable and
13 prudent costs incurred in adopting and implementing the Company’s portfolio
14 of North Carolina demand-side management (“DSM”) and energy efficiency
15 (“EE”) Programs (“DSM/EE programs” or “Programs”), and utility
16 incentives, through its updated Rider C, as well as the Company’s experience
17 modification factor (“EMF”) rider, Rider CE (“Application”). The purpose of
18 my testimony is to present the calculation of the updated DSM/EE Rider,

1 Rider C, and the EMF rider, Rider CE. Rider C is designed to recover during
2 the February 1, 2020, through January 31, 2021 period (“Rate Period”) the
3 Company’s reasonable and prudent costs incurred for the adoption and
4 implementation of the Company’s DSM/EE Programs during the Rate Period.
5 Rider CE will true up any over- or under-recovery for the period January 1,
6 2018, through December 31, 2018 (“Test Period”). The Company is
7 requesting the proposed riders, Rider C and Rider CE, become effective for
8 usage on and after February 1, 2020. Additionally, I provide the calculations
9 for the monthly residential and non-residential non-fuel average base rates that
10 have been used by Company Witness Alan J. Moore in determining gross lost
11 revenues.

12 **Q. Ms. Stephens, are you sponsoring any exhibits or schedules in connection**
13 **with your testimony?**

14 A. Yes. Company Exhibit DAS-1, consisting of Schedules 1 through 12, was
15 prepared under my supervision and is accurate and complete to the best of my
16 knowledge and belief. I also provide my supporting workpapers as required
17 by Commission Rule R8-69(f)(i)(viii).

18 **Q. Would you please discuss the calculation of Rider C?**

19 A. Yes. The Company has calculated the Rider C rates in accordance with the
20 following methodology. To develop the Rider C rate applicable to each of the
21 Company’s customer classes, we must first determine forecasted kWh sales
22 for each customer class. For the North Carolina jurisdiction, the Company
23 only forecasts kWh sales and customers by “revenue class” (*i.e.*, Residential,

1 Commercial, Industrial, Public Authority, and Outdoor Street Lighting/Traffic
2 Signals), and this revenue class kWh sales forecast is shown on pages 1
3 through 3 of Schedule 1, as required by Rule R8-69(f)(1)(i). However, these
4 revenue classes are not perfectly aligned with the Company's customer
5 classes. Therefore, the Company must allocate the revenue classes' February
6 2020 through January 2021 forecasted kWh sales down to the customer class
7 level. This allocation was performed using 2016 through 2018 historical
8 monthly customer and kWh usage for each customer class to capture the
9 recent trends of kWh sales and the numbers of customers within each
10 customer class. This allocation by revenue class (and within revenue class by
11 rate schedule) is shown on pages 4 and 5 of my Schedule 1. The summary on
12 page 6 shows the allocation of the 12 months ended January 31, 2021,
13 forecasted kWh sales for each rate schedule, less the kWh sales for the
14 industrial and large commercial customers who have "opted out" under North
15 Carolina General Statutes § 62-133.9(f), to produce a net forecast. Pages 7
16 and 8 categorize the net forecasted rate schedule kWh sales into the seven
17 customer classes (*i.e.*, Residential, SGS, NS, LGS, 6VP, Outdoor/Street
18 Lighting, and Traffic Lighting customer classes).

19 The rates for Rider C have been derived based upon these net forecasted kWh
20 sales by customer class. Pages 9 and 10 of Schedule 1 detail the development
21 of the Rider C rate.

22 Page 9 of Schedule 1 shows the customer class allocated revenue
23 requirements associated with DSM/EE program costs that were provided by

1 Company Witness Robert E. Miller. By dividing these class revenue
2 requirements by their respective customer class forecasted kWh sales, we
3 have calculated customer class rates, which are then adjusted for the North
4 Carolina Regulatory Fee. Page 10 shows the rate schedules within their
5 associated customer class and provides their respective Rider C rate.

6 **Q. Have you provided projected North Carolina total retail monthly sales**
7 **for the Rate Period for the commercial and industrial customers who**
8 **have chosen to opt out of the DSM/EE Rider, as required by Rule**
9 **R8-69(f)(1)(vii)?**

10 A. Since the Company generally does not forecast kWh sales for individual
11 customers, we have used actual kWh sales from January 1, 2018, to December
12 31, 2018, as a proxy for the projected opt-out kWh sales for the Rate Period
13 for customers that have opted out as of June 30, 2019. Schedule 2 of my pre-
14 filed direct testimony contains the aggregated opt-out customer sales by
15 month.

16 **Q. Have you included the Company's proposed Rider C in Schedule 3 of**
17 **your pre-filed direct testimony?**

18 A. Yes. Schedule 3 is comprised of the tariff sheet showing the proposed
19 Rider C as required by Rule R8-69(f)(1)(vi), which, if approved as proposed,
20 would be applicable for usage on and after February 1, 2020.

1 **Q. Would you please discuss the calculation of Rider CE?**

2 A. Yes. The Company has calculated the Rider CE rates in accordance with the
3 same methodology as previously approved for calculating Rider C. The
4 allocated class Rider CE revenue requirements used in these calculations are
5 provided in Company Witness Miller's Schedule 3. The forecasted kWh by
6 class and rate schedule for use in developing the Rider CE rates are the same
7 as described in the calculation of the Rider C rates. The results of these
8 calculations are shown in my Schedule 4. The corresponding tariff sheet for
9 the period February 1, 2020, to January 31, 2021, providing the Rider CE
10 rates is shown on page 1 of my Schedule 5.

11 **Q. Would you explain how the proposed Riders C and CE will impact**
12 **customers' bills?**

13 A. For this comparison, the Company has used the Company's currently-
14 authorized base rates that went into effect January 1, 2018, in Docket Nos.
15 E-22 Sub 532 and E-22, Sub 560, and the fuel rates authorized to go into
16 effect February 1, 2019, in the Company's last fuel case, Docket No. E-22,
17 Sub 558, to calculate the customers' "current bill." For Rate Schedule 1
18 (residential), based on the proposed February 1, 2020 effective date for Riders
19 C and CE, for a customer using 1,000 kWh per month, the weighted monthly
20 residential bill (4 summer months and 8 base months) would increase from
21 \$131.96 to \$132.00, or by 0.03%. For Rate Schedule 5 (small general
22 service), based on the proposed February 1, 2020 effective date for Riders C
23 and CE, for a customer using 12,500 kWh per month and 50 kW of demand,

1 the weighted monthly bill (4 summer months and 8 base months) would
2 decrease from \$1,374.34 to \$1,368.59, or by 0.42%. For Rate Schedule 6P
3 (large general service), based on the proposed February 1, 2020 effective date
4 for Riders C and CE, for a customer using 259,200 kWh on-peak and 316,800
5 kWh off-peak per month and 1,000 kW of demand, the monthly bill would
6 decrease from \$52,078.40 to \$51,358.40, or by 1.38%.

7 **Q. For purposes of truing up lost revenues for the Test Period, would you**
8 **describe how the non-fuel average base rates were determined?**

9 A. Yes. We have calculated monthly non-fuel average base rates for the Test
10 Period for each DSM program. These monthly non-fuel average base rates
11 are provided to Company Witness Moore, who in turn applies these rates to
12 the measured and verified kWh reductions that occurred during the Test
13 Period, as determined and provided by Company Witness Kesler.

14 In truing up gross lost revenues for the Residential Income and Age
15 Qualifying Program we used the actual participants' non-fuel base revenues
16 and their kilowatt-hour consumption for the period of January 1, 2018, to
17 December 31, 2018, to develop monthly average non-fuel base rates. These
18 calculations are shown in my Schedule 6. To calculate the average rates for
19 the Residential Retail LED Lighting program, we used the average non-fuel
20 base rates for all customers on Rate Schedules 1, 1P, and 1T and the kilowatt-
21 hour consumption for the period of January 1, 2018, to December 31, 2018,
22 shown in Schedule 7.

- 1 **Q. Did you use the same methodology for the Non-Residential Programs in**
2 **truing up lost revenues for the Test Period?**
- 3 A. Yes. We used the actual participants' non-fuel base revenues and their
4 kilowatt-hour consumption for the applicable true-up period to develop
5 monthly average non-fuel base rates. This analysis used the kWh
6 consumption for those customers who participated in the Non-Residential
7 Heating & Cooling Efficiency Program, the Non-Residential Lighting
8 Systems & Controls Program, the Qualifying Small Business Improvement
9 Program, the Non-Residential Window Film Program, and the Non-
10 Residential Prescriptive Program shown in Schedules 8 through 12 during the
11 period of January 1, 2018, to December 31, 2018.
- 12 **Q. Does this conclude your pre-filed direct testimony?**
- 13 A. Yes, it does.

**BACKGROUND AND QUALIFICATIONS
OF
DEBRA A. STEPHENS**

Debra A. Stephens graduated from the Virginia Polytechnic Institute and State University in 1978 with a B.S. in Marketing. She continued her education, completing a Masters in Business Administration from Virginia Polytechnic Institute and State University in 1979. In 1985, after spending five years as a Research Analyst for the Virginia Department of Planning and Budget, Ms. Stephens joined Virginia Electric and Power Company as a Statistical Analyst in the Insurance and Loss Prevention Department. In that capacity, she conducted statistical analyses related to insurance and claims, and participated in a Company-wide assessment of Corporate Risk.

In 1995, Ms. Stephens moved to the Energy Efficiency Department and became part of the Market Research Group. In that position, she worked primarily analyzing non-residential customer data to create a segmentation strategy for these customers. In January 2001, Ms. Stephens joined the Regulatory and Pricing Department as analyst supporting interval customer data. This function was moved to the Metering Department in 2002, along with the supporting staff.

Ms. Stephens returned to the State Regulation Group in 2007 as a Regulatory Analyst III. In 2015, Ms. Stephens was promoted to her current position as a Regulatory Specialist. Her responsibilities include providing support and analysis for the Company's regulatory filings in Virginia and North Carolina. Ms. Stephens has previously presented testimony before the State Corporation Commission of Virginia and the North Carolina Utilities Commission.

VIRGINIA ELECTRIC AND POWER COMPANY
 DOMINION ENERGY NORTH CAROLINA
 RIDER C
 FORECAST KWH SALES AND CUSTOMERS
 BY REVENUE CLASS
 12 MONTHS ENDED January 31, 2021

----- REVENUE CLASS=A. RESIDENTIAL -----

YR	MONTH	FORECAST CUST	FORECAST KWH
2020	2	103,201	153,783,707
2020	3	103,218	129,396,713
2020	4	103,226	99,682,924
2020	5	103,243	104,391,191
2020	6	103,267	140,679,788
2020	7	103,295	180,187,511
2020	8	103,332	177,003,043
2020	9	103,352	122,324,272
2020	10	103,377	103,055,175
2020	11	103,417	101,120,262
2020	12	103,460	156,597,639
2021	1	103,496	180,690,294
-----			-----
TOTAL			1,648,912,519

----- REVENUE CLASS=B. COMMERCIAL -----

YR	MONTH	FORECAST CUST	FORECAST KWH
2020	2	15,700	53,956,245
2020	3	15,703	56,831,208
2020	4	15,706	53,191,400
2020	5	15,709	61,278,334
2020	6	15,712	68,580,250
2020	7	15,715	77,834,147
2020	8	15,718	81,162,685
2020	9	15,720	70,977,304
2020	10	15,723	69,465,728
2020	11	15,725	59,286,014
2020	12	15,728	63,043,568
2021	1	15,730	67,834,344
-----			-----
TOTAL			783,441,227

VIRGINIA ELECTRIC AND POWER COMPANY
 DOMINION ENERGY NORTH CAROLINA
 RIDER C
 FORECAST KWH SALES AND CUSTOMERS
 BY REVENUE CLASS
 12 MONTHS ENDED January 31, 2021

----- REVENUE CLASS=C. INDUSTRIAL -----

YR	MONTH	FORECAST CUST	FORECAST KWH
2020	2	56	126,109,493
2020	3	56	132,539,542
2020	4	56	159,598,906
2020	5	56	153,681,207
2020	6	56	146,450,067
2020	7	56	162,019,499
2020	8	56	133,252,875
2020	9	56	161,512,722
2020	10	56	145,342,134
2020	11	56	149,685,239
2020	12	56	138,958,749
2021	1	56	152,429,681
-----			-----
TOTAL			1,761,580,114

----- REVENUE CLASS=D. OUTDOOR LIGHTING & TRAFFIC -----

YR	MONTH	FORECAST CUST	FORECAST KWH
2020	2	385	697,559
2020	3	385	705,442
2020	4	385	653,696
2020	5	385	742,836
2020	6	385	745,868
2020	7	385	699,782
2020	8	385	733,538
2020	9	385	650,260
2020	10	385	695,335
2020	11	385	685,734
2020	12	385	661,731
2021	1	385	740,193
-----			-----
TOTAL			8,411,974

VIRGINIA ELECTRIC AND POWER COMPANY
DOMINION ENERGY NORTH CAROLINA
RIDER C
FORECAST KWH SALES AND CUSTOMERS
BY REVENUE CLASS
12 MONTHS ENDED January 31, 2021

----- REVENUE CLASS=E. PUBLIC AUTHORITY -----

YR	MONTH	FORECAST CUST	FORECAST KWH
2020	2	1,859	10,640,415
2020	3	1,859	10,549,170
2020	4	1,859	9,130,050
2020	5	1,859	9,826,332
2020	6	1,859	10,917,455
2020	7	1,860	11,509,586
2020	8	1,859	11,774,829
2020	9	1,857	10,867,787
2020	10	1,857	10,104,172
2020	11	1,856	9,159,348
2020	12	1,856	9,697,908
2021	1	1,857	10,920,064
-----			-----
TOTAL			125,097,116
			=====
			4,327,442,950

----- REVENUE CLASS=A. RESIDENTIAL -----

	12 MOS ENDED
RATE	01/31/2021
SCHEDULE	FORECAST KWH
1DF	2,912,215
1	1,627,882,011
1P	9,492,721
1T	1,062,146
1W	92,594
26	7,470,833
-----	-----
RC	1,648,912,519

----- REVENUE CLASS=B. COMMERCIAL -----

	12 MOS ENDED
RATE	01/31/2021
SCHEDULE	FORECAST KWH
5	512,083,429
5C	5,728,024
5P	131,218,008
7	1,317,768
6C	2,052,855
6P	85,893,826
10	36,706,413
26	8,440,903
-----	-----
RC	783,441,227

----- REVENUE CLASS=C. INDUSTRIAL -----

	12 MOS ENDED
RATE	01/31/2021
SCHEDULE	FORECAST KWH
5	13,858,503
5P	1,019,660
6P	177,711,266
6L	420,224,328

* SCHEDULE NS AND ALL OPT-OUTS ARE ACTUAL KWH FOR THE 12 MONTHS ENDING DECEMBER 2018.

FORECAST KWH SALES BY REVENUE CLASS AND RATE SCHEDULE

----- REVENUE CLASS=C. INDUSTRIAL -----

(continued)

	12 MOS ENDED
RATE	01/31/2021
SCHEDULE	FORECAST KWH
6VP	239,610,227
10	99,342,954
NS	922,168,887
26	395,020
-----	-----
RC	1,874,330,846

----- REVENUE CLASS=D. OUTDOOR LIGHTING & TRAFFIC -----

	12 MOS ENDED
RATE	01/31/2021
SCHEDULE	FORECAST KWH
30T	535,554
26	7,876,420
-----	-----
RC	8,411,974

----- REVENUE CLASS=E. PUBLIC AUTHORITY -----

	12 MOS ENDED
RATE	01/31/2021
SCHEDULE	FORECAST KWH
5P	2,771,742
6C	2,589,968
6P	0
30	78,032,615
42	41,362,659
26	340,133
-----	-----
RC	125,097,116
	=====
	4,440,193,682

* SCHEDULE NS AND ALL OPT-OUTS ARE ACTUAL KWH FOR THE 12 MONTHS ENDING DECEMBER 2018.

SUMMARY OF FORECAST NET KWH SALES BY RATE SCHEDULE

RATE SCHEDULE	12 MOS ENDED	OPT OUT KWH	12 MOS ENDED
	01/31/2021 FORECAST KWH		01/31/2021 NET FORECAST KWH
1DF	2,912,215	0	2,912,215
1	1,627,882,011	0	1,627,882,011
1P	9,492,721	0	9,492,721
1T	1,062,146	0	1,062,146
1W	92,594	0	92,594
5	525,941,932	4,280,838	521,661,094
5C	5,728,024	0	5,728,024
5P	135,009,410	5,540,362	129,469,048
7	1,317,768	0	1,317,768
6C	4,642,823	0	4,642,823
6P	263,605,093	154,964,256	108,640,837
6L	420,224,328	165,932,415	254,291,913
6VP	239,610,227	273,539,536	0
10	136,049,367	27,011,247	109,038,120
30	78,032,615	0	78,032,615
30T	535,554	0	535,554
42	41,362,659	0	41,362,659
NS	922,168,887	922,168,887	0
26	24,523,309	0	24,523,309
	=====	=====	=====
	4,440,193,682	1,553,437,541	2,920,685,450

* SCHEDULE NS AND ALL OPT-OUTS ARE ACTUAL KWH FOR THE 12 MONTHS ENDING DECEMBER 2018.

REFLECTS FORECASTED NET KWH SALES
12 MONTHS ENDED January 31, 2021
KWH CATEGORIZED BY CUSTOMER CLASSES AND RATES SCHEDULES

----- CUSTOMER CLASS=RESIDENTIAL -----

	12 MOS ENDED
RATE	01/31/2021
SCHEDULE	NET FORECAST KWH
1	1,627,882,011
1DF	2,912,215
1P	9,492,721
1T	1,062,146
1W	92,594

CLASS	1,641,441,686

----- CUSTOMER CLASS=SMALL GENERAL SERVICE & PUBLIC AUTHORITY -----

	12 MOS ENDED
RATE	01/31/2021
SCHEDULE	NET FORECAST KWH
30	78,032,615
42	41,362,659
5	521,661,094
5C	5,728,024
5P	129,469,048
7	1,317,768

CLASS	777,571,209

----- CUSTOMER CLASS=LARGE GENERAL SERVICE -----

	12 MOS ENDED
RATE	01/31/2021
SCHEDULE	NET FORECAST KWH
10	109,038,120
6C	4,642,823
6L	254,291,913
6P	108,640,837

CLASS	476,613,693

REFLECTS FORECASTED NET KWH SALES
12 MONTHS ENDED January 31, 2021
KWH CATEGORIZED BY CUSTOMER CLASSES AND RATES SCHEDULES

----- CUSTOMER CLASS=6VP -----

	12 MOS ENDED
RATE	01/31/2021
SCHEDULE	NET FORECAST KWH
6VP	0

----- CUSTOMER CLASS=NS -----

	12 MOS ENDED
RATE	01/31/2021
SCHEDULE	NET FORECAST KWH
NS	0

----- CUSTOMER CLASS=OUTDOOR LIGHTING -----

	12 MOS ENDED
RATE	01/31/2021
SCHEDULE	NET FORECAST KWH
26	24,523,309

----- CUSTOMER CLASS=TRAFFIC LIGHTING -----

	12 MOS ENDED
RATE	01/31/2021
SCHEDULE	NET FORECAST KWH
30T	535,554
	=====
	2,920,685,450

ALLOCATION OF NC JURISDICTIONAL REVENUE REQUIRMENT
 TO THE CUSTOMER CLASSES AND CALCULATION OF RIDER C CUSTOMER CLASS RATES
 REFLECTS FORECASTED NET KWH SALES

CUSTOMER CLASS	CUST CLASS ALLOCATED REVENUE REQ(1)	12 MOS ENDED 01/31/2021 NET FORECAST KWH	CUSTOMER CLASS RATE W/OUT REG FEE	CUSTOMER CLASS RATE WITH REG FEE
RESIDENTIAL	\$1,780,344	1,641,441,686	\$0.00108	\$0.00109
SMALL GENERAL SERVICE & PUBLIC AUTHORITY	\$1,228,533	777,571,209	\$0.00158	\$0.00158
LARGE GENERAL SERVICE	\$461,403	476,613,693	\$0.00097	\$0.00097
6VP	\$0	0	0	0
NS	\$0	0	0	0
OUTDOOR LIGHTING	\$0	24,523,309	\$0.00000	\$0.00000
TRAFFIC LIGHTING	\$0	535,554	\$0.00000	\$0.00000
	=====	=====		
	\$3,470,280	2,920,685,450		

(1) FROM REM SCHEDULE 3 PAGE 4

**VIRGINIA ELECTRIC AND POWER COMPANY
 DOMINION ENERGY NORTH CAROLINA
 RATES SCHEDULES BY CUSTOMER CLASS
 (RIDER C RATES INCLUDE NORTH CAROLINA REGULATORY FEE)**

CUSTOMER CLASS	RATE SCHEDULE	RIDER C RATE
RESIDENTIAL	1	\$ 0.00109
	1DF	\$ 0.00109
	1P	\$ 0.00109
	1T	\$ 0.00109
	1W	\$ 0.00109
SMALL GENERAL SERVICE & PUBLIC AUTHORITY	30	\$ 0.00158
	42	\$ 0.00158
	5	\$ 0.00158
	5C	\$ 0.00158
	5P	\$ 0.00158
	7	\$ 0.00158
LARGE GENERAL SERVICE	10	\$ 0.00097
	6C	\$ 0.00097
	6P	\$ 0.00097
	6L	\$ 0.00097
	RTP With Customer Baseline Load	\$ 0.00097
	RTP Economic Development	\$ 0.00097
6VP	6VP	\$ -
NS	NS	\$ -
OUTDOOR LIGHTING	26	\$ -
TRAFFIC LIGHTING	30T	\$ -

**VIRGINIA ELECTRIC AND POWER COMPANY
DOMINION ENERGY NORTH CAROLINA
OPT-OUT NON-RESIDENTIAL CUSTOMERS**

Month	Year	Total Monthly KWH
January	2018	127,048,989
February	2018	118,784,916
March	2018	119,104,921
April	2018	121,187,157
May	2018	135,742,606
June	2018	140,563,180
July	2018	137,982,479
August	2018	142,290,712
September	2018	119,053,401
October	2018	136,112,471
November	2018	129,308,415
December	2018	126,258,295
TOTAL		1,553,437,541

Virginia Electric and Power Company

RIDER CDEMAND SIDE MANAGEMENT/ENERGY EFFICIENCY RIDER

The following Dominion Energy North Carolina filed Rate Schedules shall be increased by the applicable cents per kilowatt-hour charge.

Rate Schedule	Cents per kWh Charge
Schedule 1	0.109 ¢/kWh
Schedule 1DF	0.109 ¢/kWh
Schedule 1P	0.109 ¢/kWh
Schedule 1T	0.109 ¢/kWh
Schedule 1W	0.109 ¢/kWh
Schedule 5	0.158 ¢/kWh
Schedule 5C	0.158 ¢/kWh
Schedule 5P	0.158 ¢/kWh
Schedule 6C	0.097 ¢/kWh
Schedule 6L	0.097 ¢/kWh
Schedule 6P	0.097 ¢/kWh
Schedule 6VP	0.000 ¢/kWh
Schedule 7	0.158 ¢/kWh
Schedule LGS RTP With Customer Baseline Load	0.097 ¢/kWh
Schedule LGS – RTP Economic Development	0.097/kWh
Schedule NS	0.000 ¢/kWh
Schedule 10	0.097 ¢/kWh
Schedule 26	0.000 ¢/kWh
Schedule 30	0.158 ¢/kWh
Schedule 30T	0.000 ¢/kWh
Schedule 42	0.158 ¢/kWh

Filed 08-13-19
Electric-North Carolina

Superseding Filing Effective For Usage On and After 02-01-19. This Filing Effective For Usage On and After 02-01-20.

VIRGINIA ELECTRIC AND POWER COMPANY
 DOMINION ENERGY NORTH CAROLINA
 RIDER CE

Docket No. E-22, Sub 577 ALLOCATION OF NC JURISDICTIONAL REVENUE REQUIREMENT
 TO THE CUSTOMER CLASSES AND CALCULATION OF RIDER CE CUSTOMER CLASS RATES
 REFLECTS FORECASTED NET KWH SALES

Company Exhibit DAS-1
 Schedule 4
 Page 1 of 2

CUSTOMER CLASS	CUST CLASS ALLOCATED REVENUE REQ(1)	12 MOS ENDED 01/31/2021 NET FORECAST KWH	CUSTOMER CLASS RATE W/OUT REG FEE	CUSTOMER CLASS RATE WITH REG FEE
RESIDENTIAL	\$268,847	1,641,441,686	\$0.00016	\$0.00016
SMALL GENERAL SERVICE & PUBLIC AUTHORITY	\$141,877	777,571,209	\$0.00018	\$0.00018
LARGE GENERAL SERVICE	\$53,286	476,613,693	\$0.00011	\$0.00011
6VP	\$0	0	0	0
NS	\$0	0	0	0
OUTDOOR LIGHTING	\$0	24,523,309	\$0.00000	\$0.00000
TRAFFIC LIGHTING	\$0	535,554	\$0.00000	\$0.00000
	=====	=====		
	\$464,010	2,920,685,450		

(1) FROM REM SCHEDULE 3 PAGE 4

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Aug 13 2019

**VIRGINIA ELECTRIC AND POWER COMPANY
 DOMINION ENERGY NORTH CAROLINA
 RATES SCHEDULES BY CUSTOMER CLASS
 (RIDER CE RATES INCLUDE NORTH CAROLINA REGULATORY FEE)**

CUSTOMER CLASS	RATE SCHEDULE	RIDER CE RATE
RESIDENTIAL	1	\$ 0.00016
	1DF	\$ 0.00016
	1P	\$ 0.00016
	1T	\$ 0.00016
	1W	\$ 0.00016
SMALL GENERAL SERVICE & PUBLIC AUTHORITY	30	\$ 0.00018
	42	\$ 0.00018
	5	\$ 0.00018
	5C	\$ 0.00018
	5P	\$ 0.00018
	7	\$ 0.00018
LARGE GENERAL SERVICE	10	\$ 0.00011
	6C	\$ 0.00011
	6P	\$ 0.00011
	6L	\$ 0.00011
	RTP With Customer Baseline Load	\$ 0.00011
	RTP Economic Development	\$ 0.00011
6VP	6VP	\$ -
NS	NS	\$ -
OUTDOOR LIGHTING	26	\$ -
TRAFFIC LIGHTING	30T	\$ -

Virginia Electric and Power Company

RIDER CE
DSM/EE EXPERIENCE MODIFICATION FACTOR
(DSM/EE EMF)

The following Dominion Energy North Carolina filed Rate Schedules shall be increased by the applicable cents per kilowatt-hour charge.

Rate Schedule	Cents per kWh Charge
Schedule 1	0.016 ¢/kWh
Schedule 1DF	0.016 ¢/kWh
Schedule 1P	0.016 ¢/kWh
Schedule 1T	0.016 ¢/kWh
Schedule 1W	0.016 ¢/kWh
Schedule 5	0.018 ¢/kWh
Schedule 5C	0.018 ¢/kWh
Schedule 5P	0.018 ¢/kWh
Schedule 6C	0.011 ¢/kWh
Schedule 6L	0.011 ¢/kWh
Schedule 6P	0.011 ¢/kWh
Schedule 6VP	0.000 ¢/kWh
Schedule 7	0.018 ¢/kWh
Schedule LGS RTP With Customer Baseline Load	0.011 ¢/kWh
Schedule LGS – RTP Economic Development	0.011 ¢/kWh
Schedule NS	0.000 ¢/kWh
Schedule 10	0.011 ¢/kWh
Schedule 26	0.000 ¢/kWh
Schedule 30	0.018 ¢/kWh
Schedule 30T	0.000 ¢/kWh
Schedule 42	0.018 ¢/kWh

Filed 08-13-19
Electric-North Carolina

Superseding Filing Effective For Usage On
and After 02-01-19. This Filing Effective
For Usage On and After 02-01-20.

DOCKET NO. E-22, SUB 577

**NORTH CAROLINA DEMAND SIDE MANAGEMENT
 AVERAGE BASE RATES FOR THE TEST PERIOD
 EXCLUDES CUSTOMER CHARGES, ALL FUEL COMPONENTS, AND OPT-OUT CUSTOMERS
 NORTH CAROLINA JURISDICTIONAL**

RESIDENTIAL INCOME & AGE QUALIFYING HOME IMPROVEMENT PROGRAM

RATE SCHEDULE 1

Line Number	Year (A)	Month (B)	Sum of kWh** (C)	Sum of Base* Revenue** (D)	Average Base Rate (E) = (D)/(C)
1	2018	1	362,241	\$25,608	\$0.07069
2	2018	2	289,996	\$20,481	\$0.07063
3	2018	3	266,726	\$18,834	\$0.07061
4	2018	4	245,155	\$17,314	\$0.07062
5	2018	5	189,460	\$13,372	\$0.07058
6	2018	6	227,786	\$19,296	\$0.08471
7	2018	7	221,203	\$18,753	\$0.08478
8	2018	8	274,940	\$23,287	\$0.08470
9	2018	9	237,424	\$20,116	\$0.08473
10	2018	10	191,756	\$13,541	\$0.07062
11	2018	11	193,029	\$13,630	\$0.07061
12	2018	12	243,032	\$17,171	\$0.07065

* All participants were served under Schedule 1, therefore Base Revenue reflects Rate Schedule 1 non-fuel revenues excluding the Basic Customer Charge and excludes base fuel, Rider A, and Rider B fuel rates.

DOCKET NO. E-22, SUB 577

**NORTH CAROLINA DEMAND SIDE MANAGEMENT
 AVERAGE BASE RATES FOR THE TEST PERIOD
 EXCLUDES CUSTOMER CHARGES, ALL FUEL COMPONENTS, AND OPT-OUT CUSTOMERS
 NORTH CAROLINA JURISDICTIONAL**

RESIDENTIAL RETAIL LED LIGHTING PROGRAM

SUMMARY

Line Number	Year (A)	Month (B)	Sum of kWh** (C)	Sum of Base* Revenue** (D)	Average Base Rate (E) = (D)/(C)
1	2018	1	175,353,108	\$12,363,900	\$0.07051
2	2018	2	122,114,901	\$8,617,706	\$0.07057
3	2018	3	118,302,251	\$8,349,146	\$0.07057
4	2018	4	121,702,819	\$8,587,889	\$0.07056
5	2018	5	99,798,185	\$7,039,875	\$0.07054
6	2018	6	133,992,180	\$11,334,609	\$0.08459
7	2018	7	154,548,777	\$13,068,859	\$0.08456
8	2018	8	192,185,511	\$16,257,141	\$0.08459
9	2018	9	130,465,312	\$11,031,643	\$0.08456
10	2018	10	137,939,846	\$9,726,282	\$0.07051
11	2018	11	85,501,394	\$6,033,386	\$0.07056
12	2018	12	127,183,963	\$8,972,395	\$0.07055

* Base Revenue reflects Schedule 1, 1P, and 1T non-fuel revenues, excluding Basic Customer Charge and excludes base fuel, Rider A and Rider B fuel rates.

** Columns (C) & (D) are the sum of the kWh and the base revenue shown in Schedule 7 on pages 2 to 4 in Columns (C) & (D) of each rate table.

DOCKET NO. E-22, SUB 577

**NORTH CAROLINA DEMAND SIDE MANAGEMENT
 AVERAGE BASE RATES FOR THE TEST PERIOD
 EXCLUDES CUSTOMER CHARGES, ALL FUEL COMPONENTS, AND OPT-OUT CUSTOMERS
 NORTH CAROLINA JURISDICTIONAL**

RESIDENTIAL RETAIL LED LIGHTING PROGRAM

RATE SCHEDULE 1

Line Number	Year (A)	Month (B)	Sum of kWh** (C)	Sum of Base* Revenue** (D)	Average Base Rate (E) = (D)/(C)
1	2018	1	174,355,335	\$12,311,275	\$0.07061
2	2018	2	121,483,725	\$8,579,799	\$0.07063
3	2018	3	117,717,598	\$8,313,078	\$0.07062
4	2018	4	121,065,258	\$8,549,340	\$0.07062
5	2018	5	99,192,845	\$7,003,514	\$0.07061
6	2018	6	133,091,145	\$11,273,185	\$0.08470
7	2018	7	153,475,610	\$12,997,811	\$0.08469
8	2018	8	191,046,169	\$16,180,723	\$0.08470
9	2018	9	129,460,132	\$10,965,499	\$0.08470
10	2018	10	137,096,573	\$9,678,759	\$0.07060
11	2018	11	84,908,393	\$5,996,488	\$0.07062
12	2018	12	126,489,311	\$8,933,691	\$0.07063

* Base Revenue reflects the applicable rate schedules' non-fuel revenues, excluding Basic Customer Charge, base fuel, Rider A, and Rider B fuel rates.

DOCKET NO. E-22, SUB 577

**NORTH CAROLINA DEMAND SIDE MANAGEMENT
 AVERAGE BASE RATES FOR THE TEST PERIOD
 EXCLUDES CUSTOMER CHARGES, ALL FUEL COMPONENTS, AND OPT-OUT CUSTOMERS
 NORTH CAROLINA JURISDICTIONAL**

RESIDENTIAL RETAIL LED LIGHTING PROGRAM

RATE SCHEDULE 1P

Line Number	Year (A)	Month (B)	Sum of kWh** (C)	Sum of Base* Revenue** (D)	Average Base Rate (E) = (D)/(C)
1	2018	1	870,442	\$44,706	\$0.05136
2	2018	2	558,449	\$32,976	\$0.05905
3	2018	3	520,348	\$31,744	\$0.06101
4	2018	4	564,805	\$33,763	\$0.05978
5	2018	5	546,723	\$32,417	\$0.05929
6	2018	6	807,410	\$54,029	\$0.06692
7	2018	7	955,623	\$61,354	\$0.06420
8	2018	8	1,027,942	\$66,938	\$0.06512
9	2018	9	905,388	\$57,851	\$0.06390
10	2018	10	763,636	\$42,026	\$0.05503
11	2018	11	544,511	\$33,610	\$0.06173
12	2018	12	627,843	\$34,416	\$0.05482

* Base Revenue reflects the applicable rate schedules' non-fuel revenues, excluding Basic Customer Charge, base fuel, Rider A, and Rider B fuel rates.

DOCKET NO. E-22, SUB 577

**NORTH CAROLINA DEMAND SIDE MANAGEMENT
 AVERAGE BASE RATES FOR THE TEST PERIOD
 EXCLUDES CUSTOMER CHARGES, ALL FUEL COMPONENTS, AND OPT-OUT CUSTOMERS
 NORTH CAROLINA JURISDICTIONAL**

RESIDENTIAL RETAIL LED LIGHTING PROGRAM

RATE SCHEDULE 1T

Line Number	Year (A)	Month (B)	Sum of kWh** (C)	Sum of Base* Revenue** (D)	Average Base Rate (E) = (D)/(C)
1	2018	1	127,331	\$7,919	\$0.06219
2	2018	2	72,727	\$4,931	\$0.06780
3	2018	3	64,305	\$4,324	\$0.06724
4	2018	4	72,756	\$4,786	\$0.06578
5	2018	5	58,617	\$3,944	\$0.06728
6	2018	6	93,625	\$7,395	\$0.07899
7	2018	7	117,544	\$9,694	\$0.08247
8	2018	8	111,400	\$9,480	\$0.08510
9	2018	9	99,792	\$8,293	\$0.08310
10	2018	10	79,637	\$5,497	\$0.06903
11	2018	11	48,490	\$3,288	\$0.06781
12	2018	12	66,809	\$4,288	\$0.06418

* Base Revenue reflects the applicable rate schedules' non-fuel revenues, excluding Basic Customer Charge, base fuel, Rider A, and Rider B fuel rates.

DOCKET NO. E-22, SUB 577

**NORTH CAROLINA DEMAND SIDE MANAGEMENT
 AVERAGE BASE RATES FOR THE TEST PERIOD
 EXCLUDES CUSTOMER CHARGES, ALL FUEL COMPONENTS, AND OPT-OUT CUSTOMERS
 NORTH CAROLINA JURISDICTIONAL**

NON-RESIDENTIAL HEATING & COOLING EFFICIENCY

SUMMARY

Line Number	Year (A)	Month (B)	Sum of kWh** (C)	Sum of Base* Revenue** (D)	Average Base Rate (E) = (D)/(C)
1	2018	1	2,182,756	\$125,390	\$0.05745
2	2018	2	1,994,395	\$107,835	\$0.05407
3	2018	3	1,937,463	\$99,942	\$0.05158
4	2018	4	2,174,495	\$110,423	\$0.05078
5	2018	5	1,998,535	\$100,623	\$0.05035
6	2018	6	2,646,782	\$147,169	\$0.05560
7	2018	7	3,028,352	\$239,851	\$0.07920
8	2018	8	3,064,685	\$225,640	\$0.07363
9	2018	9	2,750,690	\$219,764	\$0.07989
10	2018	10	2,953,505	\$144,804	\$0.04903
11	2018	11	2,066,895	\$97,756	\$0.04730
12	2018	12	1,970,025	\$94,134	\$0.04778

* Base Revenue reflects Schedule 10, 30, 42, 5, 5P, and 6P non-fuel revenues, excluding Basic Customer Charge and excludes base fuel, Rider A and Rider B fuel rates.

** Columns (C) & (D) are the sum of the kWh and the base revenue shown in Schedule 8 on pages 2 to 7 in Columns (C) & (D) of each rate table.

DOCKET NO. E-22, SUB 577

**NORTH CAROLINA DEMAND SIDE MANAGEMENT
 AVERAGE BASE RATES FOR THE TEST PERIOD
 EXCLUDES CUSTOMER CHARGES, ALL FUEL COMPONENTS, AND OPT-OUT CUSTOMERS
 NORTH CAROLINA JURISDICTIONAL**

NON-RESIDENTIAL HEATING & COOLING EFFICIENCY

RATE SCHEDULE 10

Line Number	Year (A)	Month (B)	Sum of kWh** (C)	Sum of Base* Revenue** (D)	Average Base Rate (E) = (D)/(C)
1	2018	1	1,381,951	\$68,369	\$0.04947
2	2018	2	1,400,866	\$54,678	\$0.03903
3	2018	3	1,479,348	\$58,024	\$0.03922
4	2018	4	1,405,402	\$55,042	\$0.03916
5	2018	5	1,289,658	\$46,575	\$0.03611
6	2018	6	1,630,900	\$67,306	\$0.04127
7	2018	7	2,011,671	\$156,408	\$0.07775
8	2018	8	1,897,580	\$132,457	\$0.06980
9	2018	9	2,046,885	\$160,377	\$0.07835
10	2018	10	1,622,008	\$56,295	\$0.03471
11	2018	11	1,423,963	\$44,725	\$0.03141
12	2018	12	1,491,452	\$52,596	\$0.03526

* Base Revenue reflects the applicable rate schedules' non-fuel revenues, excluding Basic Customer Charge, base fuel, Rider A, and Rider B fuel rates.

DOCKET NO. E-22, SUB 577

**NORTH CAROLINA DEMAND SIDE MANAGEMENT
 AVERAGE BASE RATES FOR THE TEST PERIOD
 EXCLUDES CUSTOMER CHARGES, ALL FUEL COMPONENTS, AND OPT-OUT CUSTOMERS
 NORTH CAROLINA JURISDICTIONAL**

NON-RESIDENTIAL HEATING & COOLING EFFICIENCY

RATE SCHEDULE 30

Line Number	Year (A)	Month (B)	Sum of kWh** (C)	Sum of Base* Revenue** (D)	Average Base Rate (E) = (D)/(C)
1	2018	1	41,040	\$2,571	\$0.06265
2	2018	2	51,120	\$3,569	\$0.06982
3	2018	3	52,560	\$3,511	\$0.06680
4	2018	4	48,960	\$3,232	\$0.06601
5	2018	5	59,040	\$3,873	\$0.06560
6	2018	6	97,920	\$6,738	\$0.06881
7	2018	7	86,400	\$5,989	\$0.06932
8	2018	8	91,440	\$6,247	\$0.06832
9	2018	9	99,360	\$6,851	\$0.06895
10	2018	10	95,040	\$5,932	\$0.06242
11	2018	11	64,080	\$4,611	\$0.07196
12	2018	12	53,280	\$3,581	\$0.06721

* Base Revenue reflects the applicable rate schedules' non-fuel revenues, excluding Basic Customer Charge, base fuel, Rider A, and Rider B fuel rates.

DOCKET NO. E-22, SUB 577

**NORTH CAROLINA DEMAND SIDE MANAGEMENT
 AVERAGE BASE RATES FOR THE TEST PERIOD
 EXCLUDES CUSTOMER CHARGES, ALL FUEL COMPONENTS, AND OPT-OUT CUSTOMERS
 NORTH CAROLINA JURISDICTIONAL**

NON-RESIDENTIAL HEATING & COOLING EFFICIENCY

RATE SCHEDULE 42

Line Number	Year (A)	Month (B)	Sum of kWh** (C)	Sum of Base* Revenue** (D)	Average Base Rate (E) = (D)/(C)
1	2018	1	407,620	\$21,138	\$0.05186
2	2018	2	219,460	\$11,344	\$0.05169
3	2018	3	65,600	\$3,565	\$0.05434
4	2018	4	386,520	\$20,118	\$0.05205
5	2018	5	261,660	\$13,702	\$0.05237
6	2018	6	287,040	\$22,452	\$0.07822
7	2018	7	324,700	\$25,159	\$0.07748
8	2018	8	290,100	\$22,457	\$0.07741
9	2018	9	105,760	\$8,504	\$0.08041
10	2018	10	498,440	\$25,961	\$0.05208
11	2018	11	262,720	\$13,984	\$0.05323
12	2018	12	72,800	\$3,985	\$0.05474

* Base Revenue reflects the applicable rate schedules' non-fuel revenues, excluding Basic Customer Charge, base fuel, Rider A, and Rider B fuel rates.

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 NORTH CAROLINA JURISDICTIONAL**

NON-RESIDENTIAL HEATING & COOLING EFFICIENCY

RATE SCHEDULE 5

Line Number	Year (A)	Month (B)	Sum of kWh** (C)	Sum of Base* Revenue** (D)	Average Base Rate (E) = (D)/(C)
1	2018	1	206,665	\$11,784	\$0.05702
2	2018	2	155,969	\$9,173	\$0.05881
3	2018	3	163,375	\$9,616	\$0.05886
4	2018	4	163,493	\$9,451	\$0.05781
5	2018	5	167,117	\$9,432	\$0.05644
6	2018	6	275,642	\$16,978	\$0.06159
7	2018	7	282,821	\$17,619	\$0.06230
8	2018	8	446,165	\$27,723	\$0.06214
9	2018	9	139,385	\$8,371	\$0.06006
10	2018	10	414,817	\$23,359	\$0.05631
11	2018	11	95,692	\$5,191	\$0.05425
12	2018	12	178,936	\$10,265	\$0.05737

* Base Revenue reflects the applicable rate schedules' non-fuel revenues, excluding Basic Customer Charge, base fuel, Rider A, and Rider B fuel rates.

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NON-RESIDENTIAL HEATING & COOLING EFFICIENCY

RATE SCHEDULE 5P

Line Number	Year (A)	Month (B)	Sum of kWh** (C)	Sum of Base* Revenue** (D)	Average Base Rate (E) = (D)/(C)
1	2018	1	75,640	\$8,533	\$0.11281
2	2018	2	78,420	\$8,908	\$0.11359
3	2018	3	87,300	\$9,947	\$0.11394
4	2018	4	88,040	\$9,117	\$0.10356
5	2018	5	116,660	\$11,196	\$0.09597
6	2018	6	163,040	\$13,143	\$0.08061
7	2018	7	157,880	\$16,436	\$0.10410
8	2018	8	155,080	\$16,617	\$0.10715
9	2018	9	173,540	\$14,397	\$0.08296
10	2018	10	145,360	\$13,551	\$0.09322
11	2018	11	102,360	\$10,349	\$0.10110
12	2018	12	75,348	\$7,545	\$0.10014

* Base Revenue reflects the applicable rate schedules' non-fuel revenues, excluding Basic Customer Charge, base fuel, Rider A, and Rider B fuel rates.

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NON-RESIDENTIAL HEATING & COOLING EFFICIENCY

RATE SCHEDULE 6P

Line Number	Year (A)	Month (B)	Sum of kWh** (C)	Sum of Base* Revenue** (D)	Average Base Rate (E) = (D)/(C)
1	2018	1	69,840	\$12,995	\$0.18607
2	2018	2	88,560	\$20,163	\$0.22768
3	2018	3	89,280	\$15,279	\$0.17114
4	2018	4	82,080	\$13,463	\$0.16402
5	2018	5	104,400	\$15,845	\$0.15177
6	2018	6	192,240	\$20,552	\$0.10691
7	2018	7	164,880	\$18,240	\$0.11063
8	2018	8	184,320	\$20,139	\$0.10926
9	2018	9	185,760	\$21,264	\$0.11447
10	2018	10	177,840	\$19,706	\$0.11081
11	2018	11	118,080	\$18,896	\$0.16003
12	2018	12	98,209	\$16,162	\$0.16457

* Base Revenue reflects the applicable rate schedules' non-fuel revenues, excluding Basic Customer Charge, base fuel, Rider A, and Rider B fuel rates.

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 NORTH CAROLINA JURISDICTIONAL**

NON-RESIDENTIAL LIGHTING SYSTEMS & CONTROLS

SUMMARY

Line Number	Year (A)	Month (B)	Sum of kWh** (C)	Sum of Base* Revenue** (D)	Average Base Rate (E) = (D)/(C)
1	2018	1	5,273,042	\$399,519	\$0.07577
2	2018	2	4,430,597	\$325,839	\$0.07354
3	2018	3	3,868,420	\$282,957	\$0.07315
4	2018	4	4,821,345	\$346,097	\$0.07178
5	2018	5	4,251,500	\$306,931	\$0.07219
6	2018	6	4,955,940	\$367,775	\$0.07421
7	2018	7	5,096,279	\$393,990	\$0.07731
8	2018	8	5,409,496	\$419,128	\$0.07748
9	2018	9	4,957,787	\$380,807	\$0.07681
10	2018	10	5,481,099	\$373,850	\$0.06821
11	2018	11	4,230,933	\$307,330	\$0.07264
12	2018	12	3,557,451	\$247,424	\$0.06955

* Base Revenue reflects Schedule 10, 30, 42, 5, 5P, and 6P non-fuel revenues, excluding Basic Customer Charge and excludes base fuel, Rider A and Rider B fuel rates.

** Columns (C) & (D) are the sum of the kWh and the base revenue shown in Schedule 9 on pages 2 to 7 in Columns (C) & (D) of each rate table.

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NON-RESIDENTIAL LIGHTING SYSTEMS & CONTROLS

RATE SCHEDULE 10

Line Number	Year (A)	Month (B)	Sum of kWh** (C)	Sum of Base* Revenue** (D)	Average Base Rate (E) = (D)/(C)
1	2018	1	696,797	\$36,857	\$0.05289
2	2018	2	747,370	\$31,777	\$0.04252
3	2018	3	791,125	\$33,389	\$0.04220
4	2018	4	766,292	\$32,345	\$0.04221
5	2018	5	779,100	\$30,370	\$0.03898
6	2018	6	802,537	\$35,189	\$0.04385
7	2018	7	698,497	\$54,987	\$0.07872
8	2018	8	810,301	\$60,595	\$0.07478
9	2018	9	838,753	\$67,846	\$0.08089
10	2018	10	763,797	\$29,543	\$0.03868
11	2018	11	745,873	\$25,969	\$0.03482
12	2018	12	828,736	\$32,305	\$0.03898

* Base Revenue reflects the applicable rate schedules' non-fuel revenues, excluding Basic Customer Charge, base fuel, Rider A, and Rider B fuel rates.

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NON-RESIDENTIAL LIGHTING SYSTEMS & CONTROLS

RATE SCHEDULE 30

Line Number	Year (A)	Month (B)	Sum of kWh** (C)	Sum of Base* Revenue** (D)	Average Base Rate (E) = (D)/(C)
1	2018	1	13,364	\$840	\$0.06286
2	2018	2	21,056	\$1,201	\$0.05704
3	2018	3	15,496	\$936	\$0.06040
4	2018	4	16,276	\$941	\$0.05782
5	2018	5	25,127	\$1,357	\$0.05401
6	2018	6	36,001	\$2,150	\$0.05972
7	2018	7	35,863	\$2,160	\$0.06023
8	2018	8	36,338	\$2,190	\$0.06027
9	2018	9	45,981	\$2,719	\$0.05913
10	2018	10	40,449	\$2,137	\$0.05283
11	2018	11	27,698	\$1,489	\$0.05376
12	2018	12	18,999	\$1,159	\$0.06100

* Base Revenue reflects the applicable rate schedules' non-fuel revenues, excluding Basic Customer Charge, base fuel, Rider A, and Rider B fuel rates.

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NON-RESIDENTIAL LIGHTING SYSTEMS & CONTROLS

RATE SCHEDULE 42

Line Number	Year (A)	Month (B)	Sum of kWh** (C)	Sum of Base* Revenue** (D)	Average Base Rate (E) = (D)/(C)
1	2018	1	107,760	\$5,299	\$0.04917
2	2018	2	90,960	\$4,392	\$0.04828
3	2018	3	93,200	\$4,633	\$0.04971
4	2018	4	84,080	\$4,151	\$0.04937
5	2018	5	93,680	\$4,772	\$0.05094
6	2018	6	159,440	\$12,174	\$0.07635
7	2018	7	178,320	\$13,602	\$0.07628
8	2018	8	165,280	\$12,617	\$0.07634
9	2018	9	179,360	\$13,657	\$0.07614
10	2018	10	160,000	\$8,077	\$0.05048
11	2018	11	98,080	\$4,869	\$0.04964
12	2018	12	80,880	\$3,998	\$0.04943

* Base Revenue reflects the applicable rate schedules' non-fuel revenues, excluding Basic Customer Charge, base fuel, Rider A, and Rider B fuel rates.

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 NORTH CAROLINA JURISDICTIONAL**

NON-RESIDENTIAL LIGHTING SYSTEMS & CONTROLS

RATE SCHEDULE 5

Line Number	Year (A)	Month (B)	Sum of kWh** (C)	Sum of Base* Revenue** (D)	Average Base Rate (E) = (D)/(C)
1	2018	1	1,631,871	\$103,523	\$0.06344
2	2018	2	1,215,226	\$75,747	\$0.06233
3	2018	3	788,580	\$48,026	\$0.06090
4	2018	4	1,472,346	\$95,064	\$0.06457
5	2018	5	1,157,764	\$72,027	\$0.06221
6	2018	6	1,392,865	\$93,553	\$0.06717
7	2018	7	1,477,594	\$98,290	\$0.06652
8	2018	8	1,637,345	\$108,219	\$0.06609
9	2018	9	967,331	\$62,623	\$0.06474
10	2018	10	1,763,199	\$107,735	\$0.06110
11	2018	11	1,117,647	\$70,499	\$0.06308
12	2018	12	841,029	\$49,931	\$0.05937

* Base Revenue reflects the applicable rate schedules' non-fuel revenues, excluding Basic Customer Charge, base fuel, Rider A, and Rider B fuel rates.

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 NORTH CAROLINA JURISDICTIONAL**

NON-RESIDENTIAL LIGHTING SYSTEMS & CONTROLS

RATE SCHEDULE 5P

Line Number	Year (A)	Month (B)	Sum of kWh** (C)	Sum of Base* Revenue** (D)	Average Base Rate (E) = (D)/(C)
1	2018	1	1,138,285	\$90,452	\$0.07946
2	2018	2	909,650	\$78,678	\$0.08649
3	2018	3	812,739	\$69,034	\$0.08494
4	2018	4	1,119,046	\$90,786	\$0.08113
5	2018	5	971,279	\$80,612	\$0.08300
6	2018	6	1,178,357	\$93,997	\$0.07977
7	2018	7	1,222,000	\$96,485	\$0.07896
8	2018	8	1,272,637	\$104,836	\$0.08238
9	2018	9	1,103,552	\$85,833	\$0.07778
10	2018	10	1,186,539	\$93,940	\$0.07917
11	2018	11	941,280	\$75,587	\$0.08030
12	2018	12	736,212	\$59,506	\$0.08083

* Base Revenue reflects the applicable rate schedules' non-fuel revenues, excluding Basic Customer Charge, base fuel, Rider A, and Rider B fuel rates.

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 NORTH CAROLINA JURISDICTIONAL**

NON-RESIDENTIAL LIGHTING SYSTEMS & CONTROLS

RATE SCHEDULE 6P

Line Number	Year (A)	Month (B)	Sum of kWh** (C)	Sum of Base* Revenue** (D)	Average Base Rate (E) = (D)/(C)
1	2018	1	1,684,965	\$162,548	\$0.09647
2	2018	2	1,446,335	\$134,044	\$0.09268
3	2018	3	1,367,280	\$126,939	\$0.09284
4	2018	4	1,363,305	\$122,810	\$0.09008
5	2018	5	1,224,550	\$117,793	\$0.09619
6	2018	6	1,386,740	\$130,712	\$0.09426
7	2018	7	1,484,005	\$128,466	\$0.08657
8	2018	8	1,487,595	\$130,671	\$0.08784
9	2018	9	1,822,810	\$148,129	\$0.08126
10	2018	10	1,567,115	\$132,418	\$0.08450
11	2018	11	1,300,355	\$128,917	\$0.09914
12	2018	12	1,051,595	\$100,525	\$0.09559

* Base Revenue reflects the applicable rate schedules' non-fuel revenues, excluding Basic Customer Charge, base fuel, Rider A, and Rider B fuel rates.

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 NORTH CAROLINA JURISDICTIONAL**

QUALIFYING SMALL BUSINESS IMPROVEMENT PROGRAM

RATE SCHEDULE 5

Line Number	Year (A)	Month (B)	Sum of kWh** (C)	Sum of Base* Revenue** (D)	Average Base Rate (E) = (D)/(C)
1	2018	1	262,024	\$15,143	\$0.05779
2	2018	2	190,301	\$11,251	\$0.05912
3	2018	3	144,977	\$8,620	\$0.05946
4	2018	4	252,667	\$14,542	\$0.05755
5	2018	5	221,485	\$12,864	\$0.05808
6	2018	6	310,639	\$19,458	\$0.06264
7	2018	7	377,239	\$23,266	\$0.06167
8	2018	8	388,375	\$24,266	\$0.06248
9	2018	9	267,596	\$16,416	\$0.06135
10	2018	10	346,938	\$19,565	\$0.05639
11	2018	11	204,381	\$11,805	\$0.05776
12	2018	12	202,285	\$11,708	\$0.05788

* All participants were served under Schedule 5, therefore Base Revenue reflects Rate Schedule 5 non-fuel revenues excluding the Basic Customer Charge and excludes base fuel, Rider A, and Rider B fuel rates.

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 NORTH CAROLINA JURISDICTIONAL**

NON-RESIDENTIAL WINDOW FILM PROGRAM

SUMMARY

Line Number	Year (A)	Month (B)	Sum of kWh** (C)	Sum of Base* Revenue** (D)	Average Base Rate (E) = (D)/(C)
1	2018	1	82,762	\$4,562	\$0.05512
2	2018	2	70,675	\$3,784	\$0.05354
3	2018	3	55,788	\$3,059	\$0.05483
4	2018	4	64,798	\$3,339	\$0.05153
5	2018	5	48,594	\$2,578	\$0.05305
6	2018	6	62,018	\$3,687	\$0.05945
7	2018	7	79,305	\$4,688	\$0.05911
8	2018	8	69,674	\$4,167	\$0.05981
9	2018	9	83,023	\$4,884	\$0.05883
10	2018	10	58,389	\$3,112	\$0.05330
11	2018	11	47,700	\$4,640	\$0.09727
12	2018	12	75,300	\$6,964	\$0.09248

* Base Revenue reflects Schedule 5 and 5P non-fuel revenues, excluding Basic Customer Charge and excludes base fuel, Rider A and Rider B fuel rates.

** Columns (C) & (D) are the sum of the kWh and the base revenue shown in Schedule 11 on pages 2 to 3 in Columns (C) & (D) of each rate table.

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NON-RESIDENTIAL WINDOW FILM PROGRAM

RATE SCHEDULE 5

Line Number	Year (A)	Month (B)	Sum of kWh** (C)	Sum of Base* Revenue** (D)	Average Base Rate (E) = (D)/(C)
1	2018	1	82,762	\$4,562	\$0.05512
2	2018	2	70,675	\$3,784	\$0.05354
3	2018	3	55,788	\$3,059	\$0.05483
4	2018	4	64,798	\$3,339	\$0.05153
5	2018	5	48,594	\$2,578	\$0.05305
6	2018	6	62,018	\$3,687	\$0.05945
7	2018	7	79,305	\$4,688	\$0.05911
8	2018	8	69,674	\$4,167	\$0.05981
9	2018	9	83,023	\$4,884	\$0.05883
10	2018	10	58,389	\$3,112	\$0.05330
11	2018	11	-	\$0	\$0.00000
12	2018	12	-	\$0	\$0.00000

* Base Revenue reflects the applicable rate schedules' non-fuel revenues, excluding Basic Customer Charge, base fuel, Rider A, and Rider B fuel rates.

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NON-RESIDENTIAL WINDOW FILM PROGRAM

RATE SCHEDULE 5P

Line Number	Year (A)	Month (B)	Sum of kWh** (C)	Sum of Base* Revenue** (D)	Average Base Rate (E) = (D)/(C)
1	2018	1	-	\$0	\$0.00000
2	2018	2	-	\$0	\$0.00000
3	2018	3	-	\$0	\$0.00000
4	2018	4	-	\$0	\$0.00000
5	2018	5	-	\$0	\$0.00000
6	2018	6	-	\$0	\$0.00000
7	2018	7	-	\$0	\$0.00000
8	2018	8	-	\$0	\$0.00000
9	2018	9	-	\$0	\$0.00000
10	2018	10	-	\$0	\$0.00000
11	2018	11	47,700	\$4,640	\$0.09727
12	2018	12	75,300	\$6,964	\$0.09248

* Base Revenue reflects the applicable rate schedules' non-fuel revenues, excluding Basic Customer Charge, base fuel, Rider A, and Rider B fuel rates.

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NON-RESIDENTIAL PRESCRIPTIVE PROGRAM

SUMMARY

Line Number	Year (A)	Month (B)	Sum of kWh** (C)	Sum of Base* Revenue** (D)	Average Base Rate (E) = (D)/(C)
1	2018	1	2,117,779	\$143,163	\$0.06760
2	2018	2	1,950,967	\$133,398	\$0.06838
3	2018	3	1,898,502	\$128,433	\$0.06765
4	2018	4	1,962,837	\$129,620	\$0.06604
5	2018	5	1,896,478	\$126,454	\$0.06668
6	2018	6	2,330,928	\$151,438	\$0.06497
7	2018	7	2,432,513	\$167,785	\$0.06898
8	2018	8	2,544,793	\$176,952	\$0.06953
9	2018	9	2,354,461	\$160,467	\$0.06815
10	2018	10	2,403,310	\$153,558	\$0.06389
11	2018	11	1,890,651	\$122,620	\$0.06486
12	2018	12	1,946,561	\$122,548	\$0.06296

* Base Revenue reflects Schedule 10, 5, and 5P non-fuel revenues, excluding Basic Customer Charge and excludes base fuel, Rider A and Rider B fuel rates.

** Columns (C) & (D) are the sum of the kWh and the base revenue shown in Schedule 12 on pages 2 to 4 in Columns (C) & (D) of each rate table.

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NON-RESIDENTIAL PRESCRIPTIVE PROGRAM

RATE SCHEDULE 10

Line Number	Year (A)	Month (B)	Sum of kWh** (C)	Sum of Base* Revenue** (D)	Average Base Rate (E) = (D)/(C)
1	2018	1	429,460	\$18,923	\$0.04406
2	2018	2	424,256	\$16,894	\$0.03982
3	2018	3	399,325	\$15,904	\$0.03983
4	2018	4	429,828	\$17,162	\$0.03993
5	2018	5	415,514	\$15,172	\$0.03651
6	2018	6	506,035	\$18,826	\$0.03720
7	2018	7	523,645	\$27,675	\$0.05285
8	2018	8	517,845	\$25,889	\$0.04999
9	2018	9	521,982	\$30,133	\$0.05773
10	2018	10	512,069	\$17,977	\$0.03511
11	2018	11	454,587	\$14,466	\$0.03182
12	2018	12	446,640	\$16,029	\$0.03589

* Base Revenue reflects the applicable rate schedules' non-fuel revenues, excluding Basic Customer Charge, base fuel, Rider A, and Rider B fuel rates.

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NON-RESIDENTIAL PRESCRIPTIVE PROGRAM

RATE SCHEDULE 5

Line Number	Year (A)	Month (B)	Sum of kWh** (C)	Sum of Base* Revenue** (D)	Average Base Rate (E) = (D)/(C)
1	2018	1	325,719	\$16,932	\$0.05198
2	2018	2	303,911	\$16,081	\$0.05291
3	2018	3	286,277	\$15,262	\$0.05331
4	2018	4	307,509	\$16,126	\$0.05244
5	2018	5	280,364	\$14,987	\$0.05346
6	2018	6	315,293	\$18,670	\$0.05921
7	2018	7	349,468	\$20,539	\$0.05877
8	2018	8	341,548	\$20,227	\$0.05922
9	2018	9	329,779	\$19,482	\$0.05908
10	2018	10	329,741	\$17,047	\$0.05170
11	2018	11	266,266	\$14,155	\$0.05316
12	2018	12	308,372	\$16,080	\$0.05214

* Base Revenue reflects the applicable rate schedules' non-fuel revenues, excluding Basic Customer Charge, base fuel, Rider A, and Rider B fuel rates.

DOCKET NO. E-22, SUB 577

**NORTH CAROLINA DEMAND SIDE MANAGEMENT
 AVERAGE BASE RATES FOR THE TEST PERIOD
 EXCLUDES CUSTOMER CHARGES, ALL FUEL COMPONENTS, AND OPT-OUT CUSTOMERS
 NORTH CAROLINA JURISDICTIONAL**

NON-RESIDENTIAL PRESCRIPTIVE PROGRAM

RATE SCHEDULE 5P

Line Number	Year (A)	Month (B)	Sum of kWh** (C)	Sum of Base* Revenue** (D)	Average Base Rate (E) = (D)/(C)
1	2018	1	1,362,600	\$107,308	\$0.07875
2	2018	2	1,222,800	\$100,423	\$0.08213
3	2018	3	1,212,900	\$97,267	\$0.08019
4	2018	4	1,225,500	\$96,332	\$0.07861
5	2018	5	1,200,600	\$96,295	\$0.08021
6	2018	6	1,509,600	\$113,942	\$0.07548
7	2018	7	1,559,400	\$119,571	\$0.07668
8	2018	8	1,685,400	\$130,836	\$0.07763
9	2018	9	1,502,700	\$110,852	\$0.07377
10	2018	10	1,561,500	\$118,534	\$0.07591
11	2018	11	1,169,798	\$93,999	\$0.08035
12	2018	12	1,191,549	\$90,439	\$0.07590

* Base Revenue reflects the applicable rate schedules' non-fuel revenues, excluding Basic Customer Charge, base fuel, Rider A, and Rider B fuel rates.

Rule R8-69(f)(1)(i) – Projected NC retail sales for the rate period

Rule R8-69 (f) Filing Requirements and Procedure.

(1) Each electric public utility shall submit to the Commission all of the following information and data in its application:

(i) Projected North Carolina retail monthly kWh sales for the rate period.

The Company’s projected North Carolina retail monthly kWh sales for the rate period, February 1, 2020 through January 31, 2021, are provided in the following table:

MONTH	PROJKWH
Feb-20	345,187,419
Mar-20	330,022,075
Apr-20	322,256,976
May-20	329,919,900
Jun-20	367,373,428
Jul-20	432,250,525
Aug-20	403,926,970
Sep-20	366,332,345
Oct-20	328,662,544
Nov-20	319,936,597
Dec-20	368,959,595
Jan-21	412,614,576
TOTAL	4,327,442,950

Rule R8-69(f)(1)(vi) - Proposed DSM/EE and DSM/EE EMF riders

Rule R8-69 (0) Filing Requirements and Procedure.

(1) Each electric public utility shall submit to the Commission all of the following information and data in its application:

(vi) The requested DSM/EE rider and DSM/EE EMF rider and the basis for their determination

The Rate Design for DSM/EE Rider

Detailed information regarding the determination of the DSM/EE factors has been provided as a part of the attached testimony of Debra A. Stephens. The following table provides a summary of the Company's requested DSM/EE rates.

Customer Rate Class	DSM/EE Rate
Residential	0.109 ¢/kWh
Small General Service & Public Authority	0.158 ¢/kWh
Large General Service	0.097 ¢/kWh
6VP	0.000 ¢/kWh
NS	0.000 ¢/kWh
Outdoor Lighting	0.000 ¢/kWh
Traffic Lighting	0.000 ¢/kWh

The Rate Design For DSM/EE EMF Rider

Detailed information regarding the determination of the DSM/EE EMF factors has been provided as a part of the attached testimony of Debra A. Stephens. The following table provides a summary of the Company's requested DSM/EE EMF rates.

Customer Rate Class	DSM/EE EMF Rate
Residential	0.016 ¢/kWh
Small General Service & Public Authority	0.018 ¢/kWh
Large General Service	0.011 ¢/kWh
6VP	0.000 ¢/kWh
NS	0.000 ¢/kWh
Outdoor Lighting	0.000 ¢/kWh
Traffic Lighting	0.000 ¢/kWh

Rule R8-69(f)(1)(vii) - Projected NC retail sales for customers opting out of measures

Rule R8-69 (f) Filing Requirements and Procedure.

(1) Each electric public utility shall submit to the Commission all of the following information and data in its application:

(vii) Projected North Carolina retail monthly kwh sales for the rate period for all industrial and large commercial accounts, in the aggregate, that are not assessed the rider charges as provided in this rule.

The Company reviewed its customer records and identified that commercial customers choosing to "opt-out" consumed 47,646,557 kWh during the 12 months ended December 31, 2018. A similar review identified industrial sales of 1,505,790,979 kWh associated with customers electing to "opt-out". The following table provides the Company's estimate of North Carolina retail monthly kWh sales in the aggregate, that will not be assessed DSM/EE rider charges as provided for in Commission Rule R8-69.

Month	Year	Total Monthly KWH
January	2018	127,048,989
February	2018	118,784,916
March	2018	119,104,921
April	2018	121,187,157
May	2018	135,742,606
June	2018	140,563,180
July	2018	137,982,479
August	2018	142,290,712
September	2018	119,053,401
October	2018	136,112,471
November	2018	129,308,415
December	2018	126,258,295
TOTAL		1,553,437,541

Rule R8-69(f)(1)(viii) - Supporting workpapers

Rule RE-69 (f) Filing Requirements and Procedure.

(1) Each electric public utility shall submit to the Commission all of the following information and data in its application:

(viii) All workpapers supporting the calculations and adjustments described above workpapers supporting calculations and adjustments have been attached to this document.

The testimony and exhibits of Debra A. Stephens are elements of this request. Information detailing the development of the Company's proposed DSM/EE and DSM/EE EMF rates are provided as a part of Ms. Stephens' testimony.

Appendix A: Non-Participating Customers

Non-Participant	Non-Participating Accounts
Consolidated Diesel	1
Domtar	1
Enviva Pellets	2
Flambeau Products Inc	1
Parkdale (Martin Mills)	1
KABA Ilco (Ilco-Unican)	1
Kapstone Kraft Paper	2
Lowe's Home Centers Inc	5
Nucor	1
Weyerhaeuser Paper	1
Hospira Inc	1
Wal-Mart Stores East	6
State of North Carolina	10

