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May 1, 2018

# VIA ELECTRONIC DELIVERY

Ms. M. Lynn Jarvis, Chief Clerk North Carolina Utilities Commission Dobbs Building 430 North Salisbury Street Raleigh, North Carolina 27603-5918

> Re: Docket Nos. E-100, Sub 141 & E-100, Sub 157 Historical Review of 2014 REPS Plan

Dear Ms. Jarvis:

Enclosed for filing is Virginia Electric and Power Company d/b/a Dominion Energy North Carolina's ("DENC" or "the Company") historical review of the 2014 North Carolina Renewable Energy and Energy Efficiency Portfolio Standard Compliance Plan ("2014 REPS Plan"), as originally filed on August 29, 2014, in Docket No. E-100, Sub 141. The Company has reviewed its 2014 REPS Plan in accordance with the Commission's directive in Ordering Paragraph (3) of the June 3, 2013, Order Granting in Part and Denying in Part Motion for Disclosure issued in Docket No, E-100, Sub 137 ("2013 Disclosure Order"). The Company has determined that certain information redacted from the 2014 REPS Plan and originally filed confidentially under seal should no longer be withheld from public disclosure. However, information identifying renewable energy credit ("REC") contract counter-parties and REC pricing for active REC contracts remains commercially sensitive. Public disclosure of this information could potentially harm the Company's ability to negotiate and procure cost-effective RECs for future REPS compliance. Accordingly, the Company continues to designate this information as confidential trade secret information pursuant to N.C. Gen. Stat. § 132-1.2. The Company will make this information available to other parties pursuant to an appropriate nondisclosure agreement.

The Company notes that its determination regarding disclosure of prior trade secret information in its historical 2014 REPS Plan should not be considered a waiver of DENC's right to continue its designation of similar information as confidential trade secret information in future REPS Compliance Plans and future historical REPS Compliance Plan confidentiality reviews. *See 2013 Disclosure Order* at 10 (holding that utility's determination that past REPS information is non-confidential information

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suitable for public disclosure does not constitute waiver of utility's right to claim same category of disclosed REPS information is confidential in future years).

Please do not hesitate to contact me if you have any questions. Thank you for your assistance in this matter.

Very truly yours,

/s/Andrea R. Kells

ARK/kma

Enclosures

# DOMINION NORTH CAROLINA POWER 2014 REPS COMPLIANCE PLAN

Pursuant to N.C.G.S. § 62-133.8 and North Carolina Utilities Commission ("NCUC" or "Commission") Rule R8-67(b), Virginia Electric & Power Company d/b/a Dominion North Carolina Power ("DNCP" or the "Company") submits its annual Renewable Energy and Energy Efficiency Portfolio Standard ("REPS") Compliance Plan. The REPS Compliance Plan covers the current calendar year (2014) and immediately subsequent two calendar years (2015-2016) (the "Planning Period"). The Company also presents REPS compliance information for Town of Windsor during the Planning Period.<sup>1</sup> This North Carolina REPS Compliance Plan is an addendum to the Company's 2014 Integrated Resource Plan ("2014 Plan").

As indicated in the Company's 2014 REPS Compliance Report filed on August 28, 2014, the Company has satisfied all 2013 REPS compliance obligations.

## 1.1 RENEWABLE ENERGY REQUIREMENTS

An overview of North Carolina's REPS requirements and Virginia's Renewable Energy Portfolio Standard ("RPS") goals are provided in Chapter 4, Section 4.3.1 of the Company's 2014 Plan.

## 1.2 COMPLIANCE PLAN

In accordance with Rule R8-67(b)(i), the Company describes its planned actions to comply with N.C.G.S. 62-133.8 (b),(c),(d),(e), and (f) for each year.

## The Company

During the Planning Period, DNCP plans to meet its statutory annual REPS obligations, as modified by the Commission<sup>2</sup>, through the use of renewable energy certificates ("RECs")<sup>3</sup>, energy efficiency ("EE") savings and new company-generated renewable energy where economically feasible.

<sup>&</sup>lt;sup>1</sup> Town of Windsor is a wholesale customer of the Company, for which DNCP provides REPS compliance services.

<sup>&</sup>lt;sup>2</sup> The Commission issued an Order on March 26, 2014, which delayed the Swine Waste Set-Aside and the Poultry Waste Set-Aside until 2014, in Docket No. E-100, Sub 113. *Final Order Modifying the Poultry and Swine Waste Set-Aside Requirements and Providing Other Relief,* Docket No. E-100, Sub 113 (March 26, 2014) ("March 26, 2014 Delay Order").

<sup>&</sup>lt;sup>3</sup> For planning purposes, Dominion notes that the Company has unique flexibility to use out-of-state RECs for REPS compliance. *Order on Dominion's Motion for Further Clarification*, Docket No. E-100, Sub 113 (Sept. 22, 2009) (holding that the meaning of N.C.G.S. § 62-133.8(b)(2)(e) is to allow DNCP to achieve up to 100% REPS general obligation and set-aside compliance using out-of-state RECs).

Figure 1.2.1 summarizes DNCP's REPS compliance requirements and strategy for the Planning Period.

Figure 1.2.1 2014-2016 COMPANY'S REPS COMPLIANCE PLAN SUMMARY

	2014	2015	2016
Baseline Sales Forecast (MWh)	4,136,914	4,205,454	4,258,350
NC Total REPs Requirement %	3%	6%	6%
Total REPS Target (MWh) <sup>1</sup>	129,295	248,215	252,328
NC Total Solar Target %	0.07%	0.14%	0.14%
Total Solar Target (MWh) <sup>1</sup>	3,017	5,792	5,888
NC Total Swine Target %	0.07%	0.07%	0.14%
Total Swine Target (MWh) <sup>1</sup>	3,017	2,896	5,888
NC Total Poultry Target %	2.91%	2.90%	2.90%
Total Poultry Target (MWh) <sup>1,2</sup>	4,947	20,300	26,100
General REPS Requirement (net of Solar, Swine and Poultry) (MWh)	118,314	219,227	214,452
Energy Efficiency (MWh) <sup>3</sup>	24,512	31,220	39,020
Company Generated Renewables (MWh) <sup>4</sup>	77,037	73,653	76,930

Notes: (1) 2014 target is based on actual 2013 retail sales of 4,309,807 MWh. 2015-2016 targets are based on baseline retail sales forecasts. The total target is the product of the previous year's baseline load and the current year target percentage. (2) Calculation may not equal due to rounding. (3) The EE savings represents a projected system allocation. It may be more appropriate to use specific EE savings attributable to North Carolina customers. (4) Company Generated Renewables (MWh) are the North Carolina jurisdictional allocation.

As shown in Figure 1.2.1, the Company's requirements in the Planning Period include the solar energy resource requirement ("Solar Set-Aside"), swine waste resource requirement ("Swine Set-Aside"), and poultry waste resource requirement ("Poultry Set-Aside"). In addition, the Company must also ensure that, in total, the RECs that it produces or procures, combined with energy efficiency savings, is an amount equivalent to three percent (3%) of its prior year retail sales in compliance year 2014, and six percent (6%) in 2015 and 2016 ("Total Obligation").<sup>4</sup>

<sup>&</sup>lt;sup>4</sup> DNCP refers to its Total Obligation, net of the Solar, Swine, and Poultry Set-Aside requirements, as its General Requirement ("General Requirement").

## The Town of Windsor

Planned REPS compliance for Town of Windsor during the Planning Period is outlined in Figure 1.2.2

Figure 1.2.2 2014-2016 TOWN OF WINDSOR REPS COMPLIANCE PLAN SUMMARY

	2014	2015	2016
Baseline Sales Forecast (MWh)	50,000	51,000	52,000
NC Total REPs Requirement %	3%	6%	6%
Total REPS Target (MWh) <sup>1</sup>	1,463	3,000	3,060
NC Total Solar Target %	0.07%	0.14%	0.14%
Total Solar Target (MWh) <sup>1</sup>	35	70	72
NC Total Swine Target %	0.07%	0.07%	0.14%
Total Swine Target (MWh)	35	35	72
NC Total Poultry Target %1	0.04%	0.04%	0.04%
Total Poultry Target (MWh) <sup>1</sup>	68	280	360
General REPS Requirement (net of Solar, Swine and Poultry) (MWh)	1,325	2,615	2,556

Notes: (1) 2014 target is based on actual 2013 retail sales of 48,744 MWh reported by the Town of Windsor to DNCP. 2015-2016 targets are based on forecasts reported by the Town of Windsor to DNCP. The total target is a product of the previous year's baseline retail sales and the current year target percentage.

## Solar Set-Aside

Pursuant to N.C.G.S. § 62-133.8(d), the Company must produce or procure solar RECs equal to a minimum of seven hundredths of one percent (0.07%) of the prior year's total electric power in megawatt-hours ("MWh") sold to retail customers in North Carolina in 2014, and fourteen hundredths of one percent (0.14%) in 2015 and 2016.

Based on the Company's actual retail sales in 2013, the Solar Set-Aside is approximately 3,017 RECs in 2014. Based on forecasted retail sales, the Solar Set-Aside is projected to be approximately 5,792 RECs and 5,888 RECs in 2015 and 2016, respectively.

The Company's Solar Set-Aside compliance strategy is consistent with DNCP's plan from the previous years, as described herein. Specifically, DNCP plans to buy unbundled solar RECs. The Company has purchased, or entered into contracts to purchase, solar RECs for DNCP's compliance with N.C.G.S. § 62-133.8(d) through 2015. These contracts will provide enough solar RECs to satisfy DNCP's compliance for 2014, and approximately 35% of DNCP's requirements for 2015 and 2016. The Company has also executed contracts with solar facilities located in North Carolina that will satisfy the in-state portion of the Town of Windsor's

compliance requirements for 2014 through 2016. DNCP continues to evaluate opportunities to purchase both in-state and out-of-state solar RECs, and will continue to make all reasonable efforts to satisfy DNCP's and Town of Windsor's solar set-aside requirements during the Planning Period.

## Swine Waste Set-Aside

Pursuant to N.C.G.S. § 62-133.8(e), for calendar years 2014 and 2015, at least seven hundredths of one percent (0.07%) and for calendar year 2016, fourteen hundredths of one percent (0.14%) of prior year total retail electric power sold in aggregate by electric power suppliers in North Carolina must be supplied by energy derived from swine waste. As the Company's share of the State's total retail megawatt-hour sales is approximately 2.90 percent, the Company's Swine Set-Aside is estimated to be 3,017 RECs in 2014, 2,896 RECs in 2015 and 5,888 RECs in 2016.

In an ongoing effort to comply with the Swine Waste Set-Aside, the Company has attempted to obtain swine waste RECs from facilities in Virginia, North Carolina and across the continental United States. The Company has also contacted digester owners and operators, hog producers and REC marketers/brokers to purchase swine waste RECs. As a result of its search efforts for swine waste RECs in the marketplace and across the Nation, the Company has determined that swine waste-to-energy projects are very difficult to operate effectively. Consequently, a ready market for swine waste RECs has not yet developed. Based on this experience, the Company initially concluded that joining the collaborative Swine Waste REC Buyers Group was the most cost effective and prudent approach to meet the Company's Swine Waste Set-Aside requirements.

The Swine Waste REC Buyers Group executed seven (7) long-term contracts with a number of swine waste-to-energy developers. These contracts were expected to meet the Company's Swine Waste Set-Aside requirements until 2015 and a significant portion of ongoing Swine Waste Set-Aside requirements thereafter. Four (4) of these swine waste REC contracts were terminated in May and June 2012 due to consistent failure by the counter-party developers to meet project milestones and to demonstrate progress toward commercial operation. Because of these contract terminations, the Company is now conducting a new search for other swine waste REC suppliers in North Carolina and across the Nation. DNCP has spent considerable time and effort attempting to locate operational swine waste digesters in the continental United States. This exhaustive search has identified only two small and two large potential suppliers. The Company has executed a contract with one supplier and presented draft contracts and initiated negotiations with the other suppliers. The Company is reasonably confident that these REC contracts will provide enough volume to comply with both DNCP's and Town of Windsor's 2014 requirements. However, 2015 and 2016 remain very challenging. At this time, the Company does not believe it will have sufficient RECs for compliance with the swine waste setaside in 2015 and 2016.

In sum, DNCP continues to evaluate all potential opportunities to purchase both in-state and out-of-state swine RECs, and will continue to make all reasonable efforts to satisfy DNCP's and Town of Windsor's Swine Waste Set-Aside requirements during the Planning Period.

## Poultry Waste Set-Aside

Pursuant to N.C.G.S. § 62-133.8(f) and the March 26, 2014 Delay Order, for calendar years 2014, 2015 and 2016, at least 170,000 MWhs, 700,000 MWhs, and 900,000 MWhs, respectively, of the prior year's total electric power sold to retail electric customers in the State or an equivalent amount of energy shall be produced or procured each year by poultry waste, as defined per the Statute and additional clarifying Orders. As the Company's retail sales share of the State's total retail megawatt-hour sales is approximately 2.90%, the Company's Poultry Set-Aside is estimated to be 4,947 RECs in 2014, 20,300 RECs in 2015, and 26,100 in 2016.

DNCP has worked actively and diligently to comply with its Poultry Waste Set-Aside requirements for the Company and the Town of Windsor. The Company, after searching the REC market for available in-state RECs, concluded that joining the Poultry Waste REC Buyers Group was the most prudent way to meet the Town of Windsor's Poultry Set-Aside requirement.

The Poultry Waste REC Buyers Group executed two (2) long-term poultry waste contracts and the Company, as a part of this group, has executed two (2) long-term contracts to satisfy the Town of Windsor's in-state Poultry Set-Aside requirements. One (1) of these contracts was terminated by mutual agreement with the supplier in September 2013. The other long-term contract will not yield any RECs until 2017. In an attempt to locate and purchase additional poultry RECs, the Company joined with the Poultry Waste REC Buyers Group in requesting Commission approval for a RFP in Docket E-100 Sub 113. The RFP was conducted in 2013 and the Buyers Group is currently negotiating contracts with some of the respondents. At this time, the Company is reasonably confident that Town of Windsor will be in compliance with the in-state Poultry Set-Aside in 2014, 2015 and 2016.

The Company has also continued to search for opportunities to purchase poultry waste RECs in North Carolina and throughout the continental United States. These efforts yielded three poultry waste REC contracts with enough volume to comply with both DNCP's and Town of Windsor's out-of-state requirements for years 2014, 2015 and 2016.

# General REPS Requirements Net of Solar, Swine and Poultry

Pursuant to N.C.G.S. § 62-133.8(d), DNCP is required to comply with its Total Obligation in the Planning Period by submitting for retirement a total volume of RECs equivalent to three percent (3%) of retail sales in North Carolina in the prior year in 2014 and six percent (6%) in 2015 and 2016. This equates to approximately 129,295 RECs in 2014, 248,215 RECs in 2015, and 252,328 RECs in 2016. This General Requirement, net of the Solar, Swine, and Poultry Set-Aside requirements, is estimated to be 118,314 RECs in 2014, 219,227 RECs in 2015, and 214,452 RECs in 2016. The resource options available to the Company to meet the General

Requirement are discussed below, as well as the Company's plan to meet the General Requirement with these resources.

The Company plans to comply with the General Requirement using a combination of EE savings generated by the Company's portfolio of approved North Carolina EE programs; purchasing out-of-state wind RECs; and using company-generated new renewable energy resources. For Town of Windsor, The Company plans to comply with the General Requirement using its Southeastern Power Administration ("SEPA") allocation of hydroelectric RECs, purchasing in-state solar RECs, in-state biomass RECs and out-of-state wind RECs.

In February 2011, DNCP obtained Commission approval to deploy its first phase of EE Programs in North Carolina, as part of its broader efforts to integrate demand side management and EE resource options across the Company's system. Approved Phase I programs included the Commercial Lighting Program; Commercial HVAC Upgrade Program; Residential Lighting Program; and Low Income Program. In December, 2013, the Company obtained Commission approval to deploy six additional "Phase II" EE Programs in North Carolina as well as to reinitiate its suspended Commercial Lighting Program and Commercial HVAC Upgrade Program in North Carolina only. Phase II EE Programs include the Non-residential Energy Audit Program; Non-residential Duct Testing and Sealing Program; Residential Home Energy Check-Up Program; Residential Duct Testing & Sealing Program; Residential Heat Pump Tune-Up Program; and Residential Heat Pump Upgrade Program. On June 30, 2013, the Company proposed three new "Phase III" EE programs, which are proposed to be deployed in North Carolina on January 1, 2015. These Phase III programs include the Non-residential Heating and Cooling Efficiency Program; Non-Residential Lighting Systems and Controls Program; and the Non-Residential Window Film Program. The Company has also obtained Commission approval to withdraw the North Carolina-only Commercial Lighting and Commercial HVAC Upgrade Programs as of September 30, 2014. The Company has also requested Commission approval to modify the current Low Income Program to a North Carolina-only Program extending through the end of 2015. Pursuant to Commission Rule R8-67(b)(1)(iii), the Company has presented in Figure 1.4.1 below these EE measures that it plans to use toward REPS compliance, including projected impacts.

Company-generated new renewable energy includes generation from biomass fuel co-firing at the Company's Virginia City Hybrid Energy Center (VCHEC), which commenced commercial operations in 2012, as well as biomass fuel conversions at the Altavista, Hopewell and Southampton power stations which commenced commercial operations in the second half of 2013.<sup>5</sup> The Company is currently selling the RECs generated at these biomass facilities in PJM

<sup>&</sup>lt;sup>5</sup> On April 10, 2014, the Commission approved DNCP's Rule R8-66 REPS Facility Registration Statement for VCHEC in Docket No. E-22, Sub 489. The Company will file Rule R8-66 REPS Facility Registration Statements for Altavista, Hopewell and Southampton power stations prior to relying on these facilities for REPS compliance.

Tier 1 markets at a significant premium to the out-of-state general RECs the Company is purchasing for compliance.

### 1.3 REC CONTRACTS

In accordance with Rule R8-67(b)(ii), the Company provides a list of executed contracts to purchase renewable energy certificates.

As mentioned in the previous section, the Company has purchased wind, biomass, poultry waste and solar RECS and entered into long-term poultry waste, swine waste and solar REC contracts to comply with N.C.G.S. § 62-133.8(b), (d), (e), and (f). Figures 1.3.1 through 1.3.4 provide summaries of DNCP's REC purchase contracts. The Company will use a portion of out-of-state REC purchases to satisfy 25% of the Town of Windsor's compliance requirements.

Figure 1.3.1 Solar REC Purchase Contract Summary<sup>1</sup>

	Total Volume	Volume / Year	Term	Price / MWh	Total Expense
	15,000	2,500	2012-2017	\$9.60	\$144,000
	729	729	2010	\$8.00	\$5,832
	392	392	2009	\$5.00	\$1,960
	4	4	2010	\$85.00	\$340
	4	4	2010	\$130.00	\$520
	50	50	2011	\$85.00	\$4,250
	2,000	1,000	2010-2011	\$11.00	\$22,000
	40	40	2012	\$50.00	\$2,000
	24	24	2012	\$40.00	\$960
	2,000	2,000	2013	\$4.00	\$8,000
	2,000	2,000	2013	\$5.00	\$10,000
Total Volume	22,243			Total Expense	\$199,862

Notes: Contract counterparties and prices are confidential. (1) The Company plans to bank any surplus RECs from 2011-2013 for future compliance purposes. (2) Contracts for Town of Windsor compliance. (3) Contracts for Town of Windsor solar or general REPS compliance.

### CONFIDENTIAL INFORMATION HIGHLIGHTED IN YELLOW

Figure 1.3.2 Poultry Waste REC Purchase Contract Summary<sup>1</sup>

_	Total Volume	Volume / Year	Term	Price / MWh	Total Expense
Sterling Planet	30,000	Varies	2013-2014	\$19.00	\$570,000
Northern States Power	25,000	25,000	2012	\$23.25	\$581,250
	3,100	155	2018-2037		
Northern States Power	15,000	15,000	2013	\$23.25	\$348,750
Total Volume	73,100			Total Expense	

Notes: Contract counterparties and prices are confidential. (1) The Company plans to bank any surplus RECs from 2010-2013 for future compliance purposes. (2) Contract for Town of Windsor compliance.

Figure 1.3.3 General REC Purchase Contract Summary<sup>1</sup>

	Total Volume	Volume / Year	Term	Price / MWh	Total Expense
	30,000	30,000	2012	\$1.00	\$30,000
	20,000	20,000	2012	\$1.00	\$20,000
	20,000	20,000	2012	\$0.93	\$18,600
	1,000	1,000	2012	\$5.00	\$5,000
	42,400	42,400	2012	\$0.90	\$38,160
	25,600	25,600	2012	\$0.97	\$24,832
	35,000	35,000	2013	\$1.35	\$47,250
	25,000	25,000	2012	\$0.95	\$23,750
	15,000	15,000	2013	\$1.25	\$18,750
	64,746	64,746	2012	\$1.25	\$80,933
Total Volume	278,746			Total Expense	\$307,275

Notes: Contract counterparties and prices are confidential. (1) The Company plans to bank any surplus RECs from 2012 and 2013 for future compliance purposes. (2) Contract for Town of Windsor compliance.

## **CONFIDENTIAL INFORMATION HIGHLIGHTED IN YELLOW**

Figure 1.3.4 Swine Waste REC Purchase Contract Summary

	Total Volume	Term	Price / MWh <sup>2</sup>	Total Expense
	6,480	20		
	16,200	20		
	19,420	20		
	5,008	5	\$13.00	\$108,541
Total Volume	47,108		Total Expense	\$2,879,140

Notes: (1) Reduced volumes in first year of contract. Volume / Year shows first full calendar year production. (2) Price escalates annually. Prices given are for initial year.

#### CONFIDENTIAL INFORMATION HIGHLIGHTED IN YELLOW

### 1.4 ENERGY EFFICIENCY PROGRAMS

In accordance with Rule R8-67(b)(iii), the Company provides a list of planned or implemented energy efficiency measures, including a brief description of the measure and projected impacts.

The Company intends to apply EE savings to meet the NC REPS requirements as permitted by law. Figure 1.4.1 lists the potential energy efficiency programs and resulting savings based on a projected system allocation. Depending on the outcome of the evaluation of operating EE programs exclusively in North Carolina, it may be more appropriate to use specific EE savings attributable to North Carolina customer participation. A brief description of these energy efficiency programs can be found in Section 3.2 of the 2014 IRP. The Company also intends to seek approval to deploy additional North Carolina EE programs in the future.

Figure 1.4.1 SAVINGS (MWh) NORTH CAROLINA ENERGY EFFICIENCY PROGRAMS

	2014	2015	2016
Commercial HVAC Upgrade Program <sup>1</sup>	182	182	182
Commercial Lighting Program <sup>1</sup>	6,019	6,019	6,035
Residential Low Income Program	455	495	495
Residential Lighting Program	13,748	13,748	13,748
Non-residential Energy Audit Program <sup>2</sup>	1,006	2,466	3,976
Non-residential Duct Testing and Sealing Program <sup>2</sup>	1,004	1,854	2,794
Residential Home Energy Check-Up Program <sup>2</sup>	92	180	277
Residential Duct Testing & Sealing Program <sup>2</sup>	69	203	352
Residential Heat Pump Tune-Up Program <sup>2</sup>	531	1,215	1,976
Residential Heat Pump Upgrade Program <sup>2</sup>	1,178	3,096	5,227
Non-residential Heating and Cooling Efficiency Program <sup>3</sup>	44	336	715
Non-residential Lighting Systems and Controls Program <sup>3</sup>	150	1,023	2,088
Non-residential Window Film Program <sup>3</sup>	33	403	1,155
Energy Efficiency Total⁴	24,512	31,220	39,020

Notes: (1) Programs are now closed. (2) Programs approved by the Commission on December 16, 2014. (3) Filed for Commission approval on June 30, 2013. (4) Energy Efficiency savings represent a projected system allocation. For REPS reporting and compliance purpose, DNCP will rely upon EE savings achieved by North Carolina customers.

## 1.5 RETAIL SALES & CUSTOMER ACCOUNTS

In accordance with Rule R8-67(b)(iv), the Company states the projected Company's North Carolina retail sales and year-end number of customer accounts by customer class for each year.

## The Company

Figure 1.5.1 summarizes the Company's North Carolina retail sales and Figure 1.5.2 summarizes the year-end number of customer accounts by customer class for each year of the Planning Period.

Figure 1.5.1 COMPANY'S NORTH CAROLINA RETAIL SALES<sup>1</sup>

Voor	Residential	Commercial	Industrial	Total Sales
Year	Sales (MWh)	Sales (MWh) <sup>2</sup>	Sales (MWh)	(MWh)
2014 (projected)	1,597,540	1,029,850	1,509,524	4,136,914
2015 (projected)	1,606,651	1,067,507	1,531,296	4,205,454
2016 (projected)	1,631,358	1,098,818	1,528,174	4,258,350

Notes: (1) Excludes the Town of Windsor's wholesale customer load.

Figure 1.5.2 COMPANY'S NORTH CAROLINA CUSTOMER ACCOUNTS<sup>1</sup>

Voor	Residential	Commercial	Industrial	Total
Year	Customers	Customers	Customers	Customers
2014 (projected)	101,673	17,505	51	119,229
2015 (projected)	102,046	17,369	51	119,466
2016 (projected)	102,421	17,413	51	119,885

Notes: (1) Customer account totals are year-end forecasts. These differ slightly from Appendix 2F in the 2014 IRP which are average yearly amounts. (2) Forecasts do not include Rate Schedules 1DF, 1W, 7, 26, 30T.

## **Town of Windsor**

Figure 1.5.3 summarizes the Town of Windsor's retail sales and Figure 1.5.4 summarizes the year-end number of customer accounts by customer class for each year of the Planning Period.

Figure 1.5.3 TOWN OF WINDSOR'S RETAIL SALES<sup>1</sup>

Voor	Residential	Commercial	Industrial	Total Sales
Year	Sales (MWh)	Sales (MWh)	Sales (MWh)	(MWh)
2014 (projected)	20,000	21,000	9,000	50,000
2015 (projected)	20,500	21,500	9,000	51,000
2016 (projected)	20,500	22,000	9,500	52,000

Note: (1) Sales are year-end forecasts reported by the Town of Windsor to DNCP.

Figure 1.5.4 TOWN OF WINDSOR'S CUSTOMER ACCOUNTS<sup>1</sup>

Voor	Residential	Commercial	Industrial	Total
Year	Customers	Customers	Customers	Customers
2014 (projected)	1,400	415	1	1,816
2015 (projected)	1,425	420	1	1,846
2016 (projected)	1,425	425	1	1,851

Notes: (1) Customer account totals are year-end forecasts reported by the Town of Windsor to DNCP.

### 1.6 AVOIDED COST RATES

In accordance with Rule R8-67(b)(v), the Company provides the following statement regarding the current and projected avoided cost rates for each year.

Figures 1.6.1 and 1.6.2 show DNCP's current and projected avoided energy and capacity rates.

Figure 1.6.1 CURRENT AVOIDED ENERGY AND CAPACITY COST (from E-100 Sub 136)

	On-Peak (\$/MWh)	Off-Peak (\$/MWh)	Capacity Price (\$/kW-Year)
2014	47.47	36.75	76.19
2015	52.24	41.47	77.33
2016	55.83	45.14	78.49

Notes: (1) For facilities eligible for DNCP's avoided cost standard offer contract, see Dominion North Carolina Power Schedule 19 for currently available energy and capacity rates.

Figure 1.6.2 PROJECTED AVOIDED ENERGY AND CAPACITY COST

	On-Peak (\$/MWh)	Off-Peak (\$/MWh)	Capacity Price (\$/kW-Year)
2014	52.76	41.69	0.00
2015	51.36	40.00	21.93
2016	50.92	42.01	18.69

Notes: (1) On-peak and off-peak energy rates based on information and assumptions available concurrent with the 2014 IRP and derived using methodology approved in Docket No. E-100, Sub 136. (2) Current capacity price represents a zero capacity value for 2014. (3) The appropriate methodology for setting projected capacity pricing is a contested issue in Docket No. E-100 Sub 140. DNCP has presented projected calendar-year capacity values derived from the applicable PJM incremental capacity auctions for the 2015 and 2016 delivery years as a proxy of avoided capacity costs.

## 1.7 TOTAL & PROJECTED COSTS

In accordance with Rule R8-67(b)(vi), the Company provides the projected total and incremental costs anticipated to implement REPS Compliance plan for each year of the Planning Period

# The Company

The Company's Planning Period incremental costs to comply with the Solar Set-Aside, Swine Set-Aside, Poultry Set-Aside and other General Requirements are presented in Figure 1.7.1 below.

Figure 1.7.1 COMPANY'S REPS COMPLIANCE COST SUMMARY

Type of REC	2014	2015	2016
Solar			
Target (MWh)	3,017	5,792	5,888
REC Cost (\$/MWh) <sup>1</sup>	\$6.44	\$7.03	\$6.74
Projected Cost	\$19,440	\$40,725	\$39,710
Swine			
Target (MWh)	3,017	2,896	5,888
REC Cost (\$/MWh) <sup>1</sup>	\$50	\$57.00	\$61.56
Projected Cost	\$151,867	\$165,072	\$362,442
Poultry			
Target (MWh)	4,947	20,300	26,100
REC Cost (\$/MWh) <sup>1</sup>	\$23.25	\$23.07	\$19.00
Projected Cost	\$115,018	\$468,321	\$495,900
General RECs			
Target (MWh)	118,314	219,227	214,452
Less Energy Efficiency <sup>2</sup>	24,512	31,220	39,020
Net Target	93,802	188,007	175,432
REC Cost (\$/MWh) <sup>1</sup>	\$2	\$2	\$3
Projected Cost	\$187,604	\$376,015	\$526,295
Projected Administrative and Research Cost <sup>3,4</sup>	\$617,798	\$354,500	\$25,000
TOTAL PROJECTED COMPLIANCE COST	\$1,091,727	\$1,404,633	\$1,449,348

Notes: (1) 2014-2016 projected REC costs are based on market estimates, signed contracts and/or ongoing negotiations. (2) Projected EE savings represents a projected system allocation. (3) Administrative costs include, but are not limited to: NC-RETs fees, broker fees and miscellaneous expenses. (4) As permitted by NCGS § 62-133.8 (h)(1) and (4), DNCP has developed a North Carolina research and development (R&D) project with a total projected cost of \$592,798 in 2014 and \$329,500 in 2015. This figure represents research project costs prior to receiving any offsetting tax credits.

## The Town of Windsor

The Town of Windsor's projected Planning Period REPS costs are expected to consist of the sum of the costs required to comply with s Solar Set-Aside, Swine Set-Aside, Poultry Set-Aside and other General Requirements Figure 1.7.2 outlines the Town of Windsor's Compliance Cost Summary from 2014 to 2016.

Figure 1.7.2 TOWN OF WINDSOR'S COMPLIANCE COST SUMMARY

Type of REC	2014	2015	2016
Solar			
Target (MWh)	35	70	72
REC Cost (\$/MWh) <sup>1</sup>	\$46.00	\$23.00	\$7.00
Projected Cost	\$1,610	\$1,610	\$504
Swine			
Target (MWh)	35	35	72
REC Cost (\$/MWh) <sup>1</sup>	\$59.44	\$61.73	\$64.07
Projected Cost	\$2,080	\$2,161	\$4,613
Poultry			
Target (MWh)	68	280	360
REC Cost (\$/MWh) <sup>1</sup>	\$55.00	\$58.00	\$61.00
Projected Cost	\$3,740	\$16,240	\$21,960
General REPs			
Target (MWh)	1,325	2,615	2,556
REC Cost (\$/MWh) <sup>1</sup>	\$3.00	\$3.00	\$3.00
Projected Cost	\$3,975	\$7,845	\$7,668
TOTAL PROJECTED COMPLIANCE COST	\$11,405	\$27,856	\$34,745

Notes: (1) 2014-2016 projected REC costs are based on market estimates, signed contracts and/or ongoing negotiations.

## 1.8 ANNUAL COST CAPS

In accordance with Rule R8-67(b)(vii), the Company provides the following comparison of projected costs to the annual cost caps contained in N.C.G.S. § 62-133.8(h)(4).

Figure 1.8.1 provides a comparison of the Company's projected costs to the annual cost caps for each year of the Planning Period. Compliance costs are allocated to the Customer Classes based on the percentage of each of the Customer Class Cost Caps to the Total Cost Cap.

Figure 1.8.1 COMPANY'S COMPARISON TO ANNUAL CAPS

Compliance Year	Residential	Commercial	Industrial	Total
2014	Customers	Customers	Customers	Customers
Actual Year-End Annual Customers (2013)	101,322	17,803	51	119,176
Annual Cost Cap per Customer	\$12	\$150	\$1,000	-
Annual Cost Cap, Total	\$1,215,864	\$2,670,450	\$51,000	\$3,937,314
Projected Cost of Compliance <sup>1</sup>	\$337,131	\$740,455	\$14,141	\$1,091,727

Compliance Year	Residential	Commercial	Industrial	Total
2015	Customers	Customers	Customers	Customers
Projected Year-End Annual Customers (2014)	101,673	17,505	51	119,229
Annual Cost Cap per Customer	\$34	\$150	\$1,000	1
Annual Cost Cap, Total	\$3,456,882	\$2,625,750	\$51,000	\$6,133,632
Projected Cost of Compliance <sup>1</sup>	\$791,644	\$601,310	\$11,679	\$1,404,633

Compliance Year 2016	Residential Customers <sup>2</sup>	Commercial Customers	Industrial Customers	Total Customers
Projected Year-End Annual Customers (2015)	102,046	17,369	51	119,466
Annual Cost Cap per Customer	\$34	\$150	\$1,000	-
Annual Cost Cap, Total	\$3,469,564	\$2,605,350	\$51,000	\$6,125,914
Projected Cost of Compliance <sup>1</sup>	\$820,874	\$616,407	\$12,066	\$1,449,348

Notes: (1) Projected costs were allocated to the customer classes based on customer percentage of total cost cap. (2) The residential customer cost cap increases in 2015.

Figure 1.8.2 provides a comparison of the Town of Windsor's projected costs to the annual cost caps for each year of the REPS Compliance Plan.

Figure 1.8.2 TOWN OF WINDSOR'S COMPARISON TO ANNUAL CAPS

Compliance Year	Residential	Commercial	Industrial	Total
2014	Customers	Customers	Customers	Customers
Actual Year-End Annual Customers (2013)	1,400	415	1	1,816
Annual Cost Cap per Customer	\$12	\$150	\$1,000	-
Annual Cost Cap, Total	\$16,800	\$62,250	\$1,000	\$80,050
Projected Cost of Compliance <sup>1</sup>	\$2,394	\$8,869	\$142	\$11,405

Compliance Year	Residential	Commercial	Industrial	Total
2015	Customers	Customers	Customers	Customers
Projected Year-End Annual Customers (2014)	1,425	420	1	1,846
Annual Cost Cap per Customer	\$34	\$150	\$1,000	-
Annual Cost Cap, Total	\$48,450	\$63,000	\$1,000	\$112,450
Projected Cost of Compliance <sup>1</sup>	\$12,002	\$15,606	\$248	\$27,856

Compliance Year 2016	Residential Customers <sup>2</sup>	Commercial Customers	Industrial Customers	Total Customers
Projected Year-End Annual Customers (2015)	1,425	425	1	1,851
Annual Cost Cap per Customer	\$34	\$150	\$1,000	-
Annual Cost Cap, Total	\$48,450	\$63,750	\$1,000	\$113,200
Projected Cost of Compliance <sup>1</sup>	\$14,871	\$19,567	\$307	\$34,745

Notes: (1) The Town of Windsor is to determine the allocation among the different customer classes. (2) The residential customer cost cap increases in 2015.

## 1.9 REPS RIDER

In accordance with Rule R8-67(b)(viii), the Company provides an estimate of the amount of the REPS rider and the impact on the cost of fuel and fuel-related costs rider necessary to fully recover the projected costs.

Figure 1.9.1 REPS Rider Costs

	2014	2015	2016
Total Projected REPS Compliance Costs	\$1,091,727	\$1,404,633	\$1,449,348
Costs recovered through the Fuel Rider	\$0	\$0	\$0
Total Incremental Cost	\$1,091,727	\$1,404,633	\$1,449,348
Annual REPS Rider - Residential	\$421,589	\$536,626	\$555,240
Annual REPS Rider - Commercial	\$271,776	\$356,550	\$373,987
Annual REPS Rider - Industrial	\$398,362	\$511,457	\$520,121
Projected Annual Cost Caps (REPS Rider)	\$3,937,314	\$6,133,632	\$6,125,914

# **CERTIFICATE OF SERVICE**

I hereby certify that a copy of the foregoing <u>Historical Review of 2014 REPS Plan</u>, filed in Docket No. E-100, Sub 141 was served electronically or via U.S. mail, first-class postage prepaid, upon all parties of record.

This the 1<sup>st</sup> day of May, 2018.

/s/Andrea R. Kells

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