COMMONWEALTH OF VIRGINIA
STATE CORPORATION COMMISSION
COMMISSIONERS
JEHMAL T. HUDSON • SAMUEL T. TOWELL • KELSEY A. BAGOT

October 1, 2025

The Honorable Glenn Youngkin
Governor, Commonwealth of Virginia

The Honorable R. Creigh Deeds
Chair, Senate Committee on Commerce and Labor

The Honorable Jeion A. Ward
Chair, House Committee on Labor and Commerce

The Honorable Stefanie K. Taillon
Secretary of Natural and Historic Resources

The Honorable Juan Pablo Segura
Secretary of Commerce and Trade

Members of the Virginia General Assembly

Ladies and Gentlemen:

Please find enclosed the Virginia State Corporation Commission's Annual Report on Energy Efficiency Programs and the Annual Report on the Feasibility of Achieving Energy Efficiency Goals pursuant to Chapters 1193 and 1194 of the 2020 Virginia Acts of Assembly.

Please let us know if we may be of further assistance.

Respectfully submitted,

Samuel T. Towell
Chairman

Jehmal T. Hudson
Commissioner

Kelsey A. Bagot
Commissioner

Enclosure

COMMONWEALTH OF VIRGINIA

STATE CORPORATION COMMISSION

Reports to the Governor of the Commonwealth of Virginia,
the Chair of the Senate Committee on Commerce and Labor,
the Chair of the House Committee on Labor and Commerce,
the Secretary of Natural and Historic Resources, and
the Secretary of Commerce and Trade

COMBINED REPORTS

INCLUDING:

Annual Report on Energy Efficiency Programs
Pursuant to Chapter 1193 of the 2020 Virginia Acts of Assembly

Annual Report on the Feasibility of Achieving Energy Efficiency Goals
Pursuant to Chapter 1193 of the 2020 Virginia Acts of Assembly

October 1, 2025

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EXECUTIVE SUMMARY

This document contains the combined reports ("Report") of the Virginia State Corporation Commission ("Commission") pursuant to Chapter 1193 of the 2020 Virginia Acts of Assembly.[1]

The key highlights of this Report include:

- In its fifth DSM application pursuant to the VCEA, Dominion filed for one new energy efficiency program, one pilot program, five redesigned programs, and modifications to a measure and one demand response program. All Company proposals were approved by the Commission except for Dominion's proposed Residential Battery Storage Pilot. In its application, Dominion also presented its progress towards achieving the energy efficiency savings goals of the VCEA and the required proposed investment levels of the Grid Transformation and Security Act ("GTSA").[2]

- In calendar year 2024, APCo did not make any energy efficiency program filing. In 2021, APCo filed for, and received approval of, permission to move to a biennial filing cadence for its energy efficiency program activities. An APCo energy efficiency filing is expected in the fall of 2025.

- In Dominion's 2024 DSM proceeding, the Commission evaluated the Company's performance in meeting the 2023 energy savings target pursuant to Code § 56-596.2. Dominion had total combined net savings of 968,884 megawatt-hour ("MWh") in 2023, which represents 1.42% of 2019 total annual sales[3] and is less than Dominion's 2023 total annual savings target of 2.5%, or 1,705,783 MWh.

- APCo had a total combined net savings of 241,375 MWh in 2022, which represents 2.41% of 2019 total annual sales,[4] and is more than APCo's 2022 total annual energy savings target of 1.0%, or 100,155 MWh. As APCo is now on a biennial

[1] Virginia Clean Economy Act ("VCEA"), 2020 Va. Acts chs. 1193, 1194. The VCEA explicitly references Phase I and Phase II utilities. For purposes of this report, the Commission will focus on Appalachian Power Company ("APCo") as a Phase I utility and Dominion Energy Virginia ("DEV" or "Dominion") as a Phase II utility. The Commission further notes that in 2023, Kentucky Utilities d/b/a Old Dominion Power Company ("KU/ODP") filed a comprehensive Demand-Side Management ("DSM") plan targeting at least a 0.02% decrease in total jurisdictional sales. The Commission, having not reached a majority decision in the matter, did not issue an order approving or rejecting KU/ODP's application. *Application of Kentucky Utilities Company d/b/a Old Dominion Power Company for Implementation of a Demand-Side Management Program and Cost-Recovery Adjustment Clause*, Case No. PUR-2023-00096, 2024 S.C.C. Ann. Rept. 173, Order Closing Case (March 12, 2024).

[2] *Application of Virginia Electric and Power Company For approval of its 2024 DSM Update pursuant to § 56-585.1 A 5 of the Code of Virginia*, Case No. PUR-2024-00222, Doc. Con. Cen No. 250830077, Final Order (Aug 13, 2025) ("Dominion 2024 DSM Final Order").

[3] Dominion's 2019 Retail Sales were approximately 68,231,332 MWh.

[4] APCo's 2019 Retail Sales were approximately 14,452,000 MWh.

filing schedule for DSM applications, the Commission will evaluate APCo's 2023 and 2024 savings as part of APCo's 2025 DSM application.

- Calendar year 2024 was the third year in which the VCEA's energy efficiency targets were in effect pursuant to Code § 56-596.2. The Commission received data related to Dominion's achievement of such targets in Dominion's DSM application, as noted above, and in both Dominion and APCo's evaluation, measurement, and verification ("EM&V") reports.[5]

- According to its 2025 EM&V Report, Dominion anticipated falling short of the 2024 energy savings target (1.6% achieved compared to the 3.75% target) as measured on a "net"[6] basis.[7]

- APCo estimates that it will have exceeded the 2024 energy savings target (2.63% achieved compared to 1.5% target) as measured on a net basis.[8]

- The Companies' 2024 EM&V results have not yet been subject to Commission review. The Commission will review these EM&V results as a part of each utility's upcoming energy efficiency proceedings and will provide additional data related to the feasibility of achieving these energy efficiency goals in future reports.

- The Commission has approved new energy efficiency targets for both Dominion and APCo for calendar years 2026-2028 as part of Case Nos. PUR-2023-00227 and PUR-2024-00134. Dominion's targets are 3%, 4%, and 5% for 2026-2028 respectively, and APCo's targets are 3%, 3.5%, and 4% for 2026-2028 respectively.

A glossary of terms is provided in Appendix 3.

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[5] APCo filed its most recent EM&V Report on May 1, 2025, in Case No. PUE-2014-00039 ("APCo 2025 EM&V Report"). Dominion filed its most recent EM&V Report ("Dominion 2025 EM&V Report") on May 30, 2025, in Case No. PUR-2023-00217. Please note that both the 2025 Dominion EM&V and the APCo 2025 EM&V report contain data on the 2024 program year. The public version of documents filed with the Commission may be located on the Commission's website, scc.virginia.gov/case-information, by clicking "Docket Search," then clicking "Search by Case Information," and entering the appropriate case number in the appropriate box.

[6] "Net" generally refers to changes in energy use that are induced by a particular energy efficiency program, *i.e.,* exclusive of free riders. A "free rider" is someone who would have installed an energy-efficiency measure absent any program incentive but receives the incentive anyway.

[7] Dominion 2025 EM&V Report at 1.

[8] At the time of this report's publication, APCo has not yet filed its most recent energy efficiency application. *See* APCo 2025 EM&V Report – Volume I (Commercial and Industrial) at 6, and APCo 2025 EM&V Report – Volume II (Residential) at 8. Dominion's DSM filing is expected at the end of 2025.

INTRODUCTION

The Commission appreciates the opportunity to provide this update on energy efficiency and DSM-related matters to the Governor and the General Assembly. The Commission has conducted energy efficiency and DSM-related proceedings that are detailed below. In addition, the Commission's Staff has participated in multiple stakeholder meetings over the last year as required by recent legislation and Commission Order.[9] Energy efficiency meetings, required by SB 966,[10] SB 1605,[11] and HB 2293,[12] were held on October 28, 2024 and March 17, 2025 for Dominion. APCo met on November 21, 2024 and has meetings scheduled for September 15, 2025 and November 17, 2025. Further, pursuant to the Commission's Order Initiating Stakeholder Process, the Commission's Staff participated in the following stakeholder group meetings which were facilitated by an independent monitor: September 18, 2024; October 2, 2024; October 18, 2024; October 30, 2024; November 20,2024; December 5, 2024; and December 18, 2024.[13]

Statutory Background

The statutory bases for this Report are the following:

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[9] *Petition Of Virginia Electric and Power Company, For approval of its 2021 DSM Update pursuant to § 56-585.1 A 5 of the Code of Virginia* Case No. PUR-2021-00247, 2022 S.C.C. Ann. Rept. 384, Final Order (August 10, 2022) ("2021 DSM Update Final Order").

[10] 2018 Va. Acts ch. 296.

[11] 2019 Va. Acts ch. 398.

[12] 2019 Va. Acts ch. 397.

[13] Chapters 794 and 818 of the 2024 Virginia Acts of Assembly ("Acts"), inter alia. amended and reenacted §§ 56-576 and 56-596.2 of the Code of Virginia ("Code"). Pursuant to their second enactment clauses, Chapters 794 and 818 of the Acts direct the Commission to no later than September 30, 2025, "promulgate regulations establishing a single, consistent cost-effectiveness test for use in evaluating proposed energy efficiency programs" ("EEP Cost-Effectiveness Test Regulations"). The Commission initiated a stakeholder process to commence the development of the EEP Cost-Effectiveness Test Regulations and docketed the proceeding in Case No. PUR-2024-00120. *Ex Parte: In the matter of promulgating regulations establishing a single, consistent cost-effectiveness test for use in evaluating proposed energy efficiency programs*, Case No. PUR-2024-00120, Doc. Con. Cen. No. 240728139 Order Initiating Proceeding, (Jul. 17, 2025).

- Energy Efficiency Programs: The VCEA added language to Code §56-585.1 A 5 c directing the Commission to monitor and report to the General Assembly annually on the performance of all programs approved pursuant to Code § 56-585.1 A 5 c;[14] and,

- Feasibility of Energy Efficiency Goals: The VCEA added subsection B 3 to Code § 56-596.2. This subsection, among other things, directs that beginning October 1, 2022, and each year thereafter, the Commission shall review the feasibility of the energy efficiency program savings in Code § 56-596.2 and report to the Chairs of the House Committee on Labor and Commerce, the Senate Committee on Commerce and Labor, the Secretary of Natural and Historic Resources, and the Secretary of Commerce and Trade on such feasibility.

ENERGY EFFICIENCY PROGRAMS

The VCEA establishes energy efficiency savings targets for Phase I and Phase II utilities through 2025.[15] After 2025, the Commission is directed to establish new energy efficiency targets.[16] The statutory targets through 2025 are as follows, expressed as a percentage of the average annual energy jurisdictional retail sales by that utility in 2019:

Year	Phase I Utility	Phase II Utility
2022	0.5%	1.25%
2023	1.0%	2.5%
2024	1.5%	3.75%
2025	2.0%	5.0%

[14] Prior to 2022, the Commission previously included this annual report as part of its December 1 Combined Reports.

[15] Subject to certain conditions, the Commission is prohibited from approving construction of any new utility-owned generating facilities that emit carbon dioxide as a by-product of combusting fuel to generate electricity unless the utility has already met the energy savings goals prescribed above, and the Commission finds that supply-side resources are more cost-effective than demand-side or energy storage resources. Code § 56-585.1 A 5.

[16] For this purpose, the Commission established Case No. PUR-2023-00227 to set Dominion's targets and Case No. PUR-2024-00134 to set APCo's targets, which were heard by the Commission in November of 2024 with final orders published in February of 2025. *See Commonwealth ex rel. State Corporation Commission, Ex Parte: In the matter of establishing energy efficiency savings targets for Virginia Electric and Power Company pursuant to VA Code section*

The VCEA directs the Commission to award a margin for recovery on operating expenses for energy efficiency programs and pilot programs prior to January 1, 2022.[17] After January 1, 2022, the VCEA directs the Commission to award a margin on energy efficiency program operating expenses in the applicable year if a Phase I or Phase II utility achieves total savings equal to the energy efficiency savings targets set forth above.[18] Further, energy efficiency pilot programs are to be found in the public interest if they are of a limited scope, cost, and duration and intended to determine whether a new or substantially revised program would be cost-effective.[19]

The VCEA also directs the Commission to monitor and annually report to the General Assembly on the performance of all energy efficiency programs approved pursuant to Code § 56-585.1 A 5 c, including each utility's compliance with the total annual savings required by Code § 56-596.2, as well as the annual and lifecycle net and gross[20] energy and capacity savings, related emission reductions, and other quantifiable benefits of each program; total customer bill savings that the programs produce; utility spending on each program, including any associated administrative costs; and each utility's avoided costs and cost-effectiveness results.

In this regard, the Commission notes that APCo has filed four applications for approval of DSM programs since the effective date of the VCEA (July 1, 2020) and Dominion has filed five applications, which are discussed further below. For 2024, Dominion states that it had a total

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*56-596.2 B 3 and 56-596.2:*2, Case No. PUR-2023-00227, Doc. Con. Cen. No. 250240063, Final Order (Feb. 27, 2025) ("New Dominion EE Savings Target Order"). *See Also Ex Parte: In the matter of establishing Energy efficiency savings targets for Appalachian Power Company Pursuant to Code § 56-596.2 B 3*, Case No. PUR-2024-00134, Doc. Con. Cen. No. 250250013, Final Order (Feb. 28, 2025) ("New APCo EE Savings Target Order").

[17] Code § 56-585.1 A 5 c.

[18] *Id.*

[19] *Id.*

[20] "Gross" refers to savings that are expected to occur independent of an energy efficiency program's implementation, *i.e.,* inclusive of free riders.

combined net MWh savings of 1,106,256 MWh, which represents 1.6% of 2019 total annual energy sales and is less than Dominion's 2024 total annual savings target of 3.75%, or 2,558,675 MWh.[21] For 2024, APCo states that it had a total combined net MWh savings of approximately 194,130 MWh, which represents 2.63% of 2019 total annual energy sales, and is more than APCo's 2024 total annual energy savings target of 1.5% or 216,781 MWh.[22]

Due to the time involved for Dominion and APCo to prepare and file applications, for the Commission to conduct associated proceedings, and for each utility to roll out and implement the DSM programs and subsequently collect EM&V data, the Commission does not expect to complete verification of the 2024 reporting data outlined above until after the expected DSM proceedings in 2025 conclude. The Commission has included key metrics related to existing DSM programs from each utility's most recent EM&V Report in Appendices 1 and 2.

VCEA EE Programs

DEV

In its first DSM application pursuant to the VCEA ("2020 DSM Update"), Dominion filed for, and received approval of, nine energy efficiency ("EE") programs, one demand response program (collectively referred to as Dominion's "Phase IX Programs"), and a two-year extension of an existing demand response program.[23] Additionally, the Commission approved a rooftop solar

[21] Dominion 2025 EM&V Report at 1. This EM&V report has not been reviewed by the Commission at this time.

[22] APCo 2025 EM&V Report Volume I at 6 and APCo 2025 EM&V Report Volume II at 8. This EM&V report has not been reviewed by the Commission at this time.

[23] *Petition of Virginia Electric and Power Company, For approval of its 2020 DSM Update pursuant to § 56-585.1 A 5 of the Code of Virginia*, Case No. PUR-2020-00274, 2021 S.C.C. Ann. Rept. 350, Final Order (September 7, 2021) ("2020 DSM Update Final Order").

program application filed pursuant to legislation approved during the 2019 General Assembly Session.[24] The approved programs and associated cost caps are discussed below.

According to analysis provided by Dominion in its 2020 DSM Update, Dominion initially did not anticipate achieving the VCEA's energy savings targets beginning in 2023.[25] As such, the Commission directed Dominion to file, among other things, a long-term plan that included proposed program savings and budgets for the five-year period beginning January 1, 2022, sufficient to comply with the total energy savings targets in the VCEA and the investment levels in the GTSA. The Commission also directed Dominion to file a proposed plan and framework for consolidating, streamlining, and marketing the public-facing aspects of Dominion's approved and proposed DSM programs to facilitate participation at the levels required to achieve VCEA targets.[26]

In its second DSM application pursuant to the VCEA ("2021 DSM Update"), Dominion filed for, and received approval of, nine EE programs (referred to as its "Phase X Programs").[27] In addition to its 2021 DSM Update, Dominion also presented a long-term plan to comply with the total energy savings targets in the VCEA and investment levels in the GTSA, among other things, as required by the 2020 DSM Update Final Order. As part of that plan, Dominion proposed restructuring its DSM portfolio and programs into approximately seven major programs, with seven sub-categories for distinct components and pathways. Dominion also committed to an annual investment of $2.5 million from 2022 to 2026 directed toward improving customer

[24] *Id.*; 2019 Va. Acts ch. 748 (House Bill 2789).

[25] *See* 2020 DSM Update Final Order at 11.

[26] *Id.* at 11-12.

[27] 2021 DSM Update Final Order at 384.

awareness and marketing.[28] The Commission approved Dominion's proposed reorganization and consolidations of its DSM Portfolio consistent with Dominion's long-term plan.[29]

In its third DSM application pursuant to the VCEA ("2022 DSM Update"), Dominion filed for, and received approval of, five EE programs (referred to as its "Phase XI Programs"), as well as four "program bundles."[30] Dominion presented program bundles as a way to consolidate programs and program measures that would provide qualifying customers the opportunity to implement a wider variety of EE measures, with its goal being to provide a better customer experience and optimize participation in Dominion's EE programs. Dominion also received approval to expand the eligibility of its Phase IV Agricultural Program to residential customers.

Regarding the implementation of the Long-Term Plan, the Commission directed Dominion to provide an annual Project Management Plan detailing what DSM tasks were completed in the last twelve months, what tasks would be completed in the next twelve months, and what tasks remain to be completed, to fully implement the Long-Term Plan.

In its fourth DSM application pursuant to the VCEA ("2023 DSM Update"), Dominion filed for, and received approval of, three energy efficiency programs, one demand response program (referred to as its "Phase XII Programs"), as well as modifications to two existing programs.[31] The Commission denied Dominion's request to close the Non-Residential Distributed Generation program. Dominion proposed approximately $102 million in energy efficiency

[28] Low program participation has historically served as a barrier to DSM program success.

[29] 2021 DSM Update Final Order at 386.

[30] *Petition of Virginia Electric and Power Company, For approval of its 2022 DSM Update pursuant to § 56-585.1 A 5 of the Code of Virginia*, Case No. PUR-2022-00210, 2023 S.C.C. Ann. Rept. 330, 334, Final Order (Aug. 4, 2023) ("2022 DSM Update Final Order").

[31] *Application of Virginia Electric and Power Company, For approval of its 2023 DSM Update pursuant to § 56-585.1 A 5 of the Code of Virginia*, Case No. PUR-2023-00217, 2024 S.C.C. Ann. Rept. 239, Final Order (July 26, 2024).

programs. Dominion had proposed approximately $797 million of the $870 million required by the GTSA. Further, the Commission required Dominion to continue providing Long-Term Plan reporting and stakeholder progress reporting.

Regarding Dominion's progress in meeting the 2023 VCEA energy savings target, the Commission determined that it had a total combined net savings of 1.42%, which is less than Dominion's 2023 total annual savings target of 2.50%, or approximately 1,705,783 MWh. As such, the Commission did not approve the recovery of a bonus margin on Dominion's spending, pursuant to Code § 56-585.1 A 5 c. As discussed further below, as of its latest DSM proceeding, Dominion projected that it would not meet its 2024 VCEA-related savings goal on a net basis.

In its fifth DSM application pursuant to the VCEA ("2024 DSM Update"), Dominion filed for one new energy efficiency program, one pilot program, five redesigned programs (referred to as its "Phase XIII Programs"), and a modification to the measure mix of the Phase XI Residential Income and Age Qualifying Bundled (EE) Program to supplement the overall Portfolio.[32]

APCo

In its first DSM application pursuant to the VCEA, APCo filed for, and received approval of, four EE programs, a demand response program, and a three-year voltage conservation pilot program.[33] Additionally, the Commission approved a five-year extension for two of APCo's existing DSM programs. The approved programs and associated cost caps are provided later in this report.

[32] *Application of Virginia Electric and Power Company for approval of its 2024 DSM Update pursuant to § 56-585.1 A 5 of the Code of Virginia*, Case No. PUR-2024-00222, Doc. Con. Cen. No. 241230073, Application at 2 (Dec. 13, 2024).

[33] *Petition of Appalachian Power Company, For approval to continue rate adjustment clause, the EE-RAC, and for approval of new energy efficiency programs pursuant to §§ 56-585.1 A 5 c and 56-596.2 of the Code of Virginia*, Case No. PUR-2020-00251, 2021 S.C.C. Ann. Rept. 325, Order Approving Rate Adjustment Clause (July 29, 2021).

In its second DSM application pursuant to the VCEA, APCo filed for, and received approval of, one EE program.[34] Additionally, APCo requested, and received, approval to move to a biennial filing cadence for its energy efficiency program activities. APCo stated that it did not anticipate the immediate need to initiate any new programs in the interim. The Commission required APCo to file, in Case No. PUR-2021-00236 ("APCo's 2021 EE-RAC Proceeding"), an updated report on program costs, revenues, participation levels, and other relevant information on or before November 30, 2022, and required the same report to be filed in the next docketed EE-RAC case.[35]

As noted above, APCo received Commission approval to move to a biennial filing cadence and thus did not file a DSM-related application in 2022. As directed by the Commission, APCo filed an updated report on program costs, revenues, participation, and other relevant information on November 30, 2022.[36]

In its third application pursuant to the VCEA, APCo filed for, and received approval of, two new energy efficiency programs, enhancements to four existing programs, and five-year extensions of three programs. APCo proposed approximately $87 million in energy efficiency

[34] *Petition of Appalachian Power Company, For approval to continue rate adjustment clause, the EE-RAC, and for approval of new energy efficiency programs pursuant to §§ 56-585.1 A 5 c and 56-596.2 of the Code of Virginia*, Case No. PUR-2021-00236, 2022 S.C.C. Ann. Rept. 371, 372, Order Approving Rate Adjustment Clause (July 15, 2022) ("APCo's 2021 EE-RAC Update Final Order").

[35] *Id*. at 372.

[36] *See, e.g.,* APCo witness Diebel's direct testimony, Schedule 2, filed in APCo's 2021 EE-RAC Proceeding with its Petition. Note, however, that the Commission did not make any determination regarding APCo's "achieved" savings at that time. *Petition of Appalachian Power Company, For approval to continue rate adjustment clause, the EE-RAC, and for approval of new energy efficiency programs pursuant to §§ 56-585.1 A 5 c and 56-596.2 of the Code of Virginia*, Case No. PUR-2021-00236, Doc. Con. Cen. No. 211180097, Petition (filed Nov. 30, 2021).

spending. APCo met the GTSA goal of proposing at least $140 million in energy efficiency programming in 2022.[37]

Regarding APCo's progress in meeting the 2022 VCEA energy savings target, the Commission made two findings. First, the Commission determined that net savings is the appropriate measurement of the total annual savings required by Code § 56-596.2.[38] Second, APCo has a total combined net savings of 219,036 MWh in 2022, which represents 1.52% of total annual energy sales, and is more than APCo's 2022 annual energy savings target of 0.5% or 72,260 MWh.[39] The Commission awarded a margin on energy efficiency program operating expenses to APCo pursuant to Code § 56-585.1 A 5 c. Based on information provided by APCo, it is projected that APCo would meet its 2023 and 2024 VCEA savings goal on a net basis.

KU/ODP

As mentioned previously, the Commission required KU/ODP to file a comprehensive DSM plan, with a required target of at least 0.02% decrease in total jurisdictional sales. On June 1, 2023, KU/ODP filed for approval of a DSM pilot-program designed to benefit low-income customers, with an associated DSM rate mechanism. On March 12, 2024, the Commission issued an order closing the case as the Commission was not able to reach a majority decision on the matter. On March 12, 2025, Appalachian Voices filed a petition with the Commission requesting from the Commission a declaration that § 56-596.2 B 3 of the Code applies to KU/ODP, such that the Commission is required to establish new energy efficiency savings targets for KU/ODP for the

[37] *Petition of Appalachian Power Company, For approval to continue rate adjustment clause, the EE-RAC, and for approval of new energy efficiency programs pursuant to §§ 56-585.1 A 5 c and 56-596.2 of the Code of Virginia*, Case No. PUR-2023-00169, 2024 S.C.C. Ann. Rept. 207, 211-212, Final Order (July 26, 2024) ("2023 EE-RAC Final Order").

[38] 2023 EE-RAC Final Order at 212.

[39] *Id.*

time period 2026 through 2028.[40] On May 16, 2025, the Commission issued its Order on Petition denying Appalachian Voices request, and stating in part: "reading the subsections of Code § 56-596.2 *in pari materia* counsels against inserting an otherwise unreferenced utility, which the General Assembly chose to exclude, into a statutory scheme to which it has not heretofore been subjected."[41]

PREVIOUS DSM ACTIVITIES

Historically, the Commission has approved, allowed for the modification of, or extended numerous DSM programs for both Dominion and APCo. A brief summary is provided below:

[40] *Petition of Appalachian Voices, Petitioner, v. Kentucky Utilities Company d/b/a Old Dominion Power Company, Respondent, For declaratory judgement and an order establishing a proceeding pursuant to § 56-596.2 B 3 of the Code of Virginia*, Case No. PUR-2025-00047, Doc. Con. Cen. No. 250320061, Petition at 1 (Mar. 12, 2025).

[41] *Petition of Appalachian Voices, Petitioner, v. Kentucky Utilities Company d/b/a Old Dominion Power Company, Respondent, For declaratory judgement and an order establishing a proceeding pursuant to § 56-596.2 B 3 of the Code of Virginia*, Case No. PUR-2025-00047, Doc. Con. Cen. No. 250530108, Order On Petition at 3 (May 16, 2025).

Table 1			
Dominion Energy Cases	**Approved/Extended Programs**		**Cost Caps Approved (In Million $)**
	EE	**Peak Shaving[42]**	
Case No. PUE-2009-00081	4	1	$102.3
Case No. PUE-2011-00093	6	1	$149.2
Case No. PUE-2012-00100	1	1	$75.2
Case No. PUE-2013-00072	4		$71.6
Case No. PUE-2014-00071	2		$20.0
Case No. PUE-2015-00089	1	1	$23.5
Case No. PUE-2016-00111	1	1	$40.8
Case No. PUR-2017-00129	1		$12.6
Case No. PUR-2018-00168	11		$225.8[43]
Case No. PUR-2019-00201	14	2	$186.0
Case No. PUR-2020-00274	9	2	$130.5
Case No. PUR-2021-00247	9		$140.0
Case No. PUR-2022-00210	7	2	$145.0
Case No. PUR-2023-00217	4		$102.0
Case No. PUR-2024-00222	6		$222.3
Totals	**80**	**11**	**$1,646.8[44]**
Appalachian Power Cases			
Case No. PUE-2014-00026	1	1	$7.1
Case No. PUE-2014-00039	5		$27.3
Case No. PUR-2017-00094	1	1	$7.1
Case No. PUR-2017-00126	6		$39.0
Case No. PUR-2019-00122	3		$43.2
Case No. PUR-2020-00252	7	1	$57.4
Case No. PUR-2021-00236	1		$6.9
Case No. PUR-2023-00169	5		$78.0
Totals	**29**	**3**	**$266.0[45]**

[42] Pursuant to Code § 56-576, peak-shaving means "measures aimed solely at shifting time of use of electricity from peak-use periods to times of lower demand by inducing retail customers to curtail electricity usage during periods of congestion and higher prices in the electrical grid."

[43] Three programs (Smart Thermostat EE, Smart Thermostat DR, and Residential Customer Engagement) were approved for cost recovery by the Commission in Case No. PUR-2018-00168, and later withdrawn by Dominion. Dominion then reapplied for these same programs in Case No. PUR-2019-00201, which the Commission reapproved.

[44] Note that the $870 million investment level set by the GTSA applicable to DEV includes only energy efficiency programs, and only spending starting July 1, 2018. The $1,646.8 million shown in the table includes cost caps for peak shaving and energy efficiency programs from the time DEV first began offering such programs. The proposed program costs associated with the Residential Smart Thermostat EE, Smart Thermostat DR, and Residential Customer Engagement programs are only counted once in the total.

Dominion

Dominion's currently approved and operating programs are listed below:[46]

Table 2		
Dominion Energy Active DSM Programs		
Phase and Case No.	**Program Name**	**Program Type**
Phase II		
PUE-2011-00093	*Non-Residential Distributed Generation Program*	*Demand Response*
Phase VII		
PUR-2018-00168	*Residential Efficient Products Marketplace Program*	*Energy Efficiency*
	Non-Residential Lighting Systems & Controls Program	*Energy Efficiency*
	Non-Residential Heating & Cooling Efficiency Program	*Energy Efficiency*
Phase VIII		
PUR-2019-00201	*Residential Energy Efficiency Kits Program*	*Energy Efficiency*
	Residential Electric Vehicle Program	*Energy Efficiency*
	Residential Electric Vehicle Program	*Demand Response*
	Residential Electric Vehicle Program	*Peak Shaving*
	Residential/Non-Residential Multi-Family Program	*Energy Efficiency*
	Residential New Construction Program	*Energy Efficiency*
	Residential Home Retrofit Program	*Energy Efficiency*
	Residential HB2789 (Heating and Cooling/Health and Safety) Program[47]	*Energy Efficiency*
	Non-Residential Midstream Energy Efficiency Products Program	*Energy Efficiency*
	Non-Residential Small Business Improvement Enhanced Program	*Energy Efficiency*
	Residential Customer Engagement Program	*Energy Efficiency*
	Residential Smart Thermostat Management Program	*Energy Efficiency*

[45] Note that the $140 million investment level set by the GTSA applicable to APCo includes only energy efficiency programs, and only spending starting from July 1, 2018. The $266 million shown in the table includes cost caps for peak shaving and energy efficiency programs from the time APCo first began offering such programs.

[46] It should be noted that there is a lag between when a new program is approved, and when EM&V reporting for the approved program becomes available.

[47] This program was closed on December 31, 2023.

	Residential Smart Thermostat Management Program	*Peak Shaving*[48]
	Residential Manufactured Housing Program	*Energy Efficiency*
	Non-Residential New Construction	*Energy Efficiency*
Phase IX		
PUR-2020-00274	*Residential IAQHIP Program*[49]	*Energy Efficiency*
	Residential Smart Home Program	*Energy Efficiency*
	Residential Virtual Audit Program	*Energy Efficiency*
	Residential Water Savings	*Energy Efficiency*
	Residential Water Savings	*Demand Response*
	Non-Residential Agriculture Program	*Energy Efficiency*
	Non-Residential Building Automation Program	*Energy Efficiency*
	Non-Residential Building Optimization Program	*Energy Efficiency*
	Non-Residential Engagement Program	*Energy Efficiency*
	Non-Residential Prescriptive Program	*Energy Efficiency*
	Non-Residential Distributed Generation Program Extension	*Demand Response*
Phase X		
PUR-2021-00247	*Residential Income and Age Qualifying Home Energy Report*	*Energy Efficiency*
	Non-Residential Income and Age Qualifying	*Energy Efficiency*
	Program for Health Care and Rental Property Owners	*Energy Efficiency*
	Small Business Behavioral	*Energy Efficiency*
	Non-Residential Data Centers and Server Rooms	*Energy Efficiency*
	Non-Residential Hotel and Lodging	*Energy Efficiency*
	Voltage Optimization	*Energy Efficiency*
	Enhancement of the Residential Income and Age Qualifying Home Improvement	*Energy Efficiency*
	Extension of the Non-residential Lighting Systems & Controls Program	*Energy Efficiency*
Phase XI		
PUR-2022-00210	*Residential Customer Engagement*	*Energy Efficiency*
	Residential Efficient Products Marketplace	*Energy Efficiency*
	Residential Peak Time Rebate	*Demand Response*
	Residential Electric Vehicle Telematics Program	*Demand Response*
	Non-Residential Custom	*Energy Efficiency*
	Residential Income and Age Qualifying Bundle	*Energy Efficiency*
	Residential Home Retrofit Bundle	*Energy Efficiency*
	Non-Residential Income and Age Qualified Bundle	*Energy Efficiency*
	Non-Residential Prescriptive Bundle	*Energy Efficiency*

[48] Concerning the Residential Smart Thermostat Management Program, the energy efficiency component is the smart thermostat's ability to automatically adjust heating and cooling temperature settings in the home for optimal performance. The peak shaving component provides Dominion access to cycle the thermostat off during peak load events.

[49] The acronym "IAQHIP" stands for "Income and Age-Qualifying Home Improvement Program."

Phase XII		
PUR-2023-00217	*Residential New Construction*	*Energy Efficiency*
	Residential Smart Thermostat Purchase	*Energy Efficiency*
	Residential Smart Thermostat	*Energy Efficiency*
	Non-Residential New Construction	*Energy Efficiency*
Phase XIII		
PUR-2024-00222	*Residential Smart Thermostat Program*	*Energy Efficiency*
	Non-Residential Data Center Program	*Energy Efficiency*
	Non-Residential Curtailment Program	*Demand Response*
	Non-Residential Small Business Improvement Program	*Energy Efficiency*
	Non-Residential Enhanced Prescriptive Program	*Energy Efficiency*
	Non-Residential Distributed Generation Program	*Demand Response*

A summary of key findings of Dominion's 2025 EM&V report is reprinted and attached as Appendix 1 (Tables 2, 3, 4, 5, 6, and 7 of Dominion's 2025 EM&V Report).[50]

APCo

APCo's currently approved and operating programs are listed below:

[50] This data was provided by Dominion and has not yet been reviewed or validated by the Commission.

Table 3		
Appalachian Power Active DSM Programs		
Case No.	**Program Name**	**Program Type**
PUR-2019-00122	*Low Income Single Family*	*Energy Efficiency*
	Low Income Multifamily	*Energy Efficiency*
PUR-2020-00252	*Business Energy Solutions*	*Energy Efficiency*
	Bring Your Own Thermostat Extension	*Demand Response*
	Home Performance	*Energy Efficiency*
	Efficient Products	*Energy Efficiency*
	Energy Efficiency Kits	*Energy Efficiency*
	Home Energy Reports	*Energy Efficiency*
	Small Business Direct Install Extension	*Energy Efficiency*
	Volt VAR Optimization Pilot Program	*Energy Efficiency*
PUR-2021-00236	*Commercial & Industrial Custom Pilot Program*	*Energy Efficiency*
PUR-2023-00169	*Residential School Kits Program*	*Energy Efficiency*
	Residential Multifamily In-Unit Program	*Energy Efficiency*

A summary of key findings of APCo's 2025 EM&V report is reprinted and attached as Appendix 2.[51]

FEASIBILITY OF ENERGY EFFICIENCY GOALS

Pursuant to Code § 56-596.2 B, a Phase I and Phase II utility must each implement energy efficiency programs and measures to achieve the following total annual energy savings:

For a Phase I utility:

- In calendar year 2022, at least 0.5 percent of the average annual energy jurisdictional retail sales by that utility in 2019;
- In calendar year 2023, at least 1.0 percent of the average annual energy jurisdictional retail sales by that utility in 2019;
- In calendar year 2024, at least 1.5 percent of the average annual energy jurisdictional retail sales by that utility in 2019; and

[51] This data was provided by APCo and has not yet been reviewed or validated by the Commission.

- In calendar year 2025, at least 2.0 percent of the average annual energy jurisdictional retail sales by that utility in 2019.

For a Phase II utility:

- In calendar year 2022, at least 1.25 percent of the average annual energy jurisdictional retail sales by that utility in 2019;
- In calendar year 2023, at least 2.5 percent of the average annual energy jurisdictional retail sales by that utility in 2019;
- In calendar year 2024, at least 3.75 percent of the average annual energy jurisdictional retail sales by that utility in 2019; and
- In calendar year 2025, at least 5.0 percent of the average annual energy jurisdictional retail sales by that utility in 2019.

Additionally, for the time period 2026 through 2028, and for every successive three-year period thereafter, the Commission is directed to establish new energy efficiency savings targets.[52] The VCEA further directs the Commission to annually review the feasibility of the energy efficiency program savings in Code § 56-596.2 and report on such feasibility.[53]

On the issue of whether net or gross savings should be used to measure compliance with the energy efficiency targets, the Commission examined both DEV and APCo's compliance with the 2022 VCEA savings target in their respective 2023 energy efficiency proceedings. In both cases, the Commission concluded that net savings is the appropriate measurement of total annual energy saving required by Code § 56-596.2.[54]

Dominion

[52] New energy efficiency targets for 2026-2028 have been established by the New Dominion EE Savings Target Order (Case No. PUR-2023-00227) and the New APCo EE Savings Target Order (Case No. PUR-2024-00134).

[53] Enactment Clause 4 of the 2021 Va. Acts of Assembly ch. 263 (Spec. Session 1) further provides that: "the State Corporation Commission may exclude energy jurisdictional retail sales related to zero-emission vehicles and hybrid electric vehicles from energy jurisdictional retail sales calculated pursuant to § 56-596.2 of the Code of Virginia."

[54] 2023 DSM Update Final Order at 245-246, 2023 EE-RAC Update Final Order at 212.

In its most recent DSM proceeding, Dominion provided data related to its achievement of the 2023 total annual savings target of 2.5%, or 1,705,783 MWh. The Company reported 968,884 MWh of net savings, or approximately 1.42% of 2019 sales.[55]

Dominion also presented its expected achievement of future VCEA energy efficiency as part of its 2025 DSM EM&V Report. That data is reproduced below:[56]

Table 4 – DEV EE Targets

Year	VCEA Target MWh	VCEA Target %	DSM 1-10 MWh	DSM Phase 11 MWh	DSM Phase 12 MWh	DSM Phase 13 MWh	Opt-Outs MWh	Total DSM MWh	DSM %
2024	2,558,675	3.75%	1,022,493	19,786	-	-	63,977	1,106,256	1.6%
2025	3,411,567	5%	1,229,392	46,380	19,748	-	64,446	1,359,966	2.0%
2026	2,046,940	3%	1,509,128	62,081	53,564	54,358	64,915	1,744,046	2.6%
2027	2,729,253	4%	1,692,742	73,854	95,464	148,136	65,384	2,075,579	3.0%
2028	3,411,567	5%	1,769,416	87,144	150,430	243,814	65,853	2,316,656	3.4%

APCo

In its most recent EE-RAC Proceeding, APCo provided data related to its achievement of the 2022 total annual savings target of 0.5% of 2019 jurisdictional retail sales or 72,260 MWh. The Company reported 219,036 MWhs of net savings, or approximately 1.52% of 2019 sales. The Commission found that APCo was entitled to a performance incentive pursuant to Code § 56-585.1 A 5 c.

[55] 2024 DSM Final Order; Direct Testimony of David F. Walker at 12, Doc. Con. Cen. No. 241230073.

[56] 2023 DSM Update 2025 EM&V Report at 1.

APCo also presented its expected achievement of future VCEA energy efficiency goals. As demonstrated in column "DSM %," APCo currently projects meeting all of the VCEA targets on a net basis in 2023-2025. That data is reproduced below:[57]

Table 5 – APCo EE Targets

Year	VCEA Target MWh	VCEA Target %	Cumulative persistent Savings MWh	Estimated 2023-2025 Program Savings MWh	Estimated 2023 EE-RAC Program Savings MWh	Opt-outs MWh	DSM %
2022	72,260	0.50%	190,747	-	-	28,289	**1.52%**
2023	144,521	1.00%	159,942	108,648	-	28,289	**2.05%**
2024	216,781	1.50%	157,873	186,609	-	28,289	**2.58%**
2025	289,041	2.00%	156,867	203,540	68,201	28,289	**3.16%**

In APCo's 2023 EE-RAC Proceeding, the Commission approved APCo's request to have its next EE-RAC petition filed on or before March 15, 2026.[58]

New Energy Efficiency Targets for 2026-2028

Code § 56-596.2.2 directs that:

> For the time period 2026 through 2028, the Commission shall, after notice and hearing, establish new energy efficiency savings targets measured as a percentage of the average annual energy jurisdictional retail sales by that utility in 2019.

[57] 2023 EE-RAC Update, Direct Testimony of Staff witness Tanner R. Brunelle at 40, Doc. Con. Cen. No. 24041020 (Apr. 9, 2024).

[58] 2023 EE-RAC Update Final Order at 213.

As such, the Commission established two separate proceedings for Dominion[59] and APCo's[60] respective new energy savings targets to be considered. The hearing for the Dominion case occurred on October 15, 2024. The hearing for the APCo case occurred on November 4, 2024. In February of 2025, the Commission approved the new energy efficiency targets which are outlined below.

Table 6 - New Dominion and APCo Energy Efficiency Savings Targets by Percent

Year	Dominion Target[61]	APCo Target[62]
2026	3.00%	3.00%
2027	4.00%	3.50%
2028	5.00%	4.00%

The Hearing Examiner, in the New Dominion EE Savings Target Case, found that:[63]

> (1) For purposes of establishing Dominion's energy savings targets pursuant to Code § 56-596.2 B 3, the record can support a range of *feasible* targets for 2026, 2027, and 2028. (emphasis added)
>
> (2) The energy savings targets proposed by Dominion (2.10%, 2.41%, and 2.73%) and presented in Staff's Scenario A1 (2.37%, 2.54%, and 2.71%) establish a reasonable low-end of feasible targets pursuant to Code § 56-596.2 B 3.
>
> (3) The energy savings targets proposed by Appalachian Voices (3.80%, 5.40%, and 7.00%) are a reasonable high-end boundary for feasible targets pursuant to Code § 56-596.2 B 3.

[59] *Commonwealth of Virginia, ex rel. State Corporation Commission, Ex Parte: In the matter of establishing energy efficiency savings targets for Virginia Electric and Power Company pursuant to Code §§ 56-596.2 B 3 and 56-596.2:2*, Case No. PUR-2023-00227, Doc. Con. Cen. No. 240740083, Order Establishing Procedural Schedule at 4 (July 26, 2024).

[60] *Ex Parte: In the matter of establishing Energy efficiency savings targets for Appalachian Power Company Pursuant to Code § 56-596.2 B 3*, Case No. PUR-2024-00134, Doc. Con. Cen. No. 240740084, Order Establishing Procedural Schedule at 4 (July 26. 2024).

[61] New Dominion EE Savings Target Order at 10.

[62] New APCo EE Savings Target Order at 11.

[63] New Dominion EE Savings Target Order at 3-4.

(4) Pursuant to Code § 56-596.2 B 3, it would be reasonable to establish for Dominion energy savings targets of 3.00%, 4.00%, and 5.00% for 2026, 2027, and 2028, respectively...

The Commission ultimately adopted the findings and recommendations of the Hearing Examiner's report in its Final Order.[64] Further, as part of the Final Order in Dominion's 2024 DSM case, the Commission has directed Dominion to "prepare and file with its next DSM update, and each subsequent DSM update, a plan that details the specific steps the Company will take to comply with the statutory energy savings targets in 2026 – 2028, including how these proposed steps will lead to achievement of the savings targets established by the Commission and how the Company will achieve the VCEA-mandated 15% budget proposal for IAQ Programs."[65]

The Hearing Examiner in the New APCo EE Savings Target Case noted that "the record does not support a finding that APCo's *feasible* energy savings - achievable through a combination of cost-effective programs, low-income programs not required to be cost-effective, and LGS customer opt-outs – have effectively already plateaued at a level slightly above APCo's actual 2022 savings."[66] Further, the Hearing Examiner made the following findings and recommendations:[67]

(1) For purposes of establishing APCo's energy savings targets pursuant to Code § 56-596.2 B 3, the record can support a range of *feasible* targets for 2026, 2027, and 2028. (emphasis added)

(2) The energy savings targets proposed presented in Staff Scenario B1 (2.50%, 3.00%, and 3.50%) establish a reasonable low-end of feasible targets pursuant to Code § 56-596.2 B 3.

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[64] New Dominion EE Savings Target Order at 10.

[65] Dominion 2024 DSM Final Order at 10.

[66] New APCo EE Savings Targets Case, Hearing Examiner's Report at 32.

[67] New APCo EE Savings Targets Order at 4.

(3) The energy savings targets presented in Staff Scenario C2 (3.77%, 4.66%, and 5.56%) establish a reasonable high-end boundary for feasible targets pursuant to Code § 56-596.2 B 3.

(4) Pursuant to Code § 56-596.2 B 3, it would be reasonable to establish for APCo energy savings targets of 3.00%. 3.50%, and 4.00%, for 2026, 2027, and 2028, respectively…

The Commission ultimately adopted the findings and recommendations of the Hearing Examiner's report in its Final Order.[68]

CLOSING

The Commission appreciates the opportunity to provide this update on energy efficiency and DSM-related matters to the Governor and the General Assembly. The Commission will continue to monitor each of the specified areas for reporting and stands ready to provide any additional information or assistance if requested.

[68] New APCo EE Savings Targets Order at 10.

APPENDIX 1

Dominion EM&V Tables

Table 1. Virginia program avoided costs in Program Year 2024

Avoided Costs			Avoided T&D Demand Costs					
			Transmission			Distribution		
Average ($/kWh)	Capacity ($/kW-year)	Reserve Margin Forecast Pool Requirement (FPR) (%)	Avoided Transmission Cost ($/kW-year)	Avoided Transmission Summer Split (%)	Avoided Transmission Winter Split (%)	Avoided Distribution Cost ($/kW-year)	Avoided Transmission Summer Split (%)	Avoided Transmission Winter Split (%)
$0.04	$10.56	10%	$33.83	0%	100%	$19.20	50%	50%

Table 2. Virginia summary program metrics – participation and financials of residential and income and age qualified programs (cumulative through December 31, 2024)[7, 8, 9]

DSM phase	Program	Program operation years	Participation		Financial				
			Participants (in 1,000s)	No. measures (in 1,000s)	Expenditures ($M)	Administrative expenditures ($M)	Budget ($M)	Spending as % of budget	Program cost per participant
VII	Efficient Products Marketplace	6	14,832	14,832	$36	$1.69	$41	87%	$2.40
XI	Efficient Products Marketplace Redesign	1	280	280	$2.26	$0.14	$2.56	88%	$8.07
VII	Home Energy Assessment	6	23	1,237	$20	$1.01	$21	94%	$856
VIII	Home Energy Evaluation	5	0.99	23	$5.04	$0.29	$12	42%	$5,077
VIII	EV Energy Efficiency and Demand Response	5	1.18	1.18	$1.04	$0.05	$1.75	59%	$882
	Kits	5	115	208	$5.25	$0.29	$7.70	68%	$46
	Manufactured Housing	5	0.78	1.62	$2.82	$0.16	$6.52	43%	$3,608
	Multifamily	5	4.68	15	$3.14	$0.17	$8.44	37%	$672
	New Construction	5	9.17	9.18	$9.97	$0.57	$19	53%	$1,088
	Thermostat Purchase and WeatherSmart	5	22	19	$3.66	$0.19	$5.05	73%	$166
IX	Smart Home	4	0.30	1.04	$1.87	$0.10	$7.13	26%	$6,156
	Virtual Energy Audit	4	30	1,099	$5.08	$0.31	$11	48%	$170
	Water Savings	4	0.91	0.91	$0.99	$0.06	$3.59	28%	$1,098
XI	Customer Engagement Extension	1	228	228	$1.70	$0.11	$1.91	89%	$7.47
Residential programs, total			436	17,955	$99	$5.14	$148	66%	$226
IX	IAQ Solar	4	0.54	0.54	$19	$1.19	$31	60%	$34,618
	Residential IAQ Energy Efficiency	4	10	55	$14	$0.80	$15	95%	$1,413
X	Residential IAQ Target Report	1	25	25	$2.13	$0.14	$2.70	79%	$84
XI	Residential IAQ Bundle	1	3.40	25	$18	$1.15	$17	105%	$5,383
	Non-Residential IAQ Bundle	1	0.004	0.02	$0.23	$0.01	$0.61	38%	$58,270
Income and Age Qualifying programs, total			39	105	$53	$3.30	$67	80%	$1,360

APPENDIX 1

Table 3. Virginia summary program metrics – participation and financials of non-residential programs (cumulative through December 31, 2024)[10]

DSM phase	Program	Program operation years	Participation		Financial				
			Participants (in 1,000s)	No. measures (in 1,000s)	Expenditures ($M)	Administrative expenditures ($M)	Budget ($M)	Spending as % of budget	Program cost per participant
VII	Heating and Cooling Efficiency	6	0.16	2.52	$9.08	$0.53	$8.80	103%	$57,111
	Manufacturing	6	0.07	0.40	$3.09	$0.17	$5.93	52%	$46,067
	Window Film	6	0.09	129	$1.51	$0.08	$2.15	70%	$16,616
IX	Prescriptive Enhanced Bundle	4	1.51	51	$21	$1.25	$14	150%	$13,916
VII	Office	6	0.17	1.72	$3.38	$0.18	$5.55	61%	$19,995
IX	Building Optimization	4	0.11	2.46	$3.20	$0.20	$3.14	102%	$28,362
VIII	Midstream Energy Efficiency Products	5	0.33	3.77	$2.94	$0.16	$7.53	39%	$8,840
	Multifamily	5	0.07	4.56	$1.06	$0.06	$1.88	56%	$14,738
	New Construction	5	0.03	0.09	$5.26	$0.32	$8.27	64%	$169,621
	Small Business Improvement Enhanced	5	2.73	50	$17	$0.97	$15	115%	$6,147
IX	Agricultural Energy Efficiency	4	0.02	21	$2.39	$0.14	$2.58	93%	$140,636
	Building Automation System	4	0.004	0.004	$1.23	$0.07	$2.73	45%	$306,907
	Engagement	4	0	0	$1.79	$0.10	$4.44	40%	N/A
X	Healthcare Energy Solutions	1	0.01	1.15	$0.94	$0.06	$9.77	10%	$94,254
	Hotel and Lodging Energy Solutions	1	0.06	8.54	$1.31	$0.08	$8.90	15%	$23,771
	Data Server Rooms	2	0.002	0.02	$0.80	$0.05	$1.20	66%	$399,047
	Lighting Systems & Controls	2	0.83	158	$8.81	$0.57	$19	45%	$10,643
	Small Business Behavioral	1	35	0	$1.89	$0.12	$2.55	74%	$54
XI	Custom	1	0.01	0.01	$0.80	$0.05	$3.86	21%	$113,576
Non-Residential programs, total			**41**	**435**	**$87**	**$5.17**	**$127**	**69%**	**$2,108**
X	Voltage Optimization	1	0.03	0.03	$5.15	$0.07	$6.76	76%	$165,982
All sectors program, total			**0.03**	**0.03**	**$5.15**	**$0.07**	**$6.76**	**76%**	**$165,982**
All program, total			**517**	**18,495**	**$244**	**$14**	**$349**	**70%**	**$473**

APPENDIX 1

Table 4. Virginia summary program metrics – B/C ratios of residential and income and age qualified programs (cumulative through December 31, 2024)[11]

DSM phase	Program	Benefit cost ratios				Filing year
		Participant	Utility	TRC	RIM	
Residential programs (energy efficiency)						
VII	Efficient Products Marketplace	++	15.83	18.74	0.27	2023
XI	Efficient Products Marketplace Redesign	6.09	3.55	1.62	0.22	2025
VII	Home Energy Assessment	25.06	8.46	5.94	0.35	2023
VIII	Home Energy Evaluation	4.51	2.31	1.37	0.36	2025
	EV Energy Efficiency and Demand Response	0.75	0.29	0.14	0.14	2025
	Kits	++	2.25	10.11	0.26	2025
	Manufactured Housing	1.15	0.19	0.17	0.15	2025
	Multifamily	1.95	1.64	0.82	0.43	2025
	New Construction	5.62	4.42	2.61	0.46	2024
	Thermostat Purchase and WeatherSmart	6.00	2.28	1.59	0.39	2024
IX	Smart Home	1.43	0.50	0.28	0.19	2025
	Virtual Energy Audit	71.71	8.55	15.56	0.26	2025
	Water Savings	4.76	1.82	1.47	0.32	2025
XI	Customer Engagement Extension	5.48	0.67	0.50	0.23	2025
Residential programs (demand response)						
VIII	EV Charger Rewards	20.46	0.21	0.31	0.20	2025
XI	EV Telematics Pilot	19.76	0.19	0.22	0.19	2025
VIII	Smart Thermostat Rewards	++	3.42	5.98	3.24	2025
IX	Water Savings Demand Response	0.32	0.59	0.31	0.59	2025
XI	Peak Time Rebate	14.08	1.49	2.76	1.49	2025
Income and Age Qualifying programs (energy efficiency)						
IX	IAQ Solar	++	0.38	0.38	0.22	2024
	Residential IAQ Energy Efficiency	++	0.73	0.73	0.27	2023
X	Residential IAQ Target Report	66.56	0.00	0.00	0.00	2025
XI	Residential IAQ Bundle	++	0.23	0.23	0.18	2025
	Non-Residential IAQ Bundle	++	3.48	3.48	1.01	2025

APPENDIX 1

Table 5. Virginia summary program metrics – B/C ratios of non-residential programs (cumulative through December 31, 2024)[12]

DSM phase	Program	Benefit cost ratios				Filing year
		Participant	Utility	TRC	RIM	
Non-Residential programs (energy efficiency)						
VII	Heating and Cooling Efficiency	18.92	39.23	18.27	1.14	2023
	Manufacturing	20.59	6.16	5.76	0.48	2023
	Window Film	2.97	0.80	0.59	0.32	2023
IX	Prescriptive Enhanced Bundle	2.94	2.55	2.39	0.98	2025
VII	Office	10.55	1.46	1.56	0.30	2023
IX	Building Optimization	13.40	7.05	6.14	0.77	2025
VIII	Midstream Energy Efficiency Products	2.84	7.09	2.86	1.01	2025
	Multifamily	28.07	16.11	12.17	0.58	2025
	New Construction	10.72	4.77	4.66	0.55	2024
	Small Business Improvement Enhanced	6.28	4.17	3.33	0.62	2025
IX	Agricultural Energy Efficiency	++	57.31	43.46	0.71	2025
	Building Automation System	3.19	0.80	0.64	0.32	2025
	Engagement	++	1.90	3.07	0.85	2020
X	Healthcare Energy Solutions	13.22	2.49	4.67	0.71	2025
	Hotel and Lodging Energy Solutions	20.18	2.55	5.12	0.71	2025
	Data Server Rooms	0.97	0.04	0.04	0.04	2025
	Lighting Systems & Controls	2.98	5.36	2.13	0.69	2025
	Small Business Behavioral	9.03	0.43	0.42	0.26	2025
XI	Custom	1.31	0.23	0.21	0.16	2025
Non-Residential programs (demand response)						
II	Distributed Generation	++	2.73	7.71	2.49	2025
All sectors program (energy efficiency)						
X	Voltage Optimization	++	2.16	2.14	0.48	2025

APPENDIX 1

Table 6. Virginia summary program metrics – energy impacts of residential and income and age qualified programs (cumulative through December 31, 2024)

DSM phase	Program	Energy impacts							
		Gross				Net			
		Total annualized gross energy savings (MWh/yr)	Cumulative gross energy savings (MWh)	Cumulative lifetime gross energy savings (MWh)	Total summer gross peak demand reductions (MW)	Total annualized net energy savings (MWh/yr)	Cumulative net energy savings (MWh)	Lifetime net energy savings (MWh)	Total summer net peak demand reductions (MW)
VII	Efficient Products Marketplace	446,699	1,631,125	7,411,295	41	253,912	965,457	4,213,033	23
XI	Efficient Products Marketplace Redesign	19,214	6,974	259,457	1.47	12,105	4,393	163,458	0.93
VII	Home Energy Assessment	45,603	142,258	570,167	3.44	13,506	39,404	168,865	1.06
VIII	Home Energy Evaluation	1,550	1,585	23,489	0	1,395	1,427	21,140	0.25
	EV Energy Efficiency and Demand Response	152	205	1,516	0	121	164	1,213	0
	Kits	13,447	26,136	76,576	1.19	8,068	15,681	45,946	0.71
	Manufactured Housing	171	197	1,002	0.06	154	178	901	0.06
	Multifamily	1,241	1,556	13,309	0.32	1,117	1,401	11,978	0.29
	New Construction	21,884	34,233	543,625	9.33	19,039	29,782	472,953	8.12
	Thermostat Purchase and WeatherSmart	5,518	10,877	35,013	1.09	4,574	8,878	28,186	1.03
IX	Smart Home	123	123	1,397	0.004	104	104	1,187	0.004
	Virtual Energy Audit	23,474	21,364	229,545	2.25	14,084	12,819	137,727	1.35
	Water Savings	1,266	1,337	14,418	0.21	1,139	1,204	12,976	0.19
XI	Customer Engagement Extension	17,933	11,796	18,185	10	17,933	11,796	18,185	10
Residential programs, total		598,275	1,889,766	9,198,993	71	347,252	1,092,687	5,297,749	47
IX	IAQ Solar	3,178	1,934	77,813	1.14	2,542	1,547	62,250	0.92
	Residential IAQ Energy Efficiency	7,191	12,827	155,199	1.83	5,753	10,262	124,159	1.46
X	Residential IAQ Target Report	0	0	0	0	0	0	0	0
XI	Residential IAQ Bundle	3,698	1,527	74,700	0.84	3,661	1,511	73,953	0.83
	Non-Residential IAQ Bundle	19	5.82	431	0.01	19	5.77	427	0.01
Income and Age Qualifying programs, total		14,087	16,294	308,143	3.82	11,976	13,326	260,790	3.21

APPENDIX 1

Table 7. Virginia summary program metrics – energy impacts of non-residential programs (cumulative through December 31, 2024)

DSM phase	Program	Energy impacts							
		Gross				Net			
		Total annualized gross energy savings (MWh/yr)	Cumulative gross energy savings (MWh)	Cumulative lifetime gross energy savings (MWh)	Total summer gross peak demand reductions (MW)	Total annualized net energy savings (MWh/yr)	Cumulative net energy savings (MWh)	Lifetime net energy savings (MWh)	Total summer net peak demand reductions (MW)
VII	Heating and Cooling Efficiency	45,143	71,317	677,219	13.14	31,600	49,922	474,054	9.20
	Manufacturing	13,692	24,089	168,902	1.67	12,323	21,680	152,012	1.50
	Window Film	594	1,967	5,937	0.08	475	1,574	4,749	0.06
IX	Prescriptive Enhanced Bundle	30,453	46,987	196,571	22	27,408	42,288	176,913	20
VII	Office	12,743	24,485	89,226	0.09	11,469	22,037	80,303	0.08
IX	Building Optimization	28,521	29,155	151,206	1.05	25,669	26,240	136,085	0.94
VIII	Midstream Energy Efficiency Products	5,750	7,917	100,597	3.05	5,175	7,125	90,537	2.74
	Multifamily	806	878	6,946	0.05	726	791	6,252	0.04
	New Construction	37,018	45,828	519,016	4.55	33,317	41,245	467,115	4.09
	Small Business Improvement Enhanced	18,490	31,832	187,657	4.23	15,084	26,817	153,049	3.38
IX	Agricultural Energy Efficiency	6,481	11,812	70,873	0.96	6,287	11,458	68,747	0.93
	Building Automation System	414	306	2,073	0.05	373	276	1,865	0.04
	Engagement	0	0	0	0	0	0	0	0
X	Healthcare Energy Solutions	114	48	977	0.03	97	41	830	0.02
	Hotel and Lodging Energy Solutions	2,232	751	19,216	0	1,897	639	16,334	0
	Data Server Rooms	5.01	0.25	75	0	4.51	0.23	68	0
	Lighting Systems & Controls	62,712	50,483	637,766	11	56,441	45,435	573,989	10
	Small Business Behavioral	7,256	617	7,279	4	7,256	617	7,279	4
XI	Custom	231	14	2,348	0.01	194	12	1,973	0.01
Non-Residential programs, total		272,655	348,488	2,843,884	66	235,793	298,195	2,412,155	57
X	Voltage Optimization	26,075	26,075	26,075	8.19	26,075	26,075	26,075	8.19
All sectors program, total		26,075	26,075	26,075	8.19	26,075	26,075	26,075	8.19
All programs, total		911,091	2,280,623	12,377,095	149	621,096	1,430,283	7,996,768	116

Table 8. Virginia summary program metrics – other impacts of residential and income and age qualified programs (cumulative through December 31, 2024)

DSM phase	Program	Bill savings ($M/yr)	Carbon emissions avoided (metric tons CO_2/yr)	O&M NEIs ($M/yr)	Water savings (Mgal/yr)
VII	Efficient Products Marketplace	$0.06	248,943	N/A	47
XI	Efficient Products Marketplace Redesign	$2.48	10,645	N/A	31
VII	Home Energy Assessment	$0.04	25,542	$0.03	3.22
VIII	Home Energy Evaluation	$0.14	864	$0.06	0.20
	EV Energy Efficiency and Demand Response	$0.01	84	N/A	N/A
	Kits	$0.37	7,493	$0.02	4.50
	Manufactured Housing	$0.01	96	-$0.001	0.07
	Multifamily	$0.08	692	N/A	N/A
	New Construction	$0.98	12,310	N/A	N/A
	Thermostat Purchase and WeatherSmart	$0.09	3,110	N/A	N/A
IX	Smart Home	$0.02	68	N/A	N/A
	Virtual Energy Audit	$1.96	13,078	$1.10	107
	Water Savings	$0.08	711	N/A	N/A
XI	Customer Engagement Extension	$2.25	9,955	N/A	N/A
Residential programs, total		**$8.58**	**333,592**	**$1.21**	**193**
IX	IAQ Solar	$0.30	1,808	N/A	N/A
	Residential IAQ Energy Efficiency	$0.001	4,005	$0.0001	4.07
X	Residential IAQ Target Report	$0	0	N/A	N/A
XI	Residential IAQ Bundle	$0.48	2,056	$0.02	0.99
	Non-Residential IAQ Bundle	$0.002	11	$0.00	N/A
Income and Age Qualifying programs, total		**$0.78**	**7,880**	**$0.02**	**5.06**

Table 9. Virginia summary program metrics – other impacts of non-residential programs (cumulative through December 31, 2024)

DSM phase	Program	Bill savings ($M/yr)	Carbon emissions avoided (metric tons CO_2/yr)	O&M NEIs ($M/yr)	Water savings (Mgal/yr)
VII	Heating and Cooling Efficiency	$0.56	25,375	-$0.22	N/A
	Manufacturing	$0.09	7,598	N/A	N/A
	Window Film	$0.001	335	N/A	N/A
IX	Prescriptive Enhanced Bundle	$0.74	17,246	-$0.003	0.05
VII	Office	$0.004	6,988	N/A	N/A
IX	Building Optimization	$0.96	28,194	N/A	N/A
VIII	Midstream Energy Efficiency Products	N/A	3,242	-$0.47	4.75
	Multifamily	$0.05	451	-$0.01	N/A
	New Construction	$0.86	20,394	N/A	N/A
	Small Business Improvement Enhanced	$0.69	10,408	$0.05	N/A
IX	Agricultural Energy Efficiency	$0.08	3,616	$0.01	N/A
	Building Automation System	$0.02	229	N/A	N/A
	Engagement	N/A	N/A	N/A	N/A
X	Healthcare Energy Solutions	$0.01	64	-$0.01	N/A
	Hotel and Lodging Energy Solutions	$0.22	648	$0.001	N/A
	Data Server Rooms	$0.0003	2.78	N/A	N/A
	Lighting Systems & Controls	$4.50	35,176	$0.03	N/A
	Small Business Behavioral	$0.79	3,967	N/A	N/A
XI	Custom	$0.02	126	N/A	N/A
Non-Residential programs, total		**$10**	**164,059**	**-$0.62**	**4.80**
X	Voltage Optimization	$2.31	16,350	N/A	N/A
All sectors program, total		**$2.31**	**16,350**	**N/A**	**N/A**
All programs, total		**$21**	**521,881**	**$0.61**	**203**

APPENDIX 2

APCo EM&V Tables

APCo Commercial and Industrial Programs:

Table 1-4 Summary of C&I Portfolio Energy Savings

Program Name	*Ex Ante Annual kWh Savings*	*Ex Post Annual Gross kWh Savings*	*Gross Realization Rate*	*Ex Post Annual Net kWh Savings*	*Net-to-Gross Ratio*	*Lifetime Gross Ex Post kWh Savings*	*Lifetime Net Ex Post kWh Savings*
Business Energy Solutions Program	10,508,117	9,483,238	90%	7,373,614	78%	120,025,513	93,204,246
Small Business Direct Install Program	4,137,667	3,644,465	88%	3,311,014	91%	44,614,367	40,430,565
Custom C&I Pilot Program	3,049,293	3,045,831	100%	1,850,495	61%	44,119,187	26,804,612
Opt Out Customers	150,084,926	150,084,926	100%	150,084,926	100%	150,084,926	150,084,926
C&I Portfolio Totals	**167,780,003**	**166,258,459**	**99%**	**162,620,049**	**98%**	**358,843,993**	**310,524,349**

Table 1-5 Summary of C&I Portfolio Peak Demand Impacts

Program Name	*Expected kW Savings*	*Gross Realized kW Savings*	*Gross Realization Rate*	*Net Realized kW Savings*	*Net-to-Gross Ratio*
Business Energy Solutions Program	1,996.00	1,781.88	89%	1,482.74	83%
Small Business Direct Install Program	512.09	528.56	103%	480.81	91%
Custom C&I Pilot Program	625.00	686.20	110%	439.39	64%
Opt Out Customers	-	-	N/A	-	N/A
C&I Portfolio Totals	**3,133.09**	**2,996.63**	**96%**	**2,402.94**	**80%**

Table 6-2 Business Energy Solutions Program – Lighting Cost Effectiveness Test Results

Variable	*PCT*		*UCT*		*RIM*		*TRC*	
	Benefit	*Cost*	*Benefit*	*Cost*	*Benefit*	*Cost*	*Benefit*	*Cost*
Incentives	$ 437,280			$ 437,280		$ 437,280		
Program Installation Costs				$ -		$ -		$ -
Bill Savings (NPV)	$ 8,045,948							
Lost Revenue (NPV)						$ 8,045,948		
Avoided Energy Costs (NPV)			$ 2,682,254		$ 2,682,254		$ 2,682,254	
Avoided Capacity Costs (NPV)			$ 1,517,573		$ 1,517,573		$ 1,517,573	
Avoided T&D Costs (NPV)			$ 1,964,544		$ 1,964,544		$ 1,964,544	
Incremental Costs		$ 630,135						$ 630,135
Program Overhead Costs				$ 677,558		$ 677,558		$ 677,558
Total Benefits	$ 8,483,228		$ 6,164,371		$ 6,164,371		$ 6,164,371	
Total Costs	$ 630,135		$ 1,114,838		$ 9,160,786		$ 1,307,693	
Test Score	13.46		5.53		0.67		4.71	

Table 6-3 Business Energy Solutions Program – Non-Lighting Cost Effectiveness Test Results

Variable	PCT		UCT		RIM		TRC	
	Benefit	Cost	Benefit	Cost	Benefit	Cost	Benefit	Cost
Incentives	$ 40,167			$ 40,167		$ 40,167		
Program Installation Costs				$ -		$ -		$ -
Bill Savings (NPV)	$ 425,416							
Lost Revenue (NPV)						$ 425,416		
Avoided Energy Costs (NPV)			$ 144,783		$ 144,783		$ 144,783	
Avoided Capacity Costs (NPV)			$ 50,272		$ 50,272		$ 50,272	
Avoided T&D Costs (NPV)			$ 64,569		$ 64,569		$ 64,569	
Incremental Costs		$ 41,440						$ 41,440
Program Overhead Costs				$ 62,237		$ 62,237		$ 62,237
Total Benefits	$ 465,583		$ 259,624		$ 259,624		$ 259,624	
Total Costs	$ 41,440		$ 102,404		$ 527,820		$ 103,677	
Test Score	11.24		2.54		0.49		2.50	

Table 6-4 Business Energy Solutions Program - Total Cost Effectiveness Test Results

Variable	PCT		UCT		RIM		TRC	
	Benefit	Cost	Benefit	Cost	Benefit	Cost	Benefit	Cost
Incentives	$ 477,447			$ 477,447		$ 477,447		
Program Installation Costs				$ -		$ -		$ -
Bill Savings (NPV)	$ 8,471,364							
Lost Revenue (NPV)						$ 8,471,364		
Avoided Energy Costs (NPV)			$ 2,827,038		$ 2,827,038		$ 2,827,038	
Avoided Capacity Costs (NPV)			$ 1,567,845		$ 1,567,845		$ 1,567,845	
Avoided T&D Costs (NPV)			$ 2,029,113		$ 2,029,113		$ 2,029,113	
Incremental Costs		$ 671,575						$ 671,575
Program Overhead Costs				$ 739,795		$ 739,795		$ 739,795
Total Benefits	$ 8,948,811		$ 6,423,995		$ 6,423,995		$ 6,423,995	
Total Costs	$ 671,575		$ 1,217,242		$ 9,688,606		$ 1,411,370	
Test Score	13.33		5.28		0.66		4.55	

Table 6-5 Small Business Direct Install Program Cost Effectiveness Test Results

Variable	PCT		UCT		RIM		TRC	
	Benefit	Cost	Benefit	Cost	Benefit	Cost	Benefit	Cost
Incentives	$ 318,889			$ 318,889		$ 318,889		
Program Installation Costs				$ -		$ -		$ -
Bill Savings (NPV)	$ 3,706,159							
Lost Revenue (NPV)						$ 3,706,159		
Avoided Energy Costs (NPV)			$ 1,236,246		$ 1,236,246		$ 1,236,246	
Avoided Capacity Costs (NPV)			$ 573,725		$ 573,725		$ 573,725	
Avoided T&D Costs (NPV)			$ 734,199		$ 734,199		$ 734,199	
Incremental Costs		$ 481,138						$ 481,138
Program Overhead Costs				$ 255,810		$ 255,810		$ 255,810
Total Benefits	$ 4,025,048		$ 2,544,170		$ 2,544,170		$ 2,544,170	
Total Costs	$ 481,138		$ 574,699		$ 4,280,858		$ 736,948	
Test Score	8.37		4.43		0.59		3.45	

Table 7-1 Avoided Carbon Emissions (Metric Tons)

Program Name	MWh Savings Referenced			
	Annual Ex Post Gross	Annual Ex Post Net	Lifetime Ex Post Gross	Lifetime Ex Post Net
Business Energy Solutions Program	6,258	4,866	79,208	61,508
Small Business Direct Install Program	2,405	2,185	29,442	26,681
Custom C&I Pilot Program	2,010	1,221	29,115	17,689
Opt Out Customers	99,045	99,045	99,045	99,045
C&I Portfolio Totals	**109,718**	**107,317**	**236,810**	**204,922**

APCo Residential Programs:

Table 1-3 Summary of Residential Portfolio Energy Savings

Program Name	*Ex Ante kWh Savings*	*Ex Post Gross kWh Savings*	*Gross kWh Savings Realization Rate*	*Ex Post Net kWh Savings*	*Estimated Net-to-Gross Ratio*	*Lifetime Gross Ex Post kWh Savings*	*Lifetime Net Ex Post kWh Savings*
Home Performance Program	3,702,100	1,638,479	44%	1,566,065	96%	24,132,569	23,082,431
Low-Income Single-Family Program	1,087,275	979,965	90%	979,965	100%	14,827,530	14,827,530
Low-Income Multifamily Program	387,933	496,822	128%	496,822	100%	6,303,672	6,303,672
Efficient Products Program	8,050,913	7,150,423	89%	3,694,757	52%	106,022,266	54,775,543
Energy Efficiency Kits Program	279,216	233,534	84%	233,592	100%	2,406,374	2,392,707
Home Energy Reports Program	25,337,823	25,337,823	100%	25,337,823	100%	25,337,823	25,337,823
Bring Your Own Thermostat Program	156,198	156,198	100%	201,162	129%	156,198	201,162
Residential Portfolio Totals	**39,001,458**	**35,993,244**	**92%**	**32,510,186**	**90%**	**179,186,432**	**126,920,869**

Table 1-4 Summary of Residential Portfolio Peak Demand Impacts

Program Name	*Ex Ante Gross kW Savings*	*Ex Post Gross kW Savings*	*Gross Realization Rate*	*Ex Post Net kW Savings*	*Net-to-Gross Ratio*
Home Performance Program	3,862.34	308.94	8%	289.75	94%
Low-Income Single Family-Program	329.85	94.97	29%	94.97	100%
Low-Income Multifamily Program	58.09	167.47	288%	167.47	100%
Efficient Products Program	83.99	151.78	181%	78.05	51%
Energy Efficiency Kits Program	20.71	17.32	84%	17.85	103%
Home Energy Reports Program	5,476.16	5,476.16	100%	5,476.16	100%
Bring Your Own Thermostat Program	7,313.25	7,313.25	100%	7,313.25	100%
Residential Portfolio Totals	**17,144.38**	**13,529.88**	**79%**	**13,437.50**	**99%**

Table 9-2 Home Performance Program Cost Effectiveness Test Results

Variable	PCT		UCT		RIM		TRC	
	Benefit	Cost	Benefit	Cost	Benefit	Cost	Benefit	Cost
Incentives	$ 931,231			$ 931,231		$ 931,231		
Program Installation Costs				$ -		$ -		$ -
Bill Savings (NPV)	$ 2,802,389							
Lost Revenue (NPV)						$ 2,839,113		
Avoided Energy Costs (NPV)			$ 699,637		$ 699,637		$ 699,637	
Avoided Capacity Costs (NPV)			$ 352,740		$ 352,740		$ 352,740	
Avoided T&D Costs (NPV)			$ 450,417		$ 450,417		$ 450,417	
Incremental Costs		$ 721,433						$ 721,433
Program Overhead Costs				$ 812,381		$ 812,381		$ 812,381
Total Benefits	$ 3,733,620		$ 1,502,794		$ 1,502,794		$ 1,502,794	
Total Costs	$ 721,433		$ 1,743,612		$ 4,582,725		$ 1,533,814	
Test Score	5.18		0.86		0.33		0.98	

Table 9-3 Efficient Products Program Cost Effectiveness Test Results

Variable	PCT		UCT		RIM		TRC	
	Benefit	Cost	Benefit	Cost	Benefit	Cost	Benefit	Cost
Incentives	$ 477,477			$ 477,477		$ 477,477		
Program Installation Costs				$ -		$ -		$ -
Bill Savings (NPV)	$ 6,661,735							
Lost Revenue (NPV)						$ 3,465,387		
Avoided Energy Costs (NPV)			$ 1,661,916		$ 1,661,916		$ 1,661,916	
Avoided Capacity Costs (NPV)			$ 92,999		$ 92,999		$ 92,999	
Avoided T&D Costs (NPV)			$ 118,968		$ 118,968		$ 118,968	
Incremental Costs		$ 750,633						$ 750,633
Program Overhead Costs				$ 664,145		$ 664,145		$ 664,145
Total Benefits	$ 7,139,211		$ 1,873,883		$ 1,873,883		$ 1,873,883	
Total Costs	$ 750,633		$ 1,141,622		$ 4,607,009		$ 1,414,779	
Test Score	9.51		1.64		0.41		1.32	

Table 9-4 Energy Efficiency Kits Program Cost Effectiveness Test Results

Variable	PCT		UCT		RIM		TRC	
	Benefit	Cost	Benefit	Cost	Benefit	Cost	Benefit	Cost
Incentives	$ 24,228			$ 24,228		$ 24,228		
Program Installation Costs				$ -		$ -		$ -
Bill Savings (NPV)	$ 320,250							
Lost Revenue (NPV)						$ 320,290		
Avoided Energy Costs (NPV)			$ 74,637		$ 74,637		$ 74,637	
Avoided Capacity Costs (NPV)			$ 15,647		$ 15,647		$ 15,647	
Avoided T&D Costs (NPV)			$ 20,772		$ 20,772		$ 20,772	
Incremental Costs		$ -						$ -
Program Overhead Costs				$ 90,943		$ 90,943		$ 90,943
Total Benefits	$ 344,478		$ 111,056		$ 111,056		$ 111,056	
Total Costs	$ -		$ 115,172		$ 435,462		$ 90,943	
Test Score	N/A		0.96		0.26		1.22	

Table 9-5 Home Energy Reports Program Cost Effectiveness Test Results

Variable	PCT		UCT		RIM		TRC	
	Benefit	Cost	Benefit	Cost	Benefit	Cost	Benefit	Cost
Incentives	$ -			$ -		$ -		
Program Installation Costs				$ -		$ -		$ -
Bill Savings (NPV)	$ 4,184,185							
Lost Revenue (NPV)						$ 4,184,185		
Avoided Energy Costs (NPV)			$ 801,953		$ 801,953		$ 801,953	
Avoided Capacity Costs (NPV)			$ 117,864		$ 117,864		$ 117,864	
Avoided T&D Costs (NPV)			$ 783,010		$ 783,010		$ 783,010	
Incremental Costs		$ -						$ -
Program Overhead Costs				$ 719,031		$ 719,031		$ 719,031
Total Benefits	$ 4,184,185		$ 1,702,826		$ 1,702,826		$ 1,702,826	
Total Costs	$ -		$ 719,031		$ 4,903,217		$ 719,031	
Test Score	N/A		2.37		0.35		2.37	

Table 9-6 Bring Your Own Thermostat Program Cost Effectiveness Test Results

Variable	PCT		UCT		RIM		TRC	
	Benefit	Cost	Benefit	Cost	Benefit	Cost	Benefit	Cost
Incentives	$ 358,990			$ 358,990		$ 358,990		
Program Installation Costs				$ -		$ -		$ -
Bill Savings (NPV)	$ 33,219							
Lost Revenue (NPV)						$ 42,782		
Avoided Energy Costs (NPV)			$ 7,181		$ 7,181		$ 7,181	
Avoided Capacity Costs (NPV)			$ 157,403		$ 157,403		$ 157,403	
Avoided T&D Costs (NPV)			$ 1,045,685		$ 1,045,685		$ 1,045,685	
Incremental Costs		$ -						$ -
Program Overhead Costs				$ 523,741		$ 523,741		$ 523,741
Total Benefits	$	392,209	$	1,210,270	$	1,210,270	$	1,210,270
Total Costs	$	-	$	882,731	$	925,513	$	523,741
Test Score	N/A		1.37		1.31		2.31	

Table 9-7 Low-Income Single-Family Program Cost Effectiveness Test Results

Variable	PCT		UCT		RIM		TRC	
	Benefit	Cost	Benefit	Cost	Benefit	Cost	Benefit	Cost
Incentives	$ 2,926,077			$ 2,926,077		$ 2,926,077		
Program Installation Costs				$ 60,850		$ 60,850		$ 60,850
Bill Savings (NPV)	$ 1,755,704							
Lost Revenue (NPV)						$ 1,755,704		
Avoided Energy Costs (NPV)			$ 439,661		$ 439,661		$ 439,661	
Avoided Capacity Costs (NPV)			$ 123,907		$ 123,907		$ 123,907	
Avoided T&D Costs (NPV)			$ 157,040		$ 157,040		$ 157,040	
Incremental Costs		$ -						$ -
Program Overhead Costs				$ 297,518		$ 297,518		$ 297,518
Total Benefits	$	4,681,780	$	720,608	$	720,608	$	720,608
Total Costs	$	-	$	3,284,445	$	5,040,149	$	358,368
Test Score	N/A		0.22		0.14		2.01	

Table 9-8 Low-Income Multifamily Program Cost Effectiveness Test Results

Variable	PCT		UCT		RIM		TRC	
	Benefit	Cost	Benefit	Cost	Benefit	Cost	Benefit	Cost
Incentives	$ 2,545,987			$ 2,545,987		$ 2,545,987		
Program Installation Costs				$ 10,150		$ 10,150		$ 10,150
Bill Savings (NPV)	$ 770,909							
Lost Revenue (NPV)						$ 770,909		
Avoided Energy Costs (NPV)			$ 187,008		$ 187,008		$ 187,008	
Avoided Capacity Costs (NPV)			$ 232,750		$ 232,750		$ 232,750	
Avoided T&D Costs (NPV)			$ 293,120		$ 293,120		$ 293,120	
Incremental Costs		$ -						$ -
Program Overhead Costs				$ 866,797		$ 866,797		$ 866,797
Total Benefits	$	3,316,896	$	712,878	$	712,878	$	712,878
Total Costs	$	-	$	3,422,934	$	4,193,843	$	876,947
Test Score	N/A		0.21		0.17		0.81	

Table 10-1 Avoided Carbon Emissions (Metric Tons)

Program Name	MWh Savings Referenced			
	Annual Ex Post Gross	Annual Ex Post Net	Lifetime Ex Post Gross	Lifetime Ex Post Net
Home Performance Program	1,081	1,033	15,926	15,233
Low-Income Single Family Program	647	647	9,785	9,785
Low-Income Multifamily Program	328	328	4,160	4,160
Efficient Products Program	4,719	2,438	69,967	36,148
Energy Efficiency Kits Program	154	154	1,588	1,579
Home Energy Reports Program	16,721	16,721	16,721	16,721
Bring Your Own Thermostat Program	103	133	103	133
Residential Portfolio Totals	**23,753**	**21,454**	**118,249**	**83,758**

APPENDIX 3

Glossary of Terms

APCo	Appalachian Power Company
Code	Code of Virginia
Commission	Virginia State Corporation Commission
DEV	Virginia Electric and Power Company d/b/a Dominion Energy Virginia
Dominion	Virginia Electric and Power Company d/b/a Dominion Energy Virginia
DSM	Demand Side Management
EE	Energy Efficiency
EM&V	Evaluation, Measurement and Verification
General Assembly	Virginia General Assembly
GTSA	Grid Transformation and Security Act, Chapter 296 of the 2018 Acts of Assembly
IAQHIP	Income and Age-Qualifying Home Improvement Program
MWh	Megawatt-hour
Staff	State Corporation Commission Staff
VCEA	Virginia Clean Economy Act, Chapters 1193 and 1194 of the 2020 Acts of Assembly