The Report of the Independent Monitor on the Status of the Energy Efficiency Stakeholder Process as directed by Chapter 397 of the 2019 Virginia Acts of the Assembly.

As required by § 56-585.1 of the Code of Virginia

2021

June 30, 2021

TO:

The Honorable Ralph S. Northam
Governor, Commonwealth of Virginia

The Honorable Richard L. Saslaw
Chair, Senate Commerce and Labor Committee

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

The Honorable Judith Williams Jagdmann
Chair, State Corporation Commission

The Honorable Jehmal T. Hudson
Commissioner, State Corporation Commission

The Honorable Angela L. Navarro
Commissioner, State Corporation Commission

THE REPORT OF THE INDEPENDENT MONITOR ON THE STATUS OF THE ENERGY EFFICIENCY STAKEHOLDER PROCESS.

As directed by Chapter 397 of the 2019 Virginia Acts of the Assembly, as required by § 56-585.1 of the Code of Virginia.

Respectfully Prepared and Submitted by:

Ted Kniker, Independent Monitor
Executive Vice President
IMPACT Paradigm Associates, LLC

CONTENTS

GLOSSARY OF TERMS

AC	Alternating current
APCo	Appalachian Power Company
BEM	Building Energy Management
C&I	Commercial and Industrial
Chapter 296	Chapter 296 of the 2018 Virginia Acts of Assembly
Chapter 397	Chapter 397 of the 2019 Virginia Acts of Assembly
Code	Code of Virginia
Commission	Virginia State Corporation Commission
CSP	Competitive Service Provider
DC	Direct Current
DER	Distributed Energy Resources
DEV	Dominion Energy Virginia
DHCD	Department of Housing and Community Development
DI	Digital Input
DMME	Department of Mines, Minerals and Energy
DR	Demand Response
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
HSE	Health, Safety, and Environment
IPA	IMPACT Paradigm Associates, LLC
IRP	Integrated Resource Plan
kV	Kilovolt
kW	Kilowatt
kWh	Kilowatt-hour
LED	Light Emitting Diode
LGS	Large General Service
LI	Low-income
LMI	Low-Moderate Income
LMP	Locational Marginal Prices
MF	Multi-family
MW	Megawatt
RFP	Request for Proposals
ROE	Return on Equity
ROI	Return on Investment
RPM	Reliability Pricing Model
RPS	Renewable Energy Portfolio Standard
SCC	State Corporation Commission
SF	Single Family
SIR	Savings to Investment Ratio
SMB	Small to Medium Business
TOU	Time of Use
TRM	Technical Reference Manual
TRM	Transmission Reliability Margin
VA	Virginia
VCEA	Virginia Clean Economy Act, Chapter 1193 of the 2020 Acts of the Assembly
WAP	Weatherization Assistance Program
VES	Virginia Energy Sense, a State Corporation Commission consumer education program

EXECUTIVE SUMMARY

During the 2018 General Assembly session, legislation was approved relating to electric utility regulation, grid modernization, and energy efficiency requiring Appalachian Power (APCo) and Dominion Energy Virginia (DEV) to each develop a proposed program of energy conservation measures. Each utility is required to utilize a stakeholder process to gather and receive input and feedback for the development of proposed energy efficiency programs to be filed with the State Corporation Commission (SCC) for review and approval. The intended result is to have petitions that are filed with the SCC for its review, that have included the knowledge, expertise, and buy-in of the energy efficiency stakeholders so that implementation will contribute to the desired energy conservation goals of the state. In 2020, the General Assembly revised and reenacted the legislation.

Chapter 397 of the 2019 Virginia Acts of the Assembly, as directed by § 56-585.1 of the Code of Virginia, mandates that the process must be facilitated by an independent monitor, to ensure representation of stakeholders, progress toward obtaining input and feedback, and to report on the stakeholder process objectives, stakeholder recommendations, the status of the recommendations, and status of petition filings. This report, describing the third year of the stakeholder process, by the independent monitor is submitted in accordance with Chapter 397.

Stakeholder Process

Between July 1, 2020, the submission of the last annual report, and June 30, 2021, the stakeholder groups for Appalachian Power (Phase I Utility) have met three times and Dominion Energy Virginia (Phase II Utility) have met four times. Meetings were used to inform stakeholders of the status of program recommendations from previous years, develop program recommendations for the 2021 filing year, and to integrate legislative changes from 2020 into the stakeholder process.

During the past year, stakeholders had multiple opportunities to generate ideas for energy efficiency programs, specific conservation measures, prioritize their recommendations, and offer feedback on initial proposed programs from each utility. To maintain ongoing communication meeting notes have been provided to stakeholders and a collaborative online site, one for each utility-based stakeholder group, is used as a repository to house all documents and communication between the meetings. For DEV, seven stakeholder subgroups were also established to further stakeholder input and discussions. Several of the subgroups met multiple times in addition to the large stakeholder meetings previously mentioned.

The Appalachian Power stakeholder group has 122 current members, and the Dominion Energy Virginia stakeholder group has 236 current members, which represent an increase of 12.3 percent and 17.4 percent respectively for each group from the previous year. Each group represents over 20 different types of organizations, including the utilities, SCC, Department of Mines and Minerals and Energy (DMME), local government, energy conservation organizations, energy efficiency organizations, program implementers, and low-income advocacy and assistance organizations.

Stakeholder Objectives

The objectives of the stakeholder groups for the 2021 filing year are aligned with the legislative changes from 2020 and were addressed as:

- Categorize programs into “portfolios”.
- Align program recommendations, energy savings, and reporting with the Virginia Clean Economy Act goals and other related mandates.
- Research and review reforms of constraints that inhibit cost-effective deployment of energy efficiency technology.
- Align evaluation, measurement, and verification processes and reporting with total annual energy savings goals.
- Ensure participation of relevant directors, deputy directors and staff of the Commission into stakeholder meetings.
- Increase the transparency of utility decision making between program recommendations, RFPs, and petition filings.

In addition, the stakeholder group placed importance on several areas they wanted to ensure the 2021 programs addressed. These were:

- Increase and clarify programs for low-income customers – generally by segmenting audiences through single family and multi-family unit programming.
- Ensure customer engagement and increased education programming – by building in more behavioral approaches to program design.
- Identify the connection of where solar programs fit with the GTSA program recommendations – these have been addressed through program recommendations or pursued through separate processes.

2021 Program Recommendations

In preparation for the 2021 filings, each utility used the stakeholder feedback to develop request for proposals (RFPs) to solicit bids from vendors for program implementation. Stakeholders recognized that several programs were launched in early 2021 (filed in 2019) and more programs are awaiting approval from the SCC (filed in 2020), which resulted in fewer recommendations for 2021. The anticipated 2021 programs focus on gaps in the existing and pending programs. APCo and DEV invited bids in June 2021 and will be reviewing responses during summer of 2021. The utilities are anticipating program recommendations for 2021 to cover the following areas.

2021 PROGRAM RECOMMENDATIONS

In preparation for the 2021 filings, each utility used the stakeholder feedback to develop request for proposals (RFPs) to solicit bids from vendors for program implementation. Stakeholders recognized that several programs were launched in early 2021 (filed in 2019) and more programs are awaiting approval from the SCC (filed in 2020), which resulted in fewer recommendations for 2021. The anticipated 2021 programs focus on gaps in the existing and pending programs. APCo and DEV invited bids in June 2021 and will be reviewing responses during summer of 2021. The utilities are anticipating program recommendations for 2021 to cover the following areas.

Program Focus Area	APCo RFP Programs	DEV RFP Programs
Residential Customer Programs		• Income and Age Qualifying Program Enhancement
Non-Residential/C &I Programs	• Custom Commercial & Industrial Program Pilot Program	• Non-Residential Energy Efficiency—Data Center Targeted Program • Non-Residential Energy Efficiency—Health Care Targeted Program • Non-Residential Energy Efficiency—Hotel and Lodging Targeted Program • Non-Residential Strategic Energy Management • Non-Residential Telecommunication Optimization Program • Small Business Behavioral Program • Smart Shop Program

Each utility intends to convene at least one more meeting of the stakeholder groups to provide updates on the proposed set of programs, based upon successful proposals received, that it will submit in its 2021 petition. It is anticipated that APCo will submit its filing in November 2021 and DEV will submit its petition in December 2021.

Status of 2019 Petition Filings

For the first two years of the stakeholder process, the program recommendations proposed and approved by the Commission, by the writing of this report, represent:

- $136.1 million, or approximately 97.2 percent of the goal, for the Phase I Utility--APCo.
- $476 million, or approximately 54.7 percent of the goal for Phase II Utility--DEV.

Appalachian Power

The three (3) programs approved in the 2019 filing were successfully launched in early 2021 and are all currently active in APCo's Virginia service territory. These programs include:

Program	Description	Status
Residential Low-Income Single-Family Program	This program replaced APCo's existing Low Income Weatherization Program, which was in place since 2015 and expired at the end of 2020. The new program is better funded and therefore will generate savings for residential low-income customers through, among other things, the evaluation of energy improvement opportunities and the installation of weatherization upgrades, and other energy savings for dwellings.	The program is actively enrolling and serving customers throughout the territory.
Residential Low-Income Multifamily Program	This new program provides and installs energy efficiency measures in income-qualified multifamily properties. The program also educates and motivates owners to participate in additional programs offered by APCo in Virginia and will include an education component to help participating customers to effectively manage their energy usage.	A strong interest in the program has led to successful upgrades at numerous properties. APCo expects this success to continue through the life of the program.
ENERGYSTAR® Manufactured Housing Program	This program provides an incentive for builders and dealers of manufactured homes to manufacture and sell new homes that meet ENERGY STAR efficiency standards throughout APCo's Virginia service territory.	Since the re-launch of the program in early 2021, several homes have been sold, installed and rebated through the program.

Dominion Energy Virginia

The 13 programs approved in the 2019 DSM annual rider proceeding by the Commission were successfully launched in early 2021 and are all currently active in DEV's Virginia service territory. The programs and status are:

Program	Description	Status
Residential Electric Vehicle (EE and DR)	This program encourages efficient charging of electric vehicles and shifting of electric vehicle charging load to off-peak periods.	Enrolling customers; purchase incentives for qualifying chargers available.
Residential Electric Vehicle (Peak Shaving)	This Program would provide customers who already have a qualifying electric vehicle charger with an annual incentive in exchange for allowing the Company to reduce the operating cycle of their charger by remote control during periods of high demand.	Purchase incentives available to customers; demand response/peak shaving component under development.
Residential Energy Efficiency Kits (EE)	This program provides energy efficiency kits to customers as a welcome gift or in response to requests under specific conditions.	10,000 kits sent to customers in initial batch.
Residential Home Retrofit (EE)	This program incentivizes retrofit of participating customer homes using measures that may extend beyond what would be considered a typical measure in a home energy assessment program.	Enrolling customers.
Residential Manufactured Housing (EE)	This program offers incentives for the installation of energy efficiency measures designed specifically for manufactured and modular housing.	Enrolling customers.
Residential New Construction (EE)	This program encourages the use of energy efficient materials and practices in new home construction through a combination of incentives and education.	Enrolling customers; 32 customer homes complete.
Residential/Non-residential Multifamily (EE)	This program identifies and targets multi-family residences with incentives and measures specifically designed to take advantage of energy-saving opportunities in this type of residence. For the purpose of this program, the assumption is that a multi-family residence is defined as a residence with a shared envelope, wall or floor/ceiling, with no specific limitation on the number of residences within a given structure.	Enrolling customers.
Non-residential Midstream Energy Efficiency Products (EE)	A companion program to the residential efficient products program that takes advantage of additional savings opportunities that can be realized through upstream and midstream incentives applied to energy efficient products but targeted at non-residential customers. The non-residential program includes incentives for purchasing high efficiency commercial kitchen appliances, freezers and refrigerators, and HVAC systems.	Program ramping-up; active and working with distributor network.
Non-residential New Construction (EE)	This program encourages the use of energy efficient materials and practices in new construction through a combination of incentives and education.	Program ramping-up; active and working with distributor network.
Small Business Improvement Enhanced (EE)	This program provides small businesses an energy use assessment and tune-up or re-commissioning of electric heating and cooling systems, along with financial incentives for the installation of specific energy efficiency measures. This program is an enhancement to the existing DSM V Small Business Improvement Program.	Enrolling customers.
HB 2789 (Heating and Cooling/Health and Safety) (EE)	This program provides incentives to low-income, elderly, and disabled individuals for the installation of measures that reduce heating and cooling costs and enhance health and safety of residents.	Enrolling customers; 356 customers serviced with HVAC measures.
Residential Thermostat (EE) and (DR) Programs	The EE program offers rebates to customers who either purchase a qualifying smart thermostat and/or enroll in an energy efficiency program. The DR program manages heat pumps and air-conditioning units using smart thermostats to reduce peak demand.	Enrolling customers. • EE Purchase – 882 customers. • Optimization – approximately 1,500 customers. • DR – approximately 2,500 customers.

Status of 2020 Petition Filings

Appalachian Power

On November 30, 2020, APCo filed for approval to continue a rate adjustment clause, the EE-RAC, and for approval of new energy efficiency programs. A hearing examiner heard testimony and evidence of APCo and other respondents on May 19, 2021. A ruling on the petition is expected shortly. The proposed programs are:

- Residential Home Energy Report Program
- Residential Efficient Products Program
- Residential Energy Efficiency Kit Program
- Residential Home Performance Program
- Business Energy Solutions ("BES") Program
- Residential Bring Your Own SMART Thermostat ("BYOT") Program
- Small Business Direct Install ("SBDI") Program

Dominion Energy Virginia

On December 3, 2020, DEV filed for approval of 11 DSM programs. An Evidentiary Hearing occurred on June 8, 2021, with a final order expected in early September 2021. The proposed programs are:

Residential

- Virtual Audit
- Smart Home
- Residential Water Savings (EE)
- Residential Water Savings (DR)
- Income and Age Qualifying Program (EE)
- Income & Age Qualifying Solar (HB 2789 program)

Non-Residential

- Agricultural Program (EE)
- Building Automation Program (EE)
- Building Optimization Program (EE)
- Customer Engagement Program (EE)
- Enhanced Prescriptive Program (EE)

Next Steps

The third year of the stakeholder process has concentrated on increasing the input and guidance of the stakeholders into the program recommendations to create portfolios of programs that meet multiple needs. More explicit effort was placed on aligning the program recommendations with the VCEA goals and requirements, and to think strategically about the process. As the process moves forward, the independent monitor will work with the stakeholders, SCC, and utilities to increase the diversity of the stakeholder population, work to develop more dialog-based input, and increase innovation.

Introduction

Legislative Requirements

Chapter 296 [SB 966] of § 56-585.1 of the Code of Virginia established the use of a stakeholder process, facilitated by an independent monitor, to provide input and feedback on the development of a proposed program of energy conservation measures. Any program shall provide for the submission of a petition or petitions for approval to design, implement, and operate energy efficiency programs pursuant to subdivision A 5 of § 56-585.1 of the Code of Virginia. The legislation specifically stated:

- At least 15 percent of such energy efficiency programs shall benefit low-income, elderly, or disabled individuals or veterans.
- The projected costs for the utility to design, implement, and operate such energy efficiency programs, including a margin to be recovered on operating expenses, for the period beginning July 1, 2018, and ending July 1, 2028, including any existing approved energy efficiency programs, shall be no less than an aggregate amount of:
  - $140 million for Phase I Utility – Appalachian Power (APCo)
  - $870 million for Phase II Utility – Dominion Energy (DEV)

For the energy efficiency stakeholder process, Chapter 296 directs that the process shall include representatives from:

- Each utility – Phase I (APCo) and Phase II (DEV),
- The State Corporation Commission (SCC),
- The Office of Consumer Counsel of the Attorney General,
- The Department of Mines, Minerals and Energy (DMME),
- Energy efficiency program implementers,
- Energy efficiency providers,
- Residential and small business customers, and
- Any other interested stakeholder who the independent monitor deems appropriate for inclusion in such process.

The initial legislation did not provide details on how often the stakeholder groups meet or processes for obtaining the input and feedback into the development and/or review of key issues and the proposed energy efficiency programs. The legislation leaves discretion to the SCC, the utilities, the stakeholders, and the independent monitor to determine meeting schedules, times, and operational procedures.

2020 Legislative Update

In the 2020 General Assembly session, under House Bill 575, § 56-585.1 relating to energy efficiency was amended and reenacted. The amended legislation included the following provisions that directs the stakeholder process to provide input and feedback on:

i. the development of such energy efficiency programs and portfolios of programs;
ii. compliance with the total annual energy savings and how such savings affect utility integrated resource plans;
iii. recommended policy reforms by which the General Assembly or the Commission can ensure maximum and cost-effective deployment of energy efficiency technology across the Commonwealth; and
iv. best practices for evaluation, measurement, and verification for the purposes of assessing compliance with the total annual energy savings.

The revised legislation expanded the identified stakeholder representatives to include participation from

- Relevant directors, deputy directors, and staff members of the Commission [State Corporation Commission] who participate in approval and oversight of utility energy efficiency savings programs

The legislative changes reflected input provided by stakeholders in the 2018-2019 (2019) stakeholder process and began on July 1, 2020, for the 2020-2021 (2021) stakeholder process and subsequent years and will be reported in future annual reports. The legislation did not change any of the requirements for the independent monitor's Annual Report.

2021 Legislative Update

There were no legislative updates or revisions to § 56-585.1 that altered the energy efficiency stakeholder feedback process, the annual reporting, or the role of the independent monitor.

Report on the Status of the Energy Efficiency Stakeholder Process

Chapter 397 [H 2293] amended Chapter 296 to direct the independent monitor to:

- *Convene meetings of participants in the stakeholder process not less frequently than twice each calendar year during the period beginning July 1, 2019, and ending July 1, 2028.*
- *Provide a status report of the energy efficiency program stakeholder process to the Governor, the State Corporation Commission, and the Chairman of the Senate Commerce and Labor Committee and the Chairman of the House Labor and Commerce Committee beginning on July 1, 2019, and annually thereafter through July 1, 2028.*

The energy efficiency stakeholder process report shall include the status of:

i. the objectives established by the stakeholder group during this process related to programs to be proposed,
ii. recommendations related to programs to be proposed that result from the stakeholder process, and
iii. the status of those recommendations, in addition to the petitions filed and the determination thereon.

Independent Monitor Update

The SCC extended the 2019-2020 option year of the independent monitor from September 30 to December 31, 2020, to allow facilitation services to continue while the SCC conducted a competitive procurement process to select an independent monitor for the next three years (2021 through 2023) with options available for another six years to complete the 10-year duration for the overall stakeholder process. In January 2021, the SCC awarded a new contract for independent monitor services to IMPACT Paradigm Associates, LLC (IPA), a Virginia-based woman-owned small business, which had served as the first independent monitor. The new contract allowed for a seamless transition between the second and subsequent years to capitalize on the progress and momentum made by the stakeholder groups.

Previous annual reports may be accessed at the following links.

2019 Report of the Independent Monitor
2020 Report of the Independent Monitor

(1) https://lis.virginia.gov/cgi-bin/legp604.exe?181+sum+SB966
(2) https://lis.virginia.gov/cgi-bin/legp604.exe?201+ful+HB575ER2
(3) http://lis.virginia.gov/cgi-bin/legp604.exe?191+ful+CHAP0397+hil

2021 Stakeholder Process

The 2021 Virginia Energy Efficiency Stakeholder Process began on October 1, 2020. The independent monitor maintained the practice set previously of open inclusion to the process, so all who express interest or are recommended by current stakeholders are added to the contact list for the appropriate utility. As the process has progressed, additional participants have been added over the year, also expanding the types of organizations represented. The current number of stakeholder participants represent an increase of 12.3 percent for APCo and 17.4 percent for DEV from the previous year.

Stakeholder Representation

The stakeholder participation for each utility represents over 20 types of stakeholder affiliations, including those cited in the legislation. In accordance with the 2020 legislative changes, additional Commission staff members, including directors and deputy directors, who participate in approval and oversight of utility energy savings programs have attended stakeholder meetings beginning in August 2020.

Table 1 depicts the total number of stakeholders and the distribution of stakeholder participants by affiliation type for each of the utilities.

Table 1: Representation by Stakeholder Affiliation

Affiliation	Phase I Utility	Phase II Utility
Current Number of Stakeholder Process Participants	122	236
Utility Company or COOP	9.8%	13.1%
Government -- State	15.6%	12.3%
Government – Local Municipality	7.5%	5.5%
Government – Federal	0.0%	0.0%
Energy Service Organization/Provider	19.7%	16.5%
Energy Conservation/Efficiency Interest or Research Group	8.2%	12.7%
Environmental Organization/Advocacy Group	6.6%	6.8%
Elderly/Disabled Advocacy Group	0.0%	0.4%
Low Income Advocacy Group	4.1%	1.7%
Housing Related Organization	2.5%	1.7%
Program Implementer	4.9%	3.8%
Weatherization Provider	8.2%	4.7%
Charitable Organization	1.6%	0.0%
Utility Administrative Support Contractor and EM&V Groups	4.9%	12.3%
Law Firm	0.8%	3.0%
Educational Institution or Institute	2.5%	0.4%
Public Health/Hospital	0.0%	0.0%
Customer Group - Residential/Business/Interested Individual	1.6%	4.2%
Other	1.5%	0.9%
TOTAL PERCENTAGE*	100.0%	100.0%

*Representation percentage is based upon the type of organization for which individual stakeholders either self-identify or the independent monitor has categorized based on organizational mission. Where organizations self-identified into multiple categories, the independent monitor selected a primary category.

Table 2: 2021 Stakeholder Process Meetings

Utility	Filing Year	Meeting Date	Purpose	Number of Attendees
APCo	2020	October 19, 2020	1) Update Stakeholders on Related Legislative Issues, including VCEA 2) Update Stakeholders on APCo 2020 Filing Process 3) Open input from stakeholders for APCo	25
	2021	March 4, 2021	1) Update stakeholders about current program progress, launch of new programs and current filing procedural schedule. 2) Break-out into groups and gather stakeholder ideas for new programs	42
		May 3, 2021	1) Stakeholder work session to provide in-depth design ideas for programs to be considered for 2021 filing.	33
DEV	2020	August 27, 2020	1) Update Stakeholders on Stakeholder Process Changes and seek feedback 2) Update stakeholders on 2019 (DSM 8) Filing. 3) Identify initial program recommendations for 2020 (DSM 9) filing. 4) Discussion on several issues related to the stakeholder process	91
	2020	November 9, 2020	1) Update Stakeholders DSM 8 (2019 Filed/January 2021 Start) – Q&A 2) Update stakeholders on DSM 9 (2020 to be filed/January 2022 start) - Q&A 3) Discuss Long-Term Planning Process 4) Obtain stakeholder input on use and process for sub-groups 5) Open stakeholder ideas and Q&A	89
	2021	February 8, 2021	1) Update stakeholders on current program progress, launch of new programs and current filing procedural schedule. 2) Stakeholder session to design programs and recommendations for 2021 filing.	110
	2021	June 14, 2021	1) Information Sharing and Feedback Updates • 2020 EM&V Report – DNV • Energy Efficiency Pathways – Energy Futures Group • Long-Term Planning Process – Cadmus Group • Potential Impact Study – DNV • Sub-Group Report Outs	92

Meeting Schedule and Participation

For the period of July 1, 2020, to June 30, 2021, the independent monitor facilitated at least two meetings for each utility. Due to safety issues and guidance related to the COVID-19 pandemic, all meetings held during this time were conducted online using WebEx. A positive result of the virtual meeting format was an increase in the number of participants for each meeting. The meeting dates, purpose and number of attendees is listed below in Table 2 for each utility.

It is anticipated the independent monitor will facilitate at least one more meeting for each of the stakeholder groups after July 1, 2021, so that the utilities will be able to update stakeholders on the results of their RFP processes and provide additional information about next steps for the 2021 petition filings.

For the 2021 filing year, both utilities planned to release requests for proposals (RFPs) to obtain bids for program implementation, so the stakeholder process was designed to obtain feedback from stakeholders that:

i. Considered program recommendations within the context of existing programs, expired programs, programs that need expansion, and new program ideas. During the stakeholder meetings, utilities provided briefings on the status of existing, newly launched, and programs pending review and approval by the SCC. Stakeholders also had access to previously discussed ideas on the utility collaborative Trello.com site and previous reports of the independent monitor.

ii. Considered new ideas developed directly by the stakeholders and from stakeholders who had newly joined the process based upon their expertise and experience. Similar to the previous year, individual reflection, small group discussion, workshopping of ideas and discussion among full stakeholder group review was the utilized methodology.

iii. Program ideas were grouped into portfolio categories as possible.

The process also allowed for discussion of how types of program ideas would fit under the GTSA. For example, for APCo solar programs, electric vehicle programs, and whole home power sourcing were discussed but dismissed for consideration under different efforts.

(5)These dates represent the time frame for this report.

To assist in the development of program recommendations, the independent monitor provided the stakeholders who attended the meeting, as well as all stakeholders through the Trello site and by email, with a program recommendation template document. The template was intended to be used by stakeholders to provide actionable information that each utility could communicate in an RFP to potential implementers for detailed bids, thereby empowering the stakeholder groups to craft a significant portion of the program recommendations themselves. During the process, the stakeholders were also instructed that they could provide new ideas on their own, if they were unable to attend meetings, by submitting templates to the independent monitor, the utility, and/or on the Trello site. The submitted templates were used in subsequent meetings for review and further refinement for the final program recommendations. For 2021, emphasis was placed on stakeholders generating more details about possible programs, including suggested measures and any potential information about cost-benefit tests and thresholds.

To address the amended 2020 legislative requirements and streamline the feedback and recommendation process for the DEV stakeholder group, due to its large size, the independent monitor and the DEV team continued and expanded the use of subgroups introduced in the previous filing year. Through subgroups, stakeholders discuss and pursue more specific ideas and recommendations for energy conservation and efficiency in Virginia and to advance the work between the facilitated meetings to provide in-depth recommendations. The subgroups are stakeholder led, which provides additional empowerment and transparency into the overall process. Seven work groups for the DEV stakeholder group were organized around the following areas:

- Income-Qualifying Programs – To create the next generation of income-qualifying programs and lay the foundation for meeting legislative goals.
- Non-Residential Programs – Commercial programs are an area of high potential savings, but, because of the variety of commercial entities that exist, developing measures that are targeted to specific segments is a necessity and have stakeholder input on the viability of custom measures and those that are applicable to the wide variety of pumps and motors that are used in various commercial activities.
- EM&V – The group reviews EM&V reports for focus and clarity, and to discuss best practices for evaluation, measurement, and verification for the purposes of assessing compliance with the total annual energy savings.
- Gap Assessment – Customer segments have varying abilities to participate in existing Demand Side Management (DSM) programs, an important part of developing future plans is to assess gaps in existing and planned program offerings to develop a set of logical focus areas for new, expanded, and extended programs.
- Innovative Approaches – Given the pace of certain changes in technology, it is valuable to identify how selected evolving technologies may play a role in future DSM proposals in existing programs and the near-term, as well as those that may become viable within five years or beyond.
- Policy – the group addresses issues related to the political and regulatory environment that the utilities operate in to generate recommended policy reforms by which the General Assembly or the Commission can ensure maximum and cost-effective deployment of energy efficiency technology across the Commonwealth.
- Agenda and Process – To ensure the stakeholder meeting agendas contain stakeholder-driven items for discussion, to recommend improvements to the stakeholder process to increase effectiveness, efficiency, inclusivity, diversity, and transparency.

Two additional group areas were considered between July 1, 2020, and June 30, 2021. The stakeholders discussed including a long-term planning subgroup to provide a strategic and portfolio alignment focus to the program recommendations and goals. The long-term planning group was not enacted because DEV contracted in mid-2020 with a consultant to assist with developing a long-term planning strategy. The long-term planning process, while separate, has been integrated into the stakeholder feedback process through regular stakeholder feedback and meeting updates by the consultant.

Most recently, stakeholders have suggested establishing a program implementation group, primarily comprised of program implementers to discuss how to address issues related to implementing the recommended programs, as they arise, and to move toward standardization of implementation, especially for implementors managing multiple programs for DEV. The group will also be used to share best practices of implementation that can inform future program development and lead to increased goal attainment.

The APCo stakeholder group suggested creating two subgroups, a long-term planning group to ensure equitable implementation of programs across customer segments to achieve energy efficiency targets and inform out-year savings targets, and a solar subgroup to discuss how solar might be incorporated or aligned, if possible, with APCo programs. For the time being, however, the group decided that solar would not be considered part of energy efficiency under the stakeholder process. Further discussion within the stakeholder group about using subgroups will occur after July 1, 2021.

In 2019, the independent monitor established a collaborative website for each stakeholder group using Trello.com to maintain transparency in the stakeholder process and to share information with all stakeholders. The sites were continued and updated for the 2021 filing year. Each collaborative site includes information about the process, meeting schedules, agendas and notes, program ideas and recommendations, and allows stakeholders to post suggestions and have online discussions. The site allows stakeholders unable to participate in the meetings to keep updated on the progress of the process. The sites are open to anyone interested who may join by using the links below.

Unfortunately, due to organizational IT security restrictions, several stakeholders, including the Commission and the utilities, do not have access to the Trello sites. With the new contract for services, the independent monitor is exploring alternative ways to hosting the repository of information and creating more interactive collaboration on a site that will meet the security needs of the utilities and the government. For the time being, Trello will remain the collaborative site and stakeholders without access privilege are encouraged to use a non-work-related email address to access the sites. In addition, the independent monitor sends all new information to the stakeholder groups via email and is available to answer questions, forward ideas, and concerns, and to engage stakeholders at any time as they request.

APCo Trello Collaborative Website: https://trello.com/invite/b/byDis70H/0e1db0a2e8bc981c447ffd4f64196acf/apco-energy-efficiency-stakeholder-group

DEV Trello Collaborative Website: https://trello.com/invite/b/mdnEciZk/9489778105354f9c17bffb8856c46f5d/dominion-energy-energy-efficiency-stakeholder-group

Access is also granted to each site for any interested party by a simple email request to the independent monitor at ted.kniker@ipa-llc.org

FUTURE 2021 FILING YEAR MEETINGS

Both stakeholder groups anticipate meeting in late summer and possibly the fall. Several stakeholders have requested a return to in-person meetings, but the meetings may still be held virtually to allow for increased participation. Furthermore, utility guidelines for in person meetings must be followed which, at this time, doesn't permit it. The independent monitor, utilities, and stakeholders will follow guidance to ensure the utmost safety, should there be a return to in-person meetings in later 2021.

STAKEHOLDER OBJECTIVES

(i) the objectives established by the stakeholder group during this process related to programs to be proposed

2020 was a unique year for the Virginia Energy Efficiency Stakeholder process. Due to the legislative changes, passage of the Virginia Clean Economy Act, change in dates for the utilities to file their petitions, initial launch of the 2019 program recommendations in January 2021, restrictions on in-person meetings due to COVID-19, and the upcoming potential transition of the independent monitor contract, the objectives for the process in 2020 (for the 2021 filing year) were limited and affected by circumstances. For the 2021 filing year, the independent monitor did not facilitate the development of objectives by the stakeholders as part of the stakeholder meetings. Instead, the objectives for both utilities were focused on incorporating the legislative changes into the program recommendation process with the approval of the stakeholders. Table 4 depicts the critical objectives used for the 2021 process and how these are being addressed.

Table 3: 2021 Stakeholder Objectives for Phase I and Phase II Utilities

2021 Stakeholder Process Objectives	Addressed Through
1) Categorize programs into "portfolios".	1) Defining the categories of programs and reporting them together.
2) Align program recommendations, energy savings, and reporting with the Virginia Clean Economy Act goals and other related mandates.	2) Coordination by stakeholders through reviewing EM&V reports and program design.
3) Research and review reforms of constraints that inhibit cost-effective deployment of energy efficiency technology.	3) Establishment of policy subgroup for DEV.
4) Align evaluation, measurement, and verification processes and reporting with total annual energy savings goals.	4) Improved distribution of EM&V reports to stakeholders, inclusion of EM&V contractors in stakeholder meetings, and creation of "plain language" EM&V summaries.
5) Ensure participation of relevant directors, deputy directors and staff of the Commission into stakeholder meetings.	5) Acknowledgement in stakeholder meetings of who from SCC is participating.
6) Increase the transparency of utility decision making between program recommendations, RFPs, and petition filings.	6) Increased reporting by utilities of program recommendations and briefings of RFP decision-making.

In addition, the stakeholder group placed importance on several areas they wanted to ensure the 2021 programs addressed. These were:

- Increase and clarify programs for low-income customers – generally by segmenting audiences through single family and multi-family unit programming.
- Ensure customer engagement and increased education programming – by building in more behavioral approaches to program design.
- Identify the connection of where solar programs fit with the GTSA program recommendations – these have been addressed through program recommendations or pursued through separate processes.

2021 PROGRAM RECOMMENDATIONS

(ii) recommendations related to programs to be proposed that result from the stakeholder process

As the third year of the process, the context of the 2021 filing year is more complex with at least three years of programs being considered. As ideas were being generated and recommended, this was the first year of launching stakeholder-based programs (from 2019), and second year (2020) recommendations have not yet been approved. The situation resulted in fewer ideas being generated so that progress and results of the first two years could be assessed. In addition, the DEV stakeholder group recommended that 2021 be a "hybrid" year, in which recommended programs focused on gaps and enhancements in existing and proposed programs, to allow the stakeholders to spend time planning longer-term program ideas. Based upon stakeholder input, each utility was able to craft and disseminate RFPs consisting of recommendations from the respective stakeholder groups.

Stakeholder Recommendations for Phase I Utility - Appalachian Power

The APCo stakeholder group proposed and discussed five program recommendations. Stakeholders agreed that most of the recommendations either fit better under other types of programs or were similar to programs already proposed and existing programs, or programs to be approved, could be adjusted to include the ideas from 2021. The five program recommendations were:

Table 4: 2021 Program Stakeholder Recommendations - Phase I Utility - APCo

Program Title	Program Description	Stakeholder Group Determination
Smart Homes	This program's primary objective is to enhance residential properties with smart products for technologies to reduce energy.	APCo could build off current programs and fine tune them to meet customer needs.
Whole Home Virtual Power Plant	The objective is to give leveraging to smart home devices: thermostats, water heaters, battery chargers, etc. Trying to dispatch them during different times of the day, for things like response to things like energy prices and such.	The program would fit better into a grid modernization framework versus the current DSM framework. More conversation in the grid-mod would be needed moving forward.
Industrials	Increase energy efficiency in the industrial space. Proposal would be a three- year pilot or defined limited cost or duration. The program would provide an opportunity to evaluate measures that do not meet any of the existing industrial programs.	This idea was submitted in 2014 but was not approved.
Electric Vehicle Level 2 Residential Charger	Provide incentives for level 2 Energy Star vehicle charging for residential meters.	There is currently a proposal for a $100 incentive for level 2 Energy Star electric vehicle charging for residential meters. The group did discuss multifamily units and the barriers (e.g., how to tie residential meters, and the ability to purchase an electric vehicle).
Heat Pump Incentive Program	The basic purpose is to replace heat sources that are 10 years or older and give rebates on those for new units.	APCo currently offers some of these ideas being discussed but agrees there are some things that can be added. Stakeholders agree this program idea would be a next step, but not offered now.

For 2021, APCo released an RFP for one (1) program. The anticipated 2021 filing will be for the following:

Table 5: 2021 Anticipated Program – Phase I Utility - APCo

Program Title	Program Description
Custom Commercial & Industrial Pilot Program	This program aims to generate energy savings for C&I customers by encouraging energy and demand reduction by large C&I customers through processes and systems that are not provided for in the Business Energy Solutions Program.

Stakeholder Recommendations for Phase II Utility – Dominion Energy Virginia

During stakeholder discussions in 2021 for DEV, most of the subgroups offered suggested revisions or enhancements to DEV and provided commentary on issues to address. The DEV stakeholder process yielded eight potential programs for the 2021 filing year that will be placed in RFPs. The eight possible programs, which incorporated input from stakeholders are:

Table 6: 2021 Anticipated Programs – Phase II Utility - DEV

Program Title	Program Description[6]
Non-residential Energy Efficiency - Data Center Targeted Program	This Program would identify and target data centers and should identify and implement site-specific, retrofit, and new construction energy efficiency opportunities, largely focused on cooling efficiency and power distribution.
Non-Residential Energy Efficiency – Health Care Targeted Program	This program would identify and target health care facilities and include measures that are specific to hospitals, long term care facilities, group home and small medical providers while providing energy advisors to assist in selecting / implementing energy savings measures.
Non-Residential Energy Efficiency – Hotel and Lodging Targeted Program	This program would identify and target hotel and other lodging facilities and include measures that are specific to hotel/motel facilities and operation such as room sensors and active energy conservation measures triggered by key cards.
Non-Residential Strategic Energy Management	This program would provide incentives to customers to engage in strategic energy management in a way that is measurable and verifiable with monitoring-based retro-commissioning as a possible measure for consideration.
Non-residential Telecommunications Optimization Program	This program would target small, medium, and large telecom providers within the Company's service territory and include measures that address major retrofit upgrades such as HVAC, lighting, and IT systems specific to telecommunications and internet service providers.
Small Business Behavioral	This program would provide incentives, education, and/or information to qualifying customers with specific suggestions for reducing electrical usage based on historical usage patterns.
Smart Shop Program	The proposed program should address the potential expansion of the Company's existing Residential Customer Engagement Program by expanding the current home energy reports capabilities to include, but not limited to, a list of recommended energy efficient appliances to purchase, tailored specific to the customer's energy usage.
Income and Age Qualifying Program Enhancement	Proposed program designs should generally include measures appropriate for single- and multi-family residences to the extent practical as the Company is considering enhancements to its options for income and age qualifying customers in order to ensure that customers in this category have as many opportunities for energy savings as possible and that the options available meet their needs. Program measure categories should include health care targeted measures for facilities with focus on income and age qualifying individuals; expansion of the Company's current low-income program to include additional measures, such as energy efficient windows or window enhancements; home energy reports for income and age qualifying customers which would provide relevant advice on how to improve energy efficiency and lower their monthly bill; and pay for performance options.

(6) Program definitions will be finalized once a successful program design has been selected and filed with the SCC in December 2021.

Within the RFP, DEV offers an opportunity for pilot programs and other ideas to be proposed.

STATUS OF RECOMMENDATIONS AND PETITIONS

(iii) the status of those recommendations, in addition to the petitions filed and the determination thereon

For the purposes of this report, recommendations are reported by filing year and follow the schedule below.

Year Developed & Petitioned	Year Approved	Year Launched
2019	2020	2021
2020	2021	2022

APPALACHIAN POWER

APCo estimates that the currently proposed programs, in addition to other programs APCo has proposed, and/or received approval for since July 1, 2018, or the effective date of the law, represent costs of approximately $136.1 million, or approximately 97.2% of the goal.

2019 APCo Programs

The three (3) programs approved in the 2019 filing were successfully launched in early 2021 and are all currently active in APCo's Virginia service territory. These programs include:

Table 7: 2019 APCo Program Status

Program	Description	Status
Residential Low-Income Single-Family Program	This program replaced APCo's existing Low Income Weatherization Program, which was in place since 2015 and expired at the end of 2020. The new program is better funded and therefore will generate savings for residential low-income customers through, among other things, the evaluation of energy improvement opportunities and the installation of weatherization upgrades, and other energy savings for dwellings.	The program is actively enrolling and serving customers throughout the territory.
Residential Low-Income Multifamily Program	This new program provides and installs energy efficiency measures in income-qualified multifamily properties. The program also educates and motivates owners to participate in additional programs offered by APCo in Virginia and will include an education component to help participating customers to effectively manage their energy usage.	A strong interest in the program has led to successful upgrades at numerous properties. APCo expects this success to continue through the life of the program.
ENERGYSTAR® Manufactured Housing Program	This program provides an incentive for builders and dealers of manufactured homes to manufacture and sell new homes that meet ENERGY STAR efficiency standards throughout APCo's Virginia service territory.	Since the re-launch of the program in early 2021, several homes have been sold, installed and rebated through the program.

2020 APCO PROGRAMS

On November 30, 2020, APCo filed for approval to continue a rate adjustment clause, the EE-RAC, and for approval of new energy efficiency programs. A hearing examiner heard testimony and evidence of APCo and other respondents on May 19, 2021. A ruling on the petition is expected shortly. A description of each proposed program is below.

- **Residential Home Energy Report Program**, which will help customers reduce energy needs by encouraging them to alter their electricity usage habits by providing positive reinforcement. The reports will compare the participant's energy usage with similar homes, which will, ideally, motivate the customer to take action to save energy and maintain those savings.
- **Residential Efficient Products Program**, which will generate energy savings for consumers through the promotion of high efficiency lighting and appliances. This program was previously included in Appalachian's EE portfolio and ended in December 2018. Based on discussions and recommendations in the stakeholder process, the Company seeks approval to re-launch the program
- **Residential Energy Efficiency Kit Program**, which will generate energy savings for customers by providing energy efficiency kits to residential customers. The kits will provide cost-effective energy saving measures for customers while promoting other programs in the Company's EE portfolio. The kits will include products with verified electric energy savings that customers can self-install.
- **Residential Home Performance Program,** which will generate savings for the Company's residential customers through the promotion of energy efficient homes. The primary objective for the program is to produce long-term electric energy reduction in the residential sector. The program will provide customers with a comprehensive in-home energy audit to identify immediate and larger-scale measures that the customer can implement to reduce energy usage.
- **Business Energy Solutions ("BES") Program**, which is designed to generate energy savings for C&I customers through the promotion of high efficiency lighting and nonlighting upgrades. The BES Program will accelerate energy efficiency by incorporating both lighting and non-lighting measures under one program.
- **Residential Bring Your Own SMART Thermostat ("BYOT") Program**, which the Commission initially approved for a three-year period ending December 31,2021. The BYOT Program allows residential customers to enroll a qualifying WiFi-enabled smart thermostat in a demand response program. During a load management event, the Company will either cycle the customer's HVAC equipment or raise the set point of the thermostat.
- **Small Business Direct Install ("SBDI") Program**, which offers on-site energy assessments at small businesses, direct install of certain energy efficiency measures, and financial incentives for other cost-effective measures to capture deeper energy savings.
- **Volt Var Optimization ("VVO") Pilot Program**, will reduce energy and demand usage without any interaction by the customer. The VVO Pilot Program will more closely control the voltage that is delivered to the meter and, subsequently, to the customer's end-use electrical devices, VVO technology allows customer devices to operate more closely to the design voltage, which can provide an annual reduction of two to four percent in energy use. All residential, commercial and industrial customers of Appalachian Power Company, who are served from circuits equipped with VVO, would benefit from the technology.

DOMINION ENERGY VIRGINIA

To date, DEV has proposed $476 million, or approximately 54.7 percent of the goal. Of the $476 million proposed, $129 million in Phase IX programs (5-year cost caps), is pending approval.

2019 DEV Programs

There were 13 programs approved in the 2019 filing for DEV's Virginia service territory. The programs and status are:

Table 8: DEV Program Status

Program	Description	Status
Residential Electric Vehicle (EE and DR)	This program encourages efficient charging of electric vehicles and shifting of electric vehicle charging load to off-peak periods.	Enrolling customers; purchase incentives for qualifying chargers available.
Residential Electric Vehicle (Peak Shaving)	This Program would provide customers who already have a qualifying electric vehicle charger with an annual incentive in exchange for allowing the Company to reduce the operating cycle of their charger by remote control during periods of high demand.	Purchase incentives available to customers; demand response/peak shaving component under development.
Residential Energy Efficiency Kits (EE)	This program provides energy efficiency kits to customers as a welcome gift or in response to requests under specific conditions.	10,000 kits sent to customers in initial batch.
Residential Home Retrofit (EE)	This program incentivizes retrofit of participating customer homes using measures that may extend beyond what would be considered a typical measure in a home energy assessment program.	Enrolling customers.
Residential Manufactured Housing (EE)	This program offers incentives for the installation of energy efficiency measures designed specifically for manufactured and modular housing.	Enrolling customers.
Residential New Construction (EE)	This program encourages the use of energy efficient materials and practices in new home construction through a combination of incentives and education.	Enrolling customers; 32 customer homes complete.
Residential/Non-residential Multifamily (EE)	This program identifies and targets multi-family residences with incentives and measures specifically designed to take advantage of energy-saving opportunities in this type of residence. For the purpose of this program, the assumption is that a multi-family residence is defined as a residence with a shared envelope, wall or floor/ceiling, with no specific limitation on the number of residences within a given structure.	Enrolling customers.
Non-residential Midstream Energy Efficiency Products (EE)	A companion program to the residential efficient products program that takes advantage of additional savings opportunities that can be realized through upstream and midstream incentives applied to energy efficient products but targeted at non-residential customers. The non-residential program includes incentives for purchasing high efficiency commercial kitchen appliances, freezers and refrigerators, and HVAC systems.	Program ramping-up; active and working with distributor network.
Non-residential New Construction (EE)	This program encourages the use of energy efficient materials and practices in new construction through a combination of incentives and education.	Program ramping-up; active and working with distributor network.
Small Business Improvement Enhanced (EE)	This program provides small businesses an energy use assessment and tune-up or re-commissioning of electric heating and cooling systems, along with financial incentives for the installation of specific energy efficiency measures. This program is an enhancement to the existing DSM V Small Business Improvement Program.	Enrolling customers.
HB 2789 (Heating and Cooling/Health and Safety) (EE)	This program provides incentives to low-income, elderly, and disabled individuals for the installation of measures that reduce heating and cooling costs and enhance health and safety of residents.	• Enrolling customers; 356 customers serviced with HVAC measures.
Residential Thermostat (EE) and (DR) Programs	The EE program offers rebates to customers who either purchase a qualifying smart thermostat and/or enroll in an energy efficiency program. The DR program manages heat pumps and air-conditioning units using smart thermostats to reduce peak demand.	Enrolling customers. • EE Purchase – 882 customers. • Optimization – approximately 1,500 customers. DR – approximately 2,500 customers.

DOMINION ENERGY VIRGINIA

2020 DEV Programs

On December 3, 2020, DEV filed for approval of 11 DSM programs. An Evidentiary Hearing occurred on June 8, 2021, with a final order expected sometime in September 2021. A description of each proposed program is below.

RESIDENTIAL

- **Virtual Audit**, would offer customers a self-directed home energy assessment using an audit software, completed entirely by the customer, with no trade ally entering the home. Customers would be directed to a website or toll-free number where they would answer a set of questions with answers specific to the conditions and systems in their home with aids to help them answer accurately. From this information, the software would generate a report of recommended measures and actions the customer could take to improve the efficiency of their home. The report would also identify the Company's other active energy efficiency programs that fit each customer's needs.
- **Smart Home,** would provide the Company's residential customers a suite of smart home products that provide seamless integration in the home. The program will deliver the energy efficient measures bundled in two versions of a Smart Home Kit, so that customers can benefit from a fully integrated set of compatible smart products. The Smart Home Kit will include general instructions for installing the specific energy efficient measure within their home.
- **Residential Water Savings (EE)**, designed to give the Company's residential customers control over their water related energy use. The proposed Program leverages the installation of smart communicating water heating and pool pump technologies to facilitate more efficient operation while reducing overall electricity usage and peak demand response. Customers have the option to purchase a qualified program product online, in-store, equipment distributor, or through qualified local trade allies.
- **Residential Water Savings (DR)**, all customers who purchase and install a qualified product (EE component) will be offered the opportunity to enroll in the peak demand reduction (DR) component of the DR Program. Additionally, Customers who have previously purchased a qualifying product and who have the eligible products installed, will be offered the opportunity to enroll in the DR component of the Program. Customers will be offered an annual incentive (above the product purchase incentive amount) to participate in the peak reduction component year-round and an additional reduced incentive for each subsequent year they continue to participate. Customers would be allowed to opt-out of a certain number of events.
- **Income and Age Qualifying Program (EE)**, would provide in-home energy assessments and installation of select energy-saving products at no cost to eligible participants. As with the Company's other low-income programs, the Company will partner with Weatherization Service Providers (WSPs) to perform community outreach and install program measures to eligible customers. Moreover, the proposed Program would allow for providers to charge up to 10 percent of their yearly allocation for administrative costs on single family jobs. In addition, the proposed program design has a 15% health & safety cap to bring additional benefits to customers in the form of wider opportunities for bill savings.
- **Income & Age Qualifying Solar (HB 2789 program)**, would provide a mechanism for customers who meet certain income, age, disability and previous program participation requirements regarding weatherization to receive, at no cost to the customer, photovoltaic solar panels installed at their residence.

NON-RESIDENTIAL

- **Agricultural Program (EE)**, would provide qualifying non-residential customers with incentives to implement specific energy efficiency measures to help agribusinesses replace aging, inefficient equipment and systems with new, energy-efficient technologies. The Program is designed to help agricultural customers make their operations more energy-efficient by providing incentives for efficient agricultural equipment and lighting specifically used in agricultural applications.
- **Building Automation Program (EE)**, would provide qualifying non-residential customers with incentives to install new building automation systems in facilities that do not have centralized controls or have an antiquated system that requires full replacement. The Program would be marketed and promoted to controls contractors who design, install, and maintain fully functional building automation systems. Product lines would include brands like Carrier, Schneider Electric, Johnson Controls, Siemens, and Trane.
- **Building Optimization Program (EE)**, would provide qualifying non-residential customers incentives for the installation of energy efficiency improvement, consisting of recommissioning measures. The Program seeks to capture energy savings through control system audits and tune-up measures in facilities with Building Energy Management Systems.
- **Customer Engagement Program (EE),** would engage commercial buildings in energy management best practices that increase awareness of operational and behavioral energy savings opportunities. The Program would educate and train businesses' facility management staff on ways to achieve energy savings through optimization of building energy performance and integrating ongoing commissioning best practices into their operations. Through a customer engagement portal, building operators can also access educational content and technical resources as part of a series of operator challenges. By completing these challenges, participants will review and implement energy efficient operational best practices, earning them points while competing against facility teams from other participating buildings.
- **Enhanced Prescriptive Program (EE),** would provide qualifying non-residential customers with incentives for the installation of refrigeration, commercial kitchen equipment, HVAC improvements and maintenance and installation of other program specific, energy efficiency measures.

UPDATE ON 2020 REPORT RECOMMENDATIONS

In the 2020 Report of the Independent Monitor, three recommendations were provided to improve the stakeholder process, which were based upon feedback received by the independent monitor from stakeholders and the 2020 stakeholder feedback survey. The recommendations and status are:

Table 9: 2020 Annual Report Recommendations Status

Recommendation	Status
Utilize the next meetings to plan how the revised legislation will be implemented.	1. Created subgroups to address the topics specifically. 2. Review meeting schedules to allow for stakeholder input earlier in the annual process. 3. Address longer-term program recommendation ideas by using 2021 as a "hybrid" year to fill gaps in programs and begin measuring progress from 2019 filings.
Increase the diversity of the stakeholder group.	1. Expanded membership of the group. 2. Incorporated identification of potential new stakeholders during meetings.
Strengthen the longer-term ideas and thinking for the process and its goals.	1. Coordinated stakeholder process with Dominion Energy Virginia long-term strategic planning project. 2. Address longer-term program recommendations by using 2021 as a "hybrid" year to fill programmatic gaps and begin measuring progress from 2019 filings.

STAKEHOLDER FEEDBACK ABOUT THE PROCESS

To obtain feedback about the 2021 Stakeholder Process year so far for this report, the independent monitor conducted an online survey between June 4 and June 23, 2021. An email invitation was sent to 287 stakeholders, 83 of whom provided input for a response rate of 28.9 percent. The full set of frequency distributions (responses) are available by request to the independent monitor.

Approximately three quarters (74.1 to 75.9%) of the 2021 stakeholders are satisfied with the stakeholder process, the opportunity to discuss issues of concern, and the opportunity to provide direct input to the utilities for energy efficiency program recommendations.

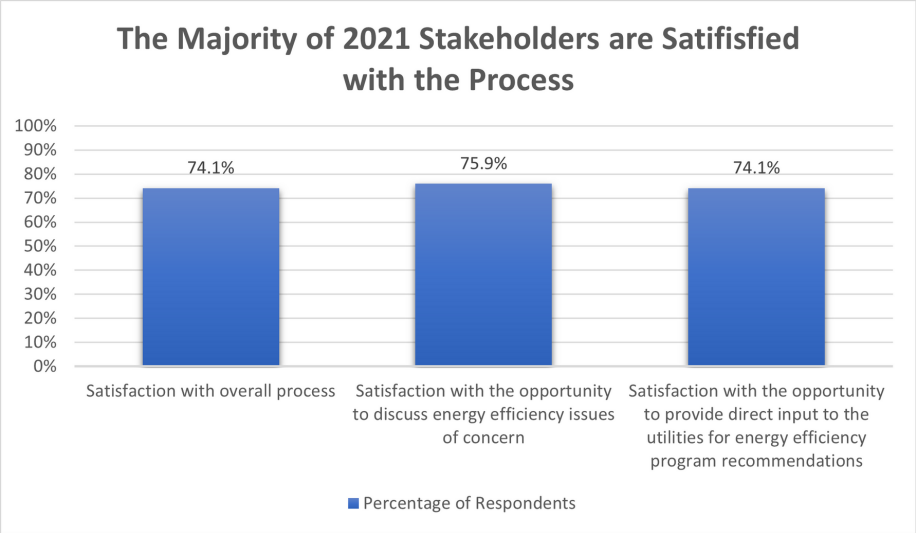

Figure 1: 2021 Stakeholder Satisfaction (N=58)

For stakeholders who have participated in multiple years of the program, over two-thirds (70.3%) of the stakeholders agree that the utilities are willing to consider stakeholder input and nearly three-quarters (71.9%) agree the process is increasing trust and collaboration between stakeholders and the utilities.

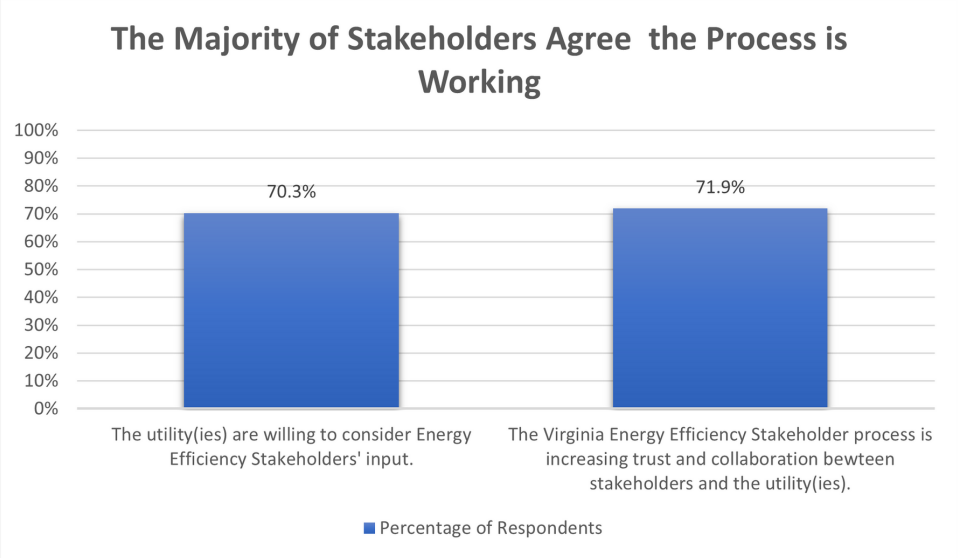

Figure 2: Agreement of Stakeholders Regarding Relationships with the Utilities (N=64)

(7)The total number of potential stakeholders is lower than the combined numbers for APCo and DEV because it includes 71 members who participate in both stakeholder groups.
(8)The confidence level for the results is 95% with a margin of error of ± 9.0%

Between 72 and 77 percent of stakeholder respondents from the first two years of the process see the results of the stakeholder process in the energy efficiency RFPs developed by the utilities and the filings of the utilities to the State Corporation Commission. A lower percentage (64.6%) can see the results of the stakeholder input in the programs approved by the SCC. This lower number may be due to 2020 programs not yet being approved during the time of the survey.

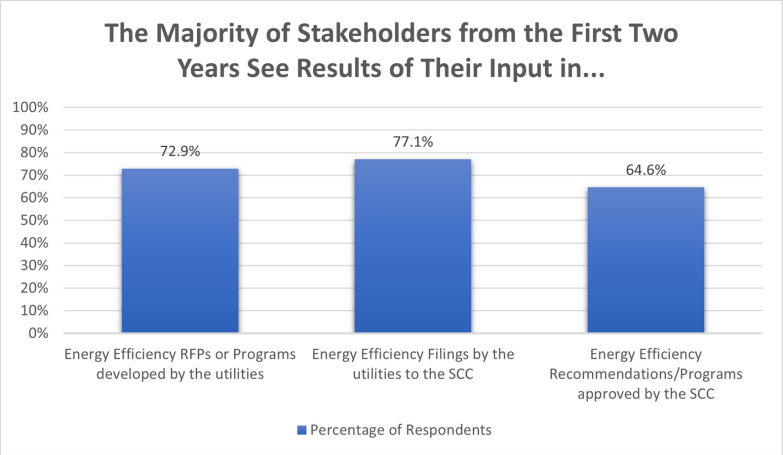

Figure 3: Stakeholder Agreement with Seeing Results of Input (N=48)

Nearly three-quarters of stakeholder respondents believe the Virginia Energy Efficiency Stakeholder Process is improving the development of energy efficiency programs in Virginia and that the process will lead to better energy efficiency conservation within Virginia.

Stakeholders acknowledge that while the process is getting better, there is still significant opportunity for improvement. Four major themes emerged from additional feedback provided by stakeholders in the survey, for the overall process, which also reflect input from previous years. These themes were:

- Increase diversity of stakeholder representation. The process still does not include rate paying residential and commercial customers. The process could also benefit from inclusion of medical/indoor air quality professionals to better link and benefit the health and safety aspects while solving energy conservation.
- Include more focus on conservation, not just on efficiency. Several stakeholders commented that the process, and the approach of iterative filings, leads to a focus primarily on energy efficiency and savings, but not on climate and conservation issues, which are important.
- Reduce the length of the process. A few stakeholders opined that the length of the feedback process, from recommendation to review to approval to program launch is too long and that in between initial ideas and final launch, political, economic, social, and technological changes can occur that may affect or hinder ultimate results.
- Increase the integration of input from stakeholders. Several stakeholders view the process as utility-driven and the cadence of meetings or subgroups, while better than previous years, does not optimize stakeholder input or the two-way exchange of information between the utilities and the participants.

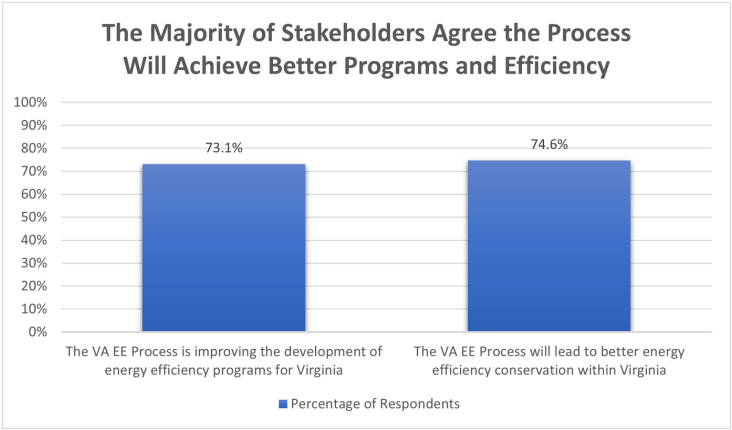

Figure 4: Stakeholder Agreement that the Process will Improve Energy Efficiency (N=67)

NEXT STEPS

The third year of the stakeholder process has concentrated on increasing the input and guidance of the stakeholders into the program recommendations to create portfolios of programs that meet multiple needs. More explicit effort was placed on aligning the program recommendations with the VCEA goals and requirements, and to think strategically about the process. As the process moves forward, the independent monitor will work with the stakeholders, SCC, and utilities to increase the diversity of the stakeholder population, work to develop more dialog-based input, and increase innovation.