DELAWARE TWO-YEAR ENERGY EFFICIENCY PLAN 2024-25

SUBMITTED TO:

DELAWARE ENERGY EFFICIENCY ADVISORY COUNCIL

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Chesapeake Utilities Corporation – Delaware Division ("Chesapeake" or the "Company") has developed a proposed portfolio of Delaware energy efficiency ("EE") programs for the final two years of the current, 2023-2025, three-year EE program cycle defined by Delaware Energy Efficiency Advisory Council ("EEAC"), that is 2024-2025. Chesapeake has reviewed 29 *Del. C.* § 8059 (the "enabling legislation"), 7 *Del. Admin. C.* § 2105 (the "Evaluation, Measurement & Verification regulations" or "EM&V regulations"), the regulatory experience of Delmarva Power and Light ("DPL") with its first in the state utility energy efficiency proposal filed in 2017 for its electric business, and the experience of the EEAC and its working groups to inform development of this energy efficiency plan (the "Plan" "EE Plan," or "portfolio"). Engagement of key stakeholders has been central to the effort, including ongoing discussions with Optimal Energy Inc. (now a part of NV5, "Optimal") as consultant to the Department of Natural Resources and Environmental Control ("DNREC"), and multiple meetings with the Staff ("Staff") of the Delaware Public Service Commission ("PSC") and Division of Public Advocate ("DPA") beginning with an initial discussion on October 25, 2022. The Plan is novel by including three of its four proposed programs as cooperative joint delivery initiatives with the Delaware Sustainable Energy Utility ("SEU") and its Energize Delaware-branded programs.

Chesapeake designed this Plan to achieve cost effective gas savings for its customers and to achieve gas savings targets originally established by the EEAC in 2015. The savings targets brought forward by Optimal to the EEAC in August 2015 are defined as the incremental annual net gas savings as a percent of forecasted sales, which Chesapeake interprets as firm sales. The gas EE goals approved by EEAC in August 2015 are a three-year ramp up of 0.2% in year one, 0.3% in year two, and 0.5% in year three. Chesapeake, therefore, designed this Plan to achieve net gas savings of 0.2% of sales in 2024 and 0.3% in 2025. A key planning constraint was estimated customer bill impacts associated with the EE program portfolio.

Portfolio Savings and Costs

Chesapeake estimated program participation using current Chesapeake-specific data, applied measure characterization (e.g., gas savings, measure costs, etc.) published in the 2021 Delaware Technical Reference Manual ("TRM"), and other established EE planning practices to forecast gas savings, budgets, and cost effectiveness for each program within the Plan. Estimated net gas savings over the two years 2024-2025 are 26,407 MMBtu, equal to 0.25% of Chesapeake's annual firm sales (0.2% in 2024 and 0.3% in 2025). Chesapeake projects total portfolio costs of $1,242,422 over the two years 2024-2025. All savings and cost projections were developed in compliance EM&V regulations. Likewise, Chesapeake calculated cost effectiveness per the Total Resource Cost Test ("TRC") as prescribed in the EM&V regulations and using avoided costs of gas based on the 2022-23 Gas Sales Service Rate ("GSR"), endorsed by the EEAC at its October 2022 meeting, and discounted at the EEAC-prescribed discount rate of 4%. Chesapeake also calculated cost effectiveness under the Utility Cost Test ("UCT") to evaluate the economics from a narrower, utility-only, view. All individual programs are cost effective each year, with the portfolio overall bearing a two-year 2024-2025 TRC of 2.11 and a UCT of 2.53 as detailed by program below in Table 1. Responsive to some stakeholders, Chesapeake also calculated cost effectiveness using avoided gas costs discounted at its weighted average cost of capital, 7.53%, with both the TRC and UCT results remaining comfortably above 1.0.

The portfolio is summarized in Table 1 below.

Table 1: Chesapeake 2024-25 EE Programs and Portfolio

Program/Year	# Participants	Net Annual MMBtu	Budget	TRC	UCT
2024					
Home Energy Check-Up	486	1,752	$50,418	3.29	3.97
Home Performance with ENERGY STAR	713	4,566	$286,089	1.77	1.77
Assisted Home Performance with ENERGY STAR	65	616	$59,138	1.45	1.22
Standard Offer	As Required	3,629	$125,529	2.36	3.7
Total	1264	10,563	$521,174	2.09	2.39
2025					
Home Energy Check-Up	515	1,857	$53,402	3.28	3.95
Home Performance with ENERGY STAR	756	4,845	$303,446	1.76	1.76
Assisted Home Performance with ENERGY STAR	70	654	$61,999	1.45	1.23
Standard Offer	As Required	8,488	$302,401	2.28	3.58
Total	1341	15,844	$721,248	2.13	2.64
2024-25					
Home Energy Check-Up	1,001	3,609	$103,820	3.29	3.96
Home Performance with ENERGY STAR	1,469	9,411	$589,535	1.77	1.77
Assisted Home Performance with ENERGY STAR	135	1,270	$121,137	1.45	1.22
Standard Offer	As Required	12,117	$427,930	2.3	3.61
Total	2605	26,407	$1,242,422	2.11	2.53

The annual bill impact for a residential customer starts in April 2024 at an annual rate of $2.33 (based on $.00333 per Ccf for the average household monthly usage), and moves to $3.89 beginning in April 2025 (based on $.00555 per Ccf for the average household monthly usage).

Program Delivery Models

"Program delivery models" refers to the means by which an EE program or programs will be delivered. As part of its planning process, Chesapeake undertook market research to examine not only what types of EE measures were being delivered in Delaware and throughout the

country, but also by what means. At a high-level, Chesapeake observed five such program delivery models: (1) utility administration, delivery, and management; (2) utility administration and management of third-party implementers (turnkey); (3) utility administration and management of third-party implementers (program-specific); (4) joint-utility administration and management of third-party implementer; and (5) statewide third-party implementation of pooled utility funds.

Chesapeake's portfolio was designed with strong consideration of the enabling legislation's call to coordinate with the SEU, whose funding includes $22.4 million of Regional Greenhouse Gas Initiative ("RGGI") funds and utilize existing funding sources to the maximum extent possible before turning to incremental utility ratepayer funding. Therefore, the Home Energy Counseling and Checkup ("HEC"), Home Performance with ENERGY STAR ("HP"), and Assisted Home Performance with ENERGY STAR ("AHP") programs are delivered through a variant of model five above (statewide third-party implementation), leveraging the existing SEU programs delivered by the SEU's existing implementation contractor and supplemented with delivery by Chesapeake's existing energy auditors and additional EE measures to be provided to Chesapeake customers beyond those currently offered by the SEU programs. The Standard Offer program ("SOP") will be delivered through a variant of model one above (utility administration, delivery, and management). Again, adhering closely to the enabling legislation, promotion of the programs will utilize very modest marketing budgets to leverage the existing Energize Delaware brand and existing Chesapeake marketing and outreach channels by adding descriptive information and contact information regarding the programs and Energize Delaware.

Measuring Program Impact

Chesapeake successfully overcame administrative structure design challenges as it designed this Plan because the Company has little, if any, existing administrative structures and systems already in place to quantify, track, and report EE activity consistent with the EM&V regulations. Chesapeake will utilize measure-level program reporting by the SEU and its implementation contractor to track participation activity such as measures installed, projects completed, gas savings, and customer incentives paid for HEC, HP, and AHP. The anticipated much smaller volume of similar such data for SOP will be captured by requiring documentation of SOP program activity by participants and managing the data internally. Chesapeake staff will use this participation data and internal accounting systems to perform due diligence and otherwise manage customer funds and facilitate EM&V activities of third-party independent evaluators as required by the EM&V regulations.

1 Strategic Program Overview

This portfolio plan is Delaware's first regulated utility natural gas energy efficiency plan. This Plan reflects Chesapeake's deliberate consideration of the enabling legislation, EM&V regulations, and the DPL electric EE Plan filing with the PSC in Docket 17-0985. In particular, 29 *Del. C.* § 8059 (h), "Expansion of cost-effective energy efficiency programs", and the Docket 17-0985 filing and settlement have heavily informed Chesapeake's work to maintain its steadfast focus on the best interest of its customers while incorporating policy by furthering the energy efficiency objectives of the state.

Chesapeake proposes a portfolio of EE programs that will ramp up over the second and third years of the current three-year cycle to achieve cost effective savings equal to 0.5% of its firm load as presented in its 2022-23 GSR filing through programs first "delivered in collaboration with the Sustainable Energy Utility" as articulated as mandated by the enabling legislation, supplemented by a novel Chesapeake-specific Standard Offer program that will be available to any party seeking to secure Chesapeake EE incentives to support cost effective activities. Furthermore, the portfolio has been developed with collaborative input from Staff and the DPA, as directed in 29 *Del. C.* § 8059 (h)(1)(b), as well as the SEU and the EEAC consultant, Optimal. For the 2024 and 2025 calendar years that comprise the second and third years of the current three-year (2023-2025) portfolio cycle prescribed by the EEAC, the portfolio is projected to yield 34,280 gross MMBtu of savings at a Total Resource Cost Test benefit-to-cost-ratio ("BCR") of 2.11.

1.1 Program Design Objectives, Considerations, and Methodology

Chesapeake designed its portfolio with the objective of making available energy efficiency funding support to all customers, with special consideration for the historically underserved lower income residential population, via programs that are "cost-effective, reliable, and feasible" (29 Del. C. § 8059 (h)) and consistent with the EM&V regulations. Key considerations included reference to the following guiding resources:

- Enabling legislation
- EM&V regulations
- Delaware Technical Reference Manual Version 1.0, April 2021 ("DE TRM")
- SEU 2023-2025 Energy Efficiency Plan ("SEU Plan")
- Collaborative discussions with Staff, DPA, SEU, and Optimal

Chesapeake's EE planning methodology relied upon the above key resources and was driven by application of the Delaware Total Resource Cost Test as described in the EM&V regulations and discussed at length in the Evaluation, Measurement and Verification Workgroup of the EEAC. Section 6.2.2 of the EM&V regulations defines the Delaware TRC as including:

- Net present value of avoided gas supply and delivery costs arising from net savings,
- Net present value of energy savings from other fuels, and

- Administrative, EM&V and measure costs including installation (net of operations and maintenance cost savings, salvage value of removed equipment, Federal tax credits).

Chesapeake referred to the 2001 edition of California Standard Practice Manual for Economic Analysis of Demand-Side Program and Projects ("CSPM") as a guiding document for cost effectiveness methods to expand our understanding of the Delaware TRC and how to calculate it.

1.2 Program Analysis

Whereas DPL applied the industry standard practice "bottom-up" approach to EE program and portfolio design as described in DPL's three-year program plan submitted to the EEAC in February 2017 and filed as an attachment to the testimony of Wayne Hudders in PSC Docket 17-0985, Chesapeake's situation and context are different, warranting a "top-down" approach. The approach used is depicted in Figure 1 below.

Figure 1: Chesapeake Top-Down EE Planning Approach

Because the enabling legislation and related guiding resources indicate substantial opportunity to leverage existing EE programs within Delaware, Chesapeake did not, and does not, find it necessary or an exercise of good business judgment to incur a rather more time- and cost-intense bottom-up planning approach at this time. In executing the top-down approach, Chesapeake undertook the first two activities depicted in Figure 2 on the next page, with this narrative initiating the third.

Figure 2: Chesapeake EE Planning Execution

The conduct of market research and analysis included review of current Delaware EE programs, programs elsewhere in the country, and review of Delaware technical potential studies. Development of modeling and portfolio design included configuration of the EE cost effectiveness and planning model (the "Model");[1] population of the Model with various inputs including avoided costs, measure and program costs, and measure savings and related data; and iterative execution of the Model. This document represents the initial formal component of completion of the EE planning process.

1.2.1 Review of Existing Programs

Chesapeake pursued development of its portfolio with a "do not reinvent the wheel" mindset centered upon exploring existing Delaware programs that it could support. Chesapeake undertook a detailed review of EE programs offered in Delaware by SEU, DNREC, Delaware Municipal Electric Corporation "DEMEC"), DPL, and Delaware Electric Cooperative ("DEC"). The programs examined are listed in Table 2 on the next page.

[1] Chesapeake engaged as its EE planning consultant MCR Performance Solutions, LLC ("MCR"), which maintains and executed for Chesapeake the cost effectiveness modules of its proprietary, spreadsheet-based Local Energy Efficiency Planning Model ("LEEP"), the inputs and results of which are provided to Chesapeake, the model itself and inner workings of which remain MCR's confidential intellectual property.

Table 2: EE Programs in Delaware

Program (Administrator)	Program (Administrator)
Weatherization Assistance (DNREC)	Commercial Loans (SEU)
EE Investment Fund (DNREC)	Farms (SEU)
EE Industrial (DNREC)	Performance Contracting (SEU)
Lighting (DPL, DEC)	Faith Efficiencies (SEU)
Appliance Recycling (DPL, DEMEC)	Green Schools (SEU)
Residential Behavior (DPL)	EV Charging (DEC)
Home Performance/Assisted Home Performance (SEU, DEC)	Rush Hour Rewards DR (DEC)
Multifamily Housing (SEU)	Heat Pump Water Heaters (DEC)
Home Energy Counseling and Check-Up (SEU)	Street Lighting (DEC)
Marketplace (SEU, DEMEC)	Home Energy Rebates (DEMEC)
ZeMod (SEU)	Small Business Solutions (DEMEC)
D-PACE (SEU)	Large Business Solutions (DEMEC)

1.2.2 Consideration of New Programs

In considering new programs that could be added to the market in Delaware, Chesapeake asked two questions:

(1) What else is being offered in the United States?

(2) What else, even beyond that, could be offered?

With this expanded lens, Chesapeake reviewed several natural gas EE programs implemented elsewhere in the United States. At a high level, program offerings in other states are of five major types:

(1) Utility administration, delivery, and management

(2) Utility administration and management of third-party implementers (turnkey)

(3) Utility administration and management of third-party implementers (program-specific)

(4) Joint-utility administration and management of third-party implementer

(5) Statewide third-party implementation of pooled utility funds

With respect to natural gas EE measures offered in the United States, the review confirmed the residential measures currently offered in Delaware or otherwise under consideration by Chesapeake are consistent with those offered elsewhere.

Chesapeake also considered the question of what else could be offered and developed the Standard Offer Program. Described in detail in Section 2 – Energy Efficiency Programs below, the Standard Offer Program provides a program assessment tool to any party seeking to pursue Chesapeake incentive funding for any energy efficiency activity. The tool requires potential participants to describe the costs and both electric and natural gas savings[2] of an activity to be considered by Chesapeake, then evaluates cost effectiveness from a natural gas perspective, and provides the proposer an indication of whether the activity is cost effective, and thus eligible for consideration by Chesapeake, and what the maximum potential Chesapeake incentive could be. The review of non-residential measures offered by programs nationally suggests that the Standard Offer Program may fill gaps in the current offerings of other program administrators available to Chesapeake's non-residential customers in Delaware.

1.2.3 Portfolio Development

Chesapeake developed its portfolio by considering the information and sources discussed in the above sections, with heavy emphasis on the enabling legislation and collaborative discussions with SEU, Staff, and the DPA. As a smaller utility with no significant, existing EE experience or administrative infrastructure in Delaware or neighboring Maryland, based on the direction put forth by the enabling legislation, and through collaborative discussions, Chesapeake decided to focus on leveraging one or more of the SEU's programs as the backbone of its 2024-25 Plan. Specifically, Chesapeake pursued cost effectiveness analysis and discussion of the feasibility and mechanics of joint delivery with the SEU of the Home Energy Counseling and Checkup, Home Performance, and Assisted Home Performance programs. Chesapeake undertook iterative execution of the planning model, assessing the various gas-saving measures delivered through HEC, HP, and AHP and developed measure characterization for four additional measures to potentially be added to delivery of the SEU programs to Chesapeake gas customers: 90% AFUE boilers, boiler pipe wrap, domestic hot water tank temperature turndowns, and a gas heating weatherization kit. Initial assessment considered the mix of the measures under consideration as delivered by the SEU and its implementer in the January 2021 through October 2022 period, and how many more Chesapeake customers could be served given the introduction of joint SEU-Chesapeake delivery. The iterative program and portfolio development process was closely linked to the cost effectiveness modeling described below in Section 1.5 – Cost Effectiveness Screening.

1.3 Statewide Program Coordination

Statewide program collaboration is ensured by the leveraged joint SEU-Chesapeake delivery of HEC, HP, and AHP because these programs are delivered statewide to all Delawareans. Similarly, statewide collaboration is anticipated in the implementation of the Standard Offer Program introduced above and described in detail in Section 2 – Energy Efficiency Programs because it is likely that otherwise primarily electric projects participating in programs offered statewide by both the SEU and DNREC will be submitted for consideration of gas incentive funding by Chesapeake. Furthermore, Chesapeake expects that its EE efforts will be of

[2] The tool seeks information on both electric and natural gas savings, converts savings to MMBtu, and applies the proportion of natural gas savings to the total project cost to yield the project cost attributable to natural gas that is used in cost effectiveness testing.

interest to, and subject to discussion by, both the EEAC EM&V Workgroup and the Delaware Energy Access and Equity Collaborative. Lastly, Chesapeake intends to work with the SEU and other interested parties on cooperative and joint marketing collateral, internet website content, and outreach as it builds awareness and participation in its programs and otherwise continues to execute its existing outreach and engagement activities.

1.4 Evaluation, Measurement, and Verification

The EM&V regulations, EEAC, and EEAC EM&V Workgroup prescribe required planning for, approaches to, activities of, and reporting of EM&V. EM&V will be performed by Chesapeake itself and one or more third-party evaluators selected by competitive bidding after PSC approval of the Plan and the launch of programs. Evaluation results may be used in, for example but not inclusively, the following ways:

- Determination of actual net savings
- Informing ongoing program delivery and management and administration
- Future EE cycle program and portfolio planning

Full detail on EM&V requirements that Chesapeake will satisfy are described in detail in the EM&V regulations, particularly Sections 6 and 7, as well as the DE TRM.

1.5 Cost Effectiveness Screening

Chesapeake views cost effectiveness screening as one of the highest impact, highest priority elements of the EE planning process. Chesapeake screened the programs brought forward in this Plan using the TRC as directed by the EM&V regulations, the EEAC and its working groups, and the input of various stakeholders. Chesapeake also screened the programs under the Utility Cost Test ("UCT"), also known as the Program Administrator Cost Test ("PACT").

Recognition of how the CSPM defines these two tests, which with respect to the TRC is consistent with the Delaware TRC described in the EM&V regulations, is instructive:

> The CSPM identifies the TRC as follows: "(the test) measures the net costs of a demand-side management program as a resource option based on the total costs of the program, including both the participants and the utility's costs..."[3]
>
> The CSPM identifies the UCT as "(the test) measures the net costs of a demand-side management program as a resource option based on the costs incurred by the program administrator (including incentive costs) and excluding any net costs incurred by the participant."[4]

Chesapeake, and its EE planning contractor, conducted cost effectiveness screening using a planning model that, at a high and summary level, operates as follows:

(1) Quantify the energy efficiency or demand response measures associated with each measure and summarize to the program level.

(2) Quantify the rebate, incentive, and administrative and other costs of the measures, and summarize to the program level.

[3] California Standard Practice Manual, October 2001, p. 18.
[4] California Standard Practice Manual, October 2001, p. 23.

(3) Assign load profiles to the measures that identify the timing of when the savings can be expected to occur throughout an 8,760-hour year, summarized to the same costing periods by which the avoided costs are expressed.

(4) Develop the life cycle avoided gas costs associated with the measures and summarize to the program level.

(5) Calculate the cost effectiveness results, the BCRs and net benefits, under each of the CSPM tests performed.

The programs, participation levels, savings, costs, and cost effectiveness results for the Chesapeake programs and portfolio are discussed below in Section 2 – Energy Efficiency Programs and presented together in Appendix A.

The avoided costs used in Chesapeake's cost effectiveness screening are based on the 2022-23 GSR, endorsed by the EEAC at its October 2022 meeting, and provided in Appendix B. Using the avoided costs discounted to present value with a 4% discount rate as prescribed by the EEAC yields portfolio TRC and UCT of 2.11 and 2.53 respectively for the portfolio as a whole over the 2024-2025 period, with individual programs ranging from 1.22 to 3.96. In response to requests from some stakeholders, Chesapeake's planning consultant also ran the Model using Chesapeake's 7.53% weighted average cost of capital as the discount rate, which yielded lower results but with BCR's remaining comfortably above 1.0.

Additional detail on the characterization of the individual measures offered in Appendix C.

1.6 Bill Impacts

The annual bill impact for a residential customer starts in April 2024 at an annual rate of $2.33 (based on $.00333 ccf for the average household monthly usage), and moves to $3.89 per year beginning in April 2025 (based on $.00555 ccf for the average household monthly usage).

2 Energy Efficiency Programs

Chesapeake's EE program portfolio for 2024-25 is designed to achieve 36,052 gross and 26,408 estimated net MMBtu of gas savings in total across the two-years, with 2025 savings equivalent to 0.30% of firm sales as the Company ramps up to a goal of savings equivalent to 0.5% of firm sales thereafter. The portfolio and all programs within it are cost effective on a TRC as well as UCT basis as described above in Section 1.5 – Cost Effectiveness Screening, whether discounting the stream of avoided costs at the EEAC-stipulated discount rate or Chesapeake's weighted average cost of capital.

The programs, participation levels, savings, costs, and cost effectiveness results for the Chesapeake programs and portfolio are presented in summary form in Table 3 on the next page, discounting avoided costs at the EEAC-stipulated discount rate, and in detail in Appendix A.

Table 3: Chesapeake 2024-25 EE Programs and Portfolio

Program/Year	# Participants	Net Annual MMBtu	Budget	TRC	UCT
2024					
Home Energy Check-Up	486	1,752	$50,418	3.29	3.97
Home Performance	713	4,566	$286,089	1.77	1.77
Assisted Home Performance	65	616	$59,138	1.45	1.22
Standard Offer	As Required	3,629	$125,529	2.36	3.7
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Standard Offer	As Required	12,117	$427,930	2.3	3.61
Total	2605	26,407	$1,242,422	2.11	2.53

2.1 Joint Delivery with Sustainable Energy Utility Programs

Chesapeake presents below program descriptive information, including often verbatim descriptions of the programs from the SEU 2023-25 Energy Efficiency Plan, and incentive levels as discussed with and confirmed by SEU and its primary program implementation contractor. In addition, Chesapeake presents its own narrative on additions and modifications to the SEU programs and delivery given Chesapeake's involvement. Chesapeake then presents program-level savings, participation, budget, and cost effectiveness data for each program.

The joint delivery of programs with the SEU will be governed by a contractual relationship, the components and nature of which have been agreed to in principle and will be finalized upon PSC-approval of Chesapeake's portfolio. At a high-level, the nature of the relationship is that

SEU will deliver its programs through its existing implementation contractor(s) on a business-as-usual basis, adding Chesapeake outreach staff resources, marketing channels and activities, and certain EE measures not currently offered by the SEU programs for Chesapeake customers as appropriate and accepted by the customer. Chesapeake will fully fund the cost of gas saving measures delivered to its customers via the SEU programs. Administration will involve SEU billing, reporting, EM&V, and document retention consistent with requirements of the EEAC and EM&V regulations, with provisions for Chesapeake incremental funding of SEU-administrative and EM&V activities as necessary and subject to agreement per the terms of the (eventual) Chesapeake-SEU contract.

2.1.1 Home Energy Counseling and Checkup (HEC)

Eligibility Criteria

Eligibility criteria for In-home Energy Counseling and Checkup and/or Pop-up Energy Counseling: Delawareans who are responsible for utility expenses.

Eligibility criteria for Energy Conservation Workshops and/or Energy Resources: Delaware residents interested in saving energy.

Target Market(s)

Delaware residents, especially low-income communities

Program Offering

- In-home Energy checkup and Counseling
- Pop-up Energy Counseling
- Energy Conservation Workshops
- Energy Resources

Measures and Incentives

- Home energy check-up includes an interview, walk-through audit, energy counseling.
  - During the walk-through audit, an energy advisor will assess the condition of the following items: insulation levels, air leakage, heating-and-cooling systems, windows and doors, lighting and appliances, and water-heating equipment.
- The energy advisor will also install various energy-saving products at no cost to the customer.
- (Typically) the energy advisor will make a referral to the Home Performance with ENERGY STAR or Assisted Home Performance with ENERGY STAR program.

Marketing Strategy

- Cross-promotion with non-profit organizations serving low-income communities and cross-promotion with other Energize Delaware Programs such as Pathways to Green Schools and Faith Efficiencies; coordination with Delaware Weatherization Assistance program (WAP) and the Unite Delaware Platform to connect Delawareans with other resources in the State.

- Facebook Live offered bi-weekly by the SEU.
- Google Ads & Facebook Ads by the SEU.

Chesapeake Modifications and Additions

Supplementing the SEU's offerings, Chesapeake will bring its own customer outreach staff, direct messaging, and Building Performance Institute ("BPI") credentialed energy auditors to the program. Direct messaging will include use of Chesapeake's website, newsletters, and bill messaging to inform customers about the HEC program and general energy efficiency information and tips. Outreach staff will operate on a business-as-usual basis, and also supplement SEU resources delivering energy conservation workshops and pop-up energy counseling (both generally as described in the SEU Plan).

Chesapeake will seek to increase participation by its customers in the HEC program substantially and will increase delivery of smart thermostats to provide this measure to all customers whose homes have the wiring required to accommodate them, who are not advancing their program participation to the Home Performance with ENERGY STAR or Assisted Home Performance with ENERGY STAR programs[5], and who are willing. In addition, Chesapeake customers will be eligible to receive a domestic hot water tank temperature turndown, up to 15-feet of boiler pipe insulation, and a gas heating weatherization kit if appropriate for the home and accepted by the participant.

Program Quantification Snapshot

Table 4: Chesapeake HEC Snapshot

Element	2024	2025	2024-25
Annual MMBtu – Gross	3,241	3,435	6,676
Annual MMBtu – Net	1,752	1,857	3,609
Participants	486	515	1,001
Incentive Costs	$28,810	$30,516	$59,326
EM&V Costs	$4,322	$4,577	$8,899
Other Administrative Costs	$17,286	$18,309	$35,595
Total Program Costs	$50,418	$53,402	$103,820
TRC	3.29	3.28	3.29
UCT	3.97	3.95	3.96

[5] Through collaborative discussions with the SEU, Chesapeake learned that HEC often serves as a point of entry for follow-on participation in the more comprehensive Home Performance programs, and that if such follow-on program participation includes replacement of HVAC equipment a WiFi thermostat is often included in the package. Because a thermostat installed through HEC could therefore be removed and replaced with a thermostat at the time of HVAC equipment installation, prudence suggests excluding provision of a thermostat to HEC participants who indicate an intention to also participate in the Home Performance programs.

2.1.2 Home Performance with ENERGY STAR and Assisted Home Performance with ENERGY STAR

Chesapeake presents here the Home Performance with ENERGY STAR and Assisted Home Performance with ENERGY STAR together, as the SEU does in the SEU Plan, though Chesapeake will track and report the two offerings separately. Where distinctions exist between the two offerings, Chesapeake describes them within the narrative below.

Eligibility Criteria

Home Performance Eligibility Criteria: Registered homeowners & tenants (with the property owner's approval) that have up to 4 units under one roof in Delaware.

Assisted Home Performance with ENERGY STAR Eligibility Criteria: Income-qualified Delaware property owners (and renters via their landlord).

New construction, property additions and major renovations to a property are not eligible for audits or rebates.

Target Market(s)

Delaware homeowners & tenants living in properties that have up to 4 units under one roof.

Program Offering

Energize Delaware's Home Performance with ENERGY STAR program takes a whole-house approach to improving a home's comfort, energy efficiency, durability, and safety. Rather than focusing on a single problem, such as an inefficient heating and cooling system or drafty windows, the program looks at how improvements throughout a home can work together to make the entire space more comfortable and energy efficient and save money. The program offers a comprehensive energy audit, direct installation of basic measures, and access to rebates for "major measures" with a financing (low-interest loan) option. For income-eligible customers, Assisted Home Performance with ENERGY STAR offers a lower audit co-pay and enhanced rebate levels.

Measures and Incentives

- For both programs, up to $200 of direct install measures such as LED light bulbs, pipe wrap insulation and faucet aerators.
- Rebates/incentives for the Home Performance with ENERGY STAR program:
  - $50 co-pay for an energy assessment
  - Rebates for recommended "major measures" such as HVAC equipment or insulation are per a published schedule (a "rebate catalog"), capped at 50% of the total installed cost of the measure.
- Rebates/incentives for the Assisted Home Performance with ENERGY STAR program:
  - $25 co-pay for an energy assessment
  - Rebates for recommended "major measures" such as HVAC equipment or insulation are per a published schedule (a "rebate catalog"), with no specified cap.

- Home Energy Efficiency Loan: (Unsecured) loan amounts can range from $1,000-$30,000, up to the full cost of installation of major measures, at a special 5.99% interest rate and up to a 10-year term.

Marketing Strategy

- Cross Promotion through other Energize Delaware programs such as Faith Efficiencies, Pathways to Green Schools, HEC, Lights On, etc.
- SEU-Chesapeake partnering
- Community tabling events/presentations
- Workshops
- Social media posts and Facebook Live by the SEU
- Newsletters and press releases
- Flyer, brochure, banner
- Branded giveaways with Energize Delaware and Chesapeake logos.

Program Quantification Snapshot

Table 5: Chesapeake Home Performance with ENERGY STAR Snapshot

Element	2024	2025	2024-25
Annual MMBtu – Gross	6,872	7,289	14,161
Annual MMBtu – Net	4,566	4,845	9,411
Participants	713	756	1,469
Incentive Costs	$163,480	$173,397	$336,877
EM&V Costs	$24,521	$26,010	$50,531
Other Administrative Costs	$98,088	$104,039	$202,127
Total Program Costs	$286,089	$303,446	$589,535
TRC	1.77	1.76	1.77
UCT	1.77	1.76	1.77

Table 6: Chesapeake Assisted Home Performance with ENERGY STAR Snapshot

Element	2024	2025	2024-25
Annual MMBtu – Gross	848	904	1,752
Annual MMBtu – Net	616	654	1,270
Participants	65	70	135
Incentive Costs	$33,793	$35,428	$69,221
EM&V Costs	$5,069	$5,314	$10,383
Other Administrative Costs	$20,276	$21,257	$41,533
Total Program Costs	$59,138	$61,999	$121,137
TRC	1.45	1.45	1.45
UCT	1.22	1.23	1.22

2.2 Chesapeake Standard Offer Program

To ensure that is reaching all classes of customers and yield higher levels of savings, Chesapeake has developed a novel program design called the Standard Offer Program.

Eligibility Criteria

The SOP is available to any Chesapeake customer taking firm service.

Target Market(s)

The target market is any customer in any segment taking a firm service from Chesapeake regardless of whether already served by the programs jointly delivered with SEU, or by programs offered by DNREC or other administrators of non-residential or specific low/moderate income programs.

Program Offering

The SOP will allow any party to submit any cost-effective nature gas EE project, program, or activity to Chesapeake as a request for incentive funding. The SOP application will include a worksheet on which the requesting party must describe the customer(s) or market segments, the EE measures or projects including costs, both gas and electric (if any) savings[6], end-use addressed, measure or project life, and calendar year of delivery. The worksheet is an Excel-based form that automatically performs mathematical operations on the input data to identify whether the proposed action is indeed cost effective and thus eligible for a Chesapeake incentive and what the maximum (not guaranteed) Chesapeake incentive amount is. Figure 3 is an illustrative mock-up of the SOP application worksheet.

[6] The program seeks information on both electric and gas savings, because analysis includes conversion of savings to MMBtu, and applies the proportion of gas savings to the total project cost to yield the project cost attributable to gas that is used in cost effectiveness testing.

Figure 3: Standard Offer Program Application Worksheet (illustrative)

Chesapeake Utilities - Delaware

Project Summary and Economics Calculator

Project or Measure Information (implementer data entry to green cells)

Project Identification		Project or Measure Quantification		Project or Measure Quantification	
Customer Name:	John Doe	Gross Annual MMBtu:	4,586.9	Useful Life:	15
CUC Account Number:	1234567890	Assumed NTG	0.9000	Project Year:	2024
Project Title (C&I only):		Net Annual MMBtu	4,128.20	End Use:	Heat
Host Program Administrator:	DNREC	Electric kWh	0	Percent of BTU gas	100.00%
Host PA Tracking ID:	987654	Project Cost	$163,192.82	Project Cost to Gas	$163,193
				Key:	Implementer (PA Partner) Input
Maximum Chesapeake Contribution to Measure Cost (i.e., Incentive to Host PA):			**$81,596.41**		Chesapeake Input
Fully Loaded (Measure + Admin) Gas TRC			2.36		Calculation

In addition to the application worksheet, an SOP application package will require various project back-up documentation to confirm the savings calculation and cost estimate, as well as an application form containing typical project and customer information, and attestation regarding other funding sources leveraged (if any) and/or attestation that Chesapeake incentive funding is required by the applicant to make the measure, project, or activity economically feasible to them. The "other funding attestation" allows Chesapeake to adjust the measure, project, or activity cost to net out other costs, to establish a basis for allocation of savings to other programs and program administrators, and to make a judgement as to whether the measure, project, or activity indeed warrants incremental incentive funding by Chesapeake. The "feasibility attestation" is known in the language of EM&V as the "enhanced self-report" method of assuring the measure, project, or activity is not a free-rider and would not be undertaken without the Chesapeake incentive.

Measures and Incentives

Any measure, project, or activity yielding cost effective gas savings is eligible, with the application worksheet calculating maximum incentive level to result on a TRC of greater than 1.1.

Marketing Strategy

Chesapeake will market the SOP through its existing channels (e.g., outreach staff, bill messaging, web site) and anticipates parties seeking SOP incentives will themselves market the program to generate business for themselves.

Program Quantification Snapshot

Table 7: Chesapeake Standard Offer Program Snapshot

Element	2024	2025	2024-25
Annual MMBtu – Gross	4,032	9,431	13,463
Annual MMBtu – Net	3,629	8,488	12,117
Participants	TBD	TBD	TBD
Incentive Costs	$71,731	$172,801	$244,532
EM&V Costs	$10,760	$25,920	$36,680
Other Administrative Costs	$43,038	$103,680	$146,718
Total Program Costs	$125,529	$302,401	$427,930
TRC	2.36	2.28	2.3
UCT	3.7	3.58	3.61

3 Cost Recovery

Chesapeake's proposed Energy Efficiency Rider ("EER" or "Rider") and the associated calculations are attached as Appendix D to this Plan for the convenience of the EEAC. The proposed Rider was developed by Chesapeake after discussions with Commission Staff and the DPA.

The design of the cost recovery mechanism begins with years 2024-2025 projected expenses for this Portfolio Plan plus the established regulatory asset approved in PSC Docket No. 16-0920, Order No. 8950. This regulatory asset was approved to defer and track costs incurred arising out of activities and programs recommended by the EEAC pursuant to 29 Del.C. §8059 (h)(1)e.2. The project expenses are based off the calendar year expenses for each project year (January through December), known as the cost period plus the regulatory asset. These expenses are straight-line amortized over three years, with a 12-month recovery period of April through March. The annual total amortization per year is then netted of the deferred tax benefit with the PSC Assessment applied to develop the total net recovery per recovery period. The total net recovery is then divided by the total forecasted firm volumes for the recovery period (April through March) to produce the rate to be placed on customer bills. The rate developed is recommended to be the same for all firm rate schedules.

The cost recovery mechanism will be tracked and trued up in the annual reconciliation process with the cost recovery period being January through December, to be filed March 1 each year to be effective April 1 of that year.

Appendix A (Program Tables)

Chesapeake HEC Snapshot

Element	2024	2025	2024-25
Annual MMBtu – Gross	3,241	3,435	6,676
Annual MMBtu – Net	1,752	1,857	3,609
Participants	486	515	1,001
Incentive Costs	$28,810	$30,516	$59,326
EM&V Costs	$4,322	$4,577	$8,899
Other Administrative Costs	$17,286	$18,309	$35,595
Total Program Costs	$50,418	$53,402	$103,820
TRC	3.29	3.28	3.29
UCT	3.97	3.95	3.96

Chesapeake Home Performance with ENERGY STAR Snapshot

Element	2024	2025	2024-25
Annual MMBtu – Gross	6,872	7,289	14,161
Annual MMBtu – Net	4,566	4,845	9,411
Participants	713	756	1,469
Incentive Costs	$163,480	$173,397	$336,877
EM&V Costs	$24,521	$26,010	$50,531
Other Administrative Costs	$98,088	$104,039	$202,127
Total Program Costs	$286,089	$303,446	$589,535
TRC	1.77	1.76	1.77
UCT	1.77	1.76	1.77

Chesapeake Assisted Home Performance with ENERGY STAR Snapshot

Element	2024	2025	2024-25
Annual MMBtu – Gross	848	904	1,752
Annual MMBtu – Net	616	654	1,270
Participants	65	70	135
Incentive Costs	$33,793	$35,428	$69,221
EM&V Costs	$5,069	$5,314	$10,383
Other Administrative Costs	$20,276	$21,257	$41,533
Total Program Costs	$59,138	$61,999	$121,137
TRC	1.45	1.45	1.45
UCT	1.22	1.23	1.22

Chesapeake Standard Offer Program Snapshot

Element	2024	2025	2024-25
Annual MMBtu – Gross	4,032	9,431	13,463
Annual MMBtu – Net	3,629	8,488	12,117
Participants	TBD	TBD	TBD
Incentive Costs	$71,731	$172,801	$244,532
EM&V Costs	$10,760	$25,920	$36,680
Other Administrative Costs	$43,038	$103,680	$146,718
Total Program Costs	$125,529	$302,401	$427,930
TRC	2.36	2.28	2.3
UCT	3.7	3.58	3.61

Chesapeake Total Portfolio Snapshot

Element	2024	2025	2024-25
Annual MMBtu – Gross	14,993	21,059	36,052
Annual MMBtu – Net	10,563	15,844	26,407
Participants	1,264	1,341	2,605
Incentive Costs	$297,814	$412,142	$709,956
EM&V Costs	$44,672	$61,821	$106,493
Other Administrative Costs	$178,688	$247,285	$425,973
Total Program Costs	$521,174	$721,248	$1,242,422
TRC	2.09	2.13	2.11
UCT	2.39	2.64	2.53

Appendix B (Avoided Cost Assumptions)

Avoided costs are determined via a methodology established by the EM&V Working Group and endorsed by the EEAC. The most recent memorandum from Optimal Energy, in their role as consultant to DNREC, and ostensibly the whole of the EEAC, is embedded here:

Avoided Cost Update Memo.pdf

For Chesapeake, that methodology bases avoided costs on the most recent GSR cost of gas. For the 2024-25 EE portfolio planning process, Chesapeake and Optimal agreed that updating the avoided costs from those based on the 2021-22 GSR to reflect the 2022-23 GSR would be appropriate. Tables B-1 and B-2 provide the base avoided costs used in cost effectiveness screening for this Plan.

Table B-1: 2022-23 Chesapeake GSR Mathematics for Avoided Costs

GSR Calculation Element	2022-2023 Value	Units
Chesapeake gross GSR	$1.2290	per CCF
Less reconciliation of prior year over/under collection as filed	-$0.0941	per CCF
Net GSR as filed	$1.1349	per CCF
Divided by heat rate factor of	1.0370	Therms/Mcf
Net GSR as filed in Therms	$1.0944	per Therm
Times ten for Therms to MMBtu	$10.94	per MMBtu

Table B-2: Chesapeake Avoided Costs

Year	$/MMBtu
2023	$10.94
2024	$10.41
2025	$10.08
2026	$9.84
2027	$9.69
2028	$9.70
2029	$9.79
2030	$9.85
2031	$9.88
2032	$9.84
2033	$9.96
2034	$9.97
2035	$9.83
2036	$9.78
2037	$9.83
2038	$9.82
2039	$9.84
2040	$9.81
2041	$9.73
2042	$9.69
2043	$9.65

Appendix C (Brief Measure Characterization)

Measure	Unit	Gross MMBtu	Source	Useful Life
4' DHW Pipe Wrap	Per four feet	0.460	TRM p 166-168	15
Aerator	Each	0.296	TRM p 157-161	10
Showerhead	Each	1.230	TRM p 152-156	10
Tankless Water Heater	Per .82 EF, 40-gallon equivalent	4.380	TRM p 169-172	13
94 AFUE Furnace	Furnace	10.850	TRM p 114-116	18
96 AFUE Furnace	Furnace	12.400	TRM p 114-116	18
Combination Boiler	Boiler	10.380	Per NJ TRM	16
Thermostat	Each	7.410	TRM p 117-23	7
90 AFUE Boiler	Boiler	6.000	TRM p 111-13	18
15' Boiler Pipe Insulation	Per 15 feet	0.630	TRM p 131-133	15
DHW Temp Turndown	Each	0.360	TRM p 186-189	2
Weatherization Kit	Each	5.669	CT TRM, HDD adjusted	15

Appendix D (Cost Recovery)

Amortization Amounts

PY1-2024

Expenses	$ 1,021,173.75
Tax Rate	27.87%
Adj Cost of Capital	9.66%

Year	Amortization[1]	Unamortized Balance	Income Taxes[2]	Deferred Tax Account[3]	Deferred Tax Benefit[4]	Actual Recovery	To be Recovered During Recovery Year Beginning
	(a)	(b)	(c)	(d)	(e)	(f) = (a) - (e)	
1	$ 340,391.25	$ 680,782.50	$ 94,867.04	$ 189,734.08	$ 18,321.61	$ 322,069.64	1-Apr-24
2	$ 340,391.25	$ 340,391.25	$ 94,867.04	$ 94,867.04	$ 9,160.80	$ 331,230.45	1-Apr-25
3	$ 340,391.25	$ -	$ 94,867.04	$ -	$ -	$ 340,391.25	1-Apr-26
Total	$ 1,021,173.75		$ 284,601.12		$ 27,482.41	$ 993,691.34	$ -

PY2-2025

Expenses	$ 721,248.73
Tax Rate	27.87%
Adj Cost of Capital	9.66%

Year	Amortization[1]	Unamortized Balance	Income Taxes[2]	Deferred Tax Account[3]	Deferred Tax Benefit[4]	Actual Recovery	To be Recovered During Recovery Year Beginning
	(a)	(b)	(c)	(d)	(e)	(f) = (a) - (e)	
1	$ 240,416.24	$ 480,832.49	$ 67,004.01	$ 134,008.01	$ 12,940.44	$ 227,475.81	1-Apr-25
2	$ 240,416.24	$ 240,416.24	$ 67,004.01	$ 67,004.01	$ 6,470.22	$ 233,946.02	1-Apr-26
3	$ 240,416.24	$ -	$ 67,004.01	$ -	$ -	$ 240,416.24	1-Apr-27
Total	$ 721,248.73		$ 201,012.02		$ 19,410.66	$ 701,838.07	$ -

Recovery Amounts

Recovery Year Beginning		PY1 2024[1] (a)		PY2 2025[1] (b)	Total Recovery (c) = (a) + (b)	(Over)/Under Collection Balance[2] (d)	Net Recovery (e) = (c) + (d)	PSC Assessment[3] (f)	Total Net Recovery (g) = (e) / (1 - (f))
1-Apr-24	1	$ 322,069.64			$ 322,069.64	$ -	$ 322,069.64	0.3%	$ 323,038.76
1-Apr-25	2	$ 331,230.45	1	$ 227,475.81	$ 558,706.25	$ -	$ 558,706.25	0.3%	$ 560,387.41
1-Apr-26	3	$ 340,391.25	2	$ 233,946.02	$ 574,337.27	$ -	$ 574,337.27	0.3%	$ 576,065.47
1-Apr-27			3	$ 240,416.24	$ 240,416.24	$ -	$ 240,416.24	0.3%	$ 241,139.66
1-Apr-28					$ -	$ -	$ -	0.3%	$ -
		$ 993,691.34		$ 701,838.07	$ 1,695,529.41	$ -	$ 1,695,529.41		$ 1,700,631.30

Rate Calculations

Recovery Year Beginning	Total Net Recovery[1] (a)	April through March Firm Estimated Volume (Mcf)[2] (b)	Calculate Rate ($/Mcf) (c) = (a) / (b)	Calculate Rate ($/Ccf) (d) = (c) / 10
1-Apr-24	$ 323,038.76	9,705,828	$ 0.03328297	$ 0.00333
1-Apr-25	$ 560,387.41	10,093,244	$ 0.05552104	$ 0.00555
1-Apr-26	$ 576,065.47	10,432,833	$ 0.05521659	$ 0.00552
1-Apr-27	$ 241,139.66	10,608,791	$ 0.02273017	$ 0.00227
1-Apr-28	$ -	10,608,791	$ -	$ -