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**VIA ELECTRONIC SUBMITTAL**

May 10, 2022

Laura L. Wilborn  
Information Processing Specialist  
Division of Legislative Automated Systems  
Pocahontas Building, Suite W528  
900 East Main Street  
Richmond, Virginia 23219

**Virginia Electric and Power Company's Report on Stakeholder Group  
and Programs related to Time-Varying Rates, in accordance with  
2019 Virginia Acts of Assembly, Chapter 763**

Dear Ms. Wilborn:

Pursuant to Enactment Clause 2 of Chapter 763 of the 2019 Virginia Acts of Assembly (effective July 1, 2019) ("Enactment Clause 2"), enclosed for electronic submission to the General Assembly, please find Virginia Electric and Power Company's status report updating the General Assembly on the work of the stakeholder group convened pursuant to Enactment Clause 2 and the programs developed in conjunction with such stakeholder group ("Status Report").

Please note that the Status Report was timely delivered to Governor Ralph Northam's office on January 1, 2021, though a copy was inadvertently not submitted to the electronic portal maintained by the General Assembly at that time.

Please do not hesitate to contact me if you have any questions.

Sincerely yours,

*/s/ Lauren W. Biskie*

Lauren W. Biskie  
Senior Counsel

Enclosure

cc: Paul Pfeffer, Esq.  
Nathan Frost  
Scott T. Hazelwood

January 1, 2021

The Honorable Governor Ralph Northam  
Commonwealth of Virginia  
P.O. Box 1475  
Richmond, VA 23218

*Virginia Electric and Power Company's  
Report on Stakeholder Group and Programs related to Time-Varying Rates,  
In accordance with 2019 Virginia Acts of Assembly, Chapter 763*

Dear Governor Northam:

In accordance with Enactment Clause 2 of Chapter 763 of the 2019 Virginia Acts of Assembly (effective July 1, 2019), Virginia Electric and Power Company d/b/a Dominion Energy Virginia (“Dominion Energy” or “the Company”) submits this status report on the work of the stakeholder group convened pursuant to this Chapter and programs developed in conjunction with such stakeholder group (“Status Report”).

Specifically, Chapter 763 of the 2019 Virginia Acts of Assembly directs, among other things:

*That no later than 60 days after the effective date of this act each Phase II Utility, as such term is defined in subdivision A 1 of § 56-585.1 of the Code of Virginia, shall convene a stakeholder process to make recommendations to the utility concerning (i) the development of retail rate schedules designed to offer time-varying pricing that take advantage of advanced metering technology and related investments in customer information systems; (ii) the development of incentive programs for the installation of equipment to develop electric energy derived from sunlight for customers using advanced metering technology served under such time-varying rate schedules; (iii) the possible transition of net metering customers using advanced metering technology to the time-varying rate schedules; (iv) peak shaving programs; (v) the provision of on-site distributed renewable generation to multifamily dwellings; and (vi) related system effects and requirements arising from distributed generation resources. An independent facilitator with expertise in rate design, cost recovery, and solar markets, compensated by the utility, offset by such contributions from members of the stakeholder group as the members deem appropriate, shall facilitate such stakeholder process. The utility shall consult with the stakeholder group and the State Corporation Commission prior to engaging the independent facilitator. Such stakeholder process shall include representatives from the utility, the State Corporation Commission, the office of Consumer Counsel of the Attorney General, the Department of Mines, Minerals and Energy, net-metering program administrators, customer-generators, agricultural customer-generators, solar energy program implementers, solar energy providers, other residential and small business customers, and any other interested stakeholder who the utility deems appropriate for inclusion in such process. The utility shall report on the status of the work of the stakeholder group and the programs developed in conjunction with such stakeholder group, including the petitions filed and the determination thereon, to the Governor, the State Corporation Commission, and the Chairmen of the House and Senate Committees on Commerce and Labor on January 1, 2020, and thereafter on January 1 of each successive year.*

In accordance with these requirements, Dominion Energy engaged Navigant Consulting, Inc. (“Navigant”), after consultation with the stakeholder group and the State Corporation Commission, to facilitate the stakeholder process. The stakeholder group met five times between May and October 2019 to discuss time-varying rate goals, benefits, and options, among other things, and to collectively develop an optimal time-varying rate program for Dominion Energy Virginia customers. As a result of this stakeholder process, the Company filed an application with the State Corporation Commission on December 12, 2019 to establish an experimental residential rate, designated Time-of-Use Rate Schedule 1G (Experimental), which was docketed as Case No. PUR-2019-00214.

Dominion Energy continued to work with stakeholders in early 2020 to further develop a solar incentive rebate program and on February 14, 2020, the Company supplemented its Time-of-Use Rate Schedule 1G filing with an application to establish the Solar Incentive Program – an optional program for Schedule 1G participants to receive a rebate to partially offset the costs to install distributed solar (net metering) equipment.

On May 20, 2020, the State Corporation Commission issued its Final Order approving both the Time-of-Use Rate Schedule 1G and the Solar Incentive Program, effective January 2021. The State Corporation Commission’s Final Order is included with this Status Report as **Appendix A**.

Following the approvals, Dominion Energy worked diligently with internal and external stakeholders to refine its plans on customer outreach, education, and Evaluation, Measurement and Verification (“EM&V”). This included three virtual meetings with the stakeholder group between July and October 2020 to provide updates on these topics, program development progress, and to receive feedback. The Company filed its plans for customer outreach, education, and EM&V on October 30, 2020 with the State Corporation Commission. These plans are included with this Status Report as **Appendix B**.

Beyond these developments, Dominion Energy remains committed to the six focus areas outlined in Chapter 763 of the 2019 Virginia Acts of Assembly. As reflected in **Appendix C** to this Status Report, the directives contained within Chapter 763 have largely been fulfilled or, in some instances, been enrolled into separate, enabling legislation and regulatory proceedings. Accordingly, the Company believes it has fulfilled the directives established by the Virginia General Assembly, has communicated this position to stakeholders, and received no dissenting opinion. Therefore, the Company views this Status Report as its final submission pursuant to Chapter 763.

Thank you for the opportunity to provide this information. If you or your staff members have any questions, please contact me.

Sincerely,

Nathan Frost  
Director – New Technology & Energy Conservation  
Dominion Energy Virginia  
[nathan.j.frost@dominionenergy.com](mailto:nathan.j.frost@dominionenergy.com)

## APPENDIX C

Chapter 763 Directive	Status
(i) the development of retail rate schedules designed to offer time-varying pricing that take advantage of advanced metering technology and related investments in customer information systems;	<p style="text-align: center;">Complete.</p> <p style="text-align: center;">SCC approved time-varying rate schedule; Case No. PUR-2019-00214</p>
(ii) the development of incentive programs for the installation of equipment to develop electric energy derived from sunlight for customers using advanced metering technology served under such time-varying rate schedules;	<p style="text-align: center;">Complete.</p> <p style="text-align: center;">SCC approved solar incentive program; Case No. PUR-2019-00214</p>
(iii) the possible transition of net metering customers using advanced metering technology to the time-varying rate schedules;	<p style="text-align: center;">Complete.</p> <p>The approved time-varying rate schedule (Schedule 1G) and solar incentive program will help inform the possible future transition for net metering customers.</p> <p>Virginia Code § 56-594, as amended by the Virginia Clean Economy Act, further directs future SCC rate proceedings to determine rate efficacy for net metering customers.</p>
(iv) peak shaving programs;	<p>Virginia Code § 56-585.5, as enacted by the Virginia Clean Economy Act, directs the SCC to adopt regulations by January 1, 2021, to achieve, among other things, peak demand reduction programs.</p> <p>Virginia Code § 56-592.1, as amended by the Virginia Clean Economy Act, further directs an independent monitor-led stakeholder process to provide input and feedback on energy efficiency programs and portfolios or programs, including curtailment of peak demand.</p>
(v) the provision of on-site distributed renewable generation to multifamily dwellings;	<p style="text-align: center;">Complete.</p> <p>The 2020 Virginia Acts of Assembly amended the Code of Virginia by adding § 56-585.1:12, directing the SCC to establish a program by 1/1/2021 to afford eligible multi-family customers the opportunity to participate in shared solar projects.</p>

(vi) related system effects and requirements arising from distributed generation resources.

Complete / Continuous.

Virginia Code § 56-585.1 A 6 directs Dominion plans for electric distribution grid transformation projects to include measures to facilitate the integration of distributed energy resources.

Virginia Code § 56-599 further directs Dominion to systematically evaluate long-term electric distribution grid planning and proposed electric distribution grid transformation projects as part of all integrated resource plans.

## STATE CORPORATION COMMISSION

AT RICHMOND, MAY 20, 2020

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## APPLICATION OF

VIRGINIA ELECTRIC AND POWER COMPANY

CASE NO. PUR-2019-00214

For approval to establish an experimental residential rate schedule, designated Time-Of-Use Rate Schedule 1G (Experimental)

FINAL ORDER APPROVING EXPERIMENT

On December 12, 2019, Virginia Electric and Power Company ("Dominion" or "Company") filed an application ("Application") with the State Corporation Commission ("Commission") for approval to establish a new experimental and voluntary residential time-of-use ("TOU") rate schedule, designated Time-Of-Use Rate Schedule 1G (Experimental) ("TOU Schedule 1G"), pursuant to § 56-234 B of the Code of Virginia ("Code").<sup>1</sup> Pursuant to Code § 56-234 B, the Commission is required to issue its final order on the Application "the earlier of not more than six months after the filing of the petition or not more than three months after the date of any evidentiary hearing concerning such petition."

On December 23, 2019, the Commission issued an Order for Notice and Hearing that, among other things: established a procedural schedule; set an evidentiary hearing date; directed Dominion to provide public notice of its Application; and provided interested persons an opportunity to file comments on the Application or to participate in the case as a respondent by filing a notice of participation.

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<sup>1</sup> The Company also filed the Application in compliance with Senate Bill 1769 enacted by the 2019 Virginia General Assembly. *See* 2019 Va. Acts of Assembly, ch. 763.

On February 14, 2020, Dominion filed a Motion for Leave to Supplement Application and Direct Testimony requesting to add an optional solar incentive rebate ("Solar Incentive Program") to proposed TOU Schedule 1G. On February 21, 2020, the Commission issued an Order Granting Motion and Directing Supplemental Notice, which, among other things, permitted the Company to supplement its Petition to include the Solar Incentive Program.

Notices of participation were filed by Appalachian Voices ("Environmental Respondents") and the Virginia Office of the Attorney General, Division of Consumer Counsel. The Company, Environmental Respondents, and Commission Staff ("Staff") pre-filed testimony in this matter.

On May 5, 2020, the Commission convened a hearing on the Company's Application. The Commission received testimony and exhibits from Dominion, respondents, and Staff. On May 6, 2020, the Commission convened a separate hearing to receive the testimony of public witnesses.<sup>2</sup>

NOW THE COMMISSION, upon consideration of this matter, is of the opinion and concludes that the record herein supports the following findings.

(1) Subject to the requirements ordered herein, experimental rate TOU Schedule 1G, including the Solar Incentive Program, is "necessary in order to acquire information which is or may be in furtherance of the public interest" under Code § 56-234 B and should be approved for implementation on an experimental basis on and after January 1, 2021. On or before November 1, 2020, Dominion shall file a revised TOU Schedule 1G consistent with the findings in this order.

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<sup>2</sup> No public witnesses appeared to testify. Tr. 203.

(2) Dominion plans for this experiment to lay the groundwork for a systemwide rollout of TOU rates.<sup>3</sup> In this regard, the Commission finds that implementing TOU Schedule 1G at this time will serve only as an initial step toward the potential development of a systemwide rate design for TOU rates. Specifically, having found the Company's proposal meets the minimum requirements of the statute, the Commission further finds – and emphasizes – that much more data and detail will be necessary to determine the type and structure of a TOU rate design that will serve the public interest on a significantly wider scale. Accordingly, as information regarding the actual implementation of this experiment becomes available, the Company shall file proposed modifications thereto designed to strengthen the robustness and efficacy of this experimental program.

(3) On or before November 1, 2020, Dominion shall file in this docket detailed plans for (a) evaluation, measurement, and verification ("EM&V"), and (b) customer education ("Outreach & Communication") associated with TOU Schedule 1G.

(4) As proposed by the Company, TOU Schedule 1G shall be limited to 10,000 participants, and the Solar Incentive Program shall be limited to 500 participants as a subset of the 10,000 participants in TOU Schedule 1G.

(5) Residential customers who are subject to a separate demand charge (*i.e.*, net metering customers subject to a standby charge) shall be eligible to take service under TOU Schedule 1G.

(6) Residential customers enrolled in demand response and peak shaving programs sponsored by the Company or the PJM Interconnection, L.L.C., regional transmission organization shall not be eligible to take service under TOU Schedule 1G at this time.

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<sup>3</sup> *See, e.g.*, Tr. 139-140.



(7) The Company shall include in its marketing materials and post online the all-in rate (in cents per kilowatt hour) to residential customers participating in TOU Schedule 1G, including all applicable riders, during on-peak, off-peak, and super off-peak times.<sup>4</sup>

(8) The Company shall file an annual report in this docket on or before December 31 (during each year this experiment remains in effect) on the specific EM&V results of TOU Schedule 1G through July 31 of such year. The first such report shall be filed on or before December 31, 2021.

(9) The Company utilized a stakeholder process in developing the TOU Schedule 1G rates proposed herein. The Company shall also utilize a reasonable stakeholder process during the implementation of this experiment that includes, but is not necessarily limited to, the preparation of detailed EM&V and Outreach & Communication plans, as well as developing proposed modifications to the instant experiment to increase the robustness and efficacy thereof. The stakeholder process shall also consider the use of shadow billing in connection with customer Outreach & Communication.

Accordingly, IT IS SO ORDERED, and this docket shall remain OPEN.

A COPY hereof shall be sent electronically by the Clerk of the Commission to all persons on the official Service List in this matter. The Service List is available from the Clerk of the Commission.

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<sup>4</sup> The Company shall also include potential demand charges (*i.e.*, the standby charge applicable to certain net metering customers) in dollars per kilowatt.

October 30, 2020

**BY ELECTRONIC DELIVERY**

Bernard Logan, Interim Clerk  
State Corporation Commission  
c/o Document Control Center  
1300 E. Main Street, Tyler Bldg., 1<sup>st</sup> Fl.  
Richmond, Virginia 23219

*Application of Virginia Electric and Power Company for approval to establish an experimental residential rate, designated Time-Of-Use Rate Schedule 1G (Experimental)*

**Case No. PUR-2019-00214**

Dear Mr. Logan:

On May 20, 2020, the State Corporation Commission (“Commission”) issued its Final Order Approving Experiment (“Order”) directing Virginia Electric and Power Company (“Dominion Energy Virginia” or “Company”) to file (1) a revised time-of-use (“TOU”) rate schedule, designated Time-Of-Use Rate Schedule 1G (Experimental) (“Schedule 1G”), consistent with the findings in the Commission’s Order;<sup>1</sup> (2) its detailed plans for evaluation, measurement, and verification (“EM&V”), and (3) its plans for customer education (“Outreach & Communication”) associated with TOU Schedule 1G<sup>2</sup> (collectively, the “Compliance Documents”). The Order further directed that the Company utilize a stakeholder process in developing the Compliance Documents.<sup>3</sup> Stakeholders convened three times since the Final Order: (1) July 30, 2020, where the primary focus was to further develop the customer outreach strategy and general program identity (such as the logo and messaging); (2) September 10, 2020, where the primary focus was to further develop the EM&V Plan, and (3) October 15, 2020, where the primary focus was to share drafts of the EM&V and Outreach & Communication Plans.

Accordingly and in compliance with the Commission’s Order, please find enclosed for electronic filing the Company’s (1) revised tariff for Schedule 1G (Experimental); (2) its companion tariff, Schedule 1G (Experimental) Rebate Program; (3) the Company’s EM&V Plan; (4) and its Outreach & Communication Plan.

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<sup>1</sup> Final Order Approving Experiment at Ordering Paragraph (1).

<sup>2</sup> Final Order Approving Experiment at Ordering Paragraph (3).

<sup>3</sup> Final Order Approving Experiment at Ordering Paragraph (9).

The following is a brief description of the documents included in this filing:

- **Revised Schedule 1G (Experimental)** – This revised tariff is intended to go into effect on and after January 1, 2021. Schedule 1G is subject to a participation limitation of 10,000 accounts. As proposed by the Company, TOU Schedule 1G includes a basic customer charge and energy charges, differentiated by time periods within each season (summer and non-summer).
- **Schedule 1G (Experimental) Rebate Program** – This Rebate Program is available to customers on a voluntary basis. The availability of the Rebate Program is limited to a maximum of 500 rebates.
- **EM&V Plan** – The Company’s EM&V Plan includes detailed plans for the evaluation of Schedule 1G. The plan addresses program management evaluation, bill impact and load impact analyses, EM&V protocols, and the plan for annual reporting.
- **Outreach & Communication Plan** – The Company’s Outreach & Communication Plan includes Dominion Energy Virginia’s plans for customer engagement and education for Schedule 1G. The implementation of the customer engagement and education plan and enrollment will be managed by Company staff, with the assistance of external stakeholders.

Please do not hesitate to call if you have any questions in regard to the enclosed.

Highest regards,

/s/ Lisa R. Crabtree

Lisa R. Crabtree

#### Enclosures

cc: The Honorable D. Mathias Roussy, Hearing Examiner  
John Stevens, Deputy Director  
Brian S. Pratt, Principal Utilities Analyst  
Paul E. Pfeffer, Esq.  
Audrey T. Bauhan, Esq.  
Vishwa B. Link, Esq.  
April M. Jones, Esq.  
Service List

**Revised Tariff for Schedule 1G  
(Experimental)**

**(Clean and Redline Versions)**

Schedule 1G

RESIDENTIAL SERVICE  
(EXPERIMENTAL)

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I. APPLICABILITY

This schedule is applicable only to Customers electing to receive separately metered and billed Electricity Supply Service and Electric Delivery Service from the Company for use in and about (a) a single-family residence, flat or apartment, (b) a combination farm and one occupied single-family residence, flat or apartment, or (c) a private residence used as a boarding and/or rooming house with no more than one cooking installation nor more than ten bedrooms, or (d) separately metered service to detached accessory buildings appurtenant to residential dwellings unless such buildings use electricity for commercial or industrial purposes.

A combination residence and farm, having more than one single-family residence, flat or apartment served electricity through a single meter, that was being billed under Schedule 1 prior to April 1, 1971, may be supplied electricity under this schedule provided each such dwelling unit is occupied by the owner or by a tenant working on the farm. Such multiple-residence farms connected on and after April 1, 1971, shall not be served under this schedule.

This schedule is not applicable for (a) individual motors rated over 15 HP, and (b) commercial use as in hotels, public inns, motels, auto courts, tourist courts, tourist camps, or trailer camps.

II. AVAILABILITY

Subject to a participation limitation of 10,000 accounts, this schedule is available only where:

- A. The Company has installed and deployed its advanced metering infrastructure (AMI);
- B. The Customer does not participate in a PJM Interconnection, LLC or Company-Sponsored demand response program or peak-shaving demand response program; and
- C. The Company received the Customer's voluntary request for service in accordance with this schedule through and including December 31, 2024. A Customer who discontinues service under this schedule after less than one year of service may not be served under this schedule for the Customer's account at the same premise within one year of such discontinuation of service.

(Continued)

## Schedule 1G

RESIDENTIAL SERVICE  
(EXPERIMENTAL)

(Continued)

## III. MONTHLY RATE

## A. Distribution Service Charges

1. Basic Customer Charge \$6.58 per billing month
2. Plus Distribution kWh Charge
  - a. All On-Peak kWh @ 1.7255¢ per kWh
  - b. All Off-Peak kWh @ 1.7255¢ per kWh
  - c. All Super Off-Peak kWh @ 1.7255¢ per kWh
3. Plus each Distribution kilowatt-hour used is subject to all applicable riders, included in the Exhibit of Applicable Riders.
4. Plus, where the Customer receives service in accordance with Paragraph XXV NET METERING of the Company's TERMS AND CONDITIONS and where the alternating current capacity of the Renewable Fuel Generator exceeds 15 kW, the Customer shall be billed a Distribution Standby Charge of \$2.62 per kW of demand, minus the charge under III.A.2., above, but not less than zero.

## B. Electricity Supply (ES) Service Charges

1. Generation kWh Charge
  - a. For the period beginning May 1 and extending through September 30
 

All On-Peak ES kWh	@	15.2128¢ per kWh
All Off-Peak ES kWh	@	1.8916¢ per kWh
All Super Off-Peak ES kWh	@	0.0229¢ per kWh
  - b. For the period beginning October 1 and extending through April 30
 

All On-Peak ES kWh	@	9.7539¢ per kWh
All Off-Peak ES kWh	@	2.6289¢ per kWh
All Super Off-Peak ES kWh	@	2.2826¢ per kWh
2. Plus Transmission kWh Charge
  - a. All kWh @ 0.970¢ per kWh
  - b. Plus, where the Customer receives service in accordance with Paragraph XXV – NET METERING of the Company's TERMS AND CONDITIONS and where the alternating current capacity of the Renewable Fuel Generator exceeds 15 kW, the Customer shall be billed a Transmission Standby Charge of \$1.32 per kW of demand, minus the charge under III.B.2.a., above, but not less than zero.

(Continued)

Schedule 1G

RESIDENTIAL SERVICE  
(EXPERIMENTAL)

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(Continued)

III. MONTHLY RATE (CONTINUED)

3. Plus each Electricity Supply kilowatt-hour used is subject to all applicable riders, included in the Exhibit of Applicable Riders.

C. The minimum charge shall be the Basic Customer Charge in Paragraph III.A.1., above.

IV. DETERMINATION OF ON-PEAK, OFF-PEAK, AND SUPER OFF-PEAK HOURS

A. On-Peak Hours (Except certain holidays)

1. For the period of May 1 through September 30, On-Peak hours are: 3 p.m. to 6 p.m., Mondays through Fridays.

2. For the period of October 1 through April 30, On-Peak hours are: 6 a.m. to 9 a.m. and 5 p.m. to 8 p.m., Mondays through Fridays.

B. Off-Peak and Super Off-Peak Hours

1. For the period of May 1 through September 30, Off-Peak hours are: 5 a.m. to 3 p.m. and 6 p.m. to 12 a.m., Mondays through Fridays.

2. For the period of October 1 through April 30, Off-Peak hours are: 5 a.m. to 6 a.m.; 9 a.m. to 5 p.m.; and, 8 p.m. to 12 a.m., Mondays through Fridays.

3. Off-Peak hours are: 5 a.m. to 12 a.m. on weekends and holidays, as identified in Section IV.B.5.

4. Super Off-Peak hours are: 12 a.m. to 5 a.m.

5. The following holidays are observed as Off-Peak and Super Off-Peak: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving, and Christmas.

V. METER READING AND BILLING

A. Meters may be read in units of 10 kilowatt-hours and bills rendered accordingly.

B. The Company may render an interim monthly bill based on estimated kWh usage during periods for which the meter was not read.

C. When bills are calculated for a bimonthly period, the Basic Customer Charge shall be multiplied by two; and the minimum charge shall be the modified Basic Customer Charge.

VI. TERM OF CONTRACT

Open order.

Schedule 1G

RESIDENTIAL SERVICE  
(EXPERIMENTAL)

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I. ~~APPLICABILITY AND AVAILABILITY~~

~~\_\_\_\_\_~~ This schedule is applicable only to Customers electing to receive separately metered and billed Electricity Supply Service and Electric Delivery Service from the Company for use in and about (a) a single-family residence, flat or apartment, (b) a combination farm and one occupied single-family residence, flat or apartment, or (c) a private residence used as a boarding and/or rooming house with no more than one cooking installation nor more than ten bedrooms, or (d) separately metered service to detached accessory buildings appurtenant to residential dwellings unless such buildings use electricity for commercial or industrial purposes.

~~\_\_\_\_\_~~ A combination residence and farm, having more than one single-family residence, flat or apartment served electricity through a single meter, that was being billed under Schedule 1 prior to April 1, 1971, may be supplied electricity under this schedule provided each such dwelling unit is occupied by the owner or by a tenant working on the farm. Such multiple-residence farms connected on and after April 1, 1971, shall not be served under this schedule.

~~\_\_\_\_\_~~ This schedule is not applicable for (a) individual motors rated over 15 HP, and (b) commercial use as in hotels, public inns, motels, auto courts, tourist courts, tourist camps, or trailer camps.

II. ~~AVAILABILITY~~

~~\_\_\_\_\_~~ Subject to a participation limitation of 10,000 accounts, this schedule is available only where:

~~\_\_\_\_\_~~ A. The Company has installed and deployed its advanced metering infrastructure (AMI);

~~\_\_\_\_\_~~ B. The Customer does not participate in a PJM Interconnection, LLC or Company-Sponsored demand response program or peak-shaving demand response program; and

~~\_\_\_\_\_~~ C. The Company received the Customer's voluntary request for service in accordance with this schedule through and including December 31, 2024. A Customer who discontinues service under this schedule after less than one year of service may not be served under this schedule for the Customer's account at the same premise within one year of such discontinuation of service.

~~\_\_\_\_\_~~ This schedule is not available to Customers that receive service in accordance with Paragraph XXV—NET METERING of the Company's TERMS AND CONDITIONS where the alternating current capacity of the Renewable Fuel Generator exceeds 15 kW.

~~\_\_\_\_\_~~ This schedule is available only where the Company has installed and deployed Advanced Metering Infrastructure (AMI).

(Continued)



Schedule 1G

RESIDENTIAL SERVICE  
(EXPERIMENTAL)

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(Continued)

~~Subject to a limitation of 10,000 accounts, this schedule is available to Customers on a voluntary basis through and including December 31, 2024. A Customer who discontinues service under this schedule after less than one year of service may not be served under this schedule for the Customer's account at the same premise within one year of such discontinuation of service.~~

(Continued)

## Schedule 1G

RESIDENTIAL SERVICE  
(EXPERIMENTAL)

(Continued)

## III. MONTHLY RATE

## A. Distribution Service Charges

1. Basic Customer Charge \$6.58 per billing month
2. Plus Distribution kWh Charge
  - a. All On-Peak kWh @ 1.7255¢ per kWh
  - b. All Off-Peak kWh @ 1.7255¢ per kWh
  - c. All Super Off-Peak kWh @ 1.7255¢ per kWh
3. Plus each Distribution kilowatt-hour used is subject to all applicable riders, included in the Exhibit of Applicable Riders.

4. Plus, where the Customer receives service in accordance with Paragraph XXV NET METERING of the Company's TERMS AND CONDITIONS and where the alternating current capacity of the Renewable Fuel Generator exceeds 15 kW, the Customer shall be billed a Distribution Standby Charge of \$2.62 per kW of demand, minus the charge under III.A.2., above, but not less than zero.

## B. Electricity Supply (ES) Service Charges

1. Generation kWh Charge
  - a. For the period beginning May 1 and extending through September 30
 

All On-Peak ES kWh	@	15.2128¢ per kWh
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  - b. For the period beginning October 1 and extending through April 30
 

All On-Peak ES kWh	@	9.7539¢ per kWh
All Off-Peak ES kWh	@	2.6289¢ per kWh
All Super Off-Peak ES kWh	@	2.2826¢ per kWh
2. Plus Transmission kWh Charge
  - a. All kWh @ 0.970¢ per kWh

b. Plus, where the Customer receives service in accordance with Paragraph XXV – NET METERING of the Company's TERMS AND CONDITIONS and where the alternating current capacity of the Renewable Fuel Generator exceeds 15 kW, the Customer shall be billed a Transmission Standby Charge of \$1.32 per kW of demand, minus the charge under III.B.2.a., above, but not less than zero.

~~3. Plus each Electricity Supply kilowatt hour used is subject to all applicable riders, included in the Exhibit of Applicable Riders.~~

~~C. The minimum charge shall be the Basic Customer Charge in Paragraph II.A.1., above.~~

(Continued)

Schedule 1G

RESIDENTIAL SERVICE  
(EXPERIMENTAL)

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III. MONTHLY RATE (CONTINUED)

3. Plus each Electricity Supply kilowatt-hour used is subject to all applicable riders, included in the Exhibit of Applicable Riders.
- C. The minimum charge shall be the Basic Customer Charge in Paragraph III.A.1., above.

III.V. DETERMINATION OF ON-PEAK, OFF-PEAK, AND SUPER OFF-PEAK HOURS

- A. On-Peak Hours (Except certain holidays)
  1. For the period of May 1 through September 30, On-Peak hours are: 3 p.m. to 6 p.m., Mondays through Fridays.
  2. For the period of October 1 through April 30, On-Peak hours are: 6 a.m. to 9 a.m. and 5 p.m. to 8 p.m., Mondays through Fridays.
- B. Off-Peak and Super Off-Peak Hours
  1. For the period of May 1 through September 30, Off-Peak hours are: 5 a.m. to 3 p.m. and 6 p.m. to 12 a.m., Mondays through Fridays.
  2. For the period of October 1 through April 30, Off-Peak hours are: 5 a.m. to 6 a.m.; 9 a.m. to 5 p.m.; and, 8 p.m. to 12 a.m., Mondays through Fridays.
  3. Off-Peak hours are: 5 a.m. to 12 a.m. on weekends and holidays, as identified in Section III.V.B.5.
  4. Super Off-Peak hours are: 12 a.m. to 5 a.m.
  5. The following holidays are observed as Off-Peak and Super Off-Peak: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving, and Christmas.

IV. METER READING AND BILLING

- A. Meters may be read in units of 10 kilowatt-hours and bills rendered accordingly.
- B. The Company may render an interim monthly bill based on estimated kWh usage during periods for which the meter was not read.
- C. When bills are calculated for a bimonthly period, the Basic Customer Charge shall be multiplied by two; and the minimum charge shall be the modified Basic Customer Charge.

VI. TERM OF CONTRACT

Schedule 1G

RESIDENTIAL SERVICE  
(EXPERIMENTAL)

---

(Continued)

Open order.

**Companion Tariff –  
Schedule 1G (Experimental) Rebate Program**

**(Clean and Redline Versions)**

Schedule 1G

RESIDENTIAL SERVICE  
(EXPERIMENTAL)  
REBATE PROGRAM

---

I. APPLICABILITY & AVAILABILITY

- A. The Schedule 1G (Experimental) Rebate Program (“Rebate Program”) is a companion tariff to Schedule 1G (Experimental). The Rebate Program is available on a voluntary basis to any Customer that receives service in accordance with the following:
1. After enrolling in and receiving service under Schedule 1G (Experimental), the Customer applies to install new net metering solar generation pursuant to Paragraph XXV – NET METERING of the Company’s TERMS AND CONDITIONS (“Net Metering Customer”);
  2. The Customer elects to receive both Electricity Supply Service and Electric Delivery Service from the Company under Schedule 1G (Experimental) for a minimum term of twelve (12) continuous months after receiving a rebate;
  3. The Customer submits the Net Metering Interconnection Notification (“NMIN”) form to the Company and requests participation in the Rebate Program no later than December 31, 2024; and
  4. The Customer receives a Permission to Operate (“PTO”) letter from the Company.
- B. The Rebate Program does not apply to Customers with existing solar net metering generating installations who receive service as a Net Metering Customer prior to taking service under Schedule 1G (Experimental).
- C. Service under the Rebate Program will be terminated in the event the Customer violates or no longer meets any of the terms and conditions associated with the Rebate Program during the term of contract. In the event of such termination, the Company shall be permitted to seek recovery of the \$500 rebate from the Customer.
- D. The Rebate Program is limited to one rebate per premise. The availability of the Rebate Program is limited to a maximum of 500 rebates. The Rebate Program will remain available until the Schedule 1G (Experimental) participant cap of 10,000 accounts has been reached or December 31, 2024, dependent on which milestone occurs first.

II. REBATE PROGRAM INCENTIVE

For each Customer premise taking service under the Rebate Program, the Customer shall receive a \$500 rebate. The processing of the Rebate Program will occur within 60 days after completion of the criteria in Section I.A.

III. TERM OF CONTRACT

The term of contract under the Schedule 1G (Experimental) shall be for not less than one (1) year for participation in the Rebate Program.

## SCHEDULE 1G (EXPERIMENTAL) REBATE PROGRAM

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### I. APPLICABILITY & AVAILABILITY

- A. The Schedule 1G (Experimental) Rebate Program (“Rebate Program”) is a companion tariff to Schedule 1G (Experimental). The Rebate Program is available on a voluntary basis to any Customer that receives service in accordance with the following:
1. After enrolling in and receiving service under Schedule 1G (Experimental), the Customer applies to install new net metering solar generation pursuant to Paragraph XXV – NET METERING of the Company’s TERMS AND CONDITIONS (“Net Metering Customer”). ~~Consistent with Schedule 1G (Experimental), the alternating current capacity of the Renewable Fuel Generator cannot exceed 15 kW to be eligible for the Rebate Program;~~
  2. The Customer elects to receive both Electricity Supply Service and Electric Delivery Service from the Company under Schedule 1G (Experimental) for a minimum term of twelve (12) continuous months after receiving a rebate;
  3. The Customer submits the Net Metering Interconnection Notification (“NMIN”) form to the Company and requests participation in the Rebate Program no later than December 31, 2024; and
  4. The Customer receives a Permission to Operate (“PTO”) letter from the Company.
- B. The Rebate Program does not apply to Customers with existing solar net metering generating installations who receive service as a Net Metering Customer prior to taking service under Schedule 1G (Experimental).
- C. Service under the Rebate Program will be terminated in the event the Customer violates or no longer meets any of the terms and conditions associated with the Rebate Program during the term of contract. In the event of such termination, the Company shall be permitted to seek recovery of the \$500 rebate from the Customer.
- D. The Rebate Program is limited to one rebate per premise. The availability of the Rebate Program is limited to a maximum of 500 rebates. The Rebate Program will remain available until the Schedule 1G (Experimental) participant cap of 10,000 ~~Customers~~accounts has been reached or December 31, 2024, dependent on which milestone occurs first.

### II. REBATE PROGRAM INCENTIVE

For each Customer premise taking service under the Rebate Program, the Customer shall receive a \$500 rebate. The processing of the Rebate Program will occur within 60 days after completion of the criteria in Section I.A.

### III. TERM OF CONTRACT

The term of contract under the Schedule 1G (Experimental) shall be for not less than one (1) year for participation in the Rebate Program.

# **Dominion Energy Virginia - EM&V Plan**





DNV GL - ENERGY

# EVALUATION PLAN FOR RATE SCHEDULE 1G

**Dominion Energy Services, Inc.**

October 2020

SAFER, SMARTER, GREENER



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# 1 PROGRAM BACKGROUND

## 1.1 Rate objectives

There are three main objectives for the TOU rate design:

1. To provide customers a positive customer experience and an opportunity to reduce consumption and save on their electric bills
2. To efficiently manage customer engagement while balancing customer value
3. To introduce modern customer engagement techniques and incorporate lessons learned
4. The rate should result in shifts in customer loads that result in reduced consumption during peak periods when incremental costs are highest

## 1.2 How the rate design will achieve its objectives

Time-varying rates can provide more accurate price signals to customers that are better aligned with cost causation principles than standard rates. Through improved price signals, such rate structures can incentivize behavioral changes in customers taking service under such rates. Participating customers may reduce usage during peak periods and enable the system to avoid incurring higher variable operating expenses, such as fuel, and avoid future capacity costs. These behavioral changes can benefit participants directly through bill savings and can benefit both participants and non-participants through the reduction of system costs. Another benefit is that time-varying rates can serve to reduce subsidies inherent in standard rates because better price signals, based upon cost causation in seasonal rate periods, are provided when compared to standard rate schedules. While standard rate schedules may have cost recovery distinguished by season, such rates may not provide differentiation in cost recovery by time period.<sup>1</sup>

## 1.3 Schedule 1G Rate tariff

The structure of the Schedule 1G Rate is described below.

Determination of on-peak, off-peak, and super off-peak hours

### **On-peak hours** (Except certain holidays)

1. From May 1 through September 30, on-peak hours are 3 p.m. to 6 p.m., Mondays through Fridays.<sup>2</sup>
2. From October 1 through April 30, on-peak hours are 6 a.m. to 9 a.m. and 5 p.m. to 8 p.m., Mondays through Fridays.

### **Off-peak and super off-peak hours**

1. From May 1 through September 30, off-peak hours are 5 a.m. to 3 p.m. and 6 p.m. to 12 a.m., Mondays through Fridays.

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<sup>1</sup> Reference PUR-2019-00214.

<sup>2</sup> The period May 1 through September 30 is considered “summer” for EM&V purposes. The period October 1 through April 30 is considered non-summer.

3. From October 1 through April 30, off-peak hours are 5 a.m. to 6 a.m.; 9 a.m. to 5 p.m.; and, 8 p.m. to 12 a.m., Mondays through Fridays.
4. Off-peak hours are 5 a.m. to 12 a.m. on weekends and holidays, as identified below.
5. Super off-peak hours are 12 a.m. to 5 a.m.
6. The following holidays are observed as off-peak and super off-peak: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving, and Christmas.

## **I. APPLICABILITY**

This schedule applies only to Customers electing to receive separately metered and billed Electricity Supply Service and Electric Delivery Service from Virginia Electric and Power Company (“Dominion Energy Virginia” or “Company”) for use in and about (a) a single-family residence, flat or apartment, (b) a combination farm and one occupied single-family residence, flat or apartment, or (c) a private residence used as a boarding and/or rooming house with no more than one cooking installation nor more than ten bedrooms, or (d) separately metered service to detached accessory buildings appurtenant to residential dwellings unless such buildings use electricity for commercial or industrial purposes.

A combination residence and farm, having more than one single-family residence, flat or apartment served electricity through a single meter, that was being billed under Schedule 1 before April 1, 1971, may be supplied electricity under this schedule provided each such dwelling unit is occupied by the owner or by a tenant working on the farm. Such multiple-residence farms connected on and after April 1, 1971, shall not be served under this schedule.

This schedule is not applicable for (a) individual motors rated over 15 HP, and (b) commercial use as in hotels, public inns, motels, auto courts, tourist courts, tourist camps, or trailer camps.

## **II. AVAILABILITY**

Subject to a participation limitation of 10,000 accounts, this schedule is available only where:

- A. The Company has installed and deployed its advanced metering infrastructure (“AMI”);
- B. The Customer does not participate in a PJM Interconnection, LLC or Company-Sponsored demand response program or peak-shaving demand response program; and
- C. The Company received the Customer’s voluntary request for service in accordance with this schedule through and including December 31, 2024. A Customer who discontinues service under this schedule after less than one year of service may not be served under this schedule for the Customer’s account at the same premise within one year of such discontinuation of service.

**Table 1-1. 1G Experimental TOU monthly rate**

 **Distribution service charges**

Basic customer charge	\$6.58 per billing month
All on-peak kWh	1.7255¢ per kWh
All off-peak kWh	1.7255¢ per kWh
All super off-peak kWh	1.7255¢ per kWh

Plus, each Distribution kilowatt-hour used is subject to all applicable riders, included in the Exhibit of Applicable Riders.

 **Electrical supply (ES) service charges**

**For the period from May 1 through September 30**

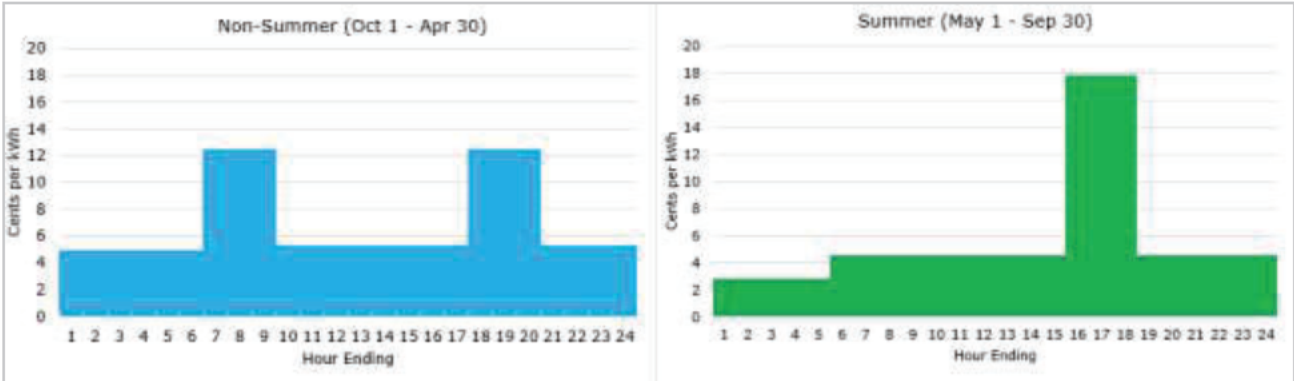
All on-peak ES kWh	15.2128¢ per kWh
All off-peak ES kWh	1.8916¢ per kWh
All super off-peak ES kWh	0.0229¢ per kWh

**For the period from October 1 through April 30**

All on-peak ES kWh	9.7539¢ per kWh
All off-peak ES kWh	2.6289¢ per kWh
All super off-peak ES kWh	2.2826¢ per kWh
Plus Transmission kWh Charge	0.970¢ per kWh

Plus each Electricity Supply kilowatt-hour used is subject to all applicable riders, included in the Exhibit of Applicable Riders.

**Figure 1-11. 1G Experimental TOU rate, on-peak, off-peak, and super off-peak periods**



## 1.4 Evaluation overview

### Evaluation objectives and research questions

The purpose of the evaluation is to provide information to the Company and its stakeholders about how well Experimental Rate Schedule 1G is achieving its objectives. To that end, the EM&V plan is organized around research questions that will measure the rate outcomes and rate management against stated goals.

The evaluation is divided into two EM&V methods of inquiry: program management evaluation and load and bill impact analysis. The program management evaluation will focus on customer satisfaction and the effectiveness of education and outreach materials. The load and bill impact analysis will focus on the grid and system effects, including if and how much customers shift their electric load from on-peak periods to off-peak periods.

Table 1-2 lists the rate objectives, the research questions that flow from them, and the evaluation task that will primarily answer each research question.



**Table 1-2. TOU Rate objectives, goals, and research questions**



**Rate objective 1:**  
Maximize system benefits (e.g., reducing system peak) to provide highest value to customers

Rate goals	Research questions	Task
<b>To provide customers an opportunity to reduce consumption and save on their electric bills</b>	What are the load impacts of the rate? <ul style="list-style-type: none"> <li>▪ Seasonal Off-peak, on-peak, and super off-peak</li> <li>▪ By geographic area</li> <li>▪ By customer characteristics</li> </ul>	Load Impact
<b>Balancing customer value</b>	What are the bill impacts of the rate? <ul style="list-style-type: none"> <li>▪ Annual</li> <li>▪ Summer</li> <li>▪ Winter</li> <li>▪ By customer characteristics</li> </ul>	Bill Impact



**Rate objective 2:**  
Empower customers by providing a new control option

Rate goals	Research questions	Task
<b>To provide customers a positive customer experience</b>	<ul style="list-style-type: none"> <li>▪ How well do customers understand the rate?</li> <li>▪ How well do customers understand how to control their bills under the rate?</li> <li>▪ What behaviors have customers adopted to control their bills under the rate?</li> <li>▪ How sustained are behavior changes over time?</li> <li>▪ To what extent are customers using technology to control their bills?</li> <li>▪ What are customer reactions, concerns, issues, and questions?</li> </ul>	Program Management
<b>To introduce modern customer engagement techniques and incorporate lessons learned</b>	<ul style="list-style-type: none"> <li>▪ How sustained are load impacts over time?</li> <li>▪ To what extent are customers using the online information platform?</li> </ul>	Load Impact, Program Management



### Rate objective 3:

Properly reflect value and cost drivers (e.g., distributed generation and marginal costs)

Rate goals	Research questions	Task
	<ul style="list-style-type: none"><li>▪ To what extent are structural winners and losers enrolling in the rate?</li><li>▪ How are load impacts different for structural winners and losers?</li></ul>	Load Impact, Bill Impact



## 2 PROGRAM MANAGEMENT EVALUATION

### 2.1 Objectives

The purpose of the program management evaluation is to provide Dominion Energy Virginia information and metrics about customer satisfaction and the effectiveness of education and outreach materials. This information will help Dominion Energy Virginia and its stakeholders assess how well the rate is working, particularly the key objective of empowering customers to control their electricity bills. The program management evaluation has the following objectives:

- Assess customer reactions to the rate;
- Assess how well participants understand the rate structure and what they can do to shift their usage;
- Identify behavioral responses to the 1G rate; and
- Collect demographic information necessary for the evaluation. Evaluation data will not be used for other purposes.

### 2.2 Discussion and overview

The program management evaluation will use mixed-mode surveys to determine customer satisfaction, awareness of opportunities to reduce their electric bills, engagement, and behaviors. The program management evaluation will provide information about how efficiently Dominion Energy Virginia is managing customer engagement and balancing customer value. Furthermore, the analysis and reporting will provide timely advice and lessons-learned to help Dominion Energy Virginia adjust the rate during the experimental period.

The ability to control bills will hinge on participant understanding of the rate structure and when electricity is most and least expensive, together with participant understanding and commitment to behavioral changes that take advantage of the differential prices. To truly be empowered, participants must understand how the rate structure varies daily and how that daily structure changes seasonally. Furthermore, participants must also know what actions they can take to take advantage of the differential prices. The surveys will be designed to test this knowledge. Specific areas of inquiry that the customer survey will explore are summarized in Table 2-1.

**Table 2-1: Areas of inquiry for the program management evaluation survey**

Area of inquiry	Information gathered	Rationale
<b>Customer and stakeholder reactions</b>	<ul style="list-style-type: none"> <li>▪ Source of program awareness (e.g. education materials, stakeholder groups)</li> <li>▪ Satisfaction with the rate and Dominion Energy Virginia</li> <li>▪ Participant questions, reactions, issues, and concerns</li> <li>▪ Customer preferences regarding communication channels</li> </ul>	<ul style="list-style-type: none"> <li>▪ Assesses whether customers are having a positive experience with the rate and provide feedback to Dominion Energy Virginia to improve the customer experience.</li> <li>▪ Assesses whether stakeholders are having a positive experience and</li> </ul>

Area of inquiry	Information gathered	Rationale
	<ul style="list-style-type: none"> <li>▪ The effectiveness of stakeholder engagement</li> </ul>	<p>how their knowledge and expertise are being incorporated during the 1G experimental rate period</p>
<p><b>Participant understanding of the rate structure and potential load shifting behaviors</b></p>	<ul style="list-style-type: none"> <li>▪ Customer understanding of when hourly and seasonal non-summer and summer peak periods begin and end</li> <li>▪ Awareness of potential behaviors they can shift during the peak periods and what impacts those shifts would have on their bills</li> </ul>	<ul style="list-style-type: none"> <li>▪ Assesses the effectiveness of customer outreach and educational material</li> <li>▪ Confirms participants' ability to leverage the rate design by assessing their understanding of the rate structure and what they can do to leverage it</li> </ul>
<p><b>Identify behavioral responses to the 1G rate</b></p>	<ul style="list-style-type: none"> <li>▪ Behavior changes</li> <li>▪ Technology utilization</li> <li>▪ Do participants do the same thing every day or have a more active strategy</li> <li>▪ Do participants do anything different in summer versus the non-summer seasons</li> <li>▪ Customer valuation of comfort</li> <li>▪ Customer valuation of the effort it takes to shift behaviors</li> </ul>	<ul style="list-style-type: none"> <li>▪ Identifies what participants are doing to realize load shifts identified in the load impact analysis</li> <li>▪ Provides additional information about the effectiveness of outreach materials</li> <li>▪ Facilitates the assessment of the sustainability of behavior changes</li> </ul>
<p><b>Collect demographic information <sup>3</sup></b></p>	<ul style="list-style-type: none"> <li>▪ Home/ premise characteristics impacting electrical usage (e.g., heating/cooling system types, smart thermostats, occupancy during peak hours)</li> <li>▪ Identify customer segments/ demographics (age, income range, owner or renter status, and housing type, number of occupants)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Answers whether hard-to-reach demographics are participating in 1G rate</li> <li>▪ Together with the bill and load impact analyses, identifies the characteristics of customers who get the most out of the rate</li> <li>▪ Informs Dominion Energy Virginia and stakeholders how generalizable the 1G rate could be</li> </ul>

We plan to make small adjustments to the surveys each year of the rate study. It will be important to keep the surveys as consistent as possible each year to facilitate year-to-year comparisons. However, small adjustments are always necessary, and the plan will also increase the flexibility of the surveys to test additional hypotheses that develop as the rate study unfolds.

<sup>3</sup> Demographic data will be collected in the surveys while considering customer burden and survey fatigue. Publicly available demographic and market segmentation information may also be consulted. Data collected for the analysis will not be used for any other purposes.

One way we will customize surveys is to evaluate the effectiveness of different marketing messages. Dominion Energy Virginia plans to use A/B testing by sending different marketing messages to randomly selected groups of customers. By using randomization, any differences in reaction or behaviors between the two groups can be attributed to the message itself. We will test customer reactions during the surveys and support Dominion Energy Virginia in a sample design that yields reliable conclusions, and where appropriate, customizing questions to test specific messaging content. For example, if one marketing message stresses the importance of closing blinds and the other focuses on delaying dishwasher use, the surveys would ask both groups about both of these behaviors.

## 2.3 Activities

### Customer enrollment survey

Immediately after enrollment, DNV GL will send customers a post-enrollment survey. Topics that this survey will cover include which marketing channel customers utilized when learning about the rate, reasons for enrolling, expectations, communication channel preferences, and any demographic information not available in the Company's customer information system. This survey will be a census sent to all enrolling customers.

### Semi-annual surveys

Two customer surveys per year are planned: one during the summer period and one during the non-summer period. The surveys will occur in 2021, 2022, and 2023. These surveys will use a random sample of participants selected in a way that ensures no customer receives more than one survey per year. The samples will be stratified to ensure they cover a minimum number of certain customer types. For example, the samples can be stratified to make sure we contact a minimum number of solar rebate and/or low-income customers in each wave of the survey. By year 3, DNV GL expects 300 completes per wave of the survey (600 per year). This will provide a sufficient sample to achieve 90/10 statistical precision for up to 4 subgroups per wave.<sup>4</sup>

This task assumes the following information will be available through Dominion Energy Virginia and/or the customer enrollment surveys:

- Participant contact information,
- Enrollment and unenrollment data, and
- Summaries of customer communication channel preferences.

Survey topics include:

- Satisfaction with the rate and Dominion Energy Virginia
- Participant questions, reactions, issues, and concerns
- Customer understanding of when peak periods begin and end and rate level during the different periods
- Awareness of potential behaviors they can shift during the peak periods and what impacts those shifts would have on their bills
- Behavior changes
- Technology utilization

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<sup>4</sup> Ratios with 90% confidence intervals that are within 10% of the estimate.

- Do participants do the same thing every day or have a more active strategy?
- Do participants do anything different in summer versus the non-summer seasons?
- Customer valuation of comfort
- Customer valuation of the effort it takes to shift behaviors

## 2.4 Survey modes

The evaluation will use a mixed-mode survey fielding method. This approach optimizes survey costs, response rates, and customer burden. The survey fielding will take place over three weeks. DNV GL will send an email invitation to take an online survey to any sampled customers for which Dominion Energy Virginia has an email address. Our standard procedure is to make a total of five attempts: three emails over the first two weeks, then two phone calls over the next two weeks. Customers who do not provide an email address will receive up to five phone calls over four weeks. Based on our past experience surveying Dominion Energy Virginia customers, it is expected that 80% of the completed surveys will be online.

One of DNV GL's quality assurance methods is to implement a "soft launch" for each survey fielding period. During the soft launch, DNV GL will send the survey to a limited number of customers (typically 100). After a few days in the field, DNV GL will analyze the results it receives from those customers to assess their understanding of the survey questions and detect any problems with the wording or the survey delivery infrastructure. A full launch will occur after DNV GL fixes any issues that the soft launch exposes.


**Community Organization Interviews.** Part of the evaluation will be to work with stakeholders and possibly additional community organizations to roll out the program and ensure that traditionally hard to reach customer segments have access to the rate and that stakeholder engagement is optimized. To ensure the evaluation factors in these partners' perspectives, DNV GL will conduct short phone interviews with up to 10 of these organizations per year. Topics will include how the rates are affecting the populations those community organizations target and suggestions for improvements. DNV GL will conduct interviews with the community groups that are already involved in designing the rate, and any additional groups that Dominion Energy Virginia might engage in the future, such as food banks, Federal Weatherization Assistance Program ("WAP") implementers, and low-income advocacy groups. DNV GL will prepare and annually update a written interview guide for these calls.

**Unenrollment Surveys.** DNV GL will ask all customers who unenroll why they decided to unenroll.

## 2.5 Analysis

DNV GL will analyze data collected in the customer surveys and community organization interviews and data provided by Dominion Energy Virginia to answer the major researchable questions. The program management evaluation analysis will primarily use descriptive and comparative statistics to compare those proportions among different groups. Specific researchable questions and example analyses approaches are listed in Table 2-2.

**Table 2-2. Example research questions and approaches**

 <b>Researchable question</b>	 <b>Approach</b>
Where are participating customers located?	Plot number of participants by zip codes on a heat map
How do customers prefer to be contacted?	Tabulate answers to this question from the enrollment survey
Why do customers enroll?	Tabulate answers to this question from the enrollment survey
Why do customers unenroll?	Tabulate answers to this question from the unenrollment survey
How has the rate affected customer satisfaction?	<p>Tabulate answers to this question from the semi-annual survey</p> <p>Compare the proportions of satisfied and less than satisfied customers on each survey to the previous surveys</p>
How do community organizations perceive the rate program?	Summarize responses of community organization interviews.
Do customers understand the rate?	Tabulate answers to questions that are tailored to check for understanding of specific rate characteristics (e.g., how many people correctly identify when the peak period begins and ends)
What is the difference between a customer who likes and realizes benefits from the rate and one who doesn't?	Cross-tabulation of the response to a satisfaction question or the load impact analysis with various customer demographics. (e.g., satisfaction high/low vs. Single-family vs. multifamily housing)
What barriers to load shifting do participants face?	Tabulate answers to this question from the semi-annual surveys
How persistent are behavioral changes and what else changes over time?	Plot load impacts and incidence rates of specific behaviors sequentially for each wave of the semi-annual survey



## 3 BILL IMPACT AND LOAD IMPACT ANALYSES

### 3.1 Objectives

The purpose of the bill and load impact analysis is to understand the effect of the Schedule 1G rate on customer consumption patterns overall and across subgroups of interest. This aspect of the evaluation will inform Dominion Energy Virginia’s interaction with customers regarding the rate and will form the basis for understanding the effects of a more widely deployed TOU rate.

The objectives of the bill impact and load impact analyses are to:

1. Estimate energy and demand impacts of the Schedule 1G rate.
2. Estimate bill impacts of the Schedule 1G rate.
3. Understand differential energy, demand, and bill impacts across customer groups defined by structural winners or not, low- or moderate-income (“LMI”) classification, load shape cluster, and geography.
4. Develop hourly load shapes that illustrate these findings.

The experimental period provides an opportunity to test and evaluate the current rate design and, if warranted, propose modifications.

### 3.2 Discussion and overview

A best-practice approach to evaluating the program will involve hourly regression modeling with a comparison group. This approach will provide hourly load shape impacts rather than average TOU time period effects, supporting deeper insight, and more practical outcomes.

Site-level regression models will provide weather-normalized load estimates allowing for pre-rate to post-rate impact estimates to be compared on the same weather basis. Estimating rate effects at the individual site level offers maximum flexibility to consider subgroup effects and integrate impact results with survey responses. Inclusion of the comparison group, matched to participants and modeled identically, controls for changes in consumption patterns, unrelated to the program, that occur in the Dominion Energy Virginia customer population.

### 3.3 Data acquisition and preparation

The evaluation will require program tracking data and extensive hourly load data from Dominion Energy Virginia. Weather data will also be required. DNV GL will apply data cleaning processes to the raw load data. DNV GL will track data attrition as data quality and sufficiency filters are applied.

#### **Identify customer characteristics: structural winners, LMI, and load shape clusters**

The load, demand, and bill impact results will be estimated and presented across a variety of key customer characteristics including whether a customer is a structural winner under the TOU rate, is an LMI customer, and load shape group.

To identify structural winners and losers, the proposed rate structure is applied to the historical load of customers to determine whether, given the new rate, their bill would have increased or

decreased compared to their existing rate. Understanding the relative impacts for structural winners versus others is essential to understand the implications of expanding the rate to the full population, as structural winners are likely to opt into the program at a higher rate than their presence in the general population.

LMI designation will be achieved following the current criteria used by Dominion Energy Virginia. Load shape clusters will also be developed in consultation with the Company. DNV GL can use existing definitions or develop project-specific load shape classifications.

An advantage of the methodological approach chosen for this analysis is that load shapes can be easily compared across novel group definitions. Subgroup comparisons will be most valid if the subgroup definitions are included in the matched comparison group development process and balanced related to those characteristics across the treatment and comparison groups. The flexibility of the approach is best leveraged by identifying important group characteristics of interest early in the analysis timeframe for full integration into the process.

### **3.4 Develop a comparison group**

An important part of estimating energy and demand changes is accounting for other changes in load that may occur during the evaluation timeframe in the population unrelated to the TOU rate. Employing experimental design strengthens the ability to identify changes that occur as a result of the program. In the case of the Schedule 1G experimental period, DNV GL acknowledges that there are substantive challenges to implementing the TOU rate in an experimental design. Using experimental design to control who is or can be on a rate poses challenges for customer engagement, outreach, and equity. Strategies that in principle overcome those challenges can result in practice in a reduced ability to detect the impacts of interest, especially in smaller samples.

As a result, the analysis of the rate will take advantage of a matched comparison group. Without careful controls through a matched comparison group, the non-rate-related (exogenous) changes may be indistinguishable from actual rate-related changes. The COVID-19 pandemic is an extreme example of dramatic changes in load characteristics that could be conflated with the effect of TOU rates.

This evaluation will identify non-participating Dominion Energy Virginia households with load characteristics that match the characteristics of participating households. Households will be matched on baseload, heating, cooling, and peak period demand within strata defined by customer account information (e.g., bill rate code, tenure, etc.), load shape clusters, and geography. The changes these comparison group households experience over time will indicate the non-program related changes that may be affecting the participants. For an extreme change such as the pandemic, the intent would be for the comparison group to represent the changes related to working from home, lost income, etc. The comparison group would make it possible to account for these changes and support an estimate of true underlying TOU effects under the Schedule 1G TOU rate.

This approach will provide estimates of the hourly TOU rate effects for summer and non-summer rate periods. Comparison group matching will emphasize summer and non-summer peak hours as particularly essential to supporting balanced groups. TOU rate effects will be easily disaggregated to the strata used for the matched comparison group, with aggregations by load shape clusters and geographic clusters likely being of particular interest.

Developing the comparison group will require testing across possible matching criteria and assessing the quality of those matches. This process should be completed and assessed prior to the availability of substantial post-rate data so the implications of the comparison group choice on results are not known at the time of choosing.

## **3.5 Analysis**

### **Estimate energy and demand impacts—hourly regression models**

The evaluation of the TOU rate will start with a comparison of participants' load characteristics from before the advent of the rate with load after the rate is in place. As with all evaluations, this framework assumes that the change, in this case, the new rate, is the primary change between the two time periods and that any changes in load characteristics not associated with the new rate are accounted for by the comparison group.

Pre-post analysis of this kind requires weather-normalization so that the pre- and post-rate load can be compared on a common weather basis. This is achieved by fitting customer-level hourly interval load data regression models that capture baseload as well as weather-correlated load as a function of cooling and heating degree days. A separate model is fit for participating customers before and after joining the rate. For comparison customers, the before and after periods are defined by their matched participant. To start, the effects of the TOU rate are estimated at the customer level. The site-level estimates can be usefully correlated with survey results to associate load effects with customer responses.

Customer-level estimates of rate effects are the flexible building blocks of an informed estimate of aggregate hourly energy and demand impacts. Aggregate results are estimated with a second-stage regression. The impacts of the TOU rate can be assessed at the overall level, and by other characteristics discussed above. It is in the second-stage regression that the impact of other programs can be assessed and, if necessary, accounted for.<sup>5</sup> Efforts will also be made to account for program participation in the comparison group process. The precision of final results will be a function of the magnitude of the effects and the size of the customer population.

### **Assess customer bill impacts**

The assessment of bill impacts parallels the calculation of structural winners in data preparation process. At the customer level, the assessment would compare weather-normalized pre-period consumption at the existing rate to weather-normalized post-period consumption at the Schedule 1G TOU rate. As with all site-level estimates, the calculated differences may include effects that are not related to the new TOU rate. Aggregation across participants and comparison group will produce an estimate of bill impacts that controls for non-TOU effects. The alternative way of conceptualizing the bill impacts is to consider the hourly TOU effect weighted by the rate differential in that hour.

### **Present energy, demand, and customer bill impacts by customer segments/demographics**

The site-level modeling approach facilitates summarizing customers across any group definitions that are identifiable for both participants and the comparison group. This can include customer segments and unique load characteristics. Dominion Energy Virginia's priority

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<sup>5</sup> Customers will not be eligible for joint participation between the Schedule 1G rate and demand response programs, for instance.



group definitions should be integrated into the matched comparison design to facilitate those summaries.

The flexibility of the site-level modeling approach will also support calculations of bill impacts at all possible group definitions as well as at the overall program level.

### **3.6 Sustainability of energy and demand changes**

Applying a consistent approach over the multiple years of the program will make it possible to track customer response over time. In particular, site-level modeling will make it possible to identify customers with particular patterns of TOU response over time (e.g., descending, variable, etc.) to better understand the drivers and implications of these patterns. The most basic approach to addressing this research question will require comparing results over multiple years of the rate study.

### **3.7 Predict overall impacts of broader implementation**

Predictions of impacts with broader implementation require some assumption as to how future participants will compare to current participants. A basic analysis assumes that impacts are a function of directly observable customer characteristics such as load shape parameters and location, and are the same for future and current participants with those characteristics. With this assumption, the effects of broader participation can be predicted by combining the per-customer savings by subgroup with the size of each subgroup in the population and relative penetration rates.

Comparing impacts from subgroups for earlier and later joining customers can help confirm the assumption that earlier participants will be similar to later ones or provide a basis for developing a more nuanced estimate.

A further consideration will be the possible difference in enrollment characteristics and impacts as program improvements are made in response to initial evaluation findings. Accounting for these effects may need to be more qualitative, based on information from customer surveys and secondary sources.

## 4 EM&V PROTOCOLS

All evaluation methodologies will be implemented according to established national technical protocols and industry best practices such as:

[ASHRAE Guideline 14-2014](#). Measurement of Energy, Demand, and Water Savings.

Load Research Manual. 2017. Chapter 11, Load Research Program Evaluation. Association of Edison Illuminating Companies Load Research Manual, Third Edition.

[Measurement and Verification for Demand Response](#). 2013. Prepared for the National Forum on the National Action Plan on Demand Response: Measurement and Verification Working Group for FERC. Miriam L. Goldberg & G. Kennedy Agnew, DNV KEMA.

## 5 ANNUAL REPORTING AND SCHEDULE

Starting in January 2021, enrollment will be monitored, and participants will receive a post-enrollment survey. Early participants will be surveyed and evaluated in the 2<sup>nd</sup> and 3<sup>rd</sup> quarters of 2021. The limited enrollment period may impact the scope and the statistical significance of the results, but studying this group will provide valuable early feedback.

Two surveys will be fielded in 2022 and the program management and load and bill impacts evaluation for year one of the experimental rate will occur during the 2<sup>nd</sup> and 3<sup>rd</sup> quarters. This pattern will be repeated in 2023 and throughout the remainder of the experimental period.

Results of the program management and load and bill impact evaluation will be submitted to the stakeholders and the SCC annually no later than December 31 of each year of the Experimental Rate Schedule 1G. The draft evaluation report will be presented and made available for review by stakeholders prior to the annual filing.

A sample evaluation report outline is included in Appendix A.

## Appendix A EVALUATION REPORT OUTLINE

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### Sample EM&V Report Structure

1. Executive Summary and Key Findings
2. Introduction
  - a. Program Overview
  - b. Evaluation Objectives and Methods
3. Study Methodology
  - a. Data Collection Approach
  - b. Analysis Methods
  - c. Limitations, Caveats
4. Key Evaluation Results
5. Synthesis of analysis and findings as well as implications of findings
6. Recommendations
7. Summary and Conclusions
8. Appendices (examples listed below):
  - a. Detailed documentation of the research design and assumptions, data collection methods, evaluation analysis methodology, references, and results tables
  - b. Survey or interview instrument, coding scheme, and compiled results tables and data Sources and quality (caveats on data) of primary and secondary information
  - c. Details on quantitative data analysis: analytical framework, modeling approach, and statistical results
  - d. Possible sources of overestimation and underestimation
  - e. Analysis of the reliability of energy savings estimates, treatment of issues that threaten the reliability of results
  - f. Other assumptions



## DNV GL

Driven by our purpose of safeguarding life, property and the environment, DNV GL enables organizations to advance the safety and sustainability of their businesses. Our origins stretch back to 1864, and our reach today is global. Operating in more than 100 countries, we are dedicated to helping our customers make the world safer, smarter and greener.

# **Dominion Energy Virginia - Outreach & Communication Plan**

## Introduction

Virginia Electric and Power Company (“Dominion Energy Virginia” or “Company”) is committed to improving the customer experience. Key to achieving this goal is educating customers about their energy consumption and how to manage their costs and empowering them to take advantage of enhanced customer capabilities enabled by the Grid Transformation Plan (“GT Plan”) and new rate offerings. Set forth here are Dominion Energy Virginia’s plans for customer engagement and education for **TOU Rate Schedule 1G**. Implementation of the Customer Engagement and Education Plan (“Customer Education Plan” or “Plan”) and enrollment will be managed by Dominion Energy Virginia staff, with the assistance of external stakeholders.

Dominion Energy Virginia’s customer engagement and education plan will be complemented by evaluation, measurement and verification (“EM&V”) conducted on TOU Rate Schedule 1G. The Company has engaged DNV-GL, a third-party provider of EM&V services, to evaluate operational results of TOU Rate Schedule 1G. The EM&V process will include program management evaluation, a bill impact analysis, and a load impact analysis. EM&V reports will include metrics associated with participation, enrollment rates, unenrollment rates, and customer communication preferences. The program management evaluation will also include surveying customers initially (concurrent with enrollment) and, in the future, regarding program satisfaction, individual behaviors, as well as gather feedback from community partner organizations. The Company will incorporate information from the TOU Rate Schedule 1G EM&V into improvements in customer engagement and education and will also gain insight into whether the participant group saved money on TOU Rate Schedule 1G and whether the system benefited from any shift in load.

The Company will continue to engage with stakeholders throughout the experiment, focusing on, at a minimum, EM&V and Customer Education plans. For each year this experimental rate is in effect, on or before December 31, Dominion Energy Virginia will provide an annual report providing evaluation findings and results through July 31 of such year.

## TOU SCHEDULE 1G CUSTOMER ENGAGEMENT AND EDUCATION PLAN

### Overview

A Time-of-Use (“TOU”) rate plan is based on how much energy residential customers use and what time of day they use it. TOU Rate Schedule 1G will be marketed to customers as Dominion Energy Virginia’s “Off-Peak Plan.” The voluntary program is a TOU rate that will change seasonally with two seasons, a summer rate and a “non-summer” rate. Each season has a 3-tier residential rate with a monthly Basic Customer Charge of \$6.58. Enrollment will begin January 2021 and is open to the first 10,000 customers. Schedule 1G is an opt-in rate where customers



will have the ability to unenroll at any time if they find the time-varying rate is not suitable for any reason. To be eligible for this voluntary rate, residential customers must have an Advanced Metering Infrastructure (“AMI”) Meter (aka “smart meter”), cannot have unenrolled from the rate during the past 12 months, and cannot be concurrently enrolled in a Company or PJM demand response program (i.e., Smart Cooling Rewards (aka AC Cycling) or the Smart Thermostat (EE/DR) Program). Net metering customers, including those who are subject to a demand charge, are eligible for the rate. If currently participating in net metering, any systems sized 15 kW or more will also be billed applicable standby charges.

## Outline

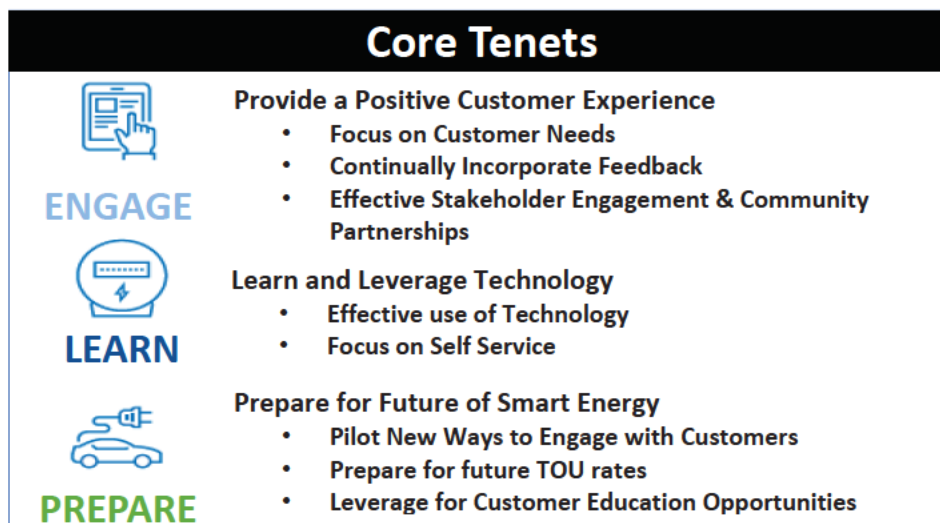
Initial education initiatives will provide accessible information to eligible customers regarding potential bill impacts, the enrollment process, and how to manage energy usage to optimize savings (i.e. shift appliance usage to off-peak hours). After enrollment, ongoing messaging to participants will be developed to bring about continued behavioral changes. Similar to the approach described in the Customer Education Plan of the 2019 GT Plan, the outreach tactics for the Off-Peak Plan address the elements outlined below. Going forward, the plan will be iterative in that it will be reviewed and updated to reflect changes in populations of eligible customers, changing tools and functionality available to customers, program management lessons learned, and customer feedback.

- I. Establishing Objectives for Educating Customers
- II. Conducting Research and Leveraging Feedback
- III. Reviewing Results from Prior Project Experience, Industry Best Practices, Incorporating Lessons Learned
- IV. Developing Timelines for Communications
- V. Creating and Distributing Education Materials

### **I. Establishing Objectives for Educating Customers**

The overarching goals for Off-Peak Plan customer education is to help customers understand the benefits of the rate and how they can be achieved with accessible tools and personalized information, guide them to enrollments, and enable monitoring of personal results. **Figure A** provides a summary of the plan’s core tenets. Specifically, the plan aims to (i) provide customers a positive customer experience and an opportunity to reduce and/or shift consumption and save on their electric bills; (ii) efficiently manage customer engagement, pre and post-enrollment; and (iii) introduce modern/digital customer engagement techniques and incorporate lessons learned, particularly leveraging feedback from the EM&V process.

**Figure A: Core Tenets**



## II. Conducting Research and Leveraging Feedback

### 2019 - Prior to TOU Rate 1G Regulatory Filing

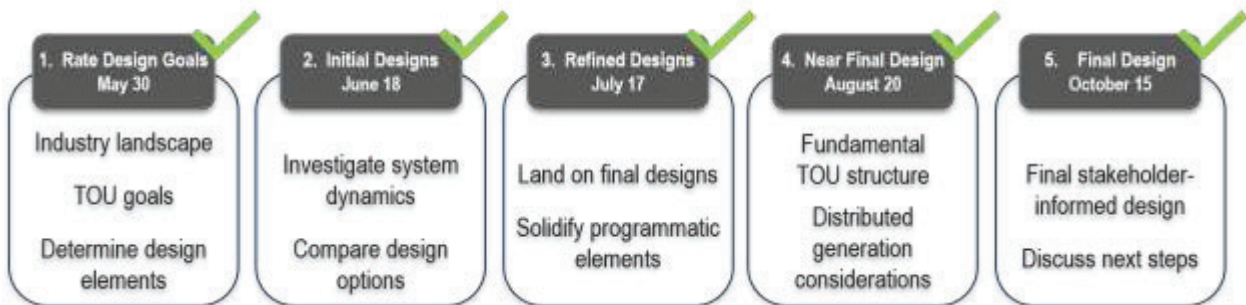
The Company engaged Navigant Consulting, Inc., a Guidehouse Company (“Navigant”) to facilitate a stakeholder engagement process related to the design of an electric TOU rate option that would be available to Virginia residential customers with smart meters.

To initiate the stakeholder process, the Company invited a cross-section of state agencies, advocacy groups, and internal rate design subject matter experts to participate in a series of workshops designed to solicit broader input on TOU rate design goals, pilot design elements and key learning objectives for the pilot.

The Company hosted a five-session workshop series focused on collaboratively designing its TOU rate pilot. The workshops, which were held May through October 2019 in Richmond, Virginia, were attended by over a dozen stakeholder organizations and approximately 25 individuals from those organizations, refer to (Figure B). Navigant’s rate design experts presented an assessment of the current industry landscape, insights into dynamic rate design trends, and various rate design methods from which stakeholders could build their recommendation. Overall, stakeholders reached consensus on most of the proposed rate design elements including the multiple peak rate periods (on-peak, off-peak, and super off peak), the on-peak/off-peak price ratios and the seasonal variance. Additionally, the group and the Company agreed on key programmatic elements for the pilot, such as the need for robust consumer education.



**Figure B: Stakeholder Workshop Series for Time-of-Use Rate Design**



## 2020 - Research & Further Stakeholder Engagement

The Company initially conducted research to assess needs and opportunities in order to develop specific communication plans to reach a diverse audience. This research included coordinating with stakeholders to reach community organizations and discussing with the organizations how the Company can effectively engage with customers about Schedule 1G. Initial research findings influenced the messaging and channel determination in this Customer Education Plan.

During spring 2020, Familiar Creatures, a local communications firm, was engaged to assist the development of messaging and strategy for TOU Schedule 1G customer outreach and communication. Three 90-minute focus groups were conducted online via Zoom and progressed as follows:

- Participants first discussed 1) whether or not they conserve electricity and/or take actions to save money on their energy bills, and 2) if they knew of programs designed to help achieve these goals.
- Next, they discussed a description of Dominion Energy Virginia’s Time of Use (TOU) Plan, identified preferred terminology (Plan vs. Rate and Time of Day vs. Time of Use) relative to it, and chose their favorite graphic representation of time of use parameters (circle vs. bar format).

With this feedback, Dominion Energy Virginia was able to finalize program brand components, including name and tag line. Examples of the names and graphics considered are below in [Figure C](#). The results of the focus groups were shared with stakeholders and ultimately the Company arrived at the name **Off-Peak Plan** to market to residential customers.

**Figure C: Names/Graphics Considered**



**Across groups, *Off-Peak Plan* was the most often preferred approach.** During the evaluation the following findings emerged:

- *Off-Peak Plan* was the approach that was easiest for participants to understand. It was the most direct, straightforward, and literal in tone.
- *Off-Peak Plan* focuses on what most participants believed was the most important program benefit – saving money. In addition, it clearly communicated how the program would work.
- The term *Off-Peak Plan* helped participants to conceptualize the TOU program right away. *Off-Peak* is a familiar term that signals (1) saving money in general, and (2) a relationship between time of usage and cost control.

During summer 2020, the stakeholder group was reconvened to discuss a more detailed customer outreach and education plan to support the TOU pilot enrollment and the evaluation metrics to support pilot efficacy. Stakeholder feedback included, but was not limited to, guidance in the preparation of detailed EM&V and Outreach & Communication Plans, as well as preferred marketing/enrollment channels and potential partnerships with stakeholder entities to aid customer education efforts.

Additionally, stakeholders requested the use of “shadow billing,” the ability to view a monthly bill both enrolled and not enrolled in the Off-Peak Plan. The Company will address this with our bill comparison tool. Prospective or current customers with 12 months of historical data will have access to visuals and data to reflect what they would have paid on the Off-Peak Plan versus vs their current rate. It was determined that it was best to avoid sending two bills to customers (one being illustrative), in order to avoid confusion for customers and because such practice would require significant programming costs.

### **III. Reviewing Results from Prior Project Experience and Industry Best Practices, and Incorporating Lessons Learned**

#### **Results from Prior Project Experience and Incorporating Lessons Learned**

Over the past decade, the Company has managed time-varying rate pilots for residential customers through the dynamic pricing pilot and the electric vehicle pilot. Each of these pilots included customer feedback and surveys, which were reported in their respective cases. Some of the lessons learned included:

- Customers have better satisfaction and understanding of the rate after several rounds of education. In both pilots, customers gained a broader understanding of rates throughout the program, over time. As a result, within Schedule 1G, the Company plans to offer more continuing education opportunities and will frequently communicate with customers with educational tips and information (see Figure F below).
- Certain customers cited dissatisfaction with the limited access to past data and lack of sufficient information on how to reduce usage. With the Off-Peak Plan, the Company will provide a personalized rate comparison. In addition, the Company plans to leverage new technology to engage with customers more frequently and more efficiently, such as leveraging personalized text and email notifications for customers who elect these channels to provide ready access to account information and their usage data.
- Customers are unlikely to proactively seek out information to manage their bills. In order to encourage customer engagement, the management of Schedule 1G will include ongoing, proactive communications with customers. Satisfaction surveys will provide the Company with information on customer engagement and responses to, among other things, on-line enrollment experience and personalized education information, which were not included in prior pilots.

Additionally, other attributes that are expected to improve customer satisfaction, include TOU Schedule 1G's simple pricing for on-peak, off-peak, and super off-peak hours by season. Having a two-part rate design, with a basic customer charge of \$6.58 per month and time differentiated energy charges by season, and consistent three-hour on-peak periods on weekdays (excluding holidays) in the summer from 3 p.m. to 6 p.m. and winter from 6 a.m. to 9 a.m. and from 5 p.m. to 8 p.m., will encourage demand reductions for participants during the time of the Company's peak periods. These three-hour peak periods are much shorter than those in our existing/previous programs and provide a better customer experience by being easier to minimize energy usage during the entire duration of the period.

## Industry Best Practices

From the SmartGrid.gov “Voices of Experience” website:

*Realizing the benefits of bringing utilities together to share their experiences, the Department of Energy Office of Electricity Delivery and Energy Reliability (DOE|OE) Advanced Grid Research division launched an initiative to collect the experiences, insights, and lessons learned of utility representatives implementing emerging technology. The Voices of Experience (VOE) Initiative is unique in that it compiles the valuable insights and advice provided directly by utility personnel at the forefront who are working the challenges, interconnecting the new resources, and testing the emerging technology. Utilities participated in working group discussions, regional meetings and individual interviews with the purpose of sharing industry knowledge so that all utilities can better prepare for the operational challenges they face in this changing industry.*

The VOE published a report, “Smart Grid Customer Engagement” which outlined how the success of smart grid initiatives will depend in part on consumers taking a more proactive role in managing their energy use and that customer engagement within the electric power industry is an evolving, ongoing process. The report compiled practical advice on the successful approaches used by utilities to engage customers and includes insights and guiding principles for developing a customer-centric engagement plan. In light of the fact that smart meter deployment is essential for Off-Peak Plan eligibility, a selection of “best practices” outlined on Page 44 of the Smart Grid Customer Engagement report are referenced below in **Figure D**, with the corresponding tactic to be employed.<sup>1</sup>

**Figure D: Best Practices**

Industry Insights	1G Communications Plan Tactics
Use the pilot, test, modify, and repeat method to test new messages, products and services.	Messages will be tested (such as emails) and refined month-to-month based on performance metrics (such as click-throughs) and EM&V results.
Leave enough time in your roll out schedule to do several pilot projects if necessary, to get it right.	This experimental rate development and communications plan was informed by previous TOU pilots. The Company will make modifications as needed to strengthen the robustness and efficacy of this experimental program.
Use your tools to connect to and educate your customers. Demonstrating an outage app and then	Eligible customers will be able to enroll using the new mobile Dominion Energy app. Also,

<sup>1</sup> [https://www.smartgrid.gov/voices\\_of\\_experience.html](https://www.smartgrid.gov/voices_of_experience.html), Page 44, adapted.

saying “this has been enabled by smart meters” helps educate customers on the technology.	the Manage Account function will provide verification of smart meter installation and access to a bill comparison tool.
Keep your stakeholders (i.e.; community-based organizations) engaged and educated on new products and services so they can help you spread the word.	Committed to providing stakeholders and the weatherization, energy assistance, and solar communities specialized handouts to promote Schedule 1G.
Follow a disciplined approach with reviews and input from customers. Before introducing a product to your customers, try it out on employees or “customer friendlies.”	Early stakeholder engagement and “pre-launch” planned. A “coming soon” webpage has been launched prior to enrollments beginning in January 2021.
Marketing products is a dynamic process that requires constant monitoring, tweaking and re-execution. Be flexible. Your marketing plan and approach may have to change once you start marketing your products and services.	The Company plans to use A/B testing by sending different marketing messages to groups of customers and will make adjustments as necessary.

## Peer Utility Websites

Additionally, the Company has partnered with **Advanced Energy**, a nonprofit energy consulting firm, to conduct a review the educational content offered on several peer utilities’ websites for time-of-use rates. Key elements included rate basics, explainer videos, factsheets/infographics, and rate comparison tools. All these elements are included in Dominion Energy Virginia’s communications plan, see [Figure E](#).



**Figure E: Best Practices**

WEBSITE MATRIX									
	Southeast Utility	Mid-Atlantic Utility	Mid-Atlantic Utility	Southeast Utility	Midwest Utility	Southeast Utility	Southeast Utility	Mid-Atlantic Utility	Southwest Utility
Time-of-Use Graphic		✓	✓	✓	✓			✓	
Video				✓	✓				✓
Energy-Saving Tips	✓	✓		✓					✓
Rate Comparison Chart		✓	✓	✓	✓				✓
Fact Sheet		✓							
Frequently Asked Questions	✓	✓		✓	✓	✓	✓	✓	✓
Sample Customer Bill		✓							
Customer Examples									✓
Interactive Tool			✓		✓				✓

#### IV. Developing Timelines for Communications

Beginning January 2021, eligible residential customers will be able to enroll in the Off-Peak Plan through the Company’s billing portal, *Manage Account*. **Educational information** will be available to all customers and stakeholders on the Company’s website at **DominionEnergy.com/Off-Peak**. Educational videos and additional “foundational” content (i.e. energy basics) will be made available online during first quarter 2021. As directed in the Final Order, the Company shall include in its marketing materials and post online the all-in rate (in cents per kilowatt hour) to residential customers participating in TOU Schedule 1G, including all applicable riders, during on-peak, off-peak, and super off-peak times. **Bill comparison** information and a link to enroll in the program will be offered to eligible customers only when they login to *Manage Account*. These offerings should improve overall customer experience and provide the Company with information on customer engagement and customer responses to on-line enrollment and personalized education information, which were not included in prior pilots.

The Company plans to develop two comparisons for customers with 12-months historical data. The first comparison would provide an eligible customer's 12-month historic AMI usage data before enrollment on Schedule 1G, as well as information showing whether that customer could expect to save money on Schedule 1G if the customer did not take any actions to shift their energy usage. The second comparison would be provided to customers once they are enrolled in Schedule 1G. This comparison similarly compares a customer's bill on Schedule 1G to what it would have been if the customer had remained on the customer's previous rate.

In order to achieve the overall program enrollment goals set forth in the Application – 10,000 residential customers – a timeline for each year, by channel, is provided in **Figure F**. The limit is set at 10,000, given that the core components of the Customer Information Platform (“CIP”) approved as an element of the GT Plan, will not be in place until 2023 and this rate will need to primarily utilize existing systems. Billing time-varying rates within the existing systems requires manual processes and certain system workarounds that are inefficient. As a result, the Company cannot easily accommodate a large population enrolling in the Off-Peak Plan and will need to manage marketing on a quarterly basis in order to control the inflow of enrollments. Similarly, offering personalized rate comparisons within the existing systems requires custom development. While the mid-year and end-of-year enrollment numbers are firm targets, the quarterly and channel estimates are subject to change. Further below, details for content and messaging strategy is provided for each communication channel – website, email, social media, partner collaboration, and others.

**Figure F: Enrollment Estimates by Channel**

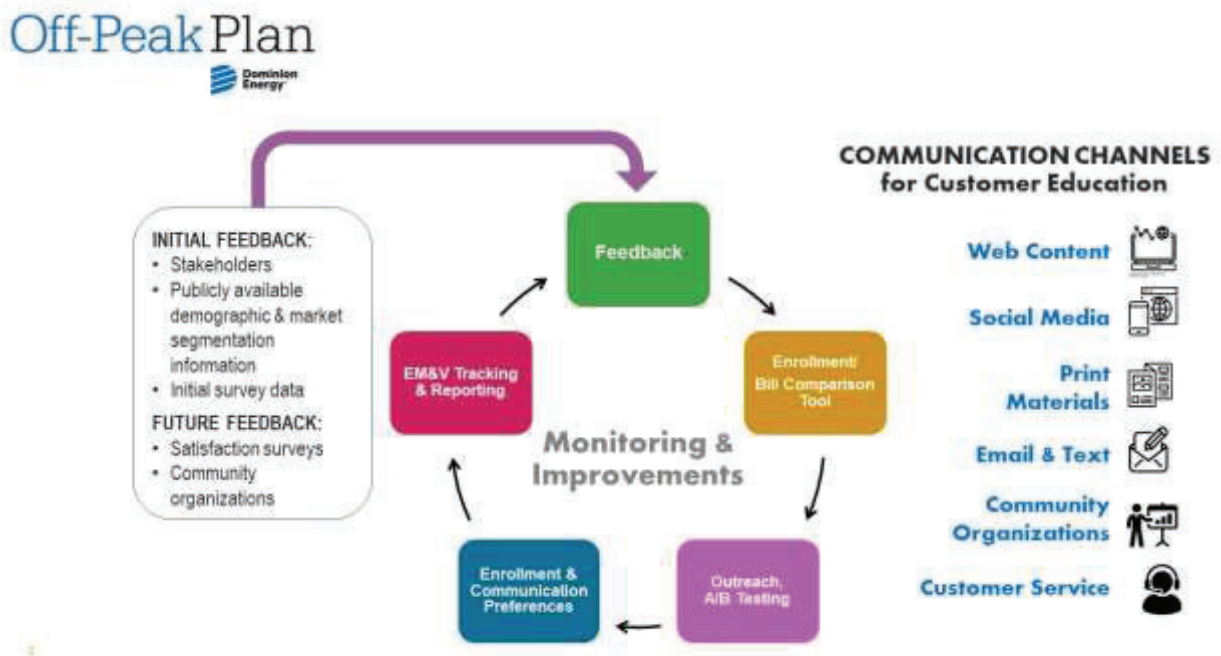
	Q1	Q2	Q3	Q4	Total	Cumulative
<b>2021</b>						
Social Media	350	550	400	250	1,550	
Email	300	325	200	200	1,025	
Print	100	100	75	75	350	<b>3,300</b>
Partners	100	100	100	75	375	
	<b>7/31/21 Total - 1,925</b>				<b>3,300</b>	
<b>2022</b>						
Social Media	350	550	400	250	1,550	
Email	300	325	200	200	1,025	
Print	100	100	75	75	350	<b>6,600</b>
Partners	100	100	100	75	375	
	<b>7/31/22 Total - 5,225</b>				<b><u>6,600</u></b>	
<b>2023</b>						
Social Media	350	550	400	250	1,550	
Email	300	325	200	200	1,025	
Print	100	100	75	75	350	<b>9,900</b>
Partners	100	100	100	75	375	
	<b>7/31/23 Total - 8,525</b>				<b><u>9,900</u></b>	
<b>2024</b>						
Social Media	10	10	10	10	<b>40</b>	
Email	5	5	5	5	<b>20</b>	
Print	5	5	5	5	<b>20</b>	<b>100</b>
Partners	5	5	5	5	<b>20</b>	
					<b><u>10,000</u></b>	
<b>Total</b>						
Website/Social	<b>1,060</b>	<b>1,660</b>	<b>1,210</b>	<b>760</b>	<b>4,690</b>	
Email	<b>905</b>	<b>980</b>	<b>605</b>	<b>605</b>	<b>3,095</b>	
Print	<b>305</b>	<b>305</b>	<b>230</b>	<b>230</b>	<b>1,070</b>	<b>10,000</b>
Other	<b>305</b>	<b>305</b>	<b>305</b>	<b>230</b>	<b>1,145</b>	



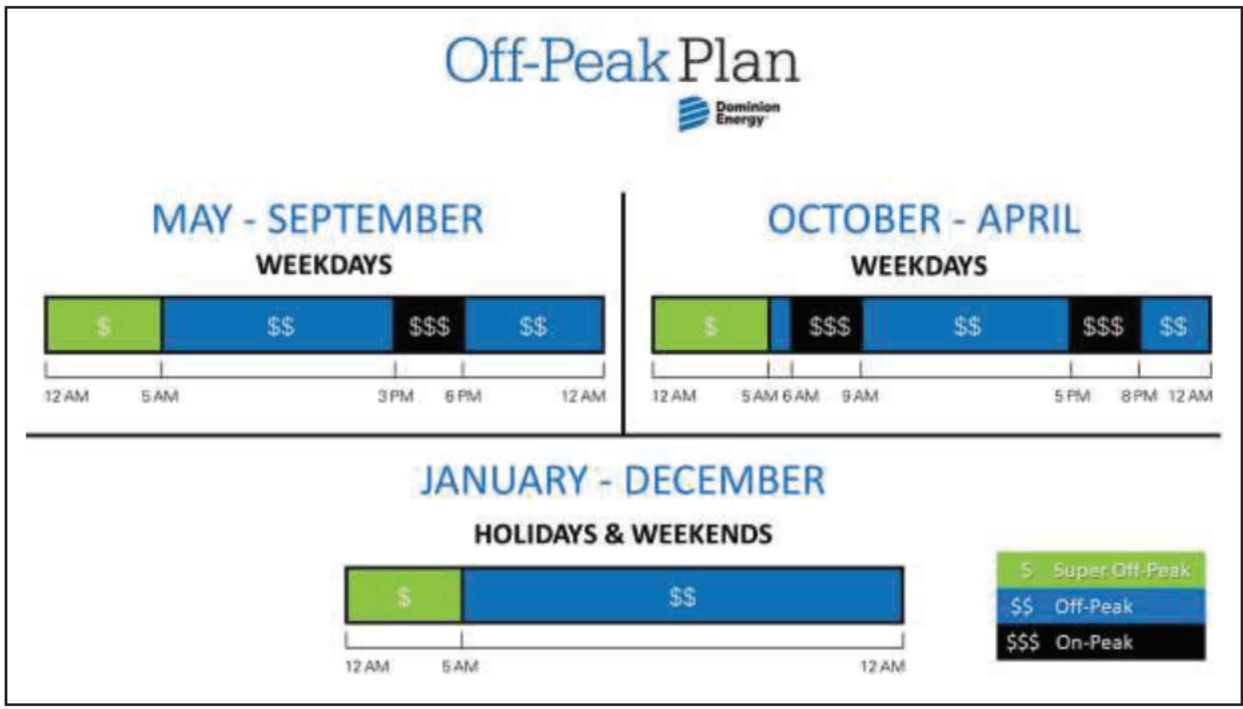
## V. Creating and Distributing Education Materials

The goal of the educational material will be to provide concise, consistent, and easy-to-understand content, both prior to enrollment and after. The Company intends to leverage its public website as the central hub of information and to continue to work with stakeholders to solicit input on collateral developed to educate customers on Schedule 1G, see Figure G. For illustrative purposes, the Company developed a sample graphic showing the time frames and price categories for the time-of-use rate, which is shown in Figure H. The robust educational campaign will also include information such as Schedule 1G pricing, energy saving tips, and how to access an online personalized rate comparison. Over the course of the pilot, the campaign material will be further refined by stakeholder input and results from the EM&V reports.

**Figure G: Enrollment Communications**



**Figure H: Time-of-Use Rate Infographic**



## Recruitment Messaging Channels

- Website content -- The Company has established a program landing page on our public website at **DominionEnergy.com/Off-Peak**. This page will serve as the primary channel to provide pre-enrollment education and link to **Manage Account** for the bill comparison tool. Links from other pages on Dominion Energy Virginia’s website will promote customer traffic, see **Figure I**. These other locations include Rates and Tariffs, Save Energy, Energy Conservation, Smart Meters, and Electric Vehicles. Prior to the January 2021 enrollment launch, this webpage will serve as a “coming soon” channel and encourage interested customers to sign up for email notification when the bill comparison tool and enrollment become available.

**Figure I: Dominion Energy website**



- **Email** — Overall, approximately 20% of Dominion Energy Virginia’s customers in Virginia have opted-in to receive marketing emails. Approximately 120,000 residential customers have had a smart meter for over 12 months and are eligible for direct email marketing. A series of email messages will be developed and tested with follow-up strategies to include tracking responses to those who did not open the initial email, and those who opened but did not click through. These potential follow-up strategies include sending additional emails at different intervals and frequencies, “in case you missed it” emails for those who did not open the initial email, and reminder emails to those who did open but did not click the embedded links. Each quarter, the Company will add additional email addresses to our email list based on those customers who have opted-in and have 12 months data for comparison.
- **Social Media** — The targeted audience for social media will be focused in areas where residential customers have several months of smart meter data available for bill comparison. Various platforms of traffic advertising (such as Facebook, Instagram, and

Twitter) will be used year-round to drive awareness, provide education, and increase Off-Peak Plan website traffic. Digital display banner advertising and Google AdWords are also under consideration to drive website traffic as well as aid in general awareness and recall. See [Figure J](#) for examples.

**Figure J: Social media and banner ad examples**



- **Community collaboration** — The Company will leverage existing community outreach initiatives. Specifically, the Company will educate and provide materials to representatives conducting weatherization. This network of trained specialists who perform detailed diagnostic audits and energy efficiency upgrades to eligible customers (based on income, age, and disability status) are ideally suited to introduce customers to this new way to conserve. The Company will provide information, training, and printed marketing materials to the network. Similarly, the Company’s Energy Assistance and Community Outreach representatives will be provided printed educational material on the Off-Peak Plan (such as brochures and factsheets). The Energy Assistance and Community Outreach representatives’ primary focus is to raise public awareness about available bill payment assistance programs, along with educating customers about how to make wise energy decisions. Information about the Off-Peak Plan and the ability for customers to potentially save money will be an additional aspect of this groups’ ability to provide one-on-one energy conservation and weatherization demonstrations, help customers understand their energy usage, and help customers understand ways to save. Furthermore, the Company has heard from our net-metering customers as well as our stakeholders that residents with distributed generation on their premise will be interested in the Off-Peak Plan. To further incent this segment of customers, the Company will work with its partners to help promote a \$500 solar rebate to the first 500 net metering customers who enroll in the rate and apply for the Solar Incentive Program. The

Company will handle customer program inquiries, program eligibility, the customer application process, and program reporting. Initial rebates will be issued no sooner than February 2021.

- **Other Channels** — Other channels used to promote the Off-Peak Plan include, but are not limited to, the Company’s customer service organization and employee outreach for general awareness and enrollment recruitment.

## Post-Enrollment Messaging

Once customers are enrolled in Schedule 1G, outreach and education will continue. Ongoing education and outreach messages will include those shown below. The Company will analyze and refine the outreach process as needed over time. Refer to [Figure K](#) for further details.

- **Initial program information & Notification upon enrollment**
  - After customers enroll online, an automated email and or text will be deployed
  - “Welcome” email (also considering appliance magnet w/letter)
  - Post Enrollment Survey from EM&V vendor
- **Seasonal price changes** — Two times per year; aligned with pricing structure
- **Annual program analysis** — Customers can analyze their bill through Manage Account.
- **General rate education** — Monthly emails with updates, reminders, tips, and ongoing education to bring about continued behavioral changes

**Figure K: One-time and Ongoing Communications**

	E-mail & Text Messages	Timeline	Trigger
ONE-TIME	Confirmation of Enrollment & Communication Preferences “Welcome”	Initial Enrollment	Enrollment
	First bill following enrollment- notice of Schedule 1G start	Initial Enrollment	Bill
	Customer 12-month anniversary	One year after enrollment	
	Un-enrollment Notification	Customer Unenrolls	
	Not qualified Notification (previously enrolled past 12 months)	Customer Attempts to Re-enroll	
	Seasonal messaging		
MONTHLY (Examples)	Green Environmental Message/Earth Day	April	Earth Day
	Seasonal Change Heads Up-Summer	May	May
	Seasonal Change Effective- Summer	June	June
	Energy Conservation- Avoid peak hours heat pumps	July	July Summer Heat
	High Bill- Summer Awareness	August	Summer Heat
	Seasonal Change Heads Up-Non-Summer	September	September
	Seasonal Change Effective- Non-Summer	October	October
	Holidays- no peak seasonal message	November/December	November
	Energy Conservation- Winter tips, avoid peak hours	Dec/Jan/Feb	Cold Weather
	High Bill- Winter Awareness	Jan/Feb	Cold Weather High bill season

## EM&V Plan

As noted above, the Company has engaged with DNV-GL, a third-party organization to evaluate operational results of TOU Rate Schedule 1G. The EM&V process will include program management evaluation, a bill impact analysis, and a load impact analysis. The purpose of the evaluation is to provide information to the Company and its stakeholders about how well Experimental Rate Schedule 1G is achieving its objectives and whether elements of the Customer Education Plan and enrollment need to be adjusted. Please refer to the Company’s EM&V Plan for further details.



## CERTIFICATE OF SERVICE

I hereby certify that on this 30<sup>th</sup> day of October 2020, a true and accurate copy of the foregoing filed in Case No. PUR-2019-00214 was delivered by hand, email or mail first class postage pre-paid to the following:

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