

October 27, 2017

Public Utility Commission of Oregon Attn: Filing Center 201 High Street, S.E. P.O. Box 1088 Salem, OR 97308-1088

RE: Advice No. 17-23, UM 1514 Compliance Filing, NEW Schedule 25
Nonresidential Direct Load Control Pilot and NEW Schedule 26 Nonresidential
Demand Response Pilot Program

Portland General Electric Company (PGE) submits this filing pursuant to Oregon Revised Statutes 757.205 and 757.210, and Oregon Administrative Rule (OAR) 860-022-0025, for filing proposed tariff sheets associated with Tariff P.U.C. No. 18. PGE is filing these proposed tariff sheets in compliance with Order No. 17-429, with a requested effective date of **December 1, 2017**:

Seventeenth Revision of Sheet No. 1-1	
Original Sheet No. 25-1	Original Sheet No. 26-5
Original Sheet No. 25-2	Original Sheet No. 26-6
Original Sheet No. 25-3	Original Sheet No. 26-7
Original Sheet No. 25-4	Original Sheet No. 26-8
Original Sheet No. 26-1	First Revision of Sheet No. 77-8
Original Sheet No. 26-2	Sixth Revision of Sheet No. 135-1
Original Sheet No. 26-3	Seventh Revision of Sheet No. 135-2
Original Sheet No. 26-4	

PGE hereby withdraws the Fourth Revision of Sheet No. 135-3

This filing includes the following attachments:

Attachment A – Draft Marketing Material for the Nonresidential Demand Response Pilots

Attachment B – Customer Baseline Load Calculation Methodology

The purpose of this filing is to submit Schedule 25 Nonresidential Direct Load Control Pilot and Schedule 26 Nonresidential Demand Response Pilot Program. These new pilots are designed to address both the needs of PGE's nonresidential customers while helping to grow a resilient and flexible demand response portfolio to create a program able to meet PGE's goals of greater than 27 MW of peak load reduction by 2021.

PGE proposes to implement these nonresidential demand response pilots to replace both PGE's Schedule 77 Firm Load Reduction Program and the Automated Demand Response Pilot. PGE filed Schedule 25 and Schedule 26 in Advice No. 17-18 and later withdrew the filing after consultation with Commission Staff (Staff). PGE appreciates the recommendations from Staff's report from the October 24, 2017 public meeting and provides detail on several parts of this program in this filing.

On September 21, 2017 PGE filed for reauthorization for deferred accounting treatment of incremental costs associated with these pilots. The reauthorization application provides a summary of the history of the deferral associated with UM 1514, explains why PGE is expanding nonresidential demand response, and provides an overview of the implementation. PGE will seek amortization of the deferred amounts in a future Commission proceeding. After amortization is authorized, PGE proposes to recover incremental costs to implement these pilots through prices in the existing Schedule 135, Demand Response Cost Recovery Mechanism.

PGE will administer these pilots directly to its customers, with support from a program implementer and technology integrator/ Demand Response Management System (DRMS) provider. PGE has contracted with CLEAResult to administer the marketing, sales, and implementation of the pilot. Enbala Corporation has been separately contracted to provide the technology integration and the DRMS.

PGE will market these pilots to both new and existing customers. At this time, PGE is in preliminary stages of targeting new customers for the Schedule 26 pilot, and is working with CLEAResult on these efforts. PGE is in conversation with current Schedule 77 customers, and working to transition them into the new pilot. PGE's marketing material, provided as Attachment A, provides a comprehensive overview of the pilots and details the flexibility of advance notification and the duration of events. Additionally, the customer will see information on participation during certain times of year as well as the program's improved incentive structure. PGE is phasing in the functionalities described in Attachment A.

PGE will evaluate the performance of participating customer facilities through the calculation of Customer Baseline Load "CBL." Software will calculate the CBL for each participant on a near real-time basis during a Direct Load Control Event and make it visually available in the Software user interface, accessible to both PGE and CLEAResult. The calculation of CBL is addressed in more detail in Attachment B, which was provided to Enbala to build their baseline implementation for deployment on December 1, 2017.

Redline versions of Schedules 77 and 135 are included as a courtesy.

Work papers providing the estimated costs of this pilot and typical pricing were provided in Excel format in the UM 1514 deferral reauthorization application.

PGE Advice No. 17-23 Page 3

To satisfy the requirements of OAR 860-022-0025, PGE responds as follows:

Schedules 25 and 26 do not increase, decrease or otherwise change existing retail rates or have anything other than a de minimis impact on revenues.

Should you have any questions or comments regarding this filing, please contact Rob Macfarlane at (503) 464-8954.

Please direct all formal correspondence and requests to the following email address pge.opuc.filings@pgn.com

Sincerely,

Karla Wenzel

Manager, Pricing and Tariffs

Enclosures

PGE Advice No. 17-23
Attachment A
Draft Marketing Material for the Nonresidential Demand
Response Pilots

PGE Energy Partnersm

Thank you for being an Energy Partner and providing valuable feedback on the program. It has helped us create a better experience for you!

Based on your input, we have developed a richer, more flexible program that will help you generate new revenue, meet your sustainability goals, manage your energy costs and learn more about your energy use.

One of these improvements is our new collaborator, national demand response expert CLEAResult. Located here in Portland, they offer much more flexibility and participation options that will make Energy Partner work better for you. We're excited to share these upgrades with you.

What's better

Improved financial incentives

Now you'll get paid up to **22 percent more for your participation** if you keep the same energy curtailment strategies. There's also an opportunity to earn **up to 76% more** with our new flexible options. In addition:

- You get your money sooner the new program will pay you after each month you participate instead of after the summer and winter seasons. This new payment schedule will begin after the first winter 2017 season.
- You can participate eight months out of the year instead of six. This means more chances to earn.

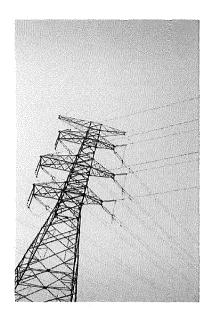
More customization to meet your operational needs

Choose how much advance notice you need for an event— 18 hours, 4 hours, or 10 minutes.

There are also more event time options for you. This gives you more power and flexibility to fit your business needs:

Winter	Summer
7 a.m.—11 a.m.	11 a.m.—4 p.m.
11 a.m.—4 p.m.	4 p.m.—8 p.m.
4 p.m8 p.m.	8 p.m.—10 p.m.
8 p.m.—10 p.m.	

You can choose four opt out days each season. We understand there may be certain days you know your production can't be available for events. That's not a problem; just let us know!



What's changed?

- Increased financial incentives
- Monthly payments instead of at the end of each season
- More choices for event times and notifications
- Tools to track and document your sustainability
- More robust, flexible technology
- Improved, easier Energy Partner portal



PGE Energy Partnersm

You can now aggregate your meters to meet your energy goals. This gives you more ways to make sure you can reach your energy shifting target and make more money.

Improved, easier Energy Partner portal

Our new portal will enable you to:

- · See your real-time energy use
- Call up your event performance and historical event data
- View your estimated financial incentives
- Investigate potential savings scenarios with a robust calculator to see how different actions influence how much you get paid

What's new

Tools to document your sustainability metrics

We will provide you with information about your sustainability efforts to help you claim carbon reduction credits, LEED points, ISO, green credits and more.

More robust, flexible technology

The new gateway has more sophisticated controls. This will give you more options and solutions immediately and in the future. You will have more visibility into your energy use and operations and an easier path if you ever choose automated demand response.

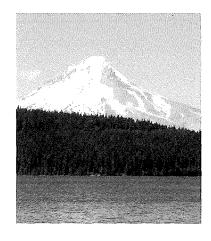
Publicity and marketing tools

You can use these to promote your sustainability to your employees, customers and peers.

Next steps

We know transitions like this can be challenging, and want to assure you we will be with you every step of the way to make this easy and smooth for your operations. The first step is meeting with you to review your options and equipment needs. This entire set-up process typically takes 8-12 weeks, so you can be ready to start saving energy and earning money during the winter season that begins Dec. 1.

Thank you for being a leader in sustainability and energy stewardship as, together, we power Oregon's energy future.



To see how easy it is to transition to the improved Energy Partner program, please contact:

Gregory Davis PGE Energy Partner Program Manager

503-464-8323

Demand.Response@pgn.com

PortlandGeneral.com/ EnergyPartner



PGE Advice No. 17-23 Attachment B Customer Baseline Load Calculation Methodology

Customer Baseline Load Calculation

1. Definitions

Customer Baseline Load: The Customer Baseline Load ("CBL") calculation for individual Participant resources will be used for evaluation of demand response event ("Event") performance at Participating Facilities. The Software will calculate the CBL for each Participant on a near real-time basis during an Event and make it visually available in the Software UI accessible to PGE and CLEAResult. Also, the software will make the CBL API accessible to CLEAResult and EDM for customer presentment.

Participant: a utility customer whom actively agrees to participate in load reduction program(s)

Business Day: days that are not Saturdays, Sundays or one of the following holidays:

- 1. New Year's Day (Observed)
- 2. Memorial Day (Observed)
- 3. Independence Day (Observed)
- 4. Labor Day (Observed)
- 5. Thanksgiving Day
- 6. Friday following Thanksgiving Day
- 7. Christmas Day
- 8. New Year's Eve

Winter Season: months of November, December, January, and February

Morning: Midnight through 11am US Pacific time zone, adjusted for daylight savings.

Non-Event Business Day: A Business Day in the past on which an Event was not called.

Event Day: A Business Day in the past (or future) on which an Event was (will be) called.

Event Period: one (1) or more consecutive hours during an **Event Day** when an Event is active.

Firm Service Level Participant: is a Participant whom agrees to manage their system demand to ensure that it does not exceed a pre-determined level during an Event Period. These Participants have a Customer Baseline Load that is calculated differently from other participants.

Default Baseline Calculation Participant: is any Participant who is not a Firm Service Level Participant.

2. Firm Service Level Participants

a. Calculation of Customer Baseline Load for Firm Service Level Participants

A Firm Service Level Participant's Customer Baseline Load is a fixed, static kW value that will be provided to Enbala by the Program Administrator. This baseline can be changed through amended agreement(s) between the Participant, Program Administrator and Portland General Electric.

There will be no day-of adjustment offered to Firm Service Level Participants.

b. Notification for Firm Service Level Participants

Notification of event will be handled like any other Participant type. There will be notification options that the Participant may opt-in to; or the Program Administrator may opt-in for them.

c. Visualization for Firm Service Level Participants

Baseline display: The Node aggregated baseline will include the fixed kW baseline for Firm Service Level Baseline as well as the other Participants, who use the default CBL baseline calculation method described below.

Active Consumption display: The Node aggregated site meter display will contain all site meter data, which includes Firm Service Level Participant site meter data

3. Calculation of Customer Baseline Load for Default Baseline Calculation Participants The starting dataset is the Participant's average electric load in kW, in time increments of one (1) hour, of the ten (10) Non-Event Business Days preceding the Event Day ("Dataset of Comparison Days").

From the **Dataset of Comparison Days**, calculate the average load in kW for each **Comparison Day** during the same hours of the day as the **Event Hours**. For example, if the **Event Hours** are from 3pm to 7pm on the **Event Day**, then calculate the loads each time interval from 3pm to

7pm – one for each of the ten preceding **Non-Event Business Days** from 3pm to 7pm. For all calculations, if data time intervals do not allow discrete "on the hour" periods to be matched exactly, the times are to be rounded down (earlier). For example, if an event starts at 7:00pm and Participant's devices only provide data at 5-minute intervals starting at :03 (e.g. 6:58, 7:03, 7:08, etc.), the load shall be calculated from 6:58pm to 7:58pm.

From those average load values within the same hours as the **Event Hours** within **the Dataset of Comparison Days**, select the five (5) days containing the highest average loads. These are to be called the "**Baseline Days**." Find the average load across the five (5) **Baseline Days** for each hour of the planned **Event Period** (this is the "**Unadjusted Baseline**").

An "Adjustment Period" will be calculated for Participants, unless the Participant or Event Hours meet one of the following criteria, in which case the Unadjusted Baseline becomes their "Adjusted Baseline":

- The customer has an 18 hour advance notification period
- The Event Hours occur during a Winter Morning

The Adjustment Period is the two (2) hour period beginning six (6) hours before the Event start time and ending four (4) hours before the Event start time. Calculate the average load during the two (2) hour Adjustment Period on the Event Date ("Event Day Adjustment Load"). Calculate the average load during the Adjustment Period on the Baseline Days ("Baseline Adjustment Load"). Calculate the Event Day Adjustment Load minus the Baseline Adjustment Load ("Additive Adjustment").

The Additive Adjustment will be applied whether the adjustment is positive or negative.

The Adjusted Baseline is calculated by increasing (or decreasing, if the Additive Adjustment is negative) the Unadjusted Baseline by the amount of the Additive Adjustment.

To calculate the **Customer System Impact**, start with the customer's average load during the Event in the same intervals as the **Adjusted Baseline**. For each interval, calculate the difference between the customer's average load and the **Adjusted Baseline**. Whether positive or negative, this is the **Customer System Impact** for that interval.

To calculate the **Customer Payment Impact** for an interval, start with the **Customer System Impact**. If it is negative during any given interval, replace it with zero.

The Participant's kW usage, the Adjusted Baseline, the Customer System Impact, and the Customer Payment Impact are to be displayed in graph format on the Software UI for use in monitoring event impacts. These metrics are also to be exported to EDM for customer presentment and to CLEAResult for settlement.

PGE Advice No. 17-23 Redline versions of Schedules 77 and 135

SCHEDULE 77 (Concluded)

SPECIAL CONDITIONS (Continued)

- 10. If the Customer experiences operational changes or a service disconnection that impairs the ability of the customer to provide the Firm Load Reduction as requested under this schedule, the agreement will be terminated.
- 11. If the Company is not allowed to recover the Reservation payments by the Commission, the Company may at its option terminate service under this agreement within 30-day notice.
- 12. The Customer may pre-schedule two opt-out days per month and must provide the Company ten business days advance notice before the start of the month. If the Company calls a Load Reduction Event on a pre-scheduled opt-out day, the Customer is exempt from providing load reduction and receives no Firm Energy Reduction Payment, whether or not they choose to operate. The Customer will receive the Reservation payment. An opt-out day will not be included in the calculation of the Baseline Demand Profile.
- 13. Customers who opt for this Schedule may be placed on a calendar monthly billing cycle.

TERM

Service under this schedule ends November 30, 2017. is automatically renewed for returning participants as long as this Schedule is in effect. New participants must enroll during the open enrollment window.

SCHEDULE 135 DEMAND RESPONSE COST RECOVERY MECHANISM

PURPOSE

This Schedule recovers the expenses associated with <u>automated</u> demand response <u>pilots</u> not otherwise included in rates. This adjustment schedule is implemented as an automatic adjustment clause as provided for under ORS 757.210. This schedule also provides eligibility criteria for participation.

AVAILABLE

In all territory served by the Company.

APPLICABLE

To all bills for Electricity Service served under the following rate schedules 7, 15, 32, 38, 47, 49, 75, 83, 85, 89, 90, 91, 92 and 95. Customers served under the daily price option contained in Schedules 32, 38, 75, 81, 83, 85, 89, 90, 91 and 95 are exempt from this schedule.

ADJUSTMENT RATE

The Adjustment Rate, applicable for service on and after the effective date of this schedule are:

<u>Sc</u>	<u>hedule</u>	<u>Ad</u>	<u>justment Rate</u>
7	•	0.000	¢ per kWh
15		0.000	¢ per kWh
32		0.000	¢ per kWh
38		0.000	¢ per kWh
47		0.000	¢ per kWh
49		0.000	¢ per kWh
75			
	Secondary	0.000	¢ per kWh ⁽¹⁾
	Primary	0.000	¢ per kWh ⁽¹⁾
	Subtransmission	0.000	¢ per kWh ⁽¹⁾
83		0.000	¢ per kWh
85			
	Secondary	0.000	¢ per kWh
	Primary	0.000	¢ per kWh

⁽¹⁾ Applicable only to the Baseline and Scheduled Maintenance Energy.

SCHEDULE 135 (Continued Concluded)

ADJUSTMENT RATE (Continued)

<u>Schedule</u>	<u>Adjustment Rate</u>			
89				
Secondary	0.000	¢ per kWh		
Primary	0.000	¢ per kWh		
Subtransmission	0.000	¢ per kWh		
90	0.000	¢ per kWh		
91	0.000	¢ per kWh		
92	0.000	¢ per kWh		
95	0.000	¢ per kWh		

BALANCING ACCOUNT

The Company will maintain a balancing account to accrue differences between the incremental costs associated with automated demand response and the revenues collected under this schedule. This balancing account will accrue interest at the Commission-authorized rate for deferred accounts.

DEFERRAL MECHANISM

Each year the Company may file a deferral request to defer the incremental costs associated with the implementation and administration of this demand response pilots. The rate on this schedule recovers only the incremental costs for implementation and administration of this pilotdemand response pilots. The contract price to the Customer is determined between PGE's third-party provider and the customer. The deferral will be amortized over one year in this schedule unless otherwise approved by the Oregon Public Utility Commission.

SPECIAL CONDITION

1. Costs recovered through this schedule will be allocated to each schedule using the applicable schedule's forecasted energy on the basis of an equal percent of generation revenue applied on a cents per kWh basis to each applicable rate schedule.

Portland General Electric Company	Third Revision of Sheet No. 135-3
P.U.C. Oregon No. E-18	Canceling Second Revision of Sheet No. 135-3

SCHEDULE 135 (Concluded)

ELIGIBILITY FOR PARTICIPATION IN THE AUTOMATED DEMAND RESPONSE PILOT

This pilot is open to large nonresidential customers served on Schedules 38, 49, 83, 85, 89, or 90 unless they participate in one of the following programs: Direct Access Service, Schedule 86 Demand Buy Back, Schedule 77 Firm Load Reduction Program, or any other demand response program. Participation in Schedule 200 Dispatchable Standby Generation does not preclude customers from participating in this pilot.

AUTOMATED DEMAND RESPONSE PILOT CONTRACT

The Company has a contract with a third party provider. Customers contract with the third party provider, rather than directly with the Company. The contract between the customer and third party provider establishes the price and other details.

PORTLAND GENERAL ELECTRIC COMPANY TABLE OF CONTENTS RATE SCHEDULES

Schedule Description

Table of Contents, Rate Schedules

Table of Contents, Rules and Regulations

Standard Service Schedules

- 3 Residential Demand Response Water Heater Pilot Rider
- 4 Multifamily Residential Demand Response Water Heater Pilot Rider
- 5 Direct Load Control Pilot Rider
- 6 Residential Pricing Pilot
- 7 Residential Service
- 15 Outdoor Area Lighting Standard Service (Cost of Service)
- 25 Nonresidential Direct Load Control Pilot Rider

(N)

(N)

- 26 Nonresidential Demand Response Pilot Program Rider
- 32 Small Nonresidential Standard Service
- 38 Large Nonresidential Optional Time-of-Day Standard Service (Cost of Service)
- 47 Small Nonresidential Irrigation and Drainage Pumping Standard Service (Cost of Service)
- 49 Large Nonresidential Irrigation and Drainage Pumping Standard Service (Cost of Service)
- 75 Partial Requirements Service
- 76R Partial Requirements Economic Replacement Power Rider
 - 77 Firm Load Reduction Program
 - 81 Nonresidential Emergency Default Service
 - 83 Large Nonresidential Standard Service (31 200 kW)
 - 85 Large Nonresidential Standard Service (201 4,000 kW)
 - 86 Nonresidential Demand Buy Back Rider

SCHEDULE 135 DEMAND RESPONSE COST RECOVERY MECHANISM

PURPOSE

This Schedule recovers the expenses associated with demand response pilots not otherwise included in rates. This adjustment schedule is implemented as an automatic adjustment clause as provided for under ORS 757.210.

(C)

AVAILABLE

In all territory served by the Company.

APPLICABLE

To all bills for Electricity Service served under the following rate schedules 7, 15, 32, 38, 47, 49, 75, 83, 85, 89, 90, 91, 92 and 95. Customers served under the daily price option contained in Schedules 32, 38, 75, 81, 83, 85, 89, 90, 91 and 95 are exempt from this schedule.

ADJUSTMENT RATE

The Adjustment Rate, applicable for service on and after the effective date of this schedule are:

Sc	<u>hedule</u>	<u>Ad</u>	<u>justment Rate</u>
7		0.000	¢ per kWh
15		0.000	¢ per kWh
32		0.000	¢ per kWh
38		0.000	¢ per kWh
47		0.000	¢ per kWh
49		0.000	¢ per kWh
75			
	Secondary	0.000	¢ per kWh ⁽¹⁾
	Primary	0.000	¢ per kWh ⁽¹⁾
	Subtransmission	0.000	¢ per kWh ⁽¹⁾
83		0.000	¢ per kWh
85			
	Secondary	0.000	¢ per kWh
	Primary	0.000	¢ per kWh

⁽¹⁾ Applicable only to the Baseline and Scheduled Maintenance Energy.

SCHEDULE 135 (Concluded)

(T)

ADJUSTMENT RATE (Continued)

<u>Schedule</u>	Adjustment Rate			
89				
Secondary	0.000	¢ per kWh		
Primary	0.000	¢ per kWh		
Subtransmission	0.000	¢ per kWh		
90	0.000	¢ per kWh		
91	0.000	¢ per kWh		
92	0.000	¢ per kWh		
95	0.000	¢ per kWh		

BALANCING ACCOUNT

The Company will maintain a balancing account to accrue differences between the incremental costs associated with automated demand response and the revenues collected under this schedule. This balancing account will accrue interest at the Commission-authorized rate for deferred accounts.

DEFERRAL MECHANISM

Each year the Company may file a deferral request to defer the incremental costs associated with the implementation and administration of demand response pilots. The rate on this schedule recovers only the incremental costs for implementation and administration of demand response pilots. The deferral will be amortized over one year in this schedule unless otherwise approved by the Oregon Public Utility Commission.



SPECIAL CONDITION

1. Costs recovered through this schedule will be allocated to each schedule using the applicable schedule's forecasted energy on the basis of an equal percent of generation revenue applied on a cents per kWh basis to each applicable rate schedule.

SCHEDULE 25 NONRESIDENTIAL DIRECT LOAD CONTROL PILOT

PURPOSE

This direct load control pilot is a demand response option for eligible nonresidential Customers. The direct load control pilot offers incentives to allow the Company to control thermostats during Direct Load Control Events while providing a customer override. The Company provides advance notice to participating Customers for Direct Load Control Events. The pilot is expected to be conducted from December 1, 2017 through September 30, 2020.

DEFINITIONS

<u>Central Air Conditioning</u> – air conditioner tied into a central ducted forced air system.

<u>Direct Load Control</u> – a remotely controllable switch that allows the utility to operate an appliance, often by cycling. In terms of this pilot, direct load control allows the Company to change the set point or cycle the Customer's heating or cooling through the Customer's Qualified Thermostat in order to reduce the Customer's energy demand.

<u>Direct Load Control Event</u> – a period of time in which the Company will provide direct load control.

<u>Ducted Heat Pump</u> – heat pump heating and cooling system hooked into a central ducted forced air system.

<u>Electric Forced Air Heating</u> – an electrical resistance heating system tied into a central ducted forced air system.

<u>Event Notification</u> – the Company will issue a notification of a Direct Load Control Event to participating Customers. Participating Customers must choose at least one method for receipt of notification. Notification methods may include email, text, auto-dialer phone call, on thermostat display screen, or via mobile app notification. Notification may also be available on the Company's website.

<u>Event Season</u> – the pilot has two event seasons: the Summer Event Season and the Winter Event Season.

<u>Holidays</u> – the following are holidays for purposes of the pilot: New Year's Day (January 1), Memorial Day (last Monday in May), Independence Day (July 4), Labor Day (first Monday in September), Thanksgiving Day (fourth Thursday in November), and Christmas Day (December 25). If a holiday falls on a Saturday, the preceding Friday will be designated the holiday. If a holiday falls on a Sunday, the following Monday will be designated the holiday.

DEFINITIONS (Continued)

<u>Summer Event Season</u> – the summer event season includes the successive calendar months June through September.

<u>Winter Event Season</u> – the winter event season includes the successive calendar months November through February.

<u>Qualified Thermostat</u> – thermostats that are Company-approved and listed on PortlandGeneral.com.

AVAILABLE

In all territory served by the Company.

APPLICABLE

Subject to selection by the Company, up to 10,000 Qualified Thermostats from eligible nonresidential Customers may elect to participate in the pilot. The Company will limit participation to 10,000 Qualified Thermostats. This program is available to eligible Customers on nonresidential schedules that elect to enroll. Customers will remain on their base schedule and will be eligible for the incentives described in this schedule.

ELIGIBILITY

Eligible Customers must have a Network Meter. Customers must have a Qualified Thermostat connected to the internet and the heating or cooling system at the Customer's expense, except as provided in the Incentives section of this schedule. To participate in the Winter Event Season, the Customer must have a Ducted Heat Pump or Electric Forced Air Heating. To participate in the Summer Event Season, the Customer must have Central Air Conditioning or a Ducted Heat Pump.

DIRECT LOAD CONTROL EVENT

Direct Load Control Events occur for one to five hours. The Company may call two events per day, but will not exceed five cumulative hours for the day. During Direct Load Control Events the Customer may allow the Company to control their thermostat for the duration of the event. The Customer has the option not to participate by overriding via the thermostat. The Company initiates Direct Load Control Events with Event Notification. The Company will call Direct Load Control Events only in the following months: November, December, January, February, June, July, August, and September. Direct Load Control Events will not be called on weekends or Holidays. Reasons for calling events may include, but are not limited to: energy load forecasted to be in the top 1% of annual load hours, forecasted temperature above 90 or below 32, expected high generation heat rates and market power prices, and/or forecasted low or transitioning wind generation. The Company will call no more than 150 event hours per Event Season.

ENROLLMENT

The Customer may enroll at any time, but must participate for the minimum number of hours described in the incentive section.

INCENTIVE

Participating Customers receive a Qualified Thermostat for signing up for the direct load control pilot. A Customer may receive multiple Qualified Thermostats for separate spaces subject to verification by the Company. In addition, Customers receive \$60 per Qualified Thermostat for each Event Season they participate. A Customer participating in all Event Seasons receives \$120 per Qualified Thermostat per pilot year. Incentives are paid to the Customer with a check, bill credit, or generic gift card. To receive payment for an Event Season, the Customer must participate in at least 50% of the event hours for which the Customer is eligible to participate in that Event Season.

SPECIAL CONDITIONS

- 1. The Customer may terminate service under this pilot at the next regularly scheduled meter reading if the Customer provides the Company two weeks' notice prior to the next regularly scheduled meter read date.
- 2. Customers that reenroll in the program are not eligible for a second Qualified Thermostat for signing up. A Customer continuing service at a new location is not considered a new enrollment.
- 3. If the participating Customer moves to a different location, the Customer may continue participation if the new location meets the eligibility requirements.
- 4. The Company will defer and seek recovery of all pilot costs not otherwise included in rates.
- 5. The Company is not responsible for any direct, consequential, incidental, punitive, exemplary, or indirect damages to the participating Customer or third parties that result from AC Cycling or changing the thermostat set point.
- 6. The Company shall have the right to select the cycling schedule and the percentage of the Customer's heating or cooling systems to cycle at any one time, up to 100%, at its sole discretion.
- 7. The provisions of this schedule do not apply for any time period that the Company interrupts the Customer's load for a system emergency or any other time that a Customer's service is interrupted by events outside the control of the Company. The provisions of this schedule will not affect the calculation or rate of the regular service schedule and associated charges.

SPECIAL CONDITIONS (Continued)

8. PGE has the right to remove a Customer from the pilot when good cause is shown including, but not limited to, for poor customer responsiveness, consistent customer non-participation in called events, or issues with customer equipment that impact customer's participation.

TERM

This pilot term is December 1, 2017 through September 30, 2020.

SCHEDULE 26 NONRESIDENTIAL DEMAND RESPONSE PILOT PROGRAM

PURPOSE

This schedule is an optional supplemental service that provides participating Large Nonresidential Customers incentives for reducing a committed amount of load at the request of the Company. Under this tariff, the Customer provides a Firm Load Reduction Commitment that the Company calls at any time according to the conditions listed below. The pilot is expected to be conducted from December 1, 2017 through September 30, 2020.

AVAILABLE

In all territory served by the Company.

APPLICABLE

To qualifying Nonresidential Customers served under Schedules 32, 38, 47, 49, 75, 83, 85, 89, and 90. Participating Customers must execute a Schedule 26, Firm Load Reduction Agreement (Agreement) to participate in this program. The Agreement specifies the Customer's Firm Load Reduction Commitment and selected Firm Load Reduction Options.

CUSTOMER ENROLLMENT

Qualified Customers must have enrolled and completed enablement at least 5 business days prior to the Participation Month.

At the time of enrollment, the Customer chooses the participation option, the maximum event hours per season option, the advance-notice option and the event windows for which they want to participate. The load reduction amount is agreed to by the Customer and the Company or its representative. First-time participants can also opt-in for a commissioning test.

Within five business days of enrollment, the Company will confirm receipt of the PODID(s) the Customer intends to enroll under this schedule and the Company or its representatives will send a signed Agreement to the Customer's representative. The Customer may choose to aggregate PODIDs.

Each Agreement will automatically renew for successive annual terms on January 1st of subsequent calendar years unless the Customer elects to terminate such Agreement by notifying PGE prior to January 1st or this Schedule is withdrawn, revoked or otherwise terminated.

CUSTOMER PARTICIPATION OPTIONS

<u>Customers are offered three participation options</u>: Option 1 provides that the Customer participates for all eight months of the contracted program year. Options two and three offer the Customer summer or winter seasonal participation. In the second option the Customer participates for four months in the summer – June, July, August and September. The third option is the Customer participates for four months in the winter – November, December, January and February. Customers select one of the three options at the time of enrollment.

Customer Option	Participation Months	Number of Months Participating
1	Nov, Dec, Jan, Feb, Jun, Jul, Aug, Sep	Eight-month – both seasons
2	Jun, Jul, Aug, Sep	Four-month seasonal – summer
3	Nov, Dec, Jan, Feb	Four-month seasonal – winter

FIRM LOAD REDUCTION OPTIONS

Several firm load reduction options are available to Customers in the Reservation Price Section: Options include differing maximum event hours per season, notification periods, and event windows. For each season only one 'maximum hours' selection and one 'notification period' selection can be chosen for all event windows in which the Customer chooses to participate.

RESERVATION PRICE

20 Event Hours Maximum per Season

Monthly Payment per kW

	Notification Period		
_	18 hours	4 hours	10 minutes
Summer (June - September)			
11 am -4 pm	\$1.68	\$1.80	\$1.91
4 pm - 8 pm	\$1.95	\$2.08	\$2.22
8 pm - 10 pm	\$0.39	\$0.42	\$0.45
All summer windows	\$4.02	\$4.30	\$4.57
Winter (November - February)			
7 am - 11 am	\$1.27	\$1.35	\$1.44
11 am -4 pm	\$0.73	\$0.78	\$0.83
4 pm - 8 pm	\$2.07	\$2.22	\$2.36
8 pm - 10 pm	\$0.73	\$0.78	\$0.83
All winter windows	\$4.80	\$5.13	\$5.46

RESERVATION PRICE (Continued)

40 Event Hours per Season

Monthly Payment per kW

	Notification Period			
Windows	18 hours	4 hours	10 minutes	
Summer (June - September)				
11 am -4 pm	\$2.52	\$2.69	\$2.87	
4 pm - 8 pm	\$2.92	\$3.12	\$3.32	
8 pm - 10 pm	\$0.59	\$0.63	\$0.67	
All summer windows	\$6.04	\$6.45	\$6.86	
Winter (November - February)				
7 am - 11 am	\$1.90	\$2.03	\$2.16	
11 am -4 pm	\$1.09	\$1.17	\$1.24	
4 pm - 8 pm	\$3.11	\$3.32	\$3.54	
8 pm - 10 pm	\$1.09	\$1.17	\$1.24	
All winter windows	\$7.20	\$7.70	\$8.19	

80 Event Hours Maximum per Season

Monthly Payment per kW

	Notification Period		
	18 hours	4 hours	10 minutes
Summer (June - September)			
11 am -4 pm	\$3.35	\$3.58	\$3.81
4 pm - 8 pm	\$3.89	\$4.16	\$4.42
8 pm - 10 pm	\$0.79	\$0.84	\$0.89
All summer windows	\$8.03	\$8.58	\$9.12
Winter (November - February)			
7 am - 11 am	\$2.53	\$2.70	\$2.87
11 am -4 pm	\$1.46	\$1.56	\$1.65
4 pm - 8 pm	\$4.14	\$4.42	\$4.70
8 pm - 10 pm	\$1.46	\$1.56	\$1.65
All winter windows	\$9.58	\$10.23	\$10.89

COMMITTED LOAD REDUCTION

If a Customer has completed a test event, but not participated in actual events, their Committed Load Reduction will be based on nominated load identified in the agreement. If a Customer has completed only one event, their Committed Load Reduction will be the higher of either their nominated load or their first event performance. If a Customer has participated in more than one event, their Committed Load Reduction will be based on an average of actual load reductions during event hours. The Customer, at its discretion, may choose to increase its nomination above the levels described above.

QUALIFIED LOAD REDUCTION

If no events are called in a Participation Month, the Customer qualifies for the full Reservation Payment; the Qualified Load Reduction is the Committed Load Reduction.

In order to qualify for the full Reservation Payment during a month with events, the Customer must provide a minimum of 90% of the Committed Load Reduction on average over each event for which the Customer is enrolled during events in that month. If the Customer qualifies for the full Reservation Payment; the Qualified Load Reduction is the Committed Load Reduction.

In order to qualify for a proportional reservation payment during a month with events, the Customer must deliver a minimum of 70% of the Committed Load Reduction on average over each event for which the Customer is enrolled during events in that month. If the Customer qualifies for a reduced reservation payment; the Qualified Load Reduction is the average load reduction percentage for all event hours during that month.

If the Customer fails to deliver a minimum of 70% of the Committed Load Reduction on average during an event for which the Customer is enrolled during events in that month, the Customer is not eligible for the Energy Reduction Payment for that Event and the Reservation Payment for that month. If other Load Reduction Events are called in the same month, and the Customer complies, the corresponding Energy Reduction Payments are paid for each event that the Customer delivers a minimum of 70% of the Committed Load Reduction on average over each event for which the Customer is enrolled during events in that month.

RESERVATION PAYMENTS

The Reservation Payment is the Customer's Qualified Load Reduction (kW) multiplied by the sum of each applicable Reservation Price (\$/kW) based on the Options selected by the Customer adjusted for losses based on the Customer's delivery voltage. For each event window (time period for an event) per season, only one price is applicable. The Reservation Payment is made to the Customer no later than 60 days after the month in which they participated.

ENERGY PAYMENTS

The Energy Payment is the Mid-Columbia Electricity Index (Mid-C) as reported by the Powerdex, adjusted for losses based on the Customer's delivery voltage. The Firm Energy Reduction Amount can be up to 120% of the commitment.

The monthly prices for energy per MWh are:

Nov	Dec	Jan	Feb	Jun	Jul	Aug	Sep
2017	2017	2018	2018	2018	2018	2018	2018
\$29.95	\$36.30	\$29.88	\$27.99	\$18.17	\$26.02	\$29.24	

The Firm Energy Reduction Payment rates will be updated annually by December 1st for the next calendar year. Evaluation and settlement of the Firm Energy Reduction Payment will occur within 60 days of the Firm Load Reduction Event.

LINE LOSSES

Losses will be included by multiplying the applicable price by the following adjustment factors:

Subtransmission Delivery Voltage	1.0356
Primary Delivery Voltage	1.0496
Secondary Delivery Voltage	1.0685

LOAD REDUCTION MEASUREMENT

Load Reduction is measured as a reduction of Demand from a Customer Baseline Load calculation during each hour of the Load Reduction Event. Although the Firm Load Reduction Agreement shall specify the Customer Baseline Load calculation methodology to be used, PGE generally uses the following baseline methodology:

Baseline Load Profile

The Baseline Load Profile is based upon the average hourly load of the five highest load days in the last ten Typical Operational Days for the Event period. For Customers choosing the four-hour or 10-minute notification options there is an adjustment to the amounts above to reflect the day-of operational characteristics leading up to the Event if the Event starts at 11 am or later. This adjustment is the difference between the Event day load and the average load of the five highest days used in the load profile above during the two-hour period ending four hours prior to the start of the Event.

^{*}Holidays are New Year's Day (January 1), President's Day (February), Memorial Day (last Monday in May), Independence Day (July 4), Labor Day (first Monday in September), Thanksgiving Day (fourth Thursday in November), and Christmas Day (December 25). If a holiday falls on Saturday, Friday is designated a holiday. If a holiday falls on Sunday, the following Monday is designated a holiday.

LOAD REDUCTION MEASUREMENT (Continued)

Typical Operational Days

Typical Operational Days exclude days that a Customer has participated in a Firm Load Reduction Event or pre-scheduled opt-out days as defined in the Special Conditions. Typical Operational Days for the baseline calculation are defined as the ten applicable days closest to the Load Reduction Event. Typical Operational Days may exclude Saturdays, Sundays and WECC holidays.

The Company may decline the Customer's enrollment application when the Company determines the Customer's energy usage is highly variable and the Company is not able to verify that a reduction will be made when called upon.

FIRM ENERGY REDUCTION

The Firm Energy Reduction amount is the difference between the Customer's Baseline Energy profile and the Customer's measured hourly energy usage during the Load Reduction Event.

LOAD REDUCTION EVENT

The Company, at its discretion, initiates a Load Reduction Event by providing the participating Customer with the appropriate notification consistent with the Customer's selected Firm Load Reduction Option. The Customer reduces its Demand served by the Company, for each hour of the Load Reduction Event to achieve its Committed Load Reduction. Each load reduction event will last from one to five hours in duration. For pilot purposes, the Company will call at least one event per season.

The Company initiates Load Reduction Events during January, February, June, July, August, September, November, and December.

EVENT NOTIFICATION

The Company notifies the participating Customer of a Load Reduction Event using a mutually agreed upon method at the time of enrollment. The Company's notification includes a time and date by which the Customer must reduce the committed Demand for each period of the Load Reduction Event.

The Customer is responsible to notify the Company if the Customer's contact information specified at the time of the enrollment changes as soon as such change occurs.

FIRST-TIME PARTICIPANT OPTIONAL COMMISSION TEST

A commissioning test is available to Customers who are participating on this schedule for the first time. Interested participants will work with the Company to learn the details of this process.

SPECIAL CONDITIONS

- 1. Customers cannot use on-site generation equipment for load reductions to meet load reduction commitments under this tariff.
- 2. Customers that choose to take service under Schedules 86, 485, 489, 490, 532, 538, 549, 575, 583, 585, 589, or 590 will be withdrawn from this program.
- 3. Firm Load Reduction by Schedule 75 Customers will not exceed the Customer's Baseline Demand as specified in the written service agreement between the Customer and the Company. Customer cannot use purchases under Schedule 76 to meet load reduction commitments under this tariff. In the case of Customers participating on Schedule 76R Partial Requirements Economic Replacement Power Rider at the time of the event, the energy imbalance will not apply during event hours and for the event energy amount.
- 4. The Company is not responsible for any consequences to the participating Customer that results from the Firm Load Reduction Event or the Customer's effort to reduce Energy in response to a Firm Load Reduction Event.
- 5. This tariff is not applicable when the Company requests or initiates Load Reduction affecting a Customer PODID under system emergency conditions described in Rule N or Rule C(2)(B).
- 6. The Company will not cancel or shorten the duration of a Firm Reduction Event once notification has been provided.
- 7. The Company will file any adjustment to the Reservation Rate by August 1st for the next program year.
- 8. Participating Customers are required to have interval metering and meter communication in place prior to initiation of service under this schedule. The Company will provide and install necessary equipment which allows the Company and the Customer to monitor the Customer's energy usage.
- 9. If the Customer experiences operational changes or a service disconnection that impairs the ability of the customer to provide the Firm Load Reduction as requested under this schedule, the agreement will be terminated.
- 10. If the Company is not allowed to recover any costs of this program by the Commission, the Company may at its option terminate service under this agreement with 30-day notice.

SPECIAL CONDITIONS (Continued)

- 11. The Customer may pre-schedule four opt-out days per season as indicated in the Agreement. If the Company calls a Load Reduction Event on a pre-scheduled opt-out day, the Customer is exempt from providing load reduction and receives no Firm Energy Reduction Payment, whether or not they choose to operate. The Customer will receive the Reservation payment if otherwise eligible. An opt-out day will not be included in the calculation of the Baseline Demand Profile.
- 12. Customers who opt for this Schedule may be placed on a calendar monthly billing cycle.

TERM

This pilot term is December 1, 2017 through September 30, 2020.

SCHEDULE 77 (Concluded)

SPECIAL CONDITIONS (Continued)

- 10. If the Customer experiences operational changes or a service disconnection that impairs the ability of the customer to provide the Firm Load Reduction as requested under this schedule, the agreement will be terminated.
- 11. If the Company is not allowed to recover the Reservation payments by the Commission, the Company may at its option terminate service under this agreement within 30-day notice.
- 12. The Customer may pre-schedule two opt-out days per month and must provide the Company ten business days advance notice before the start of the month. If the Company calls a Load Reduction Event on a pre-scheduled opt-out day, the Customer is exempt from providing load reduction and receives no Firm Energy Reduction Payment, whether or not they choose to operate. The Customer will receive the Reservation payment. An opt-out day will not be included in the calculation of the Baseline Demand Profile.
- 13. Customers who opt for this Schedule may be placed on a calendar monthly billing cycle.

TERM

Service under this schedule ends November 30, 2017.

(C)