NEW YORK STATE ELECTRIC & GAS CORPORATION and ROCHESTER GAS AND ELECTRIC CORPORATION

2017 ANNUAL REPORT ON PROGRAM PERFORMANCE AND COST EFFECTIVENESS OF DISTRIBUTION LEVEL DEMAND RESPONSE PROGRAMS December 1, 2017

> Case 15-E-0188 NYSEG Case 15-E-0190 RG&E

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1. INTRODUCTION

New York State Electric & Gas Corporation ("NYSEG") and Rochester Gas and Electric Corporation ("RG&E"), collectively referred to as the ("Companies"), submits this evaluation of its Distribution Level Demand Response ("DLDR") programs pursuant to the New York Public Service Commission's ("Commission" or "PSC") December 15, 2014 Order Instituting Proceeding Regarding Dynamic Load Management ("DLM") and Directing Tariff Filings ("the Order"). The Order requires that the Companies submit a report to the Commission by December 1st of each year assessing the three DLDR programs approved in the Order.¹

The Companies' three DLDR programs are:

- Distribution Load Relief Program ("DLRP"),
- Commercial System Relief Program ("CSRP"), and
- Direct Load Control Program ("DLC").

The Companies will address the performance of the three programs, including an operational overview, enrollment analysis, statement of costs, and assessment of event performance and cost effectiveness, for the 2017 program year from January 1, 2017 through December 31, 2017.

The Companies will also highlight recommendations for the 2018 DLDR programs. Tariff revisions corresponding to these recommendations were filed with this report. The recommendations vary in nature from housekeeping, program clarification, enhancements based on 2017 performance, and other changes pursuant to the PSC's April 21, 2017 Order Modifying Dynamic Load Management Filings and Making Other Findings (the "Order").

The CSRP and DLRP are designed for commercial, municipal, and industrial customers who participate as Direct Customers or through an Aggregator and are able to achieve a pledged reduction amount through their own demand reduction strategies. Both programs each have a mandatory (Reservation Option) and voluntary (Voluntary Option) enrollment option with separate obligations and incentive rates. For the 2017 capability period, CSRP was offered to customers throughout the Companies' entire service territory, while DLRP participation was limited to Company designated areas. The DLRP and CSRP are described respectively in NYSEG's General Information sections 34 & 35 of PSC No. 120 – Schedule for Electric Service tariff ("PSC No. 120") and RG&E's Metering & Billing Part II sections 4.R and S of PSC No. 19 – Schedule for Electric Service tariff ("PSC No. 19").

¹ Case 14-E-0423, Proceeding on Motion of the Commission to Develop Dynamic Load Management Programs *Instituting Proceeding Regarding Dynamic Load Management and Directing Tariff Filings*, issued and effective December 15 2014, pp. 25-26.

The DLC program is primarily for residential and small commercial customers and achieves demand response by remotely adjusting thermostat set points through smart Wi-Fi enabled thermostats for central air conditioning systems and a smart control device for room air conditioning units. The DLC programs are described in General Information Section 36 of NYSEG's PSC No. 120 tariff and Metering & Billing Part II Section 4.T of RG&E's PSC No. 19 tariff. Three DLC program options were available during program year 2017.

The Companies' three DLC program options are:

- Bring Your Own Thermostat ("BYOT") for central air conditioning ("Central AC"),
- Direct Install Thermostat ("DIT") with a Company supplied device for Central AC, and
- Room AC with a Company supplied device for room air conditioner units

BYOT is available throughout the Companies' entire service territory while participation in the other two options is limited to designated areas.

Table 1 summarizes the Companies' 2017 Distribution Level Demand Response programs.

Program	Program Type	General Information	Customer Incentives
Distribution Load Relief Program (DLRP)	Contingency Program	Activated by NYSEG or RG&E in response to system critical situations (i.e. voltage reduction). Events last for four (4) or more hours. Commercial, municipal and industrial customers and Aggregators of customers with a minimum pledge of 50 kW are eligible.	 Reservation Payment Option: Reservation Payment equal to NYSEG: \$2.75 per pledged kilowatt ("kW")/month for months with four or less events and \$3.00 per pledged kW/month for months with five or more planned load relief events. RG&E: \$3.25 per pledged kW/month for months with four or less events and \$3.50 per pledged kW/month for months with five or more planned load relief events. NYSEG & RG&E Performance Payment equal to \$0.15 per kilowatt-hours ("kWh") reduced for the first four hours of the load relief event and \$0.30 per kWh for all hours beyond the first four hours of the event. Voluntary Option: NYSEG and RG&E Performance Payment equal to \$0.15 per kWh reduced during a load relief event from a baseline amount.

Table 1 Demand Response Program Overview

Commercial System Relief Program (CSRP)	Peak Shaving	Event activated when the day- ahead forecast is 92 percent or greater of forecasted summer system peak to relieve distribution network peak loads. Commercial, municipal and industrial customers and Aggregators of customers with a minimum pledge of 50 kW are eligible.	 Reservation Payment Option: Reservation Payment equal to NYSEG: \$2.75 per pledged kW/month for months with four or less events and \$3.00 per pledged kW/month for months with five or more planned load relief events. RG&E: \$3.25 per pledged kW/month for months with four or less events and \$3.50 per pledged kW/month for months with four or less events and \$3.50 per pledged kW/month for months with five or more planned load relief events.
			 NYSEG & RG&E Performance Payment equal to \$0.15 per kWh reduced for the first four hours of the load relief event and \$0.30 per kWh for all hours beyond the first four hours of the event. Voluntary Option: NYSEG and RG&E Performance Payment equal to \$0.15 per kWh reduced during a load relief event
Direct Load Control (DLC)	Contingency and Peak Shaving	NYSEG or RG&E remotely adjust air conditioning temperature settings in critical situations or during peak shaving events when day-ahead forecast is 92 percent or greater of forecasted summer system peak.Customers who install and enroll a qualifying thermostat through a service provider which controls central air conditioning are eligible.Customers, in designated areas,	 from a baseline amount. Enrollment: BYOT: One-time \$85 e-gift card per enrolled thermostat controlling a central air conditioning system. Room AC: Customers with a room air conditioner: one time sign-up \$20 e-gift card after the Control Device is enrolled and connected. DIT: Customers with a central air conditioning system receive a free Company provided thermostat and installation.
		with air-conditioning controlled by a Company provided control device are eligible.	 Event Participation: An event or test payment of \$5 per event is paid as a bill credit to customers who fully participate in an event or test.

2. COMMERCIAL DEMAND RESPONSE PROGRAMS

2.1 Commercial Demand Response Program Overview

NYSEG and RG&E offer two distinct commercial demand response programs.

Direct Load Relief Program ("DLRP") is a network contingency DLDR program applicable to individual customers ("Direct Customer") who contract to reduce 50 kW or greater of demand reduction during an event or Aggregators/Curtailment Service Providers who aggregate 50 kW or greater of demand reduction from one or more customers. DLRP may be called by the Companies to reduce load on local distribution circuits within specific load areas when contingencies occur.

Commercial System Relief Program ("CSRP") is open to Direct Customers in the Companies' service territory who can curtail load or bring on certain on-site generation to reduce their demand by a minimum of 50 kW individually, or to Aggregators/Curtailment Service Providers who aggregate 50 kW or greater of demand reduction from one or more customers. The Companies' request load relief when the day-ahead forecasted load level is at least 92 percent of the Companies' forecasted summer capability period system peak.

Both DLRP and CSRP operate during a capability period of May 1st to September 30th. Customers are required to respond to a load relief request ("Planned Event") Monday through Friday for at least four-hours during an event, starting at 2:00 pm. A participant is notified the day ahead (at least 21 hours prior) to a Planned Event. The day of the Planned Event, the request for load relief is confirmed or cancelled based upon the day of load forecast and Trigger.

Performance evaluation for summer 2017 is based on tests and actual event data collected for each program.

2.1.1 Participation Options

The DLRP and CSRP include both a Reservation Option and a Voluntary Option for participation.

Reservation Option

Participants enrolled in the Reservation Option receive monthly Reservation Payments for pledged kW demand reduction and Performance Payments for kWh load reduced during a Planned Event.

Voluntary Option

Participants receive only a Performance Payment for kWh load reduction during a planned or unplanned event when requested by NYSEG or RG&E.

2.1.2 Technology

An interval meter with dedicated telecommunications is used to measure a participant's usage. Schneider Electric's Energy Profiler Online (EPO) software is used to determine a participant's baseline load and evaluate the interval data during DLRP and CSRP events and tests to determine participants' load reduction performance. EPO is also used to notify participants of CSRP or DSRP events and tests.

2.1.3 Marketing

The Companies offered the DLRP and CSRP primarily targeting customers currently enrolled in the Companies' Mandatory Hourly Pricing ("MHP") programs. Customers enrolled in MHP have a billed demand of 300kW or greater, already have an interval meter and dedicated telecommunications installed, and potentially can curtail the minimum 50 kW without a major impact on their business operations. A total of 2,124 customers are currently enrolled in MHP throughout the Companies' service territories; 1,362 at NYSEG and 762 at RG&E.

In support of these targeted initiatives, a program summary was developed and mailed to each of the 2,124 MHP customers. Key Account Managers also made direct contact with their customer base to communicate the DLRP and CSRP details. The Companies' websites contain the detailed tariff provisions and summary program descriptions to assist customers with any questions.

2.1.4 Customer Service

Dedicated email addresses for NYSEG and RG&E² and a toll-free telephone number³ are provided on the Companies' websites⁴ for additional program information requests. Both email mailboxes and the program telephone numbers are monitored by the CSRP/DLRP Program Manager. The Program Manager responds to all inquiries and provides a direct contact number which allows for one-on-one personal assistance to guide customers and Aggregators through the program details and enrollment process.

2.1.5 Enrollment Process

Through direct communication with the DLRP/CSRP Program Manager or through the Companies' websites, customers can access the demand response application and the demand response enrollment form. The demand response enrollment form allows Aggregators and Direct Customers to enroll a batch of accounts at one time. Through the on-line enrollment form, participants identify the desired program, participation option, customer name, account number,

² <u>nyseg-dr@nyseg.com</u>, rge-dr@rge.com

³ 1.866.410.7545

⁴ <u>http://www.nyseg.com/YourBusiness/demandresponse/default.html</u>,

http://www.rge.com/YourBusiness/demandresponse/default.html

Point of Delivery ID, service address, whether an interval meter and phone line is installed, indicate if already participating in EPO, CBL method desired, and enrolled load reduction.

Once the demand response application and enrollment forms are submitted to the Companies, the DLRP/CSRP Program Manager validates the information and works directly with the customer or Aggregator to complete and verify all enrollment requirements for participation.

2.2 Distribution Load Relief Program "DLRP"

2.2.1 Incentives

The DLRP Reservation Option incentive at NYSEG is \$2.75 per kW-month and \$3.25 per kW-month at RG&E. For any month during the Capability Period if five or more Planned Events are called by the Company, for that month, the Reservation Payment is increased to \$3.00 per kW-month at NYSEG and \$3.50 per kW-month at RG&E. A DLRP participant also receives a Performance Payment for each kWh reduction from a baseline amount during load relief events. Performance Payments are \$0.15 per kWh for the first four hours of the load relief event and \$0.30 per kWh for all hours beyond the first four hours of the event.

Voluntary Option participants do not receive Reservation Payments. Participants receive a Performance Payment for each kWh reduction from a baseline amount during load relief events. Performance Payments are \$0.15 per kWh for the first four hours of the load relief event and \$0.30 per kWh for all hours beyond the first four hours of the event.

2.2.2 Program Enrollment

The Companies offered the DLRP in designated areas throughout their service territories for specific circuits that were identified as having the potential for future capacity constraints. The designated areas contain 50 circuits in NYSEG's territory and 18 circuits in RG&E's territory. Although several Aggregators that have active programs throughout New York State, responded with interest in the Companies' programs and inquired about DLRP details, NYSEG or RG&E did not receive any applications or enrollments for participation in the Companies' DLRP for the 2017 capability period. Since the DLRP inception in 2015, no customers have participated in the program.

2.2.3 Cost Summary

Table 2 summarizes the cost associated with the DLRP for 2017

DLRP 2017 Program Costs						
NYSEG RG&E						
Component	Cost	Percentage	Cost	Percentage		
Program Administration	\$2,401	78%	\$2,401	88%		
Program Marketing Material	\$672	22%	\$339	12%		
Customer Incentive	\$0	0%	\$0	0%		
Total Program Costs	\$3,073	100%	\$2,740	100%		

Table 2: DLRP Cost Components for Program Year 2017

The total cost for the DLRP during 2017 was \$3,073 at NYSEG and \$2,740 at RG&E.

2.2.3.1 Program Administration

Costs in this category include the Companies' staff salary and overheads associated with DLRP management and support. This includes work performed by program managers and marketing staff. Program staff salaries are recovered through the operating and maintenance ("O&M") budget while other operational costs are recovered via the Companies' Transition Charges. The costs associated with program operation at NYSEG were \$2,401 (78% of the total program cost), and at RG&E \$2,401 (88% of the total program cost).

2.2.3.2 Marketing Material

Marketing costs include the Companies' marketing initiative to inform customers of the program. Incremental marketing material expenses include expenses associated with the printing and production of direct mail materials and associated postage used in part of the marketing initiatives developed to inform and involve customers in the program. Expenses associated with program marketing materials were \$672 (22% of the total program cost) at NYSEG and \$340 (12% of the total program cost) at RG&E.

2.2.3.3 Customer Incentives

Customer incentives consist of Performance and Reservation Payments paid to customers for their participation and performance in events and tests. In 2017, there were no enrollees in this program and therefore there were no customer incentive expenses.

2.2.4 Event Performance and System Impacts

This section focuses on three major areas: evaluation of performance, evaluation of impacts by network, and an assessment of program growth.

The goal of DLRP is to reduce the impact of load area contingencies by inducing customer load reductions prior to or at the time of an event. The achieved performance is calculated by subtracting customer/Aggregator actual load from customer/Aggregator baseline load. The Performance Factor is the ratio of the achieved load reduction to the pledged load reduction.

During the 2017 Capability Period, there were no enrollees in the Companies' programs and therefore no test or event was called and therefore no assessment or evaluation is available.

2.2.4.1 Event Summary

As a result of no customer participation in the program no events or test were called.

2.2.4.2 Measurement and Methodology

Customer load reduction is measured using a Customer Baseline Load ("CBL") methodology. This is a representation of a customer's average consumption based on the top five highest days of energy usage within a 10 weekday period selected from the 30 weekdays prior to an event. For weekend events the CBL uses the top two highest weekend days over the past three weekends. The CBL is used to calculate the customer's performance during a test or event. By taking the difference between the customers' CBL and actual load data during a test or event the company can evaluate load reduction. As a result of no customer participation in the program no measurements were taken in 2017.

2.2.4.3 System Impacts

As a result of no customer participation no system impacts were evaluated.

2.3 Commercial System Relief Program ("CSRP")

2.3.1 Incentives

The CSRP Reservation Option incentive at NYSEG is \$2.75 per kW-month and \$3.25 per kW-month at RG&E. For any month during the Capability Period if five or more Planned Events are called by the Company, for that month, the Reservation Payment is increased to \$3.00 per kW-month at NYSEG and \$3.50 per kW-month at RG&E. A CSRP participant also receives a Performance Payment for each kWh reduction from a baseline amount during load relief events. Performance Payments are \$0.15 per kWh for the first four hours of the load relief event and \$0.30 per kWh for all hours beyond the first four hours of the event.

Voluntary Option participants do not receive Reservation Payments. Participants receive a Performance Payment for each kWh reduction from a baseline amount during load relief events. Performance Payments are \$0.15 per kWh for the first four hours of the load relief event and \$0.30 per kWh for all hours beyond the first four hours of the event.

2.3.2 Program Enrollment

The Companies received program enrollments from two Aggregators representing 51 NYSEG customers and 11 RG&E customers and six RG&E Direct Customers for participation in the CSRP for the 2017 capability period. All 68 CSRP participants enrolled in the Reservation Payment

option. The 51 NYSEG participants enrolled a cumulative 12,948 kW of curtailable load. The 17 RG&E participants enrolled a cumulative 3,133 kW of curtailable load.

Table 3 summarizes the Companies 2017 CSRP enrollments.

CSRP 2017 Program Enrollment							
	NYSEG RG&E						
Enrollment type Enrollees kW Meters				Enrollees	kW	Meters	
Direct Customer - Reservation Option	0	0	0	6	2,320	6	
Direct Customer - Voluntary Option	0	0	0	0	0	0	
Aggregator - Reservation Option	2	12,948	51	2	813	11	
Aggregator - Voluntary Option	0	0	0	0	0	0	
Program Total	2	12,948	51	8	3,133	17	

Table 3: CSRP 2017 Enrollment Summary

2.3.2.1 Historical Enrollment

Table 4 and Table 5 summarize the CSRP historical participation in 2015 and 2016 capability periods.

The first year of the Companies' DLDR program was 2015 and only consisted of CSRP participants. Due to delayed approval and implementation of the Companies' CSRP, participation was limited. In 2016, the Companies' programs were implemented with more time to work with customers and Aggregators directly while targeting some larger customers. The targeted effort resulted in over 32 megawatts ("MW") of enrollments. Even though the CSRP enrollments in 2016 included a significant level of pledged demand reduction, the large number of Planned Events called in 2016 quickly affected individual customer performance factors and customers began to not respond with load reductions when requested. Customers communicated that the number of Planned Events were more than expected and maintaining production and meeting their customer orders were their priority.

CSRP 2016 Enrollment							
		NYSEG					
Enrollment type	Enrollees	kW	Meters	Enrollees	kW	Meters	
Direct Customer - Reservation Option	1	4,600	1	1	10,000	1	
Direct Customer - Voluntary Option	3	150	3	0	0	0	
Aggregator - Reservation Option	3	10,536	57	3	7,140	35	
Aggregator - Voluntary Option	0	0	0	0	0	0	
Program Total	7	15,286	61	4	17,140	36	

Table 4: CSRP 2016 Enrollment Summary

Table 5: CSRP 2015 Enrollment Summary

CSRP 2015 Program Enrollment						
		NYSEG		RG&E		
Enrollment type	Enrollees	kW	Meters	Enrollees	kW	Meters
Direct Customer - Reservation Payment	3	600	3	-	-	-
Direct Customer - Voluntary Payment	4	200	4	-	-	-
Aggregator - Reservation Payment	1	450	5	1	360	4
Aggregator - Voluntary Payment	-	-	-	-	-	-
Program Total	8	1,250	12	1	360	4

2.3.3 Cost Summary

Table 6: CSRP Cost Components for Program Year 2017 summarizes the costs, by component, associated with the CSRP in 2017

Table 6: CSRP Cost Components for Program Year 2017

CSRP 2017 Program Costs						
	RG&E					
Component	Cost	Percentage	Cost	Percentage		
Program Operation Expense	\$4,293	2%	\$4,293	8%		
Program Incremental Marketing Material Expense	\$672	0%	\$339	0%		
Customer Reservation Payments	\$168,690	96%	\$47,194	87%		
Customer Performance Payments	\$2,783	2%	\$2,692	5%		
Total Program Costs	\$176,438	100%	\$54,518	100%		

2.3.3.1 Administration Costs

Costs in this category include the Companies' staff salary and overheads associated with CSRP management and support. This includes, but is not limited to, work performed by program managers and marketing staff. Program staff salaries are recovered through the operating and maintenance ("O&M") budget while other operational costs are recovered via the Companies' Transition Charges. The costs associated with program operation were \$4,293 (2% of total program costs) at NYSEG and at RG&E \$4,293 (8% of total program costs).

2.3.3.2 Marketing Costs

Marketing cost include the Companies' marketing initiative to inform customers of the program. Incremental marketing material expenses include expenses associated with the printing and production of direct mail materials and associated postage used in part of the marketing initiatives developed to inform and involve customers in the program. Expenses associated with program marketing materials were \$672 (~0% of the total program cost) at NYSEG and \$339 (~0% of the total program cost) at RG&E.

2.3.3.3 Customer Incentives

Customer incentives consist of Reservation and Performance payments paid to customers and Aggregators for their program participation and performance in events and tests. In 2017, NYSEG and RG&E conducted one test each. RG&E called one Planned Event. NYSEG paid \$168,690 (96% of total program costs) and RG&E paid \$47,194 (87% of total program costs) in Reservation Payments. Performance payments were \$2,783 (2% of total program costs) at NYSEG and \$2,692 (5% of total program costs) at RG&E.

2.3.4 Event Performance and System Impacts

One of the goals of the program evaluation is to determine whether participants are providing the pledged demand reductions. The Customer Baseline Load ("CBL") for the day of an event is the estimate of the customer's load level had there been no event. The difference between the CBL and the actual load is used to determine the achieved performance.

2.3.4.1 Event Summary

NYSEG and RG&E did not call any Planned Events during May through August of the 2017 summer capability period. NYSEG and RG&E each conducted a one (1) hour test on September 13th. Due to a late heatwave, RG&E subsequently called one Planned Event on September 26th for a four (4) hour period between 2:00 PM and 6:00 PM. For the test and event, participants enrolled in the Reservation Option were required to participate.

Table 7 summarizes the Companies' tests and RG&E event performance

	Table 7. Concert Summary							
Ave	Average Hourly CSRP Event Participation							
Enrolled Program	Enrolled Load Relief	Enrolled Meters	Average Load Relie Provided During Called Events					
NYSEG CSRP—Reservation	12,948 kW	51	18,554 kW					
RG&E CSRP—Reservation	3,133 kW	17	3,634 kW					
Program Total	16,081 kW	68	22,188 kW					

Table 7: CSRP Event Summary

2.3.4.2 Measurement and Methodology

Customer load reduction is measured using a Customer Baseline Load ("CBL") methodology. This is a representation of a customer's average consumption based on the top five highest days of energy usage within a 10 weekday period selected from the 30 weekdays prior to an event. The CBL is used to calculate the customer's performance during a test or event. The customer's performance during a test or event is the difference between the CBL and their actual load.

2.3.4.3 System Impacts

The goal of the companies CSRP is to reduce the level of network peak, limiting the need for capital costs, and providing benefits to customers related to cost reduction and increased reliability. In 2017 the companies saw a system impact of 18,554 kW reductions at NYSEG and 3,634 kW reductions at RG&E, for a total load reduction of 22,188 kW across both Companies during the NYSEG test and RG&E Planned Event. This result is substantially above the required enrolled load relief pledged by customers. This result indicated that customers prefer to be conservative with their pledged load reduction.

Since the one called event at RG&E was not coincident with the New York Independent System Operator ("NYISO") New York Control Area ("NYCA") peak, the Companies' CSRP did not have an impact on the NYCA and did not provide any capacity cost benefit.

2.4 Commercial Cost Effectiveness Summary

Pursuant to the January 21, 2016 Order Establishing the Benefit – Cost Analysis ("BCA") Framework, the Companies are required to evaluate cost-effectiveness of each program using the Societal Cost Test (SCT), Utility Cost Test (UCT), and Ratepayer Impact Measure (RIM) for all Distributed Energy Resources (DERS).

The Companies updated the following for all tests to those required by the Companies' Benefit – Cost Analysis Handbook:

- Avoided Energy Cost
- Avoided Generation Capacity Cost
- Avoided marginal Cost of Service at the Distribution Level
- Avoided Carbon Cost
- Interest Rates
- Line Losses at the Secondary Distribution Level

NYSEG and RG&E did not call an event in 2017 coincident with the NYISO NYCA peak. Even though this was not the case in 2017 the test results were evaluated assuming both that the peaks were and were not coincident with the NYCA peak.

2.4.1 DLRP

There were no participants or benefits in 2017. As such, results for all tests are zero.

2.4.2 CSRP

Table 8 summarizes the CSRP results of the BCA tests assuming the test/event was and was not coincident with the NYCA peak. NYSEG results are based on the one hour test on September 13th and RG&E results are based on the September 26th planned four hour event.

Table 8: CSRP 2017 Cost Benefit Summary Not Concident with the N					
CSRP Benefit Cost Summary					
Test Test Description NYSEG RG&					
SCT	Societal Cost Test	3.51	2.27		
UCT	Utility Cost test	3.50	2.27		
RIM	Ratepayer Impact Measure	1.72	1.05		

Table 8: CSRP 2017 Cost Benefit Summary Not Coincident with the NYCA Peak

Table 9: CSRP 2017 Cost Benefit Summary Coincident with the NYCA Peak

CSRP Benefit Cost Summary						
Test	NYSEG	RG&E				
SCT	Societal Cost Test	5.81	3.73			
UCT	Utility Cost test	3.50	2.27			
RIM	Ratepayer Impact Measure	2.85	1.72			

2.5 Commercial Program Conclusions

2.5.1 General Conclusions

NYSEG had two Aggregators enrolled in the CSRP which represented 51 electric meters. There were no NYSEG demand response Planned Events in the summer of 2017. NYSEG called one test. No NYSEG customers enrolled in DLRP. Of the 12,948 kW enrolled for load reduction in the NYSEG CSRP Reservation Option, a total of 18,554 kW of load relief was provided during the one hour test.

RG&E had two Aggregators and six Direct Customers enrolled in the CSRP which represented 17 electric meters. No RG&E customers enrolled in DLRP. RG&E called one four hour Planned Event and one test during the 2017 capability period. Of the 3,133 kW enrolled for load reduction in the RG&E CSRP Reservation Option an average of 3,634 kW of load relief was provided during the four hour Planned Event.

Enrollments were down significantly for RG&E and slightly reduced at NYSEG due to one large Direct Customer not participating at NYSEG. As a result of a hot summer in 2016, a large number of Planned Events were called at RG&E which lead to one large customer (10 MW) deciding not to participate in the 2017 CSRP. Aggregator enrollments were significantly reduced at RG&E for 2017 compared to 2016. All indications are the hot 2016 weather and resulting Planned Events impacted program participation. With more moderate weather and reduced Planned Events in 2017 to a more anticipated level, enrollment for 2018 is anticipated to increase.

It is generally accepted in the utility industry that factors such as persistence of high temperatures, high humidity, mild winds and high night temperatures over several days results

in system peaking conditions. By analyzing these factors over several years, this does correlate with this expectation.

Based on an analysis of weather data gathered for RG&E and NYSEG it is clear that RG&E is generally warmer than NYSEG's territory during summer peaking conditions. This can be expected due to the RG&E more densely populated, urban areas and presumed higher concentration of central air conditioning, industrial and large commercial loads. Based upon the urban density characteristics associated with the service territory of RG&E, this area is more sensitive to temperature changes. The urban environment causes temperatures to climb at a faster rate than the more geographically diverse rural and mountainous area that is more common in NYSEG's service territory. In order for NYSEG to be equally affected by periods of high temperature, the "heat wave" would need to span the entire state.

The RG&E greater temperature sensitivity leads to increased cooling demands causing higher loads resulting in the need for more frequent Planned Events being called. 2016 saw 13 Planned Events called at RG&E. NYSEG only experienced two days where the day-ahead forecast was going to meet or exceed the 92% Trigger. The 13 days exceeding the Trigger is not normally seen at RG&E and 2016 seems to be an anomaly. This anomaly occurred due to the RG&E service territory's extended summer of persistent hot days with periods of little temperature relief caused by cooler nights. Looking at the past years cooling degree days, the weather for the RG&E territory was not abnormally hot. One factor that did not correlate with expectations is that even though 2016 was a hot summer, the weather data showed that it was not an unusually humid summer. Most Planned Event days at RG&E, the humidity only exceeded 70 % relative humidity on rare occasions. This fact would draw the conclusion that humidity is not as much of a contributor to high peak periods at RG&E and heat persistence with hot nights is more the correlating factor. If humidity was higher, you could conclude that even more events would have occurred.

Graph 1 below shows the historic temperature of RG&E and NYSEG at the time of the NYISO NYCA peak. It is clear that the RG&E service area is typically warmer than the NYSEG service area at the time of the peak. Graph 2 illustrates the occurrence of peak Cooling Degree Days at both companies. The company's categorize a Cooling Degree Day (CDD) as a day with an average temperature above 65 degrees Fahrenheit. Based on weather analysis for the two Companies, the average CDD for RG&E is 15 degrees above 65 and 14 degrees for NYSEG. This graph shows that RG&E experiences a greater number of cooling degree days above average than NYSEG. This again indicates RG&E's greater sensitivity to heat spikes resulting in more Planned Events.



Graph 1: Historic Temperature Trend

Graph 2: Number of Cooling Degree Days > 80 degrees



of Days CCD are above Average

2.5.2 April 21, 2017 Order Directives

In the Order, the Companies were directed to:

- 1. Accept batch enrollments from Aggregators and Direct Customers. Although this was already implemented, the Companies are submitting tariff revisions which recognize that enrollments can be done electronically by submitting the on-line enrollment form.
- Extend program participation to customers taking service under a negotiated rate (PSC No. 120, Service Classification No. 13. – Competitive Alternative Industrial Service ("SC No. 13") and Service Classification No. 14 – Large Economic Development Service ("SC No. 14") at NYSEG. NYSEG is submitting this tariff change for the 2018 capability period.
- 3. Consider changes to the Companies' CSRP and DLRP incentives to reflect changes in marginal cost of service resulting from Distributed Energy Resources being included. The Companies are proposing to increase the incentives as follows:

CSRP/DLRP 2017 Approved Incentives								
Program	Incentive Description	NYSEG	RG&E					
CSRP/DLRP	Reservation Payment for months with 1-4	\$2.75/kW	\$3.25/kW					
CSINF/DLINF	events	month	month					
CSRP/DLRP	Reservation Payment for months with 5 or	\$3.00/kW	\$3.50/kW					
CSRF/DLRF	greater events	month	month					
CSRP/DLRP	Performance Payment for first four hours	\$0.15/kWh load	\$0.15/kWh load					
C3RP/DLRP	of an event	relief	relief					
CSRP/DLRP	Performance Payment for hours beyond	\$0.30/kWh load	\$0.30/kWh load					
C3RP/DLRP	the first four hours of an event	relief	relief					

Table 10: CSRP/DLRP 2017 Incentives

Table 11: CSRP/DLRP 2018 Proposed Incentives

	CSRP/DLRP 2018 Proposed Incentives								
Program	Incentive Description	NYSEG	RG&E						
CSRP/DLRP	Reservation Payment for months with 1-4	\$4.10/kW	\$4.25/kW						
C3RF/DLRF	events	month	month						
CSRP/DLRP	Reservation Payment for months with 5 or	\$4.35/kW	\$4.50/kW						
C3RP/DLRP	greater events	month	month						
CSRP/DLRP	Performance Payment for first four hours	\$0.50/kWh load	\$0.50/kWh load						
C3RP/DLRP	of an event	relief	relief						
CSRP/DLRP	Performance Payment for hours beyond	\$0.60/kWh load	\$0.60/kWh load						
CSRF/DLRP	the first four hours of an event	relief	relief						

The Companies are submitting tariff revisions which recognize the proposed 2018 incentive changes.

4. Evaluate historical weather trends including 2016 and 2017 weather data and historical weather trends to consider proposed changes to the CSRP load threshold

level for triggering a Planned Event ("Trigger"). The Companies evaluated past weather trends and resulting impacts on loads and concluded that under normal weather conditions the existing Trigger of 92% is appropriate and are not recommending a change for the 2018 capability period.

- 5. To the extent practical coordinate DLDR tests to the same time called by the NYISO. Calling test when the NYISO test their programs will be taken into consideration. This practice is not necessarily practical given the NYISO typically staggers the test by zone over several hours while the Companies tests are only for one hour. No tariff changes are proposed for this consideration.
- 6. To confirm or cancel the day of event conformance requirement with participants based upon an updated day of forecast as it relates to the Trigger. This is the Companies' current practice. The Companies are submitting tariff revisions which recognize this current practice.

Tariff revisions for the aforementioned items are located in Appendix E: Tariffs.

2.5.3 May 18, 2017 Order Directives

The New York Commission's Order Approving Subject to Modifications Tariff Amendment for Battery Discharge in Brooklyn/Queens Demand Management Program and Making Other Findings, issued and effective May 18, 2017, directed the utilities to "study the impacts of allowing distributed energy resources (DERs), including battery storage, participating in the respective Dynamic Load Management programs to export onto the primary and secondary distribution systems during those programs' events, and directs the utilities to report the results of such analysis as part of the Dynamic Load Management program annual reports, due on or before December 1, 2017."

Customers will be able to continue utilizing DERs as a demand response resource within the Companies' DLM programs. DERs that interconnect to the Companies distribution system must do so in accordance with the Standardized Interconnection Requirements and/or the Requirements for the Interconnection of Generation, Transmission and End-User Facilities, as applicable, to ensure the safe and reliable operation of the electric grid. The Joint Utilities of New York participating in the Interconnection Technical Working Group, which the Companies are a party of, are evaluating and recommending interconnection requirements regarding interconnection of battery or energy Storage Systems to distribution systems.

Additionally, the Companies are supportive of customers participating in the New York Independent System Operator ("NYISO") Special Case Resource and Emergency Demand Response Programs as well as the Companies' DLM programs in accordance with current rules.

2.5.4 2018 Recommendations

Based upon the evaluation of data for the 2017 Demand Response season in addition to the conforming changes above, the Companies recommend the following changes:

- In addition to the above conforming tariff changes, the Companies are proposing an increase in the DLRP and CSRP incentive levels that reflect the increase in the marginal cost of service resulting from Distributed Energy Resources being included. The proposed increase in incentive levels should have a positive impact on participant enrollment levels for the 2018 capability period.
- 2. The Companies evaluated past weather trends and resulting impacts on loads and concluded that under normal weather conditions the existing Trigger of 92% is appropriate and are recommending not to change the Trigger for the 2018 capability period.

3. DIRECT LOAD CONTROL DEMAND RESPONSE PROGRAM

The DLC program supports electric system reliability and utilizes smart Wi-Fi enabled thermostats, thermostats connected to alarm systems, or other control devices which allow the Companies to change thermostat set points during events or tests to achieve demand reduction during periods of critical electrical distribution system stress. The annual capability period for calling demand response events and tests is from May 1st through September 30th. The Companies' DLC program, branded Smart Savings Rewards, is available to all customers, excluding Mandatory Hourly Pricing customers, with a focus on residential and small commercial customers having Central AC systems or room air conditioning units.

The Companies' three Smart Savings Rewards options for 2017 are:

- Bring Your Own Thermostat ("BYOT") controlling Central AC,
- Direct Install Thermostat ("DIT") of a Company supplied Lux Geo thermostat controlling Central AC, and
- Room AC with a Company provided SmartAC kit for room air conditioner ("RAC") units

The Companies contracted with EnergyHub to provide all three options. BYOT launched in November 2016, while the DIT and Room AC options rolled out during the 2017 summer capability period. At the end of the 2017 capability period, a total of 6,927 devices, 3,685 NYSEG plus 3,242 RG&E, were actively participating in the Smart Savings Rewards program.

3.1 Bring Your Own Thermostat (BYOT)

3.1.1 BYOT Overview

The BYOT program launched in November 2016, and is targeted to residential and small commercial customers. Under the Smart Savings Rewards BYOT program, customers provide their own thermostat and enroll through designated thermostat providers. In order to participate, customers must have a qualifying thermostat controlling their Central AC system. The BYOT program offers customers choices with thermostat equipment, flexibility, and control. Over 28 thermostat models are eligible from eight participating thermostat providers: Alarm.com, ecobee, Emerson, Honeywell, Lux, Nest, Radio Thermostat Company of America.

Program participants receive a one-time sign-up incentive of \$85 per thermostat and a \$5 participation payout for each event or test they fully participate in. At the end of September, there were 2,232 NYSEG and 2,455 RG&E customers participating in the Smart Savings Rewards BYOT option, with 2,773 NYSEG and 2,610 RG&E thermostats. NYSEG and RG&E each conducted one 2017 test event, yielding an average demand reduction of 1.31 MW at NYSEG and 1.68 MW at RG&E. RG&E also called one event with an average demand reduction of 2.07 MW.

3.1.1.1 Technology

This program allows customers with a variety of Wi-Fi thermostats to enroll their own thermostat. A Wi-Fi enabled smart thermostat connects to the customer's existing Wi-Fi router without any additional hardware needs. Smart thermostats using Z-Wave communication protocol connected through customer alarm systems are also included. Customers can enroll their thermostat through their thermostat provider. Once enrolled, the Companies are able to remotely make temperature adjustments on participating thermostats. The Companies utilize EnergyHub's Demand Response Management System ("DRMS") portal to schedule and dispatch events and tests.

Customers are advised of events various ways such as, email, SMS, in device displays, and smartphone and internet apps, depending on their thermostat provider.

Customers have flexibility to choose not to participate in all or a portion of an event or test, ("optout"), by adjusting the temperature on their thermostat during an event or test. Customers have the ability to remotely control their Central AC online through their thermostat's provider portal or through smart phones on the provider's smart app, allowing a customer to opt-out of an event or test regardless of the customer's location.

3.1.1.2 Marketing

Smart Savings Rewards BYOT marketing was designed to recruit and engage customers year round throughout the Companies' service territories. NYSEG's service territory covers mostly rural areas, including more than 40% of upstate New York. RG&E's service territory covers a nine county region around Rochester in upstate New York comprised of mostly rural and suburban areas. The Companies do not have data identifying customers with air conditioning; as a result, the Companies' 2017 marketing campaigns were strategically designed to reach as many residential and small commercial electricity customers as possible. Targeted communication such as direct email and direct mail were used.

Separate NYSEG and RG&E Smart Savings Rewards microsites, provide customers with program information, including program eligibility requirements, FAQs, contact information, links to purchase thermostats, and links to enroll thermostats by thermostat provider. As of September 30th, there were 44,177 visits to NYSEG's microsite and 31,641 visits to RG&E's microsite. Upgraded microsites, enhancing the mobile experience, will be rolled out in November.

On March 9th the Companies launched a cobranded NYSEG and RG&E Smart Savings Rewards microsite. This site offers both BYOT and Room AC program information. As of September 30th, there were there were 258,505 visits to the BYOT cobranded microsite. An overview of the Smart Savings Rewards microsites and URLs is provided in Appendix A: Smart Savings Rewards Microsites.

Smart Savings Rewards program recruitment began in November 2016 with Black Friday on-line paid search and social media campaigns. Throughout 2017, a wide range of marketing channels were utilized to engage customers and maximize enrollments:

- Company websites
- Program websites with multiple vanity URL's
- Posts on Company Facebook and Twitter
- Thermostat provider promotions and emails
- Program emails
- Paid search and social media
- Newspaper, radio, and billboard advertising
- Promotion in customer newsletters and bill inserts
- Direct mail post cards and new customer welcome packs
- In-store retail
- Word of mouth
- Press releases
- Promotion on RG&E's Your Energy Savings Store ("YES Store")
- Internal employee newsletter

A sample of the marketing campaigns can be found in Appendix B: Smart Savings Rewards BYOT Marketing Campaign Samples. Email has proven to be an engaging acquisition tactic. To date 153,102 emails have been deployed to NYSEG customers, with a 39.4% open rate with a 17.8% click to open rate. 176,650 emails were sent to RG&E customers, resulting in slightly higher rates with a 42.4% open rate and a 19.1% click to open rate.

As eligible thermostats are installed in customer homes throughout the Companies' service territories, thermostat providers market Smart Savings Rewards via email. Promotional emails were also sent to all RG&E customers who purchased a qualifying thermostat through RG&E's online energy efficiency marketplace, YES Store. In March, BYOT promotional tags were added to qualifying BYOT thermostats in the YES Store.

An innovative in-store retail endeavor trained Smart Savings Rewards associates who conducted Smart Savings Rewards demonstrations in several Best Buy, Lowe's, and Home Depot stores throughout the Companies' service territories. The program associates educated the store's associates on the program details enabling store associates to promote the program. Store and customer feedback was very positive. The campaign ended prematurely as the majority of customers visiting the stores did not have central air conditioning.

In fourth quarter 2017, the Companies' plan to launch a Refer-A-Friend campaign and promote Smart Savings Rewards through a Black Friday campaign. The Companies' are also pursuing

offering Smart Savings Rewards instant rebates through RG&E's YES Store, and the NYSEG Smart Solutions portal available to customers in NYSEG's Energy Smart Community.

The Companies continue to employ strategic marketing tactics to drive all aspects of customer recruitment and engagement. Optimizing marketing campaigns and prioritizing customer outreach has led to the current success at the Companies.

3.1.1.3 Customer Service

Customer support is available through email and phone, providing customer assistance with general program questions, eligibility and application support, and other inquiries. A dedicated Smart Savings Rewards phone number, (888) 689-9302, is utilized for customer phone inquiries. Email inquiries are taken at nyseg-rge@energyhub.com.

From January through September, 583 email inquiries have been received and responded to; while 458 phone calls have been addressed. Most inquiries were regarding incentives.

Table 9 provides an overview of customer email inquiries received through September 30th.

Inquiry Category	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Total
Eligibility	23	5	3	12	6	8	13	6	10	86
General	9	2	2	16	5	11	5	6	4	60
Application	10	14	28	15	5	8	14	21	12	127
Demand Response					1		3	1	4	9
Incentive	10	10	36	40	27	6	44	42	39	254
Unenrollment	1			2		2	3	3	3	14
Other							1	2	1	4
Total	53	31	69	85	44	35	83	81	73	554

Table 9: BYOT Email Inquiries

Table 10 provides an overview of customer phone inquiries received through September 30th.

Inquiry Category	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Total
Eligibility	5	1	2	4	0	2	12	7	22	55
General	1	1	2	6	11	6	20	18	25	90
Application	2	2	0	0	1	5	24	27	22	83
Demand Response	0	0	0	2	1	1	2	7	4	17
Incentive	0	0	3	8	14	11	10	29	13	88
Unenrollment	0	0	0	0	0	0	0	2	2	4
Other	0	0	0	0	0	1	20	53	47	121
Total	8	4	7	20	27	26	88	143	135	458

Table 10: BYOT Phone Inquires

3.1.1.4 Customer Incentives

Customer incentives consist of all payments to customers for program participation based on the program design. Customers signing up in the BYOT option receive an incentive to offset a portion of the cost of their smart thermostat; an \$85 Amazon e-gift card per enrolled thermostat.

Event and test participation incentives for all three Direct Load Control program alternatives are the same. Customers fully participating in temperature adjustment events or tests, receive a \$5 electricity account credit. Credits are posted to participant accounts by the end of the month succeeding the month of an event or test.

3.1.2 BYOT Program Enrollment

BYOT program enrollment began late in 2016 with 155 NYSEG and 77 RG&E thermostats enrolled across six thermostat providers by the end of 2016. 5,383 thermostats were enrolled in Smart Savings Rewards by summer's end in 2017.

3.1.2.1 2017 Enrollment

In 2017 the Companies continued to see the BYOT program grow. Two thermostat providers were integrated into the program in first quarter 2017; one was added in February while the last of the eight providers was available in March. Applications are submitted and accepted year round to achieve the highest participation during capability periods. 2,232 NYSEG customers and 2,455 RG&E customers with a total of 2,773 NYSEG thermostats and 2,610 RG&E thermostats were enrolled at the end of the 2017 summer capability period.

The following tables show the total enrollments from December 1, 2016 to September 30, 2017 by month and Company.



Table 11: BYOT Thermostat Monthly Enrollments





3.1.2.2 Enrollment Assessment

2017 has shown a steady increase in enrollments attributable to continuous marketing and new customer thermostat installations. NYSEG averaged 291 new device enrollments per month, for a 10.5 percent growth rate. RG&E averaged 281 new enrollments per month, for a 10.8 percent growth rate.

The Companies expected the enrollment distribution between NYSEG and RG&E to be proportional based on the number of each Company's electricity customers. While NYSEG's number of electricity customers is over twice the number of RG&E electricity customers, RG&E thermostat enrollments account for 48% of the Companies' total BYOT enrollments. We speculate this is due to the difference in housing ages and rate of new home construction between the Companies. NYSEG has many older homes in its service territory. Newer homes tend to have central AC. RG&E outpaces NYSEG territories in new construction.

NYSEG homes tend to have more thermostats per home than RG&E. NYSEG customers enrolled an average 1.24 thermostats per customer; while, the average RG&E customer enrolled 1.06 thermostats.

NYSEG's participation attrition rate is about 2.8% and RG&E's is approximately 3.2 %. The primary reason for customers leaving the program is due to customer move outs. Less than .004% of participating customers requested to be removed from the Smart Savings Rewards program.

Assuming the current growth and attrition rates, the Companies expect the continued success of the BYOT program into 2018 by employing strategic targeted and creative marketing strategies to continue to grow the program. Additional emphasis will be made in 2018 to increase participation across the small business class, which currently accounts for only 1.4 percent of NYSEG's and 0.8 percent of RG&E's customer enrollments.

3.1.3 BYOT Cost Summary

As indicated in the table below, the total program cost for 2017 are expected to be \$837,313 for NYSEG and \$646,322 for RG&E. The costs outlined below are calculated using actuals from January through September and estimates for the months of October, November, and December. All expenses are passed through NYSEG's and RG&E's per kWh transition charge; except for, internal administration which is recovered through the Companies' base delivery rates.

BYOT Expense	NY	SEG	RG	&E	
bfor Expense	Cost	Percentage	Cost	Percentage	
Vendor Administration	\$265,078	31.66%	\$184,583	28.56%	
Internal Administration	\$66,195	7.91%	\$64,637	10.00%	
Program Marketing	\$245,870	29.36%	\$140,642	21.76%	
Hardware	\$0	0.00%	\$0	0.00%	
Customer Incentives	\$260,170	31.07%	\$256,460	39.68%	
Total Program Costs	\$837,313	100.00%	\$646,322	100.00%	

Table 13: 2017 BYOT Expenses

3.1.3.1 Vendor Administration

Vendor administration costs encompass program expenses incurred by the Companies' BYOT vendor for program management, implementation and operational program support. Operational costs include, but are not limited to, general oversight, customer support, partner fees, DRMS platform and other software fees, incentive processing, and device fees. The NYSEG BYOT vendor administration costs are \$265,078 and RG&E costs are \$184,583.

3.1.3.2 Internal Administration

Costs in this category include salaries and overheads of Company staff allocated to BYOT program management, implementation, and operational support. 2017 Company BYOT administration costs were \$66,195 at NYSEG and \$64,637 at RG&E. These costs were calculated using a percentage of employee BYOT time allocation. Employee salaries are recovered through the Companies' operational and management expenses embedded in NYSEG and RG&E's delivery rates.

3.1.3.3 Hardware

Program hardware costs refer the incremental equipment purchased by the Companies to support the program; such as thermostats. Since customers are responsible to purchase and install their own thermostat, there are no incremental hardware program costs.

3.1.3.4 Marketing

Marketing costs include all expenses associated with the marketing initiatives required to inform and engage customers in the program. These costs include, but are not limited, program literature, email campaigns, social media promotions, web development, newspaper and radio advertisements, direct mail materials, and promotional events. Program microsite and enrollment website development and enhancements, are also included in this category. \$245,870 was spent for customer outreach and engagement at NYSEG, and \$140,642 at RG&E.

3.1.3.5 Customer Incentives

Costs in this category include the actual payments paid to customers for enrolling in the Smart Savings Rewards program through September and estimates for October through December, based on the average monthly thermostat enrollments from January 1st through September 30th. \$260,170 is allocated to sign-up incentives at NYSEG and, \$256,460 at RG&E.

Amounts also include customer payments for their full participation in tests or events. \$5,000 in participation incentives were paid to NYSEG BYOT participants, and \$13,445 to RG&E BYOT participants.

3.1.4 BYOT Event Performance and System Impacts

Demand response event activity in 2017 was minimal; NYSEG did not call any events, while RG&E called one in late September. The summer in upstate NY was not typical or conducive for dispatching events. Typically an extended period of hot weather during the day and evening is required to achieve event trigger levels.

Overall, while some summer months saw average temperatures higher than normal, the trend for upstate New York weather was without major extremes in temperatures. For NYSEG's service territory, summer highs were mostly in the mid to upper 80's which tended to last for only a few days at a time. NYSEG's day-ahead forecast did not reach its demand response event trigger, 92 percent or greater of its forecasted summer system peak. RG&E reached its trigger once, just once late in the capability period, on September 26th, during a period of four consecutive days of 90 degree temperatures.

In order to test out processes and functionality, NYSEG and RG&E, each called a combined BYOT and DIT test event on July 19th. Temperatures were forecasted to be in the mid 80's for several days in a row. Coincidently, the 2017 NY ISO peak occurred on July 19th hour ending 18:00.

BYOT and DIT test and event results are located in the table below. Thermostats are split into two groups for each test or event, due to level of DRMS integration with the thermostat provider. DIT thermostats are included in BYOT Group 1.

Company	Date	Time	Event Type	Group	Number Targeted Thermostats	Total Average kW Reduction	Avg. kW Reduction per Device
NYSEG	7/19/2017	*13:00-18:00	Test	1	895	694.29	0.776
NYSEG	7/19/2017	*13:00-18:00	Test	2	1,116	619.38	0.719
RG&E	7/19/2017	*13:00-18:00	Test	1	790	891.23	1.128
RG&E	7/19/2017	*13:00-18:00	Test	2	1128	790.73	0.846
RG&E	9/26/2017	*13:00-18:00	Peak Shaving	1	1006	911.38	0.906
RG&E	9/26/2017	*13:30-18:30	Peak Shaving	2	1498	1159.45	0.934

Table 14: BYOT 2017 Event Summary

*All test and events included a 60 minute pre-cool of 2 degrees.

The weighted total average shed per device is 0.89 kW providing a potential of 2.46 MW of load shed at the end of NYSEG's summer capability period and 2.32 MW at RG&E.

3.2 Direct Install Thermostat (DIT)

3.2.1 DIT Overview

The Direct Install Thermostat program was deployed in 2017. The program is similar to BYOT but allows customers to participate in Smart Savings Rewards without having to purchase and install their own thermostat. Eligible customers receive up to four LUX/GEO thermostats connected to Central AC and installation, at no cost.

In order to participate in the Direct Install Thermostat option, customers must own their home, have a central air conditioning system, have wireless internet, and reside in a Company designated area where electricity capacity has been determined by the Company to be approaching its limit during peak periods. For practicality, boundaries of Company designated areas were expanded to include customers in an entire postal ZIP code. A list of eligible ZIP codes is available on each Company's website.

Beginning in mid-June DIT was deployed in phases to ensure high customer satisfaction, allow time to quickly identify and implement program enhancements, and assess program feasibility.

3.2.1.1 Technology

The DIT Wi-Fi Lux thermostats are fully integrated with the EnergyHub DRMS allowing the Companies to manage demand response events and tests. The thermostats can be operated by battery if a customer's existing thermostat does not have a C-wire.

DIT thermostats are separately grouped in the DRMS allowing the Companies to analyze event and test performance separately from the larger BYOT program.

3.2.1.2 Marketing

The DIT program was initially launched in NYSEG's Brewster Division which encompasses parts of Westchester, Dutchess and Putnam counties. The Companies chose a marketing approach to take advantage of the Companies' service territory demographics and internal decision to avoid door to door canvasing. Marketing efforts began with cold calling campaigns. To increase customer engagement, primer emails were sent to customers, one to two days in advance of being called. Customers could also request to be contacted about the program by entering contact information at the Companies enrollment website, enrollmythermostat.com/signup. Once the Companies were comfortable with this approach, DIT was launched at RG&E, and later expanded to portions of Broome and Sullivan counties. As of the end of September, primer emails have been sent to, approximately 30,010 NYSEG and 93,403 RG&E customers.

To increase program awareness, NYSEG's Brewster outreach manager worked with local community leaders to help promote the program to their residents. Several municipalities added program details to their websites to promote the program.

A test using direct mail post cards for customers without a Company stored email address was conducted; 695 NYSEG and 11,645 RG&E customers were sent direct mail postcards, yielding zero conversions. Appendix C: DIT Marketing contains a sample primer email and postcard.

3.2.1.3 Customer Service

When a customer requests to participate in this program, a highly trained technician meets with the customer to take them through the installation process. During the installation process, technicians confirm thermostats control Central AC, review program terms and conditions, replace the customer's current thermostat(s), demonstrate thermostat features, assist customers with logging into the Lux customer portal, and enroll the customer's thermostat(s) into the Smart Savings Rewards program. Installed thermostats become the property of customers once the customer is enrolled into Smart Savings Rewards.

Customer safety is critical and all technician vehicles are marked as authorized Smart Savings Rewards contractors. Technicians wear shirts branded with Smart Savings Rewards and carry an Avangrid contractor badge.

General program inquiries can be directed to the dedicated Smart Savings Rewards phone number, (888) 689-9302, or by email at nyseg-rge@energyhub.com.

In addition, direct DIT customer inquiry support is available at (845) 202-0543 for NYSEG customers in the 845 area code, or (607) 930-4080 for NYSEG customers in the (607) area code, and (585) 240-8076 for RG&E customers.

Customers can visit enrollmythermostat.com/freeLux/ to review commonly asked questions about the program. Additionally, a post thermostat installation program brochure is provided to customers advising them of additional support contacts.

As of September 30th, thirty-three email inquiries have been responded to while 1,430 of phone calls made or received with the majority pertaining to installation scheduling. The following table provides an overview of customer email inquiries received through September 30th.

Inquiry Category	Jul-17	Aug-17	Sep-17	Total
Appointment Schedulin	4	3	3	10
General	3	6	4	13
Installation Issue	0	1	3	4
Lux App Assistance	3	1	0	4
Security	0	1	0	1
Unenrollment	0	1	0	1

Table 15: DIT Email Inquiries

3.2.1.4 Customer Incentives

Customers with central air conditioning systems are eligible to receive up to four thermostats and installation at no cost to the customer.

Event and test participation incentives for all three Direct Load Control program alternatives are the same. Customers fully participating in temperature adjustment events or tests, receive a \$5 credit on their electricity account. Credits are posted to participant accounts by the end of the month after the month in which an event or test occurred.

3.2.2 DIT Program Enrollment

2017 was the first year customers could enroll in the Smart Savings Rewards Room DIT option, with NYSEG scheduling its first installation in June and RG&E scheduling its first installation in late August. NYSEG targeted the designated areas near Brewster NY first. When the appointment requests slowed down in August, the focus shifted to the RG&E designated areas, and then additional NYSEG service areas beginning in early October.

3.2.2.1 2017 Enrollment

By summer's end, 126 NYSEG customers had 191 thermostats installed and 219 RG&E customers had 227 thermostats installed under the Smart Savings Rewards DIT option.

The table below shows the DIT installations performed by company and month.





3.2.2.2 Enrollment Assessment

Engaging customers to participate in DIT has been challenging. The DIT conversion is approximately 0.6% whereas; average conversion rates for BYOT are at 15%.

3.2.3 DIT Cost Summary

The following is a breakdown of the realized and anticipated costs associated with the DIT program.

	NY	SEG	RG	RG&E	
DIT Expense	Cost	Percentage	Cost	Percentage	
Vendor Administration	\$26,326	17.11%	\$22 <i>,</i> 549	14.30%	
Internal Administration	\$7,166	4.66%	\$8,824	5.59%	
Program Marketing	\$25,385	16.50%	\$18,252	11.57%	
Hardware	\$94,770	61.60%	\$107,600	68.22%	
Customer Incentives	\$205	0.13%	\$510	0.32%	
Total Program Costs	\$153,852	100.00%	\$157,735	100.00%	

Table 17: DIT 2017 Costs

Estimates were used for October through December. All categories, except internal program administration, are recovered from customers through NYSEG and RG&E's per kWh transition charge.

3.2.3.1 Vendor Program Administration

Vendor DIT administration costs include charges from the Companies' DIT vendor for DIT program management, implementation and operational support. Operational costs include, but are not limited to, general oversight, technician training, scheduling appointments, thermostat installation, customer support, DRMS platform, and device fees. Some DIT vendor costs are shared between BYOT and DIT. A ratio was derived to split shared BYOT and DIT vendor expenses based on the number of customers enrolled at the end of the capability period in each option. The NYSEG DIT vendor administration costs were \$26,326. The RG&E DIT costs were \$22,549.

3.2.3.2 Internal Program Administration

Amounts in this DIT category include Company salary and overheads associated with DIT management, implementation, and operational support. Company non-incremental DIT expenses in are \$7,166 at NYSEG and \$8,824 at RG&E. Internal expenses were calculated using a percentage of DIT time allocation for employees. Employee salaries are recovered through the Companies' operational and management expense embedded in NYSEG and RG&E's delivery rates.

3.2.3.3 Hardware

DIT hardware expenses include the cost for the Lux GEO thermostats and installation, plus sales tax. At NYSEG the hardware expenses totaled \$94,770 and \$107,600 at RG&E.

3.2.3.4 Marketing

DIT marketing expenses include development and deployment of materials used to promote and engage customers in the Smart Savings Rewards DIT program. Amounts include, but are not limited, branding apparel for technicians and vehicles, leave behind brochures, material design, print expenses, and direct mail materials. Program website development and enhancements, are also included in this category. \$25,385 was spent for customer outreach and engagement at NYSEG, and \$18,252 at RG&E.

3.2.3.5 Customer Incentives

Costs in the DIT customer incentive category include the actual payments paid to customers for their full participation in tests and events. NYSEG DIT participants received \$205 in participation incentives and RG&E DIT participants received \$510.

3.2.4 DIT Event Performance and System Impacts

The same test and event triggers were used for all Smart Savings Rewards options.

To ensure an adequate baseline, a combined NYSEG BYOT and DIT test was conducted on July 19th. RG&E did not have any DIT participants at the time of the RG&E test on July 19th. RG&E called an event on 9/26/2017.

DIT test and event results are located in the table below. DIT results are extrapolated based on combined BYOT and DIT results.

Company	Date	Time	Event Type	Number Participating Thermostats		Average kW Reduction per Device
NYSEG	7/19/2017	*13:00-18:00	Test	41	31.82	0.776
RG&E	9/26/2017	*13:00-18:00	Peak Shaving	153	138.62	0.906

Table 18: DIT Event Summary

*All test and events included a 60 minute pre-cool of 2 degrees.
3.3 Room AC

3.3.1 Room AC Overview

In May, the Companies introduced the Smart Savings Rewards Room AC option. This program offers customers a Company provided smartAC kit, which connects to a customer's Room AC unit, enabling the Companies' to curtail load by changing temperature settings during an event.

In order to participate in the Room AC option, residential and small business customers must have a non-Wi-Fi enabled room air conditioning unit and reside in Company designated areas where electricity capacity has been determined to be approaching limits during peak periods. For practicality, boundaries of Company designated areas were expanded to include customers in an entire postal ZIP code. The DIT and Room AC designated areas are the same.

Customers sign up to receive a ThinkEco Inc. smartAC kit for up to four RAC units, at no cost. Customers are enrolled in Smart Savings Rewards once they complete installation of their smartAC kit. Once a device is shipped, customers are asked to set up their device or return it within 31 days. Customers make a credit card commitment to encourage them to complete installation of their SmartAC kit to avoid being charged thirty dollars. The Companies' also promote kit set up by providing a \$20 sign-up payment.

By the end of the 2017 summer season, 376 NYSEG and 238 RG&E customers were participating in the Room AC program. These customers account for 721 NYSEG and 405 RG&E RACs in the Smart Savings Rewards program, providing a potential of 133 kW and 74 kW in load relief at NYSEG and RG&E respectively. This assumes an average of .182 kW per RAC.

3.3.1.1 Technology

Each ThinkEco smartAC kit contains a Wi-Fi modlet BN (i.e., smart plug) and one thermostat remote to control the modlet/RAC unit. The smartAC kits communicate with ThinkEco's server through the customer's home Wi-Fi network. The smartAC kit allows customers to control their Room AC remotely and set up temperature schedules via smart phone, tablet or PC.

Event and test curtailments are managed within ThinkEco's portal.

3.3.1.2 Marketing

Initial marketing began on May 25th with a series of recruitment emails delivered to 91,650 customers with valid email addresses and premises in Company designated areas. Five different recruitment emails were sent over six and a half weeks with the last recruitment email issued on July 10th. Contests with various prizes from Omaha Steaks, Friendly's and local establishment gift cards were promoted through email to maximize participation. Thirty-eight emails were sent to customers residing in the designated areas who previously received a SmartAC kit in the

Companies' 2015 Control Your Savings program. Appendix D: Room AC Marketing contains a sample of the conducted email campaigns.

Fulfillment of orders began on June 9, 2017 and ended on August 23, 2017.

Direct mail postcards promoting both BYOT and Room AC options were mailed to 4,806 NYSEG and 5,233 RG&E customers residing in a Company designated area, identified as not having been sent any prior Smart Savings Rewards promotions.

In July, paid Facebook and Google search advertisements targeted to specific ZIP codes, promoted the program's comfort and convenience, rewards and savings, technology, community and environmental benefits.

3.3.1.3 Customer Service

A series of emails keep customers informed during the application, installation, and event processes. Applicants receive emails advising them of the receipt of their application, and whether they have been accepted into the program or do not qualify. Customers are advised when their Smart AC kits have been shipped and then delivered. Set-up reminder emails are sent to customers who have not connected their SmartAC kits within 2, 7, 15, 21, 27 & 31 days of delivery. After an event or test, customers are informed via email on their participation status; full, partial, or none.

General program inquiries can be directed to the dedicated Smart Savings Rewards phone number, (888) 689-9302, or by email at nyseg-RG&E@energyhub.com.

In addition, ThinkEco Inc. provides direct program support. For questions customers can visit the Company's website <u>https://support.smartsavingsroomac.com/</u> where they can email ThinkEco, make contact via the Live Chat feature, or view the extensive general and technical FAQs. ThinkEco also provides phone support at (800) 682-9819 from 8:00 am to 8:00 pm Monday through Friday from May 1st to September 30th and from 9:00 am to 6:00 pm during the offseason.

As of September 30th, 434 email inquiries have been received and responded to, while 195 phone calls have been addressed. The following table provides an overview of customer inquiries received through September 30th.

Inquiry Category	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Total
General	2	31	73	66	16	188
Logistics/Account	0	25	60	90	40	215
Hardware/Installation	2	16	73	61	32	184
Software	0	4	4	3	1	12
Unenrollment	0	2	11	9	8	30
Total	4	78	221	229	97	629

Table 19: Room AC Inquiries

3.3.1.4 Customer Incentives

Customers enrolled in the Smart Savings Rewards Room AC option receive a free SmartAC kit. Participants, also receive a one-time \$20 e-gift card sign-up incentive after they have completed installation and connected their SmartAC kit(s). At NYSEG \$7,980 in Room AC sign-up incentives were paid out, and \$5,100 at RG&E.

Event and test participation incentives for all three Direct Load Control program alternatives are the same. Customers fully participating in temperature adjustment events or tests receive a \$5 credit on their electricity account. Credits are posted to participant accounts the month after the month in which the event or test occurred. \$410 in Room AC NYSEG participation incentives were paid out, and \$800 at RG&E.

3.3.2 Room AC Program Enrollment

2017 was the first year customers could enroll in the Smart Savings Rewards Room AC program. Applications were taken on-line from May 25, 2017 through August 22, 2017. There are approximately 138,000 NYSEG and 110,000 RG&E electricity customers in the designated areas.

3.3.2.1 2017 Enrollment

At the end of the 2017 capability period, 376 NYSEG and 238 RG&E customers were participating with 721 and 405 SmartAC kits, respectively. NYSEG customers returned 304 devices before or after SmartAC kit installation; whereas, RG&E customers returned 162 devices.

Table 20: Room AC Overivew

SmartAC kits	NYSEG	RG&E
Shipped	1286	694
Returned	304	162
Withdrew not returned	9	2
Connected*	721	405

*as of 9/30

The following graph shows the month smartAC kit installations were completed. Installations tied to returned kits are not included.



Table 21: Room AC Customer Installations

3.3.2.2 Enrollment Assessment

On average, NYSEG customers connected 1.92 SmartAC kits and RG&E customers set up an average of 1.7 SmartAC kits. It took NYSEG customers an average of 11.3 days to connect their devices from shipment, and RG&E 12.1 days. Next year's challenges will be to reduce the number of returned devices, shorten the number of days it took customers to set up their SmartAC kits, engage those that participated this year next year, and increase overall enrollments. NYSEG and

RG&E plan to open the enrollment period earlier and offer new and returning participant contests with lucrative prizes to motivate the majority of interested customers to connect their devices by July 1st.

3.3.3 Room AC Cost Summary

A breakdown of Room AC costs is provided in the table below. The amounts below are derived from actual expenses for January through September and estimates for October through December. All expenses, except internal administration, are recovered from customers through NYSEG and RG&E's per kWh transition charge.

	NYSEG		RG&E	
Room AC Expense	Cost	Percentage	Cost	Percentage
Vendor Program Administration	\$103,100	36.18%	\$64,896	36.78%
Internal Program Administration	\$17,275	6.06%	\$16,553	9.38%
Program Marketing	\$40,480	14.21%	\$25,880	14.67%
Hardware	\$115,717	40.61%	\$63,216	35.83%
Customer Incentives	\$8,390	2.94%	\$5,900	3.34%
Total Program Costs	\$284,961	100.00%	\$176,445	100.00%

Table 22: 2017 Room AC costs

3.3.3.1 Vendor Program Administration

Vendor administration costs cover program management plus implementation and operational support provided by the Companies' Room AC vendor. Costs include, but are not limited to, general oversight, device fulfilment, enrollment processing, customer support, event management, reporting, and incentive processing. The NYSEG Room AC vendor administration costs were \$103,100. The RG&E Room AC costs were \$64,896.

3.3.3.2 Internal Program Administration

Costs in this category include the Company salary and overheads associated with Company employees providing Room AC management, implementation, and operational support. The costs associated with program operation at NYSEG were \$17,275 and at RG&E \$ 16,553. These costs were calculated using a percentage of Room AC time allocation for employees. Employee salaries are recovered through the Companies' operational and management expense embedded in NYSEG and RG&E's delivery rates.

3.3.3.3 Hardware

The Room AC smartAC kits, shipping fees, and sales tax totaled \$115,717 at NYSEG and \$63,216 at RG&E.

3.3.3.4 Marketing

Marketing costs include all incremental expenses for creation and distribution of materials used to promote and engage customers in the Smart Savings Rewards Room AC option. These costs include, but are not limited, material design, newspaper advertisements, print expenses, and postage for direct mail materials. Program website and microsite enhancements, are also included in this category. \$40,480 was spent for customer outreach and engagement at NYSEG, and \$25,880 at RG&E.

3.3.3.5 Customer Incentives

Figures in this category include customer sign-up payments and test/event customer participation payments. \$8,390 in incentives was paid to NYSEG Room AC participants and \$5,900 to RG&E Room AC participants.

3.3.4 Room AC Event Performance and System Impacts

All Smart Savings Rewards options followed the same test and event schedule. NYSEG & RG&E each conducted a test on July 19, 2017. An RG&E event was invoked on September 26, 2017.

Test and event results are located in the table below.

Company	Date	Time	Event Type	Number Participating ACs	Opt Outs	Average kW Reduction per Device
NYSEG	7/19/2017	13:00-18:00	Test	208	13	0.084
RG&E	7/19/2017	13:00-18:00	Test	153	14	0.084
RG&E	9/26/2017	14:00-19:00	Peak Shaving	258	61	0.182

Table 23: Room AC Event Summary

The opt out rate for the RG&E event was higher than for the RG&E July 19 test, which is to be expected given that the event took place on a hotter day. Despite the higher number of opt outs, the average reduction per AC was much higher. This may be explained by using a different strategy with a more aggressive DR signal and by the hotter outside temperatures on September 26th. Reduction during a demand response event is highly weather-dependent.

3.4 DLC Cost Effectiveness Summary

Pursuant to the January 21, 2016 Order Establishing the Benefit – Cost Analysis Framework, the Companies are required to evaluate cost-effectiveness of each program using the Societal Cost Test (SCT), Utility Cost Test (UCT), and Ratepayer Impact Measure (RIM)for all Distributed Energy Resources (DERS).

The Companies updated the following for all tests to those required by the Companies' Benefit – Cost Analysis Handbook:

- Avoided Energy Cost
- Avoided Generation Capacity Cost
- Avoided marginal Cost of Service at the Distribution Level
- Avoided Carbon Cost
- Interest Rates
- Line Losses at the Secondary Distribution Level

The following assumptions were made:

- The benefits and costs were calculated over eleven years based on the effective useful life (EUL) of a Wi-Fi thermostat as specified in the New York Standard Approach for Estimating Energy Savings from Energy Efficiency Programs (TRM), Version 4 effective January 1, 2017. The same assumption was used for the Room AC smart kits as the TRM does not provide data on such devices.
- The Utility Costs reflect the realized and expected costs in year 1 itemized in this report. Costs for subsequent years were based on actual contractual agreements and projected costs.
- Since costs are extrapolated for the calendar year, demand savings are based on the number of devices projected to be participating at the end of program year 1.
- Realized benefits occur when events are coincident with NY ISO peaks. The demand savings are assumed to be coincident with the NY ISO peak.

3.4.1 BYOT

Table 24 summarizes BYOT test results.

Table 24: BYOT BCA Results

BYOT Benefit - Cost Summary					
	NYSEG RGE				
Test	Test Description				
SCT	Societal Cost Test	0.44	0.50		
UCT	Utility Cost Test	0.20	0.24		
RIM	Ratepayer Impact Measure	0.47	0.54		

Test results less than one are to be expected in the infancy stages of the BYOT program. Program costs in the first few years are front loaded to achieve the critical mass necessary to maximize and sustain load shed and attain positive results. As participation increases, the cost per participant will decrease as fixed costs will be shared across more participants. Expenses to increase participation will also decrease in the years after desired and sustainable penetration levels are met, while peak load shed will be maximized. It is also anticipated, the per participant demand savings will increase as event strategies evolve. The Companies anticipate an SCT equal to or greater than one in program year four with potential to meet the target during program year three.

3.4.2 DIT

Table 25 summarizes DIT test results.

DIT Benefit - Cost Summary						
	NYSEG RGE					
Test	Test Description					
SCT	Societal Cost Test	0.41	0.45			
UCT	Utility Cost Test	0.18	0.20			
RIM	Ratepayer Impact Measure	0.41	0.44			

Table 25: DIT BCA Results

Test results for the DIT program are slightly lower than for the BYOT program. While program costs for devices already enrolled in BYOT and DIT will be the identical for program years two and beyond, the primary cost difference between DIT and BYOT are year one incentive costs. DIT incentives covering the thermostat and installation costs are over three times BYOT per device

incentives. DIT also has more logistical challenges than BYOT, including balancing customer interest and work load management of technician installations. (If technician installation time is not fully allocated, DIT program costs can quickly exceed demand response benefits. All installations based on customer interest to date have been completed. As such the Companies are considering alternatives to increase participation on constrained circuits in 2018.

3.4.3 Room AC

 Table 26 summarizes the Room AC test results

RoomAC Benefit - Cost Summary					
	NYSEG RGE				
Test	Test Description				
SCT	Societal Cost Test	0.02	0.03		
UCT	Utility Cost Test	0.01	0.02		
RIM	Ratepayer Impact Measure	0.02	0.03		

Table 26: Room AC BCA Results

It is assumed well over half of the customers in NYSEG and RG&E territories do not have Central AC. The room AC program offers a range of opportunities for customers to participate in a DLC program. While test results were not favorable, the Companies are looking to make adjustments in program year two to increase program viability. Unlike 2017, the Companies are planning to market the program a few months prior to the 2018 summer season and to have the majority of customers connected earlier in the summer capability period. The higher RG&E Societal Cost Test results for 2017 can be attributed to the higher average demand savings per device during the RG&E event yielding more than twice the NYSEG test results. NYSEG should yield higher demand response event results assuming 2018 weather is more conducive to demand response events and as event strategies are refined. The Companies will also investigate other means to engage and capture the room AC market and evaluate alternatives, such as Wi-Fi enabled room air conditioner units, as their market price decrease and penetration levels increase.

3.5 DLC Program Conclusions

2017 marked the first full year of the Companies' DLC programs. The Companies are committed to the successful development and implementation of DLC programs.

Customer feedback is critical to program success, as such; the Companies issued surveys to program participants in mid-October. Survey results will play an important role in the evolution of the Companies' DLC programs.

In 2018 and beyond, the Companies will continue to refine their DLC programs, evaluate other opportunities and technologies, assess cost effectiveness, and strive to increase program participation, as well as, maximize benefits to our loyal customers and distribution system.

3.5.1 2018 Recommendations

Based on lessons learned from our first full year of operation the Companies are submitting recommendations for program modifications along with requested tariff revisions to support these recommendations. Some tariff modifications fall under housekeeping to enhance tariff and program clarity. The goal of other recommendations is to provide the Companies with program flexibility allowing for quick adaptation to changing market conditions. The current schedule of submitting tariff changes in December with outcomes issued late first quarter or early second quarter the following year, does not provide sufficient lead time to implement changes for the upcoming capability period.

As such, the Companies are requesting Company flexibility to establish incentive mechanisms and amounts at the discretion of the Companies and recommend removing specified incentive dollar amounts and delivery means from tariffs. Similarly, the Companies seek discretion whether to offer programs with a Company supplied control device and if electing to offer such a program, flexibility to determine whether to offer installation services and the amount to charge customers for installation. These changes allow the Companies to act prudently after evaluating program effectiveness and penetration levels and launch new options expeditiously without additional tariff modifications. For example, the Companies are evaluating whether offering increased BYOT incentives is a cost effective method of increasing customer participation in capacity constrained areas on its distribution system.

The Companies also recommend eliminating the one hour DLC test event limit. Many factors contribute to summer electricity demand response event outcomes, including event duration. In years without an event, such as 2017, tests of durations longer than one hour are needed to simulate actual events in order to adequately perform program measurement and evaluation, test out different event strategies, and estimate actual opt-out rates and load relief.

Tariff revisions for the aforementioned items are located in Appendix E: Tariffs.

4. APPENDICES

4.1 Appendix A: Smart Savings Rewards Microsites

Figure 1: NYSEG & RG&E Smart Savings Rewards microsites



Figure 2: Cobranded Smart Savings Rewards microsite



Figure 3: Cobranded microsite BYOT page for customers with a qualifying thermostat

CHOOSE YOUR THERMOSTAT **AND GET \$85**

Pick your eligible thermostat from the list below. You'll get an \$85 e-gift card for each connected thermostat you enroll.

By selecting your connected thermostat(s) and enrolling in this program, you'll enable us to make brief adjustments to your thermostat's settings when demand is at its highest. Every time you fully participate in an adjustment between May 1st and September 30th, you'll earn a \$5 credit on your monthly bill.

To be eligible for this program, you must be a NYSEG/RG&E electric customer who has installed a qualifying connected thermostat controlling your central air conditioning system.

Find out more about Smart Savings Rewards on our FAQ Page.

Select your connected	thermostat
Please select	÷
ENROLL	

Figure 4: Cobranded microsite BYOT page for customers without a qualifying thermostat



Figure 5: Cobranded microsite Room AC page



GET \$20 TODAY AND AUTOMATIC SAVINGS THIS SUMMER

Sign up for Smart Savings Rewards and you'll get a \$20 e-gift card & a FREE smartAC kit!

Smart Savings Rewards is now available for room AC units, too! You'll get \$20 when you enroll your room AC units, along with \$5 bill credits every time you fully participate in short, temperature adjustments between May 1st and September 30th. Temperature adjustments occur on hot, humid days when energy demand is at its highest.

Enroll today to get a \$20 Amazon e-gift card and a FREE smartAC kit! Each FREE smartAC Kit comes with a modlet and thermostat controller. They will allow you to conveniently control your AC unit on the go from a smartphone, tablet or computer.



4.1.1 Microsite URLs

NYSEG Microsite:

<u>https://enrollmythermostat.com/smartsavingsnys/</u>

RG&E Microsite:

• <u>https://enrollmythermostat.com/smartsavingsroch/</u>

Cobranded Microsite:

• https://www.smartsavingsrewards.com/

4.2 Appendix B: Smart Savings Rewards BYOT Marketing Campaign Samples Figure 6: NYSEG & RG&E email



Figure 7: April 2017 Bill Insert



Figure 8: Billboards available since March



Figure 9: Newspaper advertisements



Rice to speak Saturday in city

Obama's security adviser now under fire from Trump JUSTIN MURPHY

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Figure 10: NYSEG August Energy Lines – Smart Savings Rewards BYOT promotion

Our Tree Care program works to provide safe and reliable power to our customers

While keeping our forests beautiful

After two March wind storms devastated the tree stock throughout Upstate New York, we put our Arbor Day tree-planting campaign into high gear.

Our Tree Care team distributed approximately 1,200 seedlings statewide to school-aged children to educate them about electrical safety, promoting the "right tree, right place" philosophy, and what to do if they see a downed power line.

In conjunction with Earth and Arbor Day ceremonies, we also planted larger caliper trees that are compatible with and are the right tree for the right place in planting near our power lines.



Paul Paradine, Tree Care program manager (left), and arborist Sam Miller plant spruce trees that were distributed at Arbor Day ceremonies.

All year long, our International Society of Arboriculture (ISA) certified arborists coordinate tree care work to manage our Tree Care program along thousands of miles of power lines to minimize power interruptions and keep your lights on.

For more information about our Tree Care program, please visit nyseg.com.

Get it while it's hot!

Sign up for our Smart Savings Rewards program and start earning rewards today.

When you enroll your qualifying Wi-Fi-enabled thermostat in our Smart Savings Rewards program, you get an \$85 e-gift card, plus the possibility of earning additional \$5 bill credits.

By enrolling in our program, you agree to allow us to make brief limited adjustments to your air conditioner during times of peak summer electricity demand. You earn a \$5 bill credit each time you fully participate in one of these adjustment events, and the satisfaction of doing your part to ensure New York's energy future.

For more information about Smart Savings Rewards, please visit enrollmythermostat.com/smartsavings.

Shop for your natural gas supplier

Shopping for a natural gas supplier may be one way to help manage your energy costs. Visit nyseg.com for a supplier list and questions to ask them. With any supplier you choose, NYSEG will deliver your energy safely and reliably, and we'll be here – 24/7 – to respond to emergencies.



julie receives her notification on her cell phone.

We'll send you a notification when your bill is due

Remember Julie? Since signing up for eBill and receiving reminder notifications of when her bill is due, she's been able to put her mailbox back where it belongs!

Julie also signed up for AutoPay to simplify her monthly bill paying routine even more. Now, her payment will be automatically deducted from her bank account each month and she can get on with enjoying her summer!

Sign up for eBill and AutoPay today at nyseg.com.



e o Part of NYSEG's commitment to the environment, produced with 100% wind power on recycled paper using soy inks.

NYSEC 17-0222 DST 00106005

Figure 11: RG&E BYOT & Room AC direct mail post card

It's Getting Hot, But RG&E Wants To Keep You Cool!

Get \$85 for your thermostat or control your room AC on the go for FREE!

enrollmythermostat.com/saveroch



Figure 12: New home owner BYOT NYSEG postcard



Figure 13: In store retail





4.3 Appendix C: DIT Marketing

Figure 14: DIT primer email



FREE Lux/Geo for customers like you!

Smart Savings Rewards from RG&E is offering a FREE Wi-Fi Lux/Geo thermostat and installation to select customers with central air conditioning. The Lux/Geo is a top-rated, Wi-Fi connected thermostat that gives you full remote control with easy to understand programming and built-in geo-fencing to automatically save energy when you are out of the house.

To receive your FREE Lux/Geo:

- · Provide your contact information and an authorized agent will contact you.
- · Receive a call from one of our agents who will give you more information.
- · Call an agent directly at (845) 202-0543.
- · For more information or if you have additional questions, please click here

Get my free thermostat

With your FREE thermostat and installation, you will be enrolled in the Smart Savings Rewards* program where you allow RG&E to adjust your thermostat a few degrees** when electricity demand is at its highest. For every thermostat adjustment you fully participate in, you earn a \$5 bill credit. Opt-out at any time, so that you can help reduce electricity demand but not your comfort.

*To be eligible for Smart Savings Rawards you must be a RG&E electricity customer with central air conditioning. Not all applicants will be accepted to participate. **You must fully participate in thermostat adjustments to be eligible for bill credits.

> Add <u>nyseo-rgei®energyhub.com</u> to your address book to receive all program-related emails. <u>Click here</u> to unsubscribe from all marketing emails from EnergyHub. EnergyHub, Inc. | 232 3rd St., Suite C201 | Brooklyn, NY 11215

Figure 15: DIT Primer Postcard



4.4 Appendix D: Room AC Marketing

Figure 16: Room AC enrollment site



First Name*	Last Name*
Email*	Retype Email*
Phone Number*	
Home address*	Home address line 2 / apt. / suite
City*	✓ Zip Code*
	NEXT
NYSEG W RG&E *thinkeco	Home Privacy Policy Terms and Conditions Support

Figure 17: Room AC emails



Stay cool, The Smart Savings Rewards Team

4.5 Appendix E: Tariffs

PSC No: 120 - ElectricityLeaf No. 117.46.2.1New York State Electric & Gas CorporationRevision: 42Initial Effective Date: JuneMay1, 20186Superseding Revision: θ1Superseding Revision: θ1Issued in Compliance with Orders in Case Nos. 14-E-0423 and 15 E 0188, dated May 23, 2016 and April 21, 2017.

GENERAL INFORMATION

34. Distribution Load Relief Program (Cont'd)

D. Applications and Term of Service

- Applications for service and the batch enrollment forms under this program must be made electronically. Direct Participants and Aggregator may participate after the Company's receipt and approval of a completed application and enrollment form. For the Reservation Payment Option, the Company shall accept an application by April 1 for a May 1 commencement date or by May 1 for a June 1 commencement date. However, if the application is received by April 1 and the Company does not bill the participant monthly using interval metering at the time of application, participation may commence on the first day of a month as late as July 1 provided all conditions in Section F are satisfied. For the Voluntary Participation Option, the Company shall accept applications at any time provided all conditions in Section F are satisfied.
- 2. The desired commencement month must be specified in the application.

Applications shall not be accepted after the specified date for participation during the current Capability Period. If the first of the month falls on a weekend or holiday, applications shall be accepted until the first business day thereafter.

- 3. A Direct Participant or Aggregator may apply in writing to change the CBL Verification Methodology, to change the kW of pledged Load Relief, or to terminate service under this program for the upcoming Capability Period provided the request is received prior to commencing participation for that Capability Period. In order for a Direct Participant or Aggregator to increase its kW of contracted Load Relief, the Direct Participant's or Aggregator's most recent Performance Factor must be no less than 1.00.
- 4. An Aggregator may increase its kW of pledged Load Relief during a Capability Period only if it enrolls customers whose Aggregator either exited the program or is suspended from enrollment in the program for noncompliance with Aggregator eligibility requirements or the Company's operating procedures. In such case, the Aggregator may increase its kW of pledged Load Relief up to the amount of the transferred Customers' existing kW of pledged Load Relief.
- 5. Each application must state the kW of Load Relief that the Direct Participant or Aggregator contracts to provide for the Load Relief Period. The weather-adjusted CBL shall be used as the CBL Verification Methodology for each account number enrolled, unless the application specifies that the average-day CBL is to be used for verification of performance. A single CBL Verification Methodology shall be used for each customer to assess both energy (kWh) and demand (kW) Load Relief.

PSC No: 120 - ElectricityLeaf No. 117.46.4New York State Electric & Gas CorporationRevision: 42Initial Effective Date:JuneMay 1, 20186Issued in Compliance with Orders in Case 14-E-0423, dated June 18, 2015 and April 21, 2017.

GENERAL INFORMATION

34. Distribution Load Relief Program (Cont'd)

G. Data Review

The Company reserves the right to review records and/or operations of any Direct Participant, Aggregator, customer of an Aggregator, or Meter Data Service Provider ("MDSP") to verify enrollment information and performance associated with any designated Load Relief Period or Test called by the Company. Once the Company initiates a data review, all payments shall be suspended pending the outcome of the review. The Company shall complete its review within 30 days of receipt of all requested data, but no later than December 31 of the calendar year of the Capability Period under review. Any suspended payments shall be reinstated if the Company's review of the data results in a finding that the enrollment and performance information are correct.

If the Company determines that a Direct Participant, Aggregator, customer of an Aggregator, or MDSP failed to cooperate fully and promptly with the review and/or did not fully comply with the provisions of this program and/or provided inaccurate data, the Direct Participant, Aggregator or the customer of the Aggregator shall be deemed ineligible to participate in the program until the issue is rectified. In addition, the Direct Participant or Aggregator shall be required to make prompt repayment to the Company of any overpayments that were made to such Direct Participant or Aggregator, on behalf of its customer, for the Capability Period that was reviewed as well as the current Capability Period, if different.

H. Aggregation

- 1. All customers of an Aggregator must meet the metering and telecommunications requirements of this program.
- 2. An Aggregator is responsible for the compliance of all customers it enrolls and shall be liable for performance, including, as applicable, repayments to the Company.

I. Voluntary Participation Option

1. Performance Payments for Load Relief

Except as specified in Section I.3, the Company shall make Performance Payments to a Direct Participant or Aggregator participating in the Voluntary Participation Option for Load Relief provided during a designated Load Relief Period.

The Performance Payment rate is \$0.15-50 per kWh.

The Performance Payment amount paid per event is equal to the applicable Payment Rate multiplied by the average hourly kWh of Load Relief provided during the event multiplied by the number of event hours.

2. Application of Payments

The Company shall make payment to a Direct Participant or Aggregator, after the end of the program year, for the sum of the payments due for all Load Relief Periods in the Capability Period. Payments shall be made by bill credit, check, or wire transfer.

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PSC No: 120 - ElectricityLeaf No. 117.46.5New York State Electric & Gas CorporationRevision: $\frac{23}{2}$ Initial Effective Date: June-May 1, 20186Superseding Revision: $\frac{42}{2}$ Issued in Compliance with Orders in Case Nos. 14-E-0423 and 15 E 0188, dated May 23, 2016 and April 21, 2017.

GENERAL INFORMATION

- 34. Distribution Load Relief Program (Cont'd)
 - I. <u>Voluntary Participation Option</u> (Cont'd)
 - 3. Payment for Direct Participants and Aggregators Participating in Other Programs Performance payments shall not be made under this program if the Direct Participants or Aggregator (on behalf of its customer) receives payment for energy under any other demand response program (e.g., NYISO's Day-ahead Demand Reduction Program, NYISO's Special Case Resources Program or the Company's Commercial System Relief Program) during concurrent Load Relief hours. If a Direct Customer or Aggregator (on behalf of its customer) is enrolled in the Company's Commercial System Relief Program for concurrent Load Relief hours, Performance Payment will be made only through the Commercial System Relief Program.
 - J. <u>Reservation Payment Option</u>
 - 1. Applicability

A Direct Participant or Aggregator shall receive a Reservation Payment if such Direct Participant or Aggregator agrees in writing to provide Load Relief for no less than four consecutive hours during each designated Load Relief Period during the effective Capability Period.

2. Reservation Payments

Reservation Payments per month are equal to the applicable Reservation Payment rate per kW per month multiplied by the kW of contracted Load Relief multiplied by the Performance Factor for the month. Reservation Payments shall be made under this Program independent of whether payments are made for capacity under any other program.

The Reservation Payment rate is $\frac{2.754.10}{10}$ per kW per month during months in which there have been four or fewer cumulative Contingency Events and Immediate Events since the beginning of the effective Capability Period. The Reservation Payment rate is $\frac{3.004.35}{1000}$ per kW per month during months in which there have been five or greater cumulative Contingency Events and Immediate Events since the beginning of the effective Capability Period.

3. Performance Payments for Load Relief The Company shall make a Performance Payment per kWh for the first four hours of Load Relief provided during the Load Relief Period.

The Performance Payment is \$0.1550 per kWh.

 Bonus Payment The Company shall make a Bonus Payment per kWh for the fifth and subsequent hours of Load Relief provided during the Load Relief Period.

The Bonus Payment is \$0.30-60 per kWh.

PSC No: 120 - ElectricityLeaf No. 117.46.8New York State Electric & Gas CorporationRevision: $\frac{12}{2}$ Initial Effective Date: JuneMay 1, 20186Superseding Revision: $\frac{01}{2}$ Issued in Compliance with Orders in Case 14-E-0423, dated June 18, 2015 and April 21, 2017.

GENERAL INFORMATION

34. Distribution Load Relief Program (Cont'd)

- J. <u>Reservation Payment Option (Cont'd</u>)
 - Application of Payments Reservation Payments shall be calculated on a monthly basis. Payments shall be made by bill credit, check or wire transfer.

35. Commercial System Relief Program

A. <u>Applicability</u>

All customers taking service under Service Classification Nos. 1, 2, 3, 6, 7, 8, 9, 10, 11, and 12, 13 and 14, whether receiving electricity supply from the Company or an ESCO, including any NYPA Customer; and to any Aggregator that meets the requirements of this Program.

B. <u>Contracting for Commercial System Relief Program Service</u>

There are two options under this Program through which a Direct Participant or Aggregator may contract to provide Load Relief during Load Relief Periods designated by the Company: the Voluntary Participation Option and the Reservation Payment Option. This Program is applicable to Direct Participants and Aggregators who agree in writing to provide Load Relief either on a Voluntary Participation or Reservation Payment Option, during all Contracted Hours whenever the Company designates Planned Events during the Capability Period. Direct Participants and Aggregators may also agree to voluntarily provide Load Relief if an Unplanned Event is called.

A Direct Participant must contract to provide at least 50 kW of Load Relief. An Aggregator must contract to provide at least 50 kW of Load Relief.

If other requirements for service under this Program are met, Electric Generating Equipment may be used to participate under this Program subject to the provisions set forth in Section D below. The participating Direct Participant or Aggregator is responsible for determining that the operation of the generating equipment under this Program shall be in conformance with any governmental limitations on operation.



PSC No: 120 - ElectricityLeaf No. 117.46.10New York State Electric & Gas CorporationRevision: $\frac{23}{2}$ Initial Effective Date: June May 1, 20186Superseding Revision: $\frac{42}{2}$ Issued in Compliance with Orders in Case Nos. 14-E-0423 and 15 E 0188, dated May 23, 2016 and April 21, 2017.

GENERAL INFORMATION

35. Commercial System Relief Program (Cont'd)

C. <u>Definitions (Cont'd)</u>

Load Relief: Power (kW) and energy (kWh): (a) ordinarily delivered by the Company that is displaced by use of Electric Generating Equipment and/or reduced by the Direct Participant or Aggregator at the Customer's premises; or (b) produced by use of Electric Generating Equipment by a customer taking service pursuant to Service Classification No. 10 and delivered by that Customer to the Company's distribution or transmission system during a Load Relief Period.

Load Relief Period: The hours for which the Company requests Load Relief when it designates a Planned Event or an Unplanned Event.

Performance Factor: When a Planned Event or Test is called, is the quotient of: (i) the average hourly kW of Load Relief provided by the Direct Participant or Aggregator during the requested hours, up to the kW of contracted Load Relief to (ii) the kW of contracted Load Relief.

Planned Event: The Company's request, on not less than 21 hours' advance notice, for Load Relief during the Contracted Hours. Planned Events shall be called when the Company's dayahead forecasted load level is at least 92% of the forecasted summer system-wide peak. Dayahead and summer peak forecast information for the system shall be posted to the Company's website. Planned Events shall be scheduled on weekdays and will begin at 2 p.m. and end at 6 p.m. There shall be a Planned Event confirmation or cancellation notification no less than 2 hours before the start of the event.

Renewable Generation: Behind-the-meter electric generating equipment that is not fossil-fueled and has no emissions associated with it.

Test: The Company's request under the Reservation Payment Option for Direct Participants and Aggregators to provide one hour of Load Relief on not less than 21 hours advance notice. <u>There</u> shall be a Test confirmation or cancellation notification no less than 2 hours before the start of the <u>Test.</u>

Unplanned Event: The Company's request for Load Relief: (a) on less than 21 hours' advance notice; or (b) for hours outside of the Contracted Hours.

- D. <u>Applications and Term of Service</u>
 - 1. Applications for service and the batch enrollment forms under this Program must be made electronically. Direct Participants and Aggregators may participate after the Company's receipt and approval of a completed application and enrollment form. For the Reservation Payment Option, the Company shall accept an application by April 1 for a May 1 commencement date or by May 1 for a June 1 commencement date. However, if the application is received by April 1 and the Company does not bill the participant monthly using interval metering at the time of application, participation may commence on July 1 provided all conditions in Section F are satisfied. For the Voluntary Participation Option,

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ISSUED BY: James A. LahtinenJoseph J. Syta, Vice President Rates and Regulatory EconomicsController and <u>Treasurer</u>, Binghamton, New York

the Company shall accept applications at any time provided all conditions in Section F are satisfied.



GENERAL INFORMATION

35. Commercial System Relief Program (Cont'd)

D. <u>Applications and Term of Service (Cont'd)</u>

7. (Cont'd)

Copies of all New York State Department of Environmental Conservation ("DEC") permits must be included with the application. By applying for service under this Program, Direct Participants and Aggregators (on behalf of their customers) agree to permit the Company to provide information regarding the Electric Generating Equipment to the DEC for its review, subject to the DEC's agreement to keep this information confidential. Furthermore, participants enrolled in a NYISO market-based program offered by the Company, NYPA or other entity, such as the Day-ahead Demand Response Program or the Demand-Side Ancillary Service Program, must provide the Company with their NYISO generator identification number, under a confidentiality agreement, and give the Company the ability to view their market participation activity. This information shall be used to verify the times of participation in these other programs to prevent double-payment during concurrent events.

- 8. Participation under this Program is permitted to participants in other programs that provide payment for capacity, such as the NYISO's Special Case Resources Program and the Company's Distribution Load Relief Program.
- 9. Direct Participants and Aggregators must meet the metering requirements specified in Section F.
- 10. Customers who take service pursuant to a Net Metering option are not eligible to participate in this program.

E. Load Relief Period Criteria, Notification by the Company and Required Response

- 1. The Company shall notify Direct Participants and Aggregators by phone, e-mail, or machinereadable electronic signal, or a combination thereof, in advance of the commencement of a Load Relief Period or Test. The Direct Participant or Aggregator shall designate in writing an authorized representative and an alternate representative, and include an electronic address if applicable, to receive the notice. If an Aggregator is served under this Program, only the Aggregator shall be notified of the Load Relief Period or Test. The Aggregator is responsible for notifying all of the customers within its respective aggregation group.
- 2. If the Company designates a Planned Event or a Test, the Company shall provide advance notice at least 21 hours in advance of the event. The Company shall again provide advance <u>confirmation</u> or <u>cancellation</u> notice on the day of the event, usually two or more hours in advance.
- 3. If the Company designates an Unplanned Event, notice shall be given as soon as practicable. Participants are requested to provide Load Relief as soon as they are able.
- 4. Participants in the Reservation Payment Option are required to participate during:
 - a. all Contracted Hours for all Planned Events called by the Company during the Capability Period, and
 - b. Test called by the Company. The Test period shall not exceed one hour. Tests shall occur within the timeframe of Load Relief Periods. Participants in the Voluntary Participation Option shall not be tested.

ISSUED BY: Joseph J. Syta, Vice President, Controller and Treasurer, Binghamton, New York
PSC No: 120 - ElectricityLeaf No. 117.46.14New York State Electric & Gas CorporationRevision: 42Initial Effective Date:JuneMay 1, 20186Issued in Compliance with Orders in Case 14-E-0423, dated June 18, 2015 and April 21, 2017.

GENERAL INFORMATION

35. Commercial System Relief Program (Cont'd)

G. Data Review

The Company reserves the right to review records and/or operations of any Direct Participant, Aggregator, customer of an Aggregator, or Meter Data Service Provider ("MDSP") to verify enrollment information and performance associated with any designated Load Relief Period or Test called by the Company. Once the Company initiates a data review, all payments shall be suspended pending the outcome of the review. The Company shall complete its review within 30 days of receipt of all requested data, but no later than December 31 of the calendar year of the Capability Period under review. Any suspended payments shall be reinstated if the Company's review of the data results in a finding that the enrollment and performance information are correct.

If the Company determines that a Direct Participant, Aggregator, customer of an Aggregator or MDSP failed to cooperate fully and promptly with the review and/or did not fully comply with the provisions of this Rider and/or provided inaccurate data, the Direct Participant or the customer of the Aggregator shall be deemed ineligible to participate in the program until the issue is rectified. In addition, the Direct Participant or Aggregator shall be required to make prompt repayment to the Company of any overpayments that were made to such Direct Participant or Aggregator, on behalf of its customer, for the Capability Period that was reviewed as well as the current Capability Period, if different.

- H. Aggregation
 - 1. All customers of an Aggregator must meet the metering and telecommunications requirements of this Program.
 - 2. An Aggregator is responsible for the compliance of all customers it enrolls and shall be liable for performance, including, as applicable, repayments to the Company.
- I. <u>Voluntary Participation Option</u>
 - 1. Performance Payments for Load Relief

Except as specified in Section I.3, the Company shall make Performance Payments to a Direct Participant or Aggregator participating in the Voluntary Participation Option for Load Relief provided during a designated Load Relief Period.

The Performance Payment rate is \$0.15-50 per kWh.

The Performance Payment amount paid per event is equal to the applicable Payment Rate multiplied by the average hourly kWh of Load Relief provided during the event multiplied by the number of event hours.

2. Application of Payments

The Company shall make payment to a Direct Participant or Aggregator, after the end of the program year, for the sum of the payments due for all Load Relief Periods in the Capability Period. Payments shall be made by bill credit, check, or wire transfer.

3. Performance Payments shall not be made under this Program if the Direct Participants or Aggregator (on behalf of its customer) receives payment for energy under any other demand response program (e.g., NYISO's Day-ahead Demand Reduction Program or NYISO's Special Case Resources Program) during concurrent Load Relief hours. If a Direct Customer or Aggregator (on behalf of its customer) is enrolled in the Company's Distribution Load

ISSUED BY: James A. LahtinenJoseph J. Syta, Vice President. Controller and Treasurer-Rates and Regulatory Economics, Binghamton, New York

Relief Program for concurrent Load Relief hours, Performance Payment will be made only through the Commercial System Relief Program.



PSC No: 120 - ElectricityLeaf No. 117.46.15New York State Electric & Gas CorporationRevision: 42Initial Effective Date:JuneMay 1, 2016Issued in Compliance with Orders in Case 14-E-0423, dated June 18, 2015 and April 21, 2017

GENERAL INFORMATION

35. Commercial System Relief Program (Cont'd)

- J. Reservation Payment Option
 - 1. Applicability

Direct Participants and Aggregators shall receive a Reservation Payment for each Capability Period month in which they are enrolled. The Reservation Payment rate per kW is based on the number of cumulative Planned Events for which the Direct Participant or Aggregator was asked to provide Load Relief during the Capability Period.

2. Reservation Payments per month are equal to the applicable Reservation Payment rate per kW per month multiplied by the kW of contracted Load Relief multiplied by the Performance Factor for the month. Reservation Payments shall be made under this Program based on the number of Events called during the month.

The Reservation Payment rate is 2.754.10 per kW per month for up to four Events per month.

The Reservation Payment rate is 3.004.35 per kW per month if five or more Events are called in the month.

3. Performance Payments for Load Relief The Company shall make a Performance Payment per kWh for the first four hours of Load Relief provided during the Load Relief Period.

The Performance Payment is 0.150 per kWh.



PSC No: 120 - ElectricityLeaf No. 117.46.16New York State Electric & Gas CorporationRevision: $\frac{23}{2}$ Initial Effective Date: June-May 1, 20186Superseding Revision: $\frac{12}{2}$ Issued in Compliance with Orders in Case Nos. 14-E-0423 and 15-E 0188, dated May 23, 2016 or April 21, 2017.

GENERAL INFORMATION

- 35. <u>Commercial System Relief Program (Cont'd)</u> J. Reservation Payment Option (Cont'd)
 - 4. Bonus Payment

The Company shall make a Bonus Payment per kWh for the fifth and subsequent hours of Load Relief provided during the Load Relief Period.

The Bonus Payment is \$0.30-60 per kWh.

- 5. Performance Factor
 - a) When a Planned Event is called, the Performance Factor is:
 - i. The quotient of average hourly kW of Load Relief provided by the Direct Participant or Aggregator during the first four hours of the Load Relief Period and up to the kW of contracted Load Relief.
 - b) When a Test is called, the Performance Factor is:
 - i. The quotient of the kW of Load Relief provided during the Test Hour by the Direct Participant or Aggregator up to the kW of contracted Load Relief.
 - c) When more than one Planned Event and/or Test is called during the month, the Performance Factor is the average of the Performance Factors for the Direct Participant or the average of the Performance Factors for the Aggregator during that month. Where service is taken under this Program by an Aggregator, the kW of contracted Load Relief is measured on a portfolio basis by CBL Verification Methodology.
 - i. The Performance Factor for the month is used to calculate Reservation Payments for that month and each month thereafter until the month in which the next Test or Load Relief Period is called by the Company during the current or subsequent year's Capability Period.
 - ii. If the Direct Participant or Aggregator did not participate in the program during the prior Capability Period, and no Load Relief Periods or Tests have been designated since the Direct Participant or Aggregator enrolled in the program, payment for the current month shall be made based on an assumed Performance Factor of 0.50. A subsequent true-up shall be made once an actual Performance Factor is established either via a Test or Load Relief Event. The true-up may result in a credit or a charge to the participant.

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- d) The performance factor is truncated to two decimal places and has an upper limit of 1.00 and a lower limit of 0.00.
- 6. Application of Payments

Reservation Payments shall be calculated on a monthly basis. Payments shall be made by bill credit, check or wire transfer.

GENERAL INFORMATION

36. Direct Load Control Program

A. <u>Applicability</u>

All Customers, whether receiving electricity from the Company or an ESCO, unless the customer is required to participate in mandatory Hourly Pricing or voluntarily elects Hourly Pricing.

B. <u>Eligibility</u>

To participate under this Program, a Customer must have load controllable equipment and <u>install a Control</u> <u>Device, or when applicable, agree to the installation of a Control Device, agree to Program terms and conditions,</u> and agree to allow the Company to control the Control Device for the purpose of this Program.

C. Designated Areas of Participation

Various Programs shall be offered to eligible customers within the Company's service territory unless otherwise noted.

D. Definitions

The following terms are defined for purposes of this Program only:

Capability Period: The period during which the Company can request Load Relief. The Capability Period shall be from May 1 through September 30.

Company Designated Area: An electrically defined area determined by the Company to be approaching system capacity limits during peak periods. A current list of the Company Designated Areas shall be listed on the Company's website.

Control Device: A device installed on the Customer's load controllable equipment via a smart plug or embedded control that allows the Company to remotely control the equipment when an Event <u>or Test</u> is called. For purposes of this Program, Control Device means one or more devices as may be required to control the equipment. Each Control device <u>may</u> contains a feature that allows the Customer to override the Company's control of the Customer's equipment. The Control Device must be provided, installed, and connected to the Internet by the Company or its Contractor, or it must be installed and connected to the Internet by the Customer who enrolled in the Program through a Service Provider. If <u>an</u> internet connection is not feasible, another connection method may be acceptable at the Company's discretion.

Event: A period of time when the Company may remotely control the customer's load_-controllable equipment. Events may be declared when:

- the NYISO declares an emergency in conjunction with an in-day peak hour forecast response to an operating reserve peak forecast shortage or in response to a major state of emergency as defined in Section 3.2 of the NYISO Emergency Operations Manual, or at the NYISO's discretion to relieve system or zonal emergencies;
- 2. the NYISO activates its Special Case Resources Program in response to a forecast peak operating reserve shortfall; or
- 3. The Company determines that a Company designated area peak may occur;
- 4. The Company determines that a NYISO or Company peak may occur;
- **1.5.** The Company declares a need for emergency or if a voltage reduction of five percent or greater has been <u>ordered.</u>

Load Relief: Energy (kWh) that is ordinarily delivered by the Company that is reduced by the Participating Customer.

Load Relief Period: The hours for which the Company requests Load Relief when it designates an Event or a Test.

Service Provider: A provider registered with the Company to develop, maintain, and operate a communications portal that enables Internet-connected Control Devices to participate under this program. A list of current Service Providers is available on the Company's website.

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ISSUED BY: James A. LahtinenJoseph J. Syta, Vice President Rates and Regulatory EconomicsController and Treasurer, Binghamton, New York

Test: The Company's request to provide load relief to determine program capabilities. to provide one hour of Load Relief on not less than two hours advance notice. Events may be due to:

the NYISO declares an emergency in conjunction with an in day peak hour forecast response to an operating reserve peak forecast shortage or in response to a major state of emergency as defined in Section 3.2 of the NYISO Emergency Operations Manual, or at the NYISO's discretion to relieve system or zonal emergencies; the NYISO activates its Special Case Resources Program in response to a forecast peak operating reserve shortfall; or

The Company determines that a Company designated area peak may occur.

The Company's day ahead forecasted load level is at least 92% of the forecasted summer system-wide peak. The Company declares a need for emergency or non-emergency relief, as described by 40 CFR 63.6640 subparts 2 and 4, or if a voltage reduction of five percent or greater has been ordered.

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 PSC No: 120 - Electricity
 Leaf No. 117.46.19

 New York State Electric & Gas Corporation
 Revision: 42

 Initial Effective Date:
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 Superseding Revision: 01

GENERAL INFORMATION

36. Direct Load Control Program (Cont'd)

E. <u>Applications</u>

Applications to participate under this program may be made throughout the year either electronically or in writingat a Company designated website.

F. Customers Receiving a Control Device From the Company

F. <u>The option is available at the Company's discretion.</u> The Company may limit availability to customers residing in a Company Designated Area.

- 1. Customers who receive a Control Device from the Company shall be enrolled in the Program and agree to allow the Company to control the Control Device for the purpose of this Program. The Control Device shall become the Customer's property upon installation.
- 2. At the Company's discretion, the Company may offer installation services of a Control Device. 1-3. At the Company's discretion, the Company may offer a sign-up and/or annual incentive to customers who receive a Control Device for the purposes of controlling a room air conditioner shall receive a \$20 sign-up payment from the Company after the Control Device is installed. Customers who fully participate in Tests or Events are eligible for \$5a participation incentive for each Test or Event. Incentive amounts and means of payment shall be determined by the Company. payable by bill credit or other means at the Company's discretion for each Test or Event if they fully participate.

Customers who receive a Control Device for the purpose of controlling a central air conditioning unit shall receive free basic installation of the Control Device. Customers who participate in Tests or Events are eligible for \$5 payable by bill credit or other means at the Company's discretion for each Test or Event if they fully participate.

G. <u>Customers Enrolling a Control Device Through a Service Provider</u> This option is open to all qualified customers in the Company Service Territory.

Customers who <u>enroll in the Program through a Service Provider with their own install and enroll a</u> Control Device <u>or a Control Device provided by through</u> a Service Provider for the purpose of <u>controlling a central air conditioning unit</u> shall receive a one-time <u>enrollment incentive</u> credit of \$85. Customers who<u>fully</u> participate in Tests or Events are eligible for \$5 payable by bill credit or other means at the Company's discretion for each Test or Event if they fully participate a participation incentive. Incentive amounts and means of payment shall be determined by the Company.

H. <u>Restrictions</u>

This Program is <u>not</u> available to customers who participate <u>in Unplanned Events in the Company's</u> Distribution Load Relief Program, but not to Customers who participate, either directly or indirectly through a third party, under any other Company or NYISO demand-response Program. <u>This includes</u>, <u>but is not limited to</u>, (e.g., the NYISO Special Case Resources (SCR) Program (or any applicable Company Program that is intended to take the place of the NYISO SCR Program), <u>or in Planned Events</u> <u>in the Company's Distribution Load Relief Program or Commercial System Relief Program</u>.

ISSUED BY: James A. LahtinenJoseph J. Syta, Vice President, Rates and Regulatory EconomicsController and Treasurer, Binghamton, New York

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GENERAL INFORMATION 4. METERING AND BILLING (Cont'd)

R. Distribution Load Relief Program (Cont'd)

3. Definitions (Cont'd)

Company Designated Area: An electrically defined area determined by the Company to be approaching system capacity limits during peak periods. A current list of the Company Designated Areas shall be listed on the Company's website.

Contingency Event: A Load Relief Period lasting four or more hours for which the Company provides two or more hours' advance notice.

Direct Participant: A Customer who enrolls under this Program directly with the Company for a single account and agrees to provide at least 50 kW of Load Relief.

Electric Generating Equipment: (a) electric generating equipment that is served under Service Classification No. 5 or Service Classification No. 14 and used to provide Load Relief under this Program; or (b) emergency electric generating equipment that is interconnected and operated in compliance with rules governing Emergency Generating Facilities used for self-supply and used to provide Load Relief under this Program.

Immediate Event: A Load Relief Period lasting six or more hours for which the Company provides less than two hours' advance notice.

Load Relief: Power (kW) and energy (kWh): (a) ordinarily delivered by the Company that is displaced by use of Electric Generating Equipment and/or reduced by the Direct Participant or Aggregator at the Customer's premises; or (b) produced by use of Electric Generating Equipment by a customer taking service pursuant to Service Classification No. 5 and delivered by that Customer to the Company's distribution or transmission system during a Load Relief Period.

Load Relief Period: The hours for which the Company requests Load Relief during a Contingency Event or an Immediate Event. Load Relief shall not be required of a Direct Participant or Aggregator after 12:00 AM or before 6:00 AM.

Performance Factor: When a Planned Event or Test is called, is the quotient of: (i) the average hourly kW of Load Relief provided by the Direct Participant or Aggregator during the requested hours, up to the kW of contracted Load Relief to (ii) the kW of contracted Load Relief.

Renewable Generation: Behind-the-meter electric generating equipment that is not fossil-fueled and has no emissions associated with it.

Test: The Company's request under the Reservation Payment Option that Direct Participants and Aggregators provide one hour of Load Relief on not less than two hours advance notice. <u>There shall be a</u> <u>Test confirmation or cancellation notification no less than 2 hours before the start of the Test.</u>

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PSC No: 19 - ElectricityLeaf No. 86.6.1Rochester Gas and Electric CorporationRevision: 42Initial Effective Date:June-May 1, 20186Insued in Compliance with Orders in Case Nos. 14-E-0423-and 15 E 0190, dated May 23, 2016 and April 21, 2017.

GENERAL INFORMATION

4. METERING AND BILLING (Cont'd)

R. Distribution Load Relief Program (Cont'd)

4. Applications and Term of Service

- a. Applications for service and the batch enrollment form under this program must be made electronically. Direct Participants and Aggregators may participate after the Company's receipt and approval of a completed application and enrollment form. For the Reservation Payment Option, the Company shall accept an application by April 1 for a May 1 commencement date or by May 1 for a June 1 commencement date. However, if the application is received by April 1 and the Company does not bill the participant monthly using interval metering at the time of application, participation may commence on the first day of a month as late as July 1 provided all conditions in Section 6 are satisfied. For the Voluntary Participation Option, the Company shall accept applications at any time provided all conditions in Section 6 are satisfied.
- b. The desired commencement month must be specified in the application.

Applications shall not be accepted after the specified date for participation during the current Capability Period. If the first of the month falls on a weekend or holiday, applications shall be accepted until the first business day thereafter.

- c. A Direct Participant or Aggregator may apply in writing to change the CBL Verification Methodology, to change the kW of pledged Load Relief, or to terminate service under this program for the upcoming Capability Period provided the request is received prior to commencing participation for that Capability Period. In order for a Direct Participant or Aggregator to increase its kW of contracted Load Relief, the Direct Participant's or Aggregator's most recent Performance Factor must be no less than 1.00.
- d. An Aggregator may increase its kW of pledged Load Relief during a Capability Period only if it enrolls customers whose Aggregator either exited the program or is suspended from enrollment in the program for noncompliance with Aggregator eligibility requirements or the Company's operating procedures. In such case, the Aggregator may increase its kW of pledged Load Relief up to the amount of the transferred Customers' existing kW of pledged Load Relief.
- e. Each application must state the kW of Load Relief that the Direct Participant or Aggregator contracts to provide for the Load Relief Period. The weather-adjusted CBL shall be used as the CBL Verification Methodology for each account number enrolled, unless the application specifies that the average-day CBL is to be used for verification of performance. A single CBL Verification Methodology shall be used for each customer to assess both energy (kWh) and demand (kW) Load Relief.

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GENERAL INFORMATION

4. METERING AND BILLING (Cont'd)

R. Distribution Load Relief Program (Cont'd)

- 9. Voluntary Participation Option (Cont'd)
 - c. Payment for Direct Participants and Aggregators Participating in Other Programs Performance Payment shall not be made under this program if the Direct Participants or Aggregator (on behalf of its customer) receives payment for energy under any other demand response program (e.g., NYISO's Day-ahead Demand Reduction Program, NYISO's Special Case Resources Program or the Company's Commercial System Relief Program) during concurrent Load Relief hours. If a Direct Customer or Aggregator (on behalf of its customer) is enrolled in the Company's Commercial System Relief Program for concurrent Load Relief hours, Performance Payment shall be made through the Commercial System Relief Program.

10. <u>Reservation Payment Option</u>

a. Applicability

A Direct Participant or Aggregator shall receive a Reservation Payment if such Direct Participant or Aggregator agrees in writing to provide Load Relief for no less than four consecutive hours during each designated Load Relief Period during the effective Capability Period.

b. Reservation Payments

Reservation Payments per month are equal to the applicable Reservation Payment rate per kW per month multiplied by the kW of contracted Load Relief multiplied by the Performance Factor for the month. Reservation Payments shall be made under this Program independent of whether payments are made for capacity under any other program.

The Reservation Payment rate is 34.25 per kW per month during months in which there have been four or fewer cumulative Contingency Events and Immediate Events since the beginning of the effective Capability Period. The Reservation Payment rate is 34.50 per kW per month during months in which there have been five or greater cumulative Contingency Events and Immediate Events since the beginning of the effective Capability Period.

c. Performance Payments for Load Relief The Company shall make a Performance Payment per kWh for the first four hours of Load Relief provided during the Load Relief Period.

The Performance Payment is \$0.15-50 per kWh.

d. Bonus Payment

The Company shall make a Bonus Payment per kWh for the fifth and subsequent hours of Load Relief provided during the Load Relief Period.

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The Bonus Payment is \$0.30-60 per kWh.

ISSUED BY: James A. LahtinenJoseph J. Syta, Vice President, Rates and Regulatory EconomicsController and <u>Treasurer</u>, Rochester, New York

PSC No: 19 - ElectricityLeaf No. 86.10Rochester Gas and Electric CorporationRevision: $\frac{23}{2}$ Initial Effective Date:JuneMay 1, 20186Superseding Revision: $\frac{42}{2}$ Issued in Compliance with Orders in Case Nos. 14-E-0423 and 15 E 0190, dated May 23, 2016 and April 21, 2017.



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GENERAL INFORMATION

4. METERING AND BILLING (Cont'd)

S. Commercial System Relief Program (Cont'd)

3. <u>Definitions</u>

Load Relief: Power (kW) and energy (kWh): (a) ordinarily delivered by the Company that is displaced by use of Electric Generating Equipment and/or reduced by the Direct Participant or Aggregator at the Customer's premises; or (b) produced by use of Electric Generating Equipment by a customer taking service pursuant to Service Classification No. 5 and delivered by that Customer to the Company's distribution or transmission system during a Load Relief Period.

Load Relief Period: The hours for which the Company requests Load Relief when it designates a Planned Event or an Unplanned Event.

Performance Factor: When a Planned Event or Test is called, is the quotient of: (i) the average hourly kW of Load Relief provided by the Direct Participant or Aggregator during the requested hours, up to the kW of contracted Load Relief to (ii) the kW of contracted Load Relief.

Planned Event: The Company's request, on not less than 21 hours' advance notice, for Load Relief during the Contracted Hours. Planned Events shall be called when the Company's dayahead forecasted load level is at least 92% of the forecasted summer system-wide peak. Dayahead and summer peak forecast information for the system shall be posted to the Company's website. Planned Events will be scheduled on weekdays and shall begin at 2 p.m. and end at 6 p.m. There shall be a Planned Event confirmation or cancellation notification no less than 2 hours before the start of the event.

Renewable Generation: Behind-the-meter electric generating equipment that is not fossil-fueled and has no emissions associated with it.

Test: The Company's request under the Reservation Payment Option for Direct Participants and Aggregators to provide one hour of Load Relief on not less than 21 hours' advance notice. <u>There</u> shall be a Test confirmation or cancellation notification no less than 2 hours before the start of the Test.

Unplanned Event: The Company's request for Load Relief: (a) on less than 21 hours' advance notice; or (b) for hours outside of the Contracted Hours.



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GENERAL INFORMATION

4. METERING AND BILLING (Cont'd)

S. Commercial System Relief Program (Cont'd)

- 4. <u>Applications and Term of Service</u>
 - Applications for service and batch enrollment forms under this Program must be made electronically. Direct Participants and Aggregators may participate after the Company's receipt and approval of a completed application and enrollment form. For the Reservation Payment Option, the Company shall accept an application by April 1 for a May 1 commencement date or by May 1 for a June 1 commencement date. However, if the application is received by April 1 and the Company does not bill the participant monthly using interval metering at the time of application, participation may commence on the first day of a month as late as July 1 provided all conditions in Section 6 are satisfied. For 2016 only, applications shall be accepted as late as June 15 for a start date as late as July 1. For the Voluntary Participation Option, the Company shall accept applications at any time provided all conditions in Section 6 are satisfied.
 - b. The desired commencement month must be specified in the application.

Applications shall not be accepted after the specified date for participation during the current Capability Period. If the first of the month falls on a weekend or holiday, applications shall be accepted until the first business day thereafter.

- c. A Direct Participant or Aggregator may apply in writing to change the CBL Verification Methodology, to change the kW of pledged Load Relief, or to terminate service under this Program for the upcoming Capability Period provided the request is received prior to commencing participation for that Capability Period. In order for a Direct Participant or Aggregator to increase its kW of contracted Load Relief, the Direct Participant's or Aggregator's most recent Performance Factor must be no less than 1.00.
- d. An Aggregator may increase its kW of pledged Load Relief during a Capability Period only if it enrolls customers whose Aggregator either exited the program or is suspended from enrollment in the program for noncompliance with Aggregator eligibility requirements or the Company's operating procedures. In such case, the Aggregator may increase its kW of pledged Load Relief up to the amount of the transferred Customers' existing kW of pledged Load Relief.
- e. Each application must state the kW of Load Relief that the Direct Participant or Aggregator contracts to provide for the Load Relief Period. The weather-adjusted CBL shall be used as the CBL Verification Methodology for each account number enrolled, unless the application specifies that the average-day CBL is to be used for verification of performance. A single CBL Verification Methodology shall be used for each customer to assess both energy (kWh) and demand (kW) Load Relief.
- f. Participation by diesel-fired Electric Generating Equipment shall be permitted only if the engine for the equipment is model year 2000 or newer. Participation by these diesel-fired Electric Generating Equipment shall be limited to 20% of the total kW enrolled under this Program for the Capability Period. Enrollment by such generators shall be accepted on a first come, first served basis. Within these geographic areas, no limit or cap shall be placed on the following: natural gas-fired rich burn Electric Generating Equipment that incorporates three-way catalyst emission controls; natural gas lean-burn Electric Generating Equipment with an engine of model

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ISSUED BY: James A. LahtinenJoseph J. Syta, Vice President, Rates and Regulatory EconomicsController and Treasurer, Rochester, New York

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 Rochester Gas and Electric Corporation
 Revision: 23

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 year vintage 2000 or newer; or Electric Generating Equipment that has a NOx emissions level of no more than 2.96 lb/MWh.

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GENERAL INFORMATION

4. METERING AND BILLING (Cont'd)

S. Commercial System Relief Program (Cont'd)

- 5. Load Relief Period Criteria, Notification by the Company and Required Response (Cont'd)
 - b. If the Company designates a Planned Event or a Test, the Company shall provide advance notice at least 21 hours in advance of the event. The Company shall again provide advance <u>confirmation or cancellation</u> notice on the day of the event, <u>usually no less than</u> two or <u>more</u> hours in advance.
 - c. If the Company designates an Unplanned Event, notice shall be given as soon as practicable. Participants are requested to provide Load Relief as soon as they are able.
 - d. Participants in the Reservation Payment Option are required to participate during:
 - i. all Contracted Hours for all Planned Events called by the Company during the Capability Period, and
 - ii. Tests called by the Company. The Test period shall not exceed one hour. Tests shall occur within the timeframe of Load Relief Periods. Participants in the Voluntary Participation Option shall not be tested.

6. <u>Metering</u>

- a. Participation under this Program requires that each participant's entire service be measured by interval metering with telecommunications capability used by the Company for monthly billing. If an Aggregator takes service under this Program, all customers of the Aggregator must meet the metering and telecommunications requirements specified herein.
- b. If, at the time of application for service under this Program, the Company does not bill the participant monthly using interval metering, the Customer shall arrange for the furnishing and installation of interval metering with telecommunications capability to be used for billing and arrange for telecommunications service, at the participant's expense.
- c. If the Company does not bill the participant monthly using interval metering at the time of application, participation in the Reservation Payment Option shall not commence unless both interval metering and meter communications are operational. If the Company receives a completed application by April 1, service can commence May 1 if interval metering is installed by April 1 and meter communications are operational by April 30. If the Company receives a completed application by May 1, service can commence on June 1 if the interval metering is installed by May 1 and meter communications are operational by May 31. If the application is received by May 1, but the above deadlines for installation of interval metering and meter communications are not met, service shall commence on July 1, provided that interval metering is installed by June 1 and meter communications are operational by June 30.
- d. The Company shall install interval metering within 21 business days of the later of the Company's receipt of an applicant's payment for an upgrade to interval metering and: (i) evidence that a request has been made to the telephone carrier (e.g., receipt of a job number) to secure a dedicated phone line for a meter with landline telecommunications capability or (ii) the active Internet Protocol ("IP") address that the wireless carrier has assigned to the modem's ESN for a meter with wireless capability. If the Company misses the installation time frame for the Reservation Payment Option, it shall make the otherwise earned Reservation Payment to the Direct Participant or Aggregator, unless the meter delay was caused by a reason outside the Company's control, such as the telephone company's failure to install a landline or, if, at the Company's request, the Commission grants the Company an exception due to a condition such as a major outage or storm. The otherwise earned Reservation Payment shall be calculated by determining the number of months between the earliest month in which the customer could have begun participation had the meter been installed within the required timeframe (assuming the Company's acceptance of a completed application and receipt of payment for the meter upgrade) and the first month following the completed installation, and multiplying that number by the pledged kW and associated per kW Reservation Payment Rate.

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ISSUED BY: James A. LahtinenJoseph J. Syta, Vice President, Controller and Treasurer-Rates and Regulatory Economics, Rochester, New York PSC No: 19 - ElectricityLeaf No. 86.18Rochester Gas and Electric CorporationRevision: 42Initial Effective Date:JuneMay 1, 20186Insued in Compliance with Orders in Case 14-E-0423, dated June 18, 2015 and April 21, 2017.

GENERAL INFORMATION

4. METERING AND BILLING (Cont'd)

S. Commercial System Relief Program (Cont'd)

6. <u>Metering (Cont'd)</u>

e. The Company shall visit the premises at the request of the Customer to investigate a disruption of normal communication between the phone line or wireless communications and the meter, or operation of external pulses from the meter to the Customer's energy management equipment. The Company shall charge for its visit based upon the cost to the Company.

7. Data Review

The Company reserves the right to review records and/or operations of any Direct Participant, Aggregator, customer of an Aggregator, or Meter Data Service Provider ("MDSP") to verify enrollment information and performance associated with any designated Load Relief Period or Test called by the Company. Once the Company initiates a data review, all payments shall be suspended pending the outcome of the review. The Company shall complete its review within 30 days of receipt of all requested data, but no later than December 31 of the calendar year of the Capability Period under review. Any suspended payments shall be reinstated if the Company's review of the data results in a finding that the enrollment and performance information are correct.

If the Company determines that a Direct Participant, Aggregator, customer of an Aggregator or MDSP failed to cooperate fully and promptly with the review and/or did not fully comply with the provisions of this Program and/or provided inaccurate data, the Direct Participant, Aggregator or the customer of the Aggregator shall be deemed ineligible to participate in the program until the issue is rectified. In addition, the Direct Participant or Aggregator shall be required to make prompt repayment to the Company of any overpayments that were made to such Direct Participant or Aggregator, on behalf of its customer, for the Capability Period that was reviewed as well as the current Capability Period, if different.

8. <u>Aggregation</u>

- a. All customers of an Aggregator must meet the metering and telecommunications requirements of this Program.
- b. An Aggregator is responsible for the compliance of all customers it enrolls and shall be liable for performance, including, as applicable, repayments to the Company.

9. Voluntary Participation Option

a. Performance Payments for Load Relief

Except as specified in Section 9.c, the Company shall make Performance Payments to a Direct Participant or Aggregator participating in the Voluntary Participation Option for Load Relief provided during a designated Load Relief Period.

The Performance Payment rate is \$0.1550 per kWh.

The Performance Payment amount paid per event is equal to the applicable Payment Rate multiplied by the average hourly kWh of Load Relief provided during the event multiplied by the number of event hours.

b. Application of Payments

The Company shall make payment to a Direct Participant or Aggregator, after the end of the program year, for the sum of the payments due for all Load Relief Periods in the Capability Period. Payments shall be made by bill credit, check, or wire transfer.

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ISSUED BY: James A. LahtinenJoseph J. Syta, Vice President, Rates and Regulatory EconomicsController and Treasurer, Rochester, New York

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GENERAL INFORMATION

4. METERING AND BILLING (Cont'd)

S. Commercial System Relief Program (Cont'd)

- 9. <u>Voluntary Participation Option</u> (Cont'd)
 - c. Performance payments shall not be made under this Program if the Direct Participants or Aggregator (on behalf of its customer) receives payment for energy under any other demand response program (e.g., NYISO's Day-ahead Demand Reduction Program or NYISO's Special Case Resources Program) during concurrent Load Relief hours. If a Direct Customer or Aggregator (on behalf of its customer) is enrolled in the Company's Distribution Load Relief Program for concurrent Load Relief hours, Performance Payment shall be made only through the Commercial System Relief Program.

10. <u>Reservation Payment Option</u>

a. Applicability

Direct Participants and Aggregators shall receive Reservation Payment for each Capability Period month in which they are enrolled. The Reservation Payment rate per kW is based on the number of cumulative Planned Events for which the Direct Participant or Aggregator was asked to provide Load Relief during the Capability Period.

b. Reservation Payments

Reservation Payments per month are equal to the applicable Reservation Payment rate per kW per month multiplied by the kW of contracted Load Relief multiplied by the Performance Factor for the month. Reservation Payments shall be made under this Program based on the number of Events called during the month.

The Reservation Payment rate is 34.25 per kW per month for up to four Events per month.

The Reservation Payment rate is 34.50 per kW per month if five or more Events are called in the month.

c. Performance Payments for Load Relief
 The Company shall make a Performance Payment per kWh for the first four hours of load
 Relief provided during the Load Relief Period.
 The Performance Payment rate is \$0.1550 per_kWh.

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GENERAL INFORMATION

4. METERING AND BILLING (Cont'd)

S. Commercial System Relief Program (Cont'd)

- 10. Reservation Payment Option (Cont'd)
 - d. Bonus Payment

The Company shall make a Bonus Payment per kWh for the fifth and subsequent hours of Load Relief provided during the Load Relief Period.

The Bonus Payment is \$0.30 per kWh.

- e. Performance Factor i. When a
 - When a Planned Event is called, the Performance Factor is:
 - a) The quotient of average hourly kW of Load Relief provided by the Direct Participant or Aggregator during the first four hours of the Load Relief Period and up to the kW of contracted Load Relief.
 - ii. When a Test is called, the Performance Factor is:
 - a) The quotient of the kW of Load Relief provided during the Test Hour by the Direct Participant or Aggregator up to the kW of contracted Load Relief.
 - iii. When more than one Planned Event and/or Test is called during the month, the Performance Factor is the average of the Performance Factors for the Direct Participant or average of the Performance Factors for the Aggregator during that month. Where service is taken under this Program by an Aggregator, the kW of the contracted Load Relief is measured on a portfolio basis by CBL Verification Methodology.
 - a) The Performance Factor for the month is used to calculate Reservation Payments for that month and each month thereafter until the month in which the next Test or Load Relief Period is called by the Company during the current or subsequent year's Capability Period.
 - b) If the Direct Participant or Aggregator did not participate in the program during the prior Capability Period, and no Load Relief Periods or Tests have been designated since the Direct Participant or Aggregator enrolled in the program, payment for the current month will be made based on an assumed Performance Factor of 0.50. A subsequent true-up will be made once an actual Performance Factor is established either via a Test or Load Relief Event. The true-up may result in a credit or a charge to the participant.
 - iv. The Performance Factor is truncated to two decimal places and has an upper limit of 1.00 and a lower limit of 0.00.

f. Application of Payments

Reservation Payments shall be calculated on a monthly basis. Payments shall be made by bill credit, check, or wire transfer.

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GENERAL INFORMATION

4. METERING AND BILLING (Cont'd)

T. Direct Load Control Program

1. <u>Applicability</u>

All Customers, whether receiving electricity from the Company or an ESCO, unless the customer is required to participate in mandatory Hourly Pricing or voluntarily elects Hourly Pricing.

2. Eligibility

To participate under this Program, a Customer must have load controllable equipment and <u>install a Control Device</u> or when applicable, agree to the installation of a Control Device; agree to Program terms and conditions; and agree to allow the Company to control the Control Device for the purpose of this Program.

- Designated Areas of Participation Various Programs shall be offered to eligible customers within the Company's service territory unless otherwise noted.
- 4. <u>Definitions</u>

The following terms are defined for purposes of this Program only:

Capability Period: The period during which the Company can request Load Relief. The Capability Period shall be from May 1 through September 30.

Company Designated Area: An electrically defined area determined by the Company to be approaching system capacity limits during peak periods. A current list of the Company Designated Areas shall be listed on the Company's website.

Control Device: A device installed on the Customer's load controllable equipment via a smart plug or embedded control that allows the Company to remotely control the equipment when an Event <u>or Test</u> is called. For purposes of this Program, Control Device means one or more devices as may be required to control the equipment. Each Control device <u>may</u> contains a feature that allows the Customer to override the Company's control of the Customer's equipment. The Control Device must be provided, installed, and connected to the Internet by the Company or its Contractor, or it must be installed and connected to the Internet by the Customer who enrolled in the Program through a Service Provider. If <u>an</u> internet connection is not feasible, another connection method may be acceptable at the Company's discretion.

Event: A period of time when the Company may remotely control the customer's load_-controllable equipment. Events may be declared when:

- the NYISO declares an emergency in conjunction with an in-day peak hour forecast response to an operating reserve peak forecast shortage or in response to a major state of emergency as defined in Section 3.2 of the NYISO Emergency Operations Manual, or at the NYISO's discretion to relieve system or zonal emergencies;
- 2. the NYISO activates its Special Case Resources Program in response to a forecast peak operating reserve shortfall; or
- 3. The Company determines that a Company designated area peak may occur;
- 4. The Company determines that a NYISO or Company peak may occur;
- 5. The Company declares a need for emergency or if a voltage reduction of five percent or greater has been ordered.

Load Relief: Energy (kWh) that is ordinarily delivered by the Company that is reduced by the Participating Customer.

Load Relief Period: The hours for which the Company requests Load Relief when it designates an Event or a Test.

Service Provider: A provider registered with the Company to develop, maintain, and operate a communications

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Superseding Revision: <u>42</u>

Issued in Compliance with Order<u>s</u> in Case Nos. 14-E-0423 and 15 E 0190, dated May 23, 2016 and April 21, 2017. portal that enables Internet-connected Control Devices to participate under this Program. A list of current Service Providers is available on the Company's website.

Test: The Company's request to provide one hour of Load Relief to determine program capabilities. on not less than two hours advance notice. Events may be due to:

the NYISO declares an emergency in conjunction with an in day peak hour forecast response to an operating reserve peak forecast shortage or in response to a major state of emergency as defined in Section 3.2 of the NYISO Emergency Operations Manual, or at the NYISO's discretion to relieve system or zonal emergencies; the NYISO activates its Special Case Resources Program in response to a forecast peak operating reserve shortfall; or

The Company determines that a Company designated area peak may occur.

The Company's day ahead forecasted load level is at least 92% of the forecasted summer system wide peak. The Company declares a need for emergency or non-emergency relief, as described by 40 CFR 63.6640 subparts 2 and 4, or if a voltage reduction of five percent or greater has been ordered.

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GENERAL INFORMATION

4. METERING AND BILLING (Cont'd)

T. Direct Load Control Program (Cont'd)

- <u>Applications</u>
 Applications to participate under this Program may be made throughout the year either electronically or in writing at a Company designated Program website.
- Customers Receiving a Control Device From the Company This option is limited to customers in Company Designated Areas. This option is available at the Company's discretion. The Company may limit availability to customers residing in a Company Designated Area.
 - a. Customers who receive a Control Device from the Company shall be enrolled in the Program and agree to allow the Company to control the Control Device for the purposes of this Program. The Control Device shall become the Customer's property upon installation.
 - b. At the Company's discretion, the Company may offer installation services of a Control Device.

At the Company's discretion, the Company may offer a sign-up and/or annual incentive to Ccustomers who receive a Control Device for the purpose of controlling a room air conditioner shall receive a \$20 sign up payment from the Company after the Control Device is installed. Customers who fully participate in Tests or Events are eligible for a participation incentive for each Test or Event. Incentive amounts and means of payment shall be determined by the Company,\$5 payable by bill credit or other means at the Company's discretion for each Event if they fully participate.

Customers who receive a Control Device for the purpose of controlling a central air conditioning unit shall receive free basic installation of the Control Device. Customers who participate in Tests or Events are eligible for \$5 payable by bill credit or other means at the Company's discretion for each Test or Event if they fully participate.

 Customers Enrolling a Control Device Through a Service Provider This option is open to all qualified customers in the Company Service Territory.

Customers who <u>enroll in the Program through a Service Provider with their own install and enroll a</u> Control Device <u>or a Control Device provided by through a Service Provider for the purpose of</u> <u>controlling a central air conditioning unit</u>-shall receive a one-time <u>credit of \$85enrollment incentive</u>. Customers who <u>fully</u> participate in Tests or Events are eligible for <u>a participation incentive</u>. <u>\$5 payable</u> <u>by bill credit or other means at the Company's discretion for each Test or Event if they fully participate</u> Incentive amounts and means of payment shall be determined by the Company.

8. <u>Restrictions</u>

This Program is <u>not</u> available to customers who participate <u>in Unplanned Events in the Company's</u> Distribution Load Relief Program, but not to Customers who participate, either directly or indirectly

ISSUED BY: James A. LahtinenJoseph J. Syta, Vice President, Controller and Treasurer-Rates and Regulatory Economics, Rochester, New York **Formatted:** Numbered + Level: 1 + Numbering Style: a, b, c, ... + Start at: 1 + Alignment: Left + Aligned at: 0.75" + Indent at: 1"

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through a third party, under any other Company or NYISO demand-response Program. <u>This includes</u> <u>but it is not limited to, (e.g.,</u> the NYISO Special Case Resources (SCR) Program (or any applicable Company Program that is intended to take the place of the NYISO SCR Program), or in Planned <u>Events in</u> the Company's Distribution Load Relief Program or <u>Commercial System Relief Program</u>.

ISSUED BY: James A. LahtinenJoseph J. Syta, Vice President, Controller and Treasurer-Rates and Regulatory Economies, Rochester, New York