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July 6, 2018

Hon. Kathleen H. Burgess, Secretary
NYS Public Service Commission
3 Empire State Plaza
Albany, NY 12223-1350

RE: Innovative Pricing Pilot

Dear Secretary Burgess:

Consolidated Edison Company of New York, Inc. (“Con Edison” or the “Company”) is filing with the Public Service Commission (the “Commission”) amendments to its Schedule for Electricity Service, P.S.C. No. 10 – Electricity (the “Tariff”) applicable to its customers in the City of New York and the County of Westchester. The amended Tariff leaves, identified in Appendix A, have a proposed effective date of January 1, 2019. The Company is filing these amendments to establish rates for its proposed innovative pricing pilot (the “Pilot”) as described below.

On March 17, 2016, the Commission issued its *Order Approving Advanced Metering Infrastructure Business Plan Subject to Conditions*¹ (the “AMI Order”). This Order called for Con Edison to test new and innovative rate structures made possible through its investment in smart meters, which offer customers greater control and convenience in managing their energy

¹ Cases 15-E-0050 *et al.*, *Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Consolidated Edison Company of New York, Inc. for Electric Service* (“Electric Rate Case”), Order Approving Advanced Metering Infrastructure Business Plan Subject to Conditions (issued March 17, 2016)(“AMI Order”).

use. Specifically, the Commission directed the Company to develop a pilot program to test new rate designs, which “may include demand-metered delivery rates, hourly supply pricing, peak-rebate pricing, or other time-and-location-sensitive designs.”² In accordance with this directive, the Company included a proposal to develop an innovative pricing pilot as a component of its *Advanced Metering Infrastructure Customer Engagement Plan*.³ This plan included some lessons learned from other rate pilots.⁴ Since then, the Company has advanced and modified the initial plan by retaining Nexant, a leading expert in experimental design, to leverage best practices and further develop specific rates and other experimental treatments (its report is included as an Appendix to this filing).

In addition to the Tariff leaves, this filing includes the following appendices:

- **Appendix A** provides a list of revised Tariff leaves.
- **Appendix B** details the rates that will be offered through the Pilot.
- **Appendix C** is the Nexant Pilot Design Report that informed the design basis for this tariff filing.
- **Appendix D** provides details on the Pilot’s Customer Engagement and Recruitment Methodology.
- **Appendix E** details the Pilot’s Customer Communications Plan for providing ongoing outreach and engaging customers throughout the Pilot period, educating participating customers about how to maximize their potential savings and maintaining a high level of program awareness.
- **Appendix F** is an illustrative Market Supply Charge – Capacity Statement, which shows how the Company proposes to add capacity charges for Rider Z Rate IV.

² *Id.*, p. 38.

³ Electric Rate Case, AMI Customer Engagement Plan (filed July 29, 2016) (“AMI Customer Engagement Plan”).

⁴ Advanced Metering Infrastructure Customer Engagement Plan, p. 45-49

I. Rate Structure and Proposed Rates

The Company proposes the establishment of two new riders in the Tariff – Rider Z and Rider AA. Rider Z would be applicable to residential Pilot participants in Service Classification (“SC”) 1. Rider AA would be applicable to small commercial participants in SC 2. The proposed rate structures for Riders Z and AA are detailed in Appendix B. These new rate structures include delivery charges based on customers’ per kilowatt (“kW”) demands, as described in more detail below.

Rider Z includes six delivery rate structures, each comprised of demand and customer charges.⁵ Three of these are time-based demand delivery rates, one is a time-based demand delivery rate with a volumetric time-of-use component for supply, and two are subscribed demand rates (“subscription rates”). Additional detail is provided in this letter in sections (i) and (ii) below. Rider AA includes one, time-based demand delivery rate structure because there will be a limited number of SC 2 customers who will be available to participate in the Pilot.

The Pilot rates are designed to reflect the fact that electric delivery costs are driven primarily by customer demand rather than overall energy consumption (“kWh”) and, as a result, the Pilot rates more closely align delivery rates with the cost of providing delivery service. The rates will also offer customers the opportunity to exercise greater control over their electric delivery costs through control of their demand, which will also provide an incentive to improve delivery system efficiency.

⁵ For the purposes of the Pilot, customer charges have been set at the current SC 1 and SC 2 levels so that the pilot results reflect only the impact of demand charges as compared to volumetric charges.

i. Demand-Based Delivery Rates

The four SC 1 and one SC 2 time-variant, demand-based delivery rates would replace the current residential and small commercial rate constructs for Pilot participants, under which customers' electric delivery costs are based on the total number of kWh that they use in a billing period. Under the Pilot, participants would be charged based on their peak and off-peak demands ("kW") – *i.e.*, calculated for the purposes of this Pilot as the average of the three highest daily demands⁶ during specified peak and off-peak periods. Pilot participants billed under these demand-based delivery rates will be enrolled on both an opt-in and opt-out basis.⁷ Opt-out enrollment is important because it should provide results that are more representative of the customer population in general and should therefore be more useful in informing future default rate designs.

ii. Subscription Rates

Under Rider Z, the Company will recruit Pilot participants for two subscription rates⁸ on an opt-in basis only. Those who elect these rates will pay a fixed monthly subscription charge for delivery service based on their electric demands over the prior 12-month period. Under Subscription Rate 1 (Rider Z Rate V), a fixed monthly subscription charge will be assessed during year one of the Pilot, regardless of the customer's actual demand. The fixed charge will then be recalculated for year two. Subscription Rate 2 (Rider Z Rate VI) offers a lower fixed monthly subscription charge, but includes overage charges, which would be assessed if a participating customer exceeds his or her subscribed demand during designated periods between June 1 and September 30. As with Rate V, the fixed charge under Rate VI will be recalculated for year two.

⁶Under Riders Z and AA, demands will be measured based on a 60-minute demand interval.

⁷ SC 2 customers will be enrolled on an opt-out basis only.

⁸ Subscription Rate 1 is a fixed price, demand-based delivery charge tied to customers' historical maximum demands during certain hours and days. Subscription 2 includes a base level of demand to which customers are subscribed and "overage" charges that are assessed when demand exceeds that subscription level during defined time periods.

iii. Rate Variation

The variation in structure among the rates included in Rider Z is designed to evaluate customer acceptance, satisfaction, behavior and bill impact based on factors such as: (1) the application of peak and off-peak charges during summer months only and year-round, (2) the timing of the peak period, (3) the addition of a time-of-use component for supply, and (4) the assessment of subscription rates with and without overage charges.

All Pilot rates have been designed to empower customers by enabling them to reduce electric delivery costs through staggering their energy use, rather than having to shift a significant portion of it to off-peak periods – which is necessary in order to save under a volumetric (per kWh) time-of-use rate. The peak periods incorporated into the Pilot rates have been set to eight hours.

iv. Revenue Neutrality

The demand-based delivery rates in Riders Z and AA are calculated to recover the same overall revenue as is currently recovered through existing delivery rates, and are therefore designed to be revenue neutral.

v. Cost Allocation

The demand rates included in the Pilot were designed using the Company's most recent embedded cost of service ("ECOS") study, which was filed in Case 16-E-0060.⁹ These demand rates reflect costs as follows:

1. Customer-related costs that are not recovered through customer charges¹⁰ and costs associated with facilities that are local to the customer are included in both peak and off-

⁹ Cases 16-E-0060 *et al.*, *Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Consolidated Edison Company of New York, Inc. for Electric Service.*

peak demand charges. These include secondary distribution costs and one third of primary distribution costs. Recovering these costs through peak and off-peak demand charges reflects that facilities located in close proximity to customers' homes or businesses can be affected by customer demands regardless of when they occur.

2. Costs associated with facilities that are electrically further from the customer are recovered solely through peak period demand charges. These include the balance of primary distribution costs and transmission-related costs. This reflects that these facilities are unlikely to be impacted by customers' off-peak demands.

Additionally, each rate has been designed using a 1.3:1 ratio of summer to non-summer peak demand charges.¹¹ This is intended to send a clear pricing signal to customers to reduce their electric demand during the summer peak period – as high demand for electricity during this period contributes significantly to system costs. A ratio of 1.3:1 also maintains approximately the same seasonal revenue collection that exists under the current SC 1 and SC 2 rates.

vi. Supply Rates and Other Charges

For all but one of the demand-based delivery rates, charges for electric supply will continue to be based on a single monthly rate for all kWh usage. Rate IV of Rider Z will include time-varying supply rates assessed on a per kWh basis with capacity costs included only in the peak period rates. For this reason, customers enrolled with Energy Services Companies ("ESCOs") will not be recruited or enrolled for Rate IV. Full-service customers enrolled in Rate IV who elect to switch to an ESCO will be free to do so and will be transferred to Rate I of Rider Z. Other charges and adjustments (e.g., Monthly Adjustment Clause and Revenue Decoupling

¹⁰ The ECOS study identified a shortfall in the amount of revenue expected to be recovered through customer charges (when compared to actual customer-related costs).

¹¹ This does not apply to Rate II of Rider Z, for which time-variant, peak and off-peak periods are in effect only during the summer months.

Mechanism Adjustment) will continue to be assessed on a per kWh basis at Pilot participants' otherwise applicable rates.

II. Proposed Tariff Changes

Riders Z and AA, which establish the rates and rules for SC 1 and SC 2 participants in the Pilot, have been added to the Tariff's Table of Contents and List of Riders.

Additionally, the following provisions have been added:

- In addition to the rates, charges, and terms and conditions of Riders Z and AA, Pilot participants will be subject to all other charges and terms and conditions of service included in SC 1 or SC 2, except as otherwise specified in Riders Z and AA.
- Customers will take service under the Pilot rates for two consecutive twelve-month periods unless they opt-out of the Pilot, or elect to continue to be billed under the rates contained in this Rider beyond the conclusion of the Pilot, if available.
- Customers served under Riders Z and AA are free to opt-out of the Pilot and transfer back to their previous rates under SC 1 or SC 2 at any time. The tariff details the mechanisms for opting out (while allowing for additional methods) and provides that the opt-out begins with the next billing cycle. However, these customers will then be ineligible for billing on Riders Z and AA for the remainder of the pilot period, which is expected to run until March 31, 2022.
- Should they request to do so, customers who were neither selected nor recruited for the Pilot will be permitted to take service under Riders Z or AA during the pilot period, provided that a smart meter has been installed at the customer's premises and the necessary communications equipment is operational. It will be at the Company's discretion whether a customer will be allowed to arrange for the installation of a smart meter if one has not yet been installed and if the necessary communications equipment is operational; the customer may be responsible for incremental costs incurred by the

Company to install a smart meter outside of the planned implementation schedule. The default rate for these customers served under Rider Z will be Rate I, unless an alternative rate is agreed upon by both the customer and the Company.

- The Company will proactively monitor the accounts of participating customers who are enrolled in Con Edison's low-income and CONCERN¹² programs and will provide them with a quarterly price guarantee (also referred to as "bill protection") – *i.e.*, the Company will issue credits on a quarterly basis for all such Pilot customers whose electric delivery costs are determined to be higher as a result of the Pilot rates than they would have been on their otherwise applicable rates.
- The Company will also provide a one-year price guarantee to all customers enrolled in the Pilot on an opt-out basis – *i.e.*, the Company will issue a credit to all such customers whose electric delivery costs are higher at the end of the first year of the Pilot than they would have been on their otherwise applicable rate. Providing these credits at the end of the year will appropriately allow for monthly and seasonal variability in participant savings. The majority of opt-out customers will be notified of the price guarantee at the time of enrollment. However, a small test cell of approximately 4,000 customers will not be notified until the end of the first year. This cell will be used to test the differences in energy-use behaviors between those who know that they will receive a price guarantee and those who do not. Bill protection notification is discussed in further detail in Appendix D, Section 2.4: Bill Protection, which also provides more detail on bill protection in general.
- For a subset of opt-in customers, the Company will test bill protection during the initial recruitment stage ("Stage 0") as outlined in Appendix D, Section 3: Pilot Structure – Recruitment Strategy. The Company will determine, based on the test results, and after consultation with Department of Public Service Staff, whether a wider application of bill protection for opt-in customers is needed in future Pilot stages. Customers who the

¹² CONCERN is a Con Edison program for customers who are 62 years of age or older, blind, or disabled.

Company did not select or solicit for the Pilot but nevertheless elect to take service under this Rider will not be eligible to receive a price guarantee.

- All credits issued as a result of a price guarantee will be recovered through the Monthly Adjustment Clause.
- The Company will make a determination upon completion of the Pilot (on or about March 31, 2022) as to whether it will continue to offer the rates included in Riders Z and AA. If the Company decides to discontinue these rates, it will make a filing to terminate Riders Z and AA.
- General Information Section 25.1, Market Supply Charge, was amended to state that accounts billed under Rate IV of Rider Z will be assessed capacity charges only for electricity used during the peak periods. All other components of the Market Supply Charge will be assessed during both peak and off-peak periods on a per kWh (usage) basis.

III. Conclusion and Notice

As directed by the Commission, the Company proposes this innovative pricing pilot to gain insights on innovative delivery rates for residential and small-commercial customers. The Pilot as proposed would test innovative rate structures for maximization of AMI-enabled customer benefits by enabling customers to manage their demands. It will also provide opportunities for customers to better manage their energy costs. In addition, the Pilot will provide insights about customer acceptance, satisfaction, and preferences, as well as bill and peak demand impacts of these innovative rate structures. Significantly, the Pilot will provide information as to whether customers will reduce peak demand and therefore infrastructure costs, which will help to reduce costs for all customers.

The Company will provide public notice of the tariff changes in this filing by means of newspaper publication once a week for four consecutive weeks prior to the effective date of the

proposed tariff changes. Included is a proposed form of Notice of Proposed Rule Making for publication in the State Register pursuant to the State Administrative Procedures Act.

Respectfully submitted,

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.

/s/

William A. Atzl, Jr.

Director

Rate Engineering

Appendix A

PSC No. 10 - Electricity: List of Revised Tariff Leaves

<u>Leaf No.</u>	<u>Revision No.</u>	<u>Superseding</u> <u>Revision No.</u>
6	9	8
177	14	13
327.1	0	
327.2	0	
327.3	0	
327.4	0	
327.5	0	
327.6	0	
327.7	0	
327.8	0	
327.9	0	
327.10	0	
327.11	0	
330.1	1	0
343	10	9

APPENDIX B

Consolidated Edison Company of New York, Inc.

Proposed IPP Rate Structures - Rider Z

Rate Number	Summer ¹		Winter		Supply Based On	Billable Demand Based On
	Peak	Off- Peak	Peak	Off-Peak		
I	Weekdays, 12 noon - 8 pm, excluding holidays	All Other Days and Times in Summer	Weekdays, 12 noon - 8 pm, excluding holidays	All Other Days and Times in Winter	SC 1 - Rate I Supply Price (Full Service) or ESCO	Maximum daily demand ² calculated for each time period for every day in a billing cycle. The Billable Demand is the average of the three highest maximum daily demands occurring in the applicable period.
II	Weekdays, 12 noon - 8 pm, excluding holidays	All Other Days and Times in Summer	No Peak versus Off-Peak Designation		SC 1 - Rate I Supply Price (Full Service) or ESCO	
III	Weekdays, 2 pm - 10 pm, excluding holidays	All Other Days and Times in Summer	Weekdays, 2 pm - 10 pm, excluding holidays	All Other Days and Times in Winter	SC 1 - Rate I Supply Price (Full Service) or ESCO	
IV	Weekdays, 12 noon - 8 pm, excluding holidays	All Other Days and Times in Summer	Weekdays, 12 noon - 8 pm, excluding holidays	All Other Days and Times in Winter	NEW TOU PRICING FOR RIDER Z RATE IV	
V	No Peak Vs. Off Peak Designation - Subscription Service - No Overages				SC 1 - Rate I Supply Price (Full Service) or ESCO	Subscribed demand determined by calculating the average of the three highest maximum daily demands occurring during each of the twelve months prior to when the Customer begins taking service. The average of these twelve averages will form the basis for Subscribed Demand, which will be redetermined annually.
VI	No Peak Vs. Off Peak Designation - Subscription Service - Overage Charges in Summer ³				SC 1 - Rate I Supply Price (Full Service) or ESCO	

Proposed IPP Rate Structure - Rider AA

Rate Number	Summer ¹		Winter		Supply Based On	Billable Demand Based On
	Peak	Off- Peak	Peak	Off-Peak		
I	Weekdays, 12 noon - 8 pm, excluding holidays	All Other Days and Times in Summer	Weekdays, 12 noon - 8 pm, excluding holidays	All Other Days and Times in Winter	SC 2 - Rate I Supply Price (Full Service) or ESCO	Maximum daily demand ² calculated for each time period for every day in a billing cycle. The Billable Demand is the average of the three highest maximum daily demands occurring in the applicable period.

Notes:

1. Summer Months defined as June - September
2. Maximum Daily Demand calculated based on 60 minute intervals
3. Determination of overage charges in a summer month will be based on comparing the Subscribed Demand with the average of the three highest maximum daily demands for that month's billing cycle
Overages are only assessed during 12pm-8pm weekday non-holiday hours



Appendix C: Innovative Pricing Pilot Design Summary

Submitted to Consolidated Edison by Nexant

September 18, 2017

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1. EXECUTIVE SUMMARY

Consolidated Edison Company of New York Inc. (“Con Edison” or the “Company”) is currently installing advanced metering infrastructure (“AMI” or “smart meters”), a platform that will enable the Company to offer innovative rate structures to: (1) provide customers with opportunities to better manage their energy bills; (2) better align delivery prices with costs; and (3) improve economic efficiency. Consistent with this ability, Con Edison has developed an innovative pricing pilot (the “Pilot”) to gain key insights and assess customer acceptance of, and response to innovative rate structures. This report summarizes the Pilot’s plan.

The Pilot was first described in the Company’s AMI Customer Engagement Plan (“CEP”), which was filed with the New York State Public Service Commission (“Commission”) on July 29, 2016. In early 2017, Nexant was retained to work with the Company to review and, as necessary, modify the initial plan described in the CEP, to help develop the specific rates and other experimental treatments that will be tested, and to lay out a detailed implementation plan for successful completion of the Pilot. Nexant is a leading expert in experimental design, innovative pricing strategy, survey research, and impact evaluation.

The primary objectives of the Pilot and the decision to test demand rates¹ for delivery service, as described in the CEP, have not changed. However, the Pilot, as summarized here, intends to test multiple demand rates and subscription rates² rather than the single option outlined in the CEP.

There will be four standard demand rates and two demand subscription rates tested through the Pilot for residential customers.³ Each of these rates will include a peak and off-peak period. The demand rate tests will allow for a determination of whether customer acceptance and load impacts differ with variation in the timing of the peak period for demand pricing, whether or not there is variation in demand rates across time periods in both summer and winter or just during summer months, and whether or not supply prices vary by time of day. Two residential demand subscription rates will also be tested. The number of kW for which a customer is subscribed will be calculated in the same manner for each rate. However, one rate will offer a lower price per kW in exchange for adding higher overage charges, which will be assessed if a participating customer exceeds his or her subscribed demand during designated periods between June 1 and September 30.

Opt-out Enrollment

The four residential demand rates will be offered to a group of customers on an opt-out (or default) basis. Randomly selected groups of customers will be sent multiple notifications and will receive ample time to opt-out prior to the start of Pilot billing should they choose to do so. Customers who do not opt-

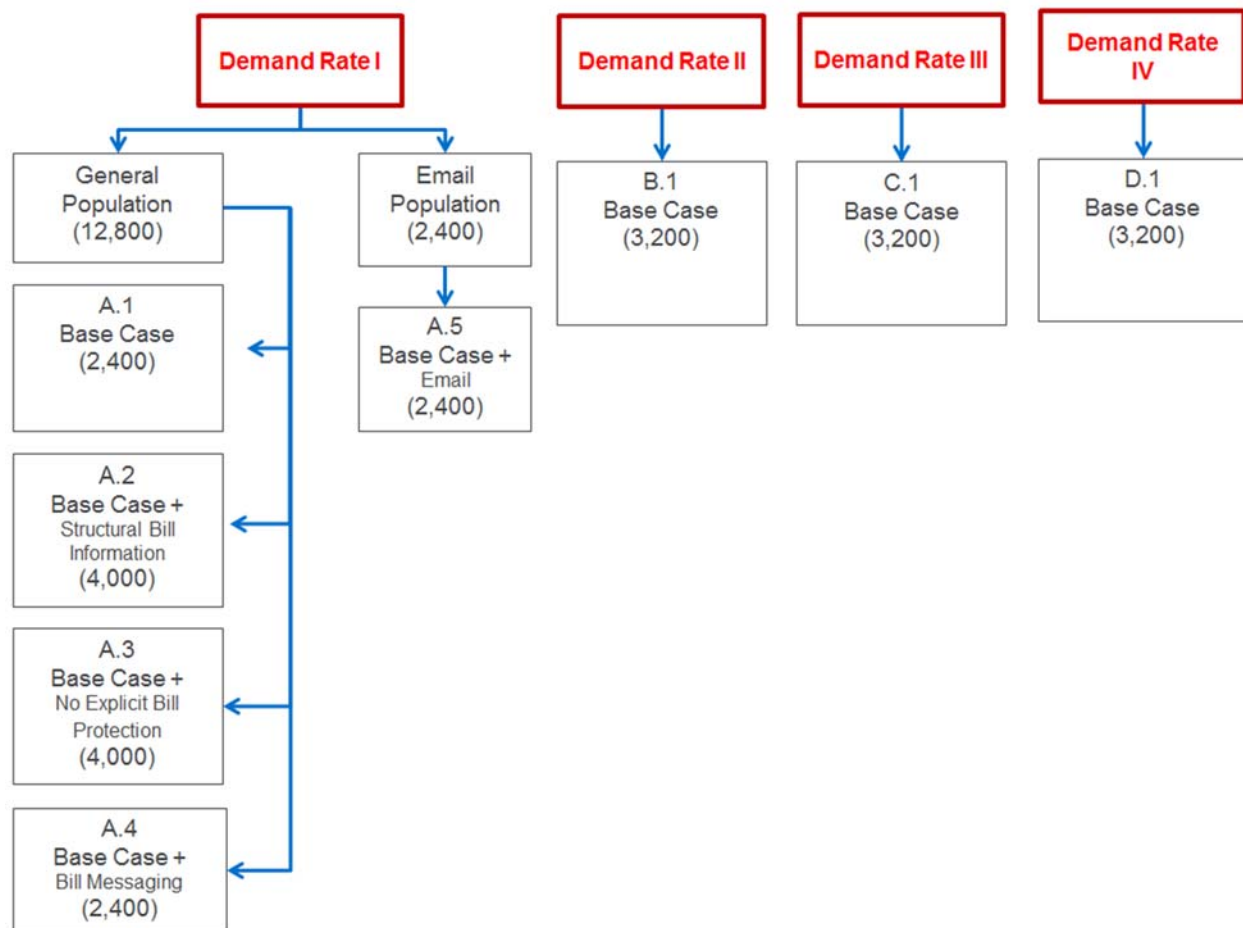
¹ Demand rates are those that base a customer’s electric delivery costs on the highest kilowatt (kW) demand used during a specified interval – rather than on the total kilowatt-hours (kWh) of electricity used in a billing period.

² Subscription rates offer customers a fixed price per billing period for electric delivery. The number of subscribed kW is based on the customer’s prior 12-month demand readings.

³ One time-based demand delivery rate will be offered to small commercial customers.

out will be enrolled in the Pilot for a period of two years, unless they choose to opt out earlier, which they are free to do at any time.

Exhibit 1-1: Opt-Out Enrollment Design⁴



Comparisons of opt-out rates and customer satisfaction will indicate the relative preferences of customers for these four rate structures, while comparisons of bill impacts will determine whether some rates have more positive or negative impacts on customers' bills than others. Comparisons of load impacts across the rate structures will indicate which rates are more effective at changing energy use and demand behavior in response to the new price signals and improving economic efficiency.

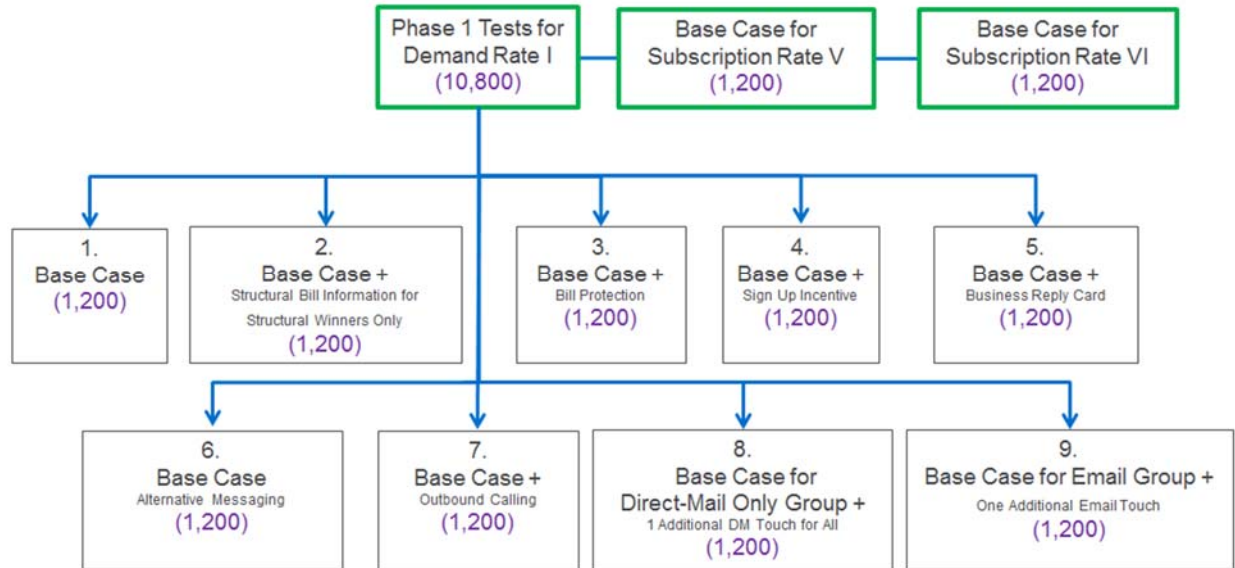
Opt-in Enrollment

One of the demand rates and both demand subscription rates will be offered to a different group of customers on an opt-in basis. By comparing average and aggregate load impacts and recruitment costs for the one rate offered on both a default and opt-in basis, Con Edison will gain significant insights regarding how to implement demand pricing in the most cost-effective manner. Comparing acceptance

⁴ Base case (A.1) consists of three notifications (letter, post card, and/or email). This will be supplemented with other communication treatments (A.2 – A.5).

rates for the base demand rate (Demand Rate I) and the two demand subscription rates will provide a direct measure of customer preferences for these alternative rates. The Pilot plan will also allow for comparisons of load impacts across standard demand rates and demand subscription rates.

Exhibit 1-2: Opt-in Recruitment Design



2. PILOT DESIGN CONSIDERATIONS

2.1 PILOT PURPOSE

On March 17, 2016, the Commission issued its Order Approving Advanced Metering Infrastructure Business Plan Subject to Conditions (the “AMI Order”), Case No. 15-E-0050, et.al. This Order – along with the Reforming the Energy Vision⁵ (“REV”) initiative and other proceedings – called for Con Edison to test new and innovative rate structures, made possible through its investment in smart meters, which offer customers greater control, choice and convenience in managing their energy use. Specifically, the Commission directed the Company to develop a pilot to test new rate designs, which “may include demand-metered delivery rates, hourly supply pricing, peak-rebate pricing, or other time-and-location-sensitive designs.”⁶

In accordance with this directive, Con Edison developed an innovative pricing pilot (the “Pilot”) and included it as a component of its Advanced Metering Infrastructure Customer Engagement Plan (“CEP”), which was filed on July 29, 2016.

⁵ <https://rev.ny.gov/>

⁶ Case No. 15-E-0050, *Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Consolidated Edison company of New York, Inc. for Electric Service*, Order Approving Advanced Metering Infrastructure Business Plan Subject to Conditions, p. 38.

The remainder of this section provides a brief overview of several key aspects of the Pilot and how they were addressed by the Pilot plan summarized in Section 4.

2.2 RATE DESIGN/RATE STRUCTURES

The Pilot will explore what the CEP describes as a standard demand rate as well as a demand subscription rate for electric delivery service.

As part of the Pilot, customers will be offered one of four time-variant, demand-based delivery rates or one of two demand-based subscription rates. For all but one of the time-variant demand-based delivery rates, charges for electricity supply will continue to be based on a single monthly rate for all kWh usage. One of the rate structures will include time-varying supply rates.

The four time-variant, demand-based delivery rates will replace the current residential and small-commercial rate structure,⁷ through which customers' electric delivery costs are based mainly on the total number of kWh that they use in a billing period. Instead, customers will be charged based on their peak and off-peak kW demands occurring in a billing period (*i.e.*, the average of the three highest daily demands⁸ during specified peak and off-peak periods). This change is designed to reflect the fact that electric delivery costs are driven primarily by customer demands rather than overall kWh consumption.

The Pilot will also offer two demand-based subscription rates, which will allow customers to pay a fixed price for their electric delivery service. The number of kilowatts for which a customer is subscribed will be specific to each individual customer and will be calculated based on their demand readings over the prior 12-month period.

2.3 PILOT POPULATION & ELIGIBILITY

The Company plans to target 272,400 customers to voluntarily participate in the Pilot – 114,800 from Staten Island and Westchester County and 161,600 from Brooklyn. There will also be control groups of 16,200 customers and 42,400 customers respectively. Customers in the control groups will remain on their otherwise applicable tariff, which is a kWh-based rate, and will be used as a benchmark against which the treatment groups will be evaluated.

Based on initial estimates, the Company expects to enroll 67,110 customers in the Pilot – 25,470 from Staten Island and Westchester County and 41,640 from Brooklyn. However, a key objective of the Pilot is to determine what enrollment rates will actually be under both opt-out and opt-in customer enrollment strategies.

In order to properly evaluate the results of the Pilot, the Company requires that 12 months of baseline data be collected for all participating customers. As such, customers in Staten Island and Westchester County will only be recruited if they have had smart meters at their homes or businesses by March 31,

⁷ Only one of the time-based demand delivery rate will replace the current small commercial rate structure.

⁸ Demands are measured over a 60-minute demand interval.

2018. Brooklyn customers will be recruited only if they have had smart meters at their homes or businesses by March 31, 2019. This means that 12 months of smart meter data is available for each Pilot participant prior to the commencement of billing under Pilot rates.

Other than requiring 12 months of baseline smart meter data, the Company intends to place few restrictions on customer eligibility in the Pilot. Customers who are enrolled in deferred payment agreements, Con Edison's low-income program or Level Payment Plan, the NYSEDA on-bill financing program, or any energy-efficiency, economic development or incentive program will be recruited, as will customers who purchase their electric supply from energy services companies ("ESCOs"). ESCO customers, however, will not be recruited for Demand Rate IV, as this rate includes a time-of-use component for supply, which will be available only to full-service Con Edison customers. Net metering customers will not be recruited for any of the Pilot rates, as demand-based delivery rates would likely provide less of a benefit to these customers than the existing net metering and value stack credits.

2.4 CUSTOMER ENROLLMENT STRATEGIES

As described in the CEP, the Company plans to study demand rates under two enrollment strategies: one uses opt-in enrollment and the other opt-out enrollment (also referred to as default enrollment). The Pilot will aim to determine whether opt-in and opt-out customer enrollment strategies produce similar relative impacts.

For residential customers, a base demand rate will be offered on both an opt-in and opt-out (default) basis to determine how customer satisfaction, as well as average and aggregate load impacts, vary across these two enrollment strategies. In addition, three demand rates varying slightly in structure will be offered only on a default basis, while two demand subscription rates will be offered only on an opt-in basis.

With respect to recruitment and notification, the plan is to recruit residential customers through default and opt-in methods simultaneously in each of two regions (Staten Island/Westchester and Brooklyn). Recruitment for opt-in enrollment will start earlier than for default enrollment because opt-in recruitment takes longer to achieve a particular target level of enrollment than default recruitment. However, the goal will be to start customers on the new rate structures at the same time regardless of enrollment strategy. This will provide a side-by-side comparison of behavioral changes under the two enrollment strategies. Comparing load impacts during the same period (*e.g.*, the summer months) for customers who have been on the rates for different lengths of time could lead to erroneous conclusions since any observed difference might be due to differences in the amount of time that customers were on the rates rather than due to differences in the mix of customers that enroll under opt-in and default conditions. Conducting the opt-in and opt-out methods simultaneously will also allow for comparisons of load effects during periods sharing the same weather.

Due to the small population of small commercial customers that will have smart meters when the Pilot is initiated, enrollment for this group will be conducted only on a default basis.

2.5 CUSTOMER PROTECTIONS

All Pilot rates have been designed to empower customers, enabling them to reduce electric delivery costs by simply staggering their energy use, rather than having to shift a significant portion of it to off-peak periods – which is necessary to save under a volumetric (per kWh) time-of-use rate. The peak periods incorporated into the Pilot rates have been set at eight hours.

Additionally, the Company recognizes that bill protection has been used in pricing pilots conducted by other utilities to increase customer adoption and limit attrition among pilot participants. However, while bill protection may make new electricity rates easier for customers to adopt, it can also remove the opportunity to study the impact of bill protection on enrollment rates and customer energy-use behavior – two areas that have not been rigorously studied in the industry thus far.

The Company has developed the Pilot in a way that will provide bill protection to all customers enrolled on an opt-out basis, while at the same time testing whether participants respond to alternative rate structures. To do this, bill protection will be provided according to the strategic approach detailed below. This approach will allow Con Edison to (1) reduce the likelihood that customers default enrolled into the Pilot rates are negatively impacted; (2) study the impact that bill protection has on opt-in rates; and (3) protect Low-Income and CONCERN⁹ Program customers against potentially higher bills.

Bill protection will be applied in three specific ways:

1. **Low-Income and CONCERN Program Customers:**

Due to sensitivities regarding this population of customers, the Pilot team will provide and communicate bill protection to customers enrolled in the Company's Low Income and CONCERN Programs, regardless of enrollment strategy. On a quarterly basis, a proactive comparison will be made between the customer's bills under the Pilot rates and what they would have paid on their otherwise applicable tariff. This analysis will identify those low-income, elderly, blind or disabled customers, if any, who are experiencing negative bill impacts in excess of a threshold to be determined. Accounts that exceed the threshold will receive a bill credit for the difference.

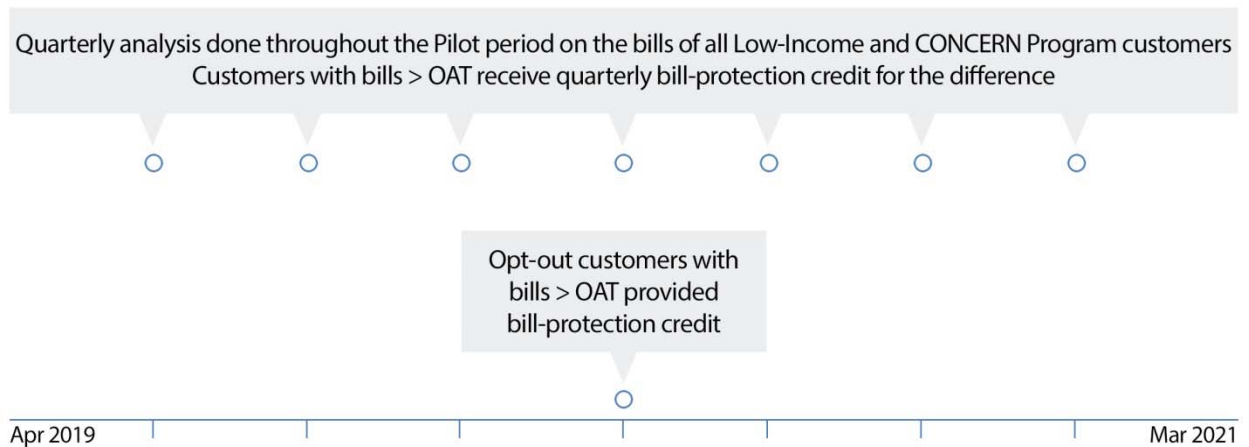
2. **Opt-out Customers:**

The Company recognizes that opt-out/default-enrollment strategies can sometimes elicit concerns from customers. To mitigate this, and to reduce the likelihood that customers defaulted into the Pilot are negatively impacted, the Company will explicitly offer one year of bill protection to the majority of default customers. These customers will be notified that they have bill protection at the time of enrollment in the Pilot. Any of these customers who are determined to have paid more under the Pilot rates than they would have under their otherwise applicable tariff will receive a bill credit for the difference at the end of year one. Along with the credit, these customers will be notified of their performance on the Pilot and will be given the opportunity to opt-out prior to the start of year two billing.

⁹ Con Edison's CONCERN Program includes customers who are age 62 or older, blind or disabled.

A test cell of 4,000 default customers will not be made aware at the time Pilot billing commences that they will receive bill protection (see cell A.3 in Exhibit 1-1). However, customers in this cell who have paid more at the end of year one than they would have on their otherwise applicable tariff will receive a bill credit for the difference. All other opt-out customers will be informed of bill protection at the time of enrollment. This approach will be used to determine whether there are behavioral differences between customers who are aware of the bill protection and those who are not. It will also be used to evaluate the effect of explicit bill protection on opt-out enrollment rates.

Exhibit 2-2 Staten Island/Westchester Bill Protection Timeline¹⁰



3. Opt-in Treatment Cell:

Bill protection will be offered to a group of 1,200 customers at the time that they are recruited to opt-in to the Pilot. This cell will be used to test the effect of an offer of bill protection on opt-in enrollment rates. As with opt-out customers, the term of the bill protection will be one year. Customers who pay more as a result of the Pilot rates than they would have on their otherwise applicable tariffs will be notified of their performance and will be given the opportunity to opt-out prior to the start of year-two billing.

Additional Considerations:

- Immediate (*i.e.*, monthly) bill protection is not feasible due to short-term fluctuation in bill amounts. That is, while some Pilot bills may be higher than the otherwise applicable tariff, that difference may be offset by lower bills later in the year.
- Bill protection will not be provided as a customer retention strategy (*i.e.*, to retain a customer who wants to opt out) because the Pilot's test cell sizes have already been augmented to account for this anticipated attrition.

¹⁰ Bill protection will be administered in the same manner for Brooklyn but one year later.

2.6 CUSTOMER EDUCATION AND ENGAGEMENT

Customer enrollment, education, and ongoing outreach are critical to the success of any rate pilot, as demonstrated repeatedly by rate pilots across the industry. Recognizing this, Con Edison has developed robust customer-engagement and ongoing-education strategies, which have been included as Appendices D and E to this filing.

2.7 PILOT SCHEDULE

The Pilot will be implemented in two phases, which will follow the Con Edison's smart meter installation schedule. In phase one – which will include customers in Staten Island and Westchester County – Con Edison plans to begin recruitment in October 2018, with billing to commence April 1, 2019. In phase two – which will include customers in Brooklyn – recruitment will begin one year later in October 2019, with billing to commence April 1, 2020.

Each phase will last two years from the date that billing commences, bringing the Pilot to a conclusion on or about March 31, 2022. Customers who participate, however, will be under no obligation to remain in the Pilot for the full two years, and will instead be free to opt-out at any time, with the stipulation that they would then be ineligible to return to the Pilot for the duration of the Pilot period.

Exhibit 2-3: Pilot Timeline



3. RATE DESIGN

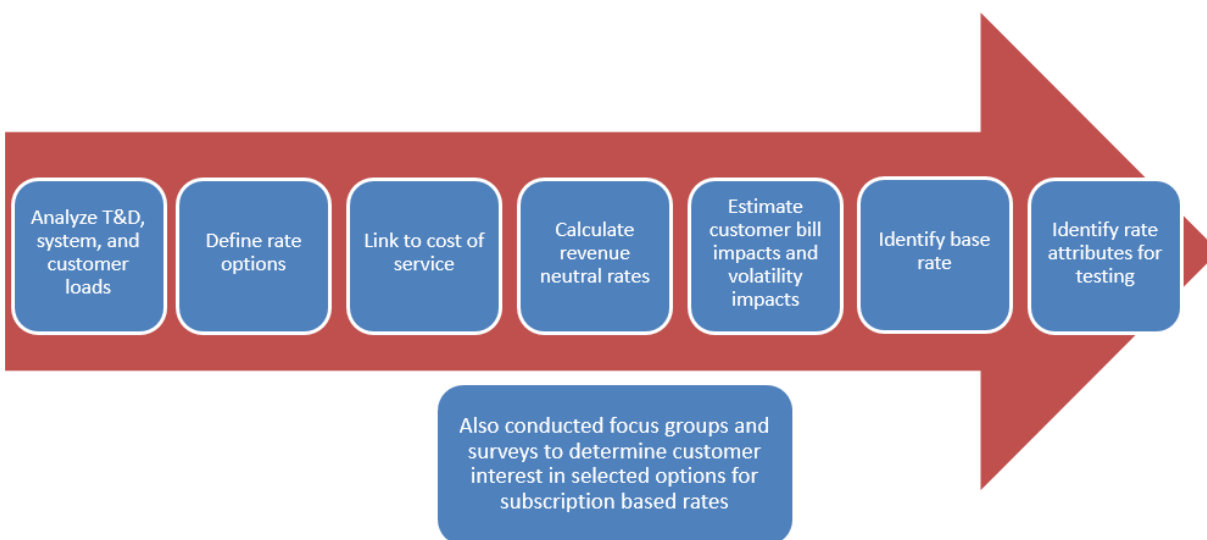
Rate design requires balancing several objectives, including but not limited to:

- Customer acceptance and satisfaction
- Customer bill impacts
- Sending accurate and understandable price signals to customers
- Fairness and equity
- Recovery of revenue requirement
- Improving system utilization
- Revenue stability

Historically, residential and small commercial delivery rates have been based primarily on volumetric kWh consumption because meters for these customer classes collected only volumetric data. The cost of providing delivery service, however, is not driven by the volume of kWh consumption, it is driven mainly by customers' demands. As a result, volumetric rates do not align with the drivers of delivery system costs and do not provide customers with an incentive to improve delivery system efficiency.

Exhibit 3-1 summarizes at a high level the steps taken to develop the demand rates that will be tested through the Pilot. This is followed by a more detailed discussion of each step along with key outcomes and findings. This section concludes by summarizing the specific prices and rates that will be examined through the Pilot.

Exhibit 3-1: Rate Design Process



3.1 ANALYSIS OF SYSTEM, DISTRIBUTION, AND CUSTOMER LOAD PATTERNS

The analysis of utility and local distribution system loads is critical for understanding the diversity of peaks and identifying which hours should be targeted for peak periods. The analysis of customer loads is useful for understanding the differences between consumption and peak loads at the customer level.

Con Edison delivers power to a population of 9.3 million with more than three million electric accounts in New York City and Westchester County. The Con Edison distribution system covers 604 square miles. Its transmission and distribution system includes 32 transmission or switching substations, 62 area substations, 84 distribution areas, and over 2,200 feeders designed to meet customer demand for electric power and also, deliver power generated by customers to the grid.

Con Edison's service area is diverse, and its electric delivery system varies in design and size, and peaks at different times. There are four main types of systems which can be categorized as follows: networks that peak during the evening, networks that peak during the day, midday peaking networks, or radial systems. For each of the four groups, as well as for the system load overall, loads exceeding 90 percent

of the historical peak were used to develop a peaking-risk allocation estimate that, in turn, was used to identify peak periods. The hours from noon to 8 PM capture most of the peaking risk for most network load shapes while the hours from 2 PM to 10 PM capture the majority of risk for later peaking networks.

3.2 DEFINE RATE STRUCTURES

Rather than predetermine how demand rates should be calculated, Con Edison delineated a number of attributes and issues that impact rate structure and various options that could apply to these.

Exhibit 3-2 summarizes the attributes and options that were considered, which can be combined in thousands of different ways. The process was iterative as new questions and considerations arose after reviewing results from prior iterations.

Exhibit 3-2: Demand Rate Design Questions and Options

Issue		Options
1	How are the billable demands determined for each applicable period?	<ul style="list-style-type: none"> Single highest day in month Average of highest 3 days in month Average of highest 5 days in month Average of highest 10 days in month
2	Should a peak period apply? If so, should it apply year round or only during summer?	<ul style="list-style-type: none"> Summer only Summer and winter No peak period charges
3	What should be the duration of the peak period?	<ul style="list-style-type: none"> Narrow – 4-6 hour peak Medium – 6-10 hour peak Broad – 10-16 hour peak (including a shoulder period) All hours (no peak period)
4	What should be the timing of the peak period?	<ul style="list-style-type: none"> Based on Con Edison system peak Based on network load shapes
5	What should be the supply rate?	<ul style="list-style-type: none"> Existing rates that are not time-varying Time-of-use rates aligned with the cost of electricity supply

In addition to the options above, varying prices across network types or geographic regions as well as critical-peak pricing were initially discussed but were eliminated from consideration. Critical-peak pricing has been tested in pilots and programs in numerous other locations and the behavioral response to these rates is well understood. In addition, Con Edison's Smart Home Rate Demonstration Project¹¹ includes critical-peak pricing, rendering the component redundant in this Pilot. With respect to locational pricing, the necessary data is not available at this time and the implementation complexities go beyond this Pilot's scope.

¹¹ Case 14-M-0101, *Proceeding on Motion of the Commission in Regard to Reforming the Energy Vision*.

3.3 LINK RATES TO COST OF SERVICE

This step maps specific costs to specific rate components (i.e. peak vs. off-peak) and is the underpinning for the Pilot's rate design. The demand rates included in the Pilot were designed using the Company's most recent embedded cost of service ("ECOS") study, which was filed in Case 16-E-0060. These demand rates reflect costs as follows:

- Customer-related costs that are not recovered through customer charges and costs associated with facilities that are local to the customer are included in both peak and off-peak demand charges. These include secondary distribution costs and one third of primary distribution costs. Recovering these costs through peak and off-peak demand charges reflects that facilities located in close proximity to customers' homes or businesses can be impacted by customer demands regardless of when they occur.
- Costs associated with facilities that are electrically further from the customer are recovered solely through peak period demand charges. These include the balance of primary distribution costs and transmission-related costs. This reflects that these facilities are unlikely to be impacted by customers' off-peak demands.

Additionally, each rate has been designed using a 1.3:1 ratio of summer to non-summer peak demand charges. This is intended to send a clear pricing signal to customers to reduce their electric demand during the summer peak period – as high demand for electricity during this period contributes significantly to system costs. A ratio of 1.3:1 also maintains approximately the same seasonal revenue collection that exists under the current SC 1 and SC 2 rates.

3.4 CALCULATE REVENUE NEUTRAL RATES

All rates were designed to be revenue neutral. Therefore, rates were designed so that Con Edison would collect the same amount of revenue from a class under the new rate as it would under the otherwise applicable tariff - assuming customers do not change their load patterns. Con Edison's load research sample was used to construct the billing determinants necessary for the calculation of revenue neutral rates.

3.5 CALCULATE CUSTOMER BILL AND VOLATILITY IMPACTS

The purpose of estimating bill impacts is to understand how each rate structure affects different customers. Although current rates are misaligned with cost drivers, correcting the alignment has a direct impact on customers that is critical to understand.

To better understand the effect of each rate structure on customer bills, the bills were calculated for each customer in the load research sample under the existing volumetric rate and the proposed demand rates. The analysis assumed customers did not change their energy-use patterns and the following metrics were examined:

- The percentage of customers who experienced a bill decrease or no increase.

- The percentage of customers who experienced a bill increase greater than 10% or \$5 per month.
- The distribution of bill impacts by customer size stratum.
- The relationship between customer bill impacts and system utilization, as measured by load factor. In general, customers with higher load factors are better off under demand rates.

3.6 IDENTIFY BASE RATE AND RATE ATTRIBUTES TO TEST

The base rate for the Pilot (Demand Rate I) was selected by balancing the multiple goals of rate design and reviewing the load analysis, cost alignment, and customer bill impacts. The five additional Pilot rates were then developed based on the desire to understand how changes in individual rate attributes might impact customer acceptance and load response.

Exhibit 3-3 provides a summary of the demand rates that will be tested through the Pilot. The characteristics of Demand Rate I, as well as rates II through VI are discussed in more detail in Appendix B of this filing.

Exhibit 3-3: Residential Demand Rates

Demand Rates

Rate	Attributes	Summer Peak	Summer Off-Peak	Nonsummer Peak	Nonsummer Off-Peak
I	Peak: Noon to 8 p.m. (Mon-Fri) Off-Peak: All other hours	\$19.92 per kW	\$6.72 per kW	\$15.32 per kW	\$6.72 per kW
II	Peak: Noon to 8 p.m. Off-Peak: All other hours One all-hours price for nonsummer months	\$19.92 per kW	\$6.72 per kW	\$18.76 per kW	
III	Peak: 2 p.m. to 10 p.m. (Mon-Fri) Off-Peak: All other hours	\$19.25 per kW	\$6.62 per Kw	\$14.81 Per kW	\$6.62 per kW
IV	Peak: Noon to 8 p.m. (Mon-Fri) Off-Peak: All other hours Time-of-use for supply	\$19.92 per kW	\$6.72 per kW	\$15.32 per kW	\$6.72 per kW

Demand Subscription Rates

Rate	Attributes	Subscribed Demand	Overage Charge
V	Fixed subscription	\$19.87 per kW	N/A

VI	Fixed subscription with overage charges	\$18.88 per kW	\$24.97 per kW ¹²
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In addition to the residential demand rates described above, the Company will offer a demand rate for small-commercial customers. Exhibit 3-4 provides a summary of this rate below.

Exhibit 3-4: Small Commercial Demand Rate

Small Commercial Demand Rate

Rate	Attributes	Summer Peak	Summer Off-Peak	Nonsummer Peak	Nonsummer Off-Peak
I	Peak: Noon to 8 p.m. (Mon-Fri) Off-Peak: All other hours	\$20.12 per kW	\$7.94 per kW	\$15.48 per kW	\$7.94 per kW

4. PILOT PLAN

This section provides an overview of the Pilot design for the rate and customer communication treatments that are planned to be tested in the Staten Island/Westchester phase of the Pilot.¹³

4.1 RATE TREATMENTS

Exhibit 4-1 provides a high level overview of the plan for the rate treatments. The available population of 131,000 residential customers that will have adequate interval data by April 1, 2019 will be randomly divided into two groups representing 76% and 24% of the total. The larger group of 99,000 customers will be used to assess opt-in enrollment strategies and the smaller group of 32,000 customers will be used to assess impacts for opt-out enrollment. The enrollment totals represented in the exhibit below are estimates based on the results seen in other rate pilots around the country. The number of customers who enroll onto each of the rates included in this Pilot may differ. Evaluating these enrollment rates is one of the Pilot's primary objectives.

¹² Overage charges apply only when a customer exceeds the number of kW for which they are subscribed between noon and 8 p.m., Monday through Friday from June 1 to September 30.

¹³ This plan will be administered in a similar manner for Brooklyn but one year later.

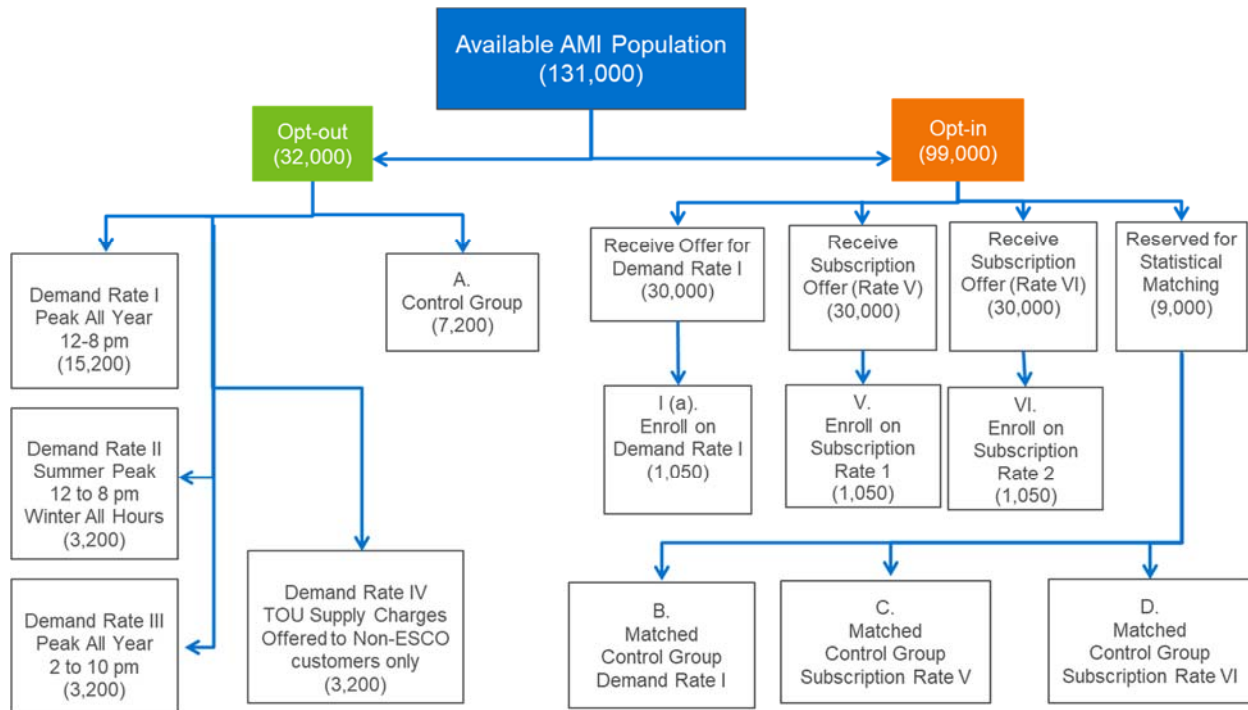
Exhibit 4-1: Overview of Pilot Design

Exhibit 4-2 summarizes the key outcome metrics and learnings that will be derived from the treatments and design shown in Exhibit 4-1. The opt-out (default) enrollment population will be randomly divided into five groups. One sample of 7,200 customers will constitute the control group and will not receive any information about default rates or their “involvement” in the Pilot, although they will be asked to complete a survey as part of the evaluation effort. The control group will not be billed on any of the Pilot rates and will continue to be billed on their otherwise applicable tariff. Another group of 15,200 customers will be notified that they will be defaulted onto Demand Rate I unless they opt out. The sample size for this group is the result of bottom up estimates of the sample sizes needed for the default notification tests discussed below in Section 4.3. These larger samples will also support estimation of differential load impacts and awareness for selected customer segments of reasonable size (e.g., differences by housing type, central air conditioning ownership, usage strata, etc.). Sample sizes for the remaining three rate structures are smaller because all of the notification tests discussed in Section 4.3 will only be done for Demand Rate I.

Exhibit 4-2: Key Learnings from Rate Structures

Outcome Metric	Key Learnings
Customer preferences	<ol style="list-style-type: none"> 1. What are the opt-out rates for default enrollment for each of four rate structures prior to and after enrollment? 2. How do enrollment rates differ between opt-in and opt-out enrollment methods? 3. How do opt-in rates differ between demand rates and demand subscription rates? 4. Which type of demand subscription rate do customers prefer?
Customer satisfaction	<ol style="list-style-type: none"> 1. How does the level of customer satisfaction compare across rate structures and enrollment approaches?
Bill impacts	<ol style="list-style-type: none"> 1. For each rate, what are the bill impacts for different customers annually, seasonally and monthly?
Load Impacts	<ol style="list-style-type: none"> 1. For each rate, what is the change in loads by rate period, annually, seasonally, monthly and on high demand days? 2. How do aggregate load impacts vary between opt-in and opt-out enrollment for Demand Rate I?

4.2 OPT-IN ENROLLMENT STRATEGY

The Pilot strategy for opt-in enrollment will involve a two-phase process. In the first phase, a number of small-scale tests will be conducted to determine the relative impact of a variety of offer features on customer acceptance of the base rate (Demand Rate I). Results from these tests will be known within four to six weeks of the initial launch. This first phase will also include a small sample of customers who will be offered the subscription rates (Rates V and VI) using the base offer that will constitute one of the tests conducted for Demand Rate I.

Con Edison will then decide which features to include in the marketing materials that will be used to recruit the remaining customers into all three opt-in rate structures. These initial tests will also allow Con Edison to determine whether or not the target enrollment rates (as described in Section 4.1 and Exhibit 4-1) are likely to be achieved.

The content and format of the base case marketing package will be developed based on a combination of qualitative research and review of marketing collateral and acceptance rates for TOU and demand tariffs found elsewhere. Qualitative research, results from other studies, and further internal discussion during implementation planning may suggest adding or eliminating one or more tests.

4.3 OPT-OUT ENROLLMENT STRATEGY

For opt-out enrollment, a key metric of interest is customer awareness. Customers cannot proactively choose to stay on the default rate or opt-out if they are not aware that their rate will change unless they

take action. A low opt-out frequency for a new rate can only be construed as beneficial if the majority of customers are aware that their rate will change unless they take action. If a low opt-out rate is due largely to low awareness, the opt-out rate is not a good measure of customer preferences.

Also of interest is the cost of generating a high degree of awareness. There are three primary communication channels that can be used to notify customers that their rates will change; direct mail, bill inserts and email (for the roughly 60% of residential customers for whom Con Edison has email addresses). Customers in the opt-out treatment cells will receive a minimum of five notifications prior to the date that Pilot billing commences. Each of these will be designed to raise awareness of the Pilot, provide information on the specific rate for which the customer will be enrolled and provide an opportunity to opt-out if the customer chooses not to participate. These notification materials will be developed based on the results of both qualitative and quantitative research.

4.4 ONGOING EDUCATION AND ENGAGEMENT STRATEGY

The final set of tests currently planned will assess the impact of ongoing education and outreach on load impacts and attrition rates for default customers. Though they will receive all of the education and outreach materials, the number of enrolled customers for opt-in recruitment is not expected to be large enough to conduct statistically-significant tests under opt-in conditions. The Pilot's education and outreach strategy is discussed in further detail in Appendix E of this filing, The Customer Communications Plan.

4.5 OUTCOMES & METRICS

The Pilot intends to evaluate customers' awareness, understanding and satisfaction with demand rates. The Pilot will utilize qualitative research to test customers' comprehension of communication materials and its effectiveness prior to the Pilot's enrollment and throughout the Pilot's duration. The Pilot will also deploy periodic surveys throughout the Pilot's lifecycle to gauge customers' acceptance of alternative pricing for delivery service and their response to such prices, including changes in usage and peak demand.

As described in previous sections, the Pilot will gain key outcomes and learnings about customer preferences, customer satisfaction, bill impacts and load impacts. In addition to customer research, data analysis will be executed during the evaluation of the Pilot to understand the drivers of enrollment, attrition and load impacts for each of the two regions (Staten Island/Westchester and Brooklyn). These learnings will inform and predict outcomes for Con Edison's remaining service territory.



Appendix D

Customer Engagement and Recruitment Methodology

D.1 Introduction

The “smart meters” being installed in the Consolidated Edison Company of New York, Inc. (“Con Edison” or “the Company”) service territory as part of the Advanced Metering Infrastructure (AMI) project will provide customers with more information about their energy usage. Con Edison anticipates that this new information, combined with a portfolio of new rate structures, customer engagement communications, and supporting technologies will encourage customers to manage their energy usage and costs.

The New York State Public Service Commission (“the Commission”), in approval of Con Edison’s AMI Business Plan, called on Con Edison to develop innovative rate plans as a means of maximizing the benefits of its investment in AMI.¹ In its AMI Customer Engagement Plan, Con Edison outlined an innovative pricing pilot (hereafter referred to as the “Pilot”) to test key elements of future rate designs and communication initiatives.²

As illustrated in Exhibit D-1, the Pilot will run from April 2019 – April 2021 in Staten Island and Westchester County (SI/W), and from April 2020 thru 2022 in Brooklyn.

Exhibit D-1 AMI Pilot Elements in Staten Island and Westchester County and AMI Deployment Schedule for the Con Edison Service Territory

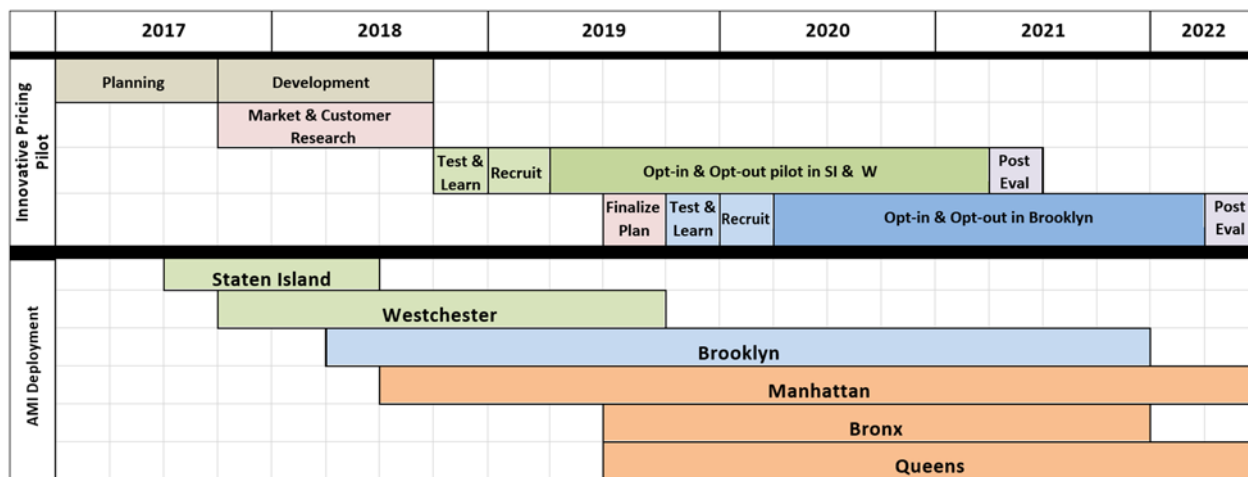


Exhibit D-2 defines the key Pilot Customer Engagement Plan elements: Pilot Customer Communications Strategy, Campaign Implementation Planning, and Campaign Launch. Appendix E summarizes the Customer Communications Strategy and activities to be tested during the Pilot. This Appendix (D) summarizes the Customer Experience Journey—Engagement and Recruitment—and the technical and structural variables such as rate structures and enrollment strategies to be tested during the Pilot.

¹ Cases 15 - E-0050 *et al.*, *Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Consolidated Edison Company of New York, Inc. for Electric Service* (“Electric Rate Case”), Order Approving Advanced Metering Infrastructure Business Plan Subject to Conditions (issued March 17, 2016).

² Electric Rate Case, AMI Customer Engagement Plan (filed July 29, 2016).

Exhibit D-2 Customer Engagement Plan Elements and Schedule

	2018												2019			
	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	
Pilot Communications Strategy	Message Development															
Campaign Implementation					Content Development											
Campaign Launch									Content Production				T&L Recruitment: 13,200		Full-Scale Recruitment: 97,600	
Customer Experience Journey	Eligible pilot participants must have their meters installed prior to March 31, 2018 (SI/W)		Customers will have received smart meter education materials via quarterly smart meter engagement emails sent 6 months post-installation						T&L participants recruited for Test & Learn campaigns must have meter installed prior to Dec 31, 2017				Enrolled customers will receive a welcome pkg and communications			

D.2 Pilot Program

D.2.1 Purpose of Pilot

Through customer surveys and the use of customer focus groups, Con Edison has learned that customers desire greater choice and more control of their energy costs. The Pilot is intended to develop insights regarding customer acceptance of demand-based rates and behavioral changes associated with them. By offering multiple rate structures on both an “opt-in” and “opt-out” (default) basis, the Pilot will:

- Enable Con Edison to learn which rate structures are preferred by customers and how customers respond to different enrollment strategies and price signals.
- Provide customers with opportunities to better manage their energy bills.
- Improve economic efficiency by better aligning delivery prices with delivery costs.

The Pilot will also test the effectiveness of various communications methods on customer acceptance, awareness, understanding, behavior, and satisfaction. Such insights are essential for developing a viable recruitment plan and ongoing communications strategies (see Appendix E).

D.2.2 Rate Design—Rationale

Historically, delivery rates for residential and small commercial customers have been volume-based (kWh usage), in part because currently installed meters for these customers collected only volumetric data. The cost of providing delivery service, however, is not driven by the volume of kWh consumption; rather, it is driven mainly by customers’ demands.³ As a result, volumetric rates do not align well with the drivers of delivery system costs and do not provide customers with an incentive to improve their load profile to improve delivery system efficiency.

³ See Appendix C, Section 3 for more information on rate design.

Additionally, electric utilities have historically assumed that mass market customers represented fairly homogeneous groups, with similar demand characteristics. Further, it has been assumed that mass market customers' electricity consumption is inelastic, so pricing on a volumetric basis was not believed to produce inefficient changes in behavior or technology adoption.

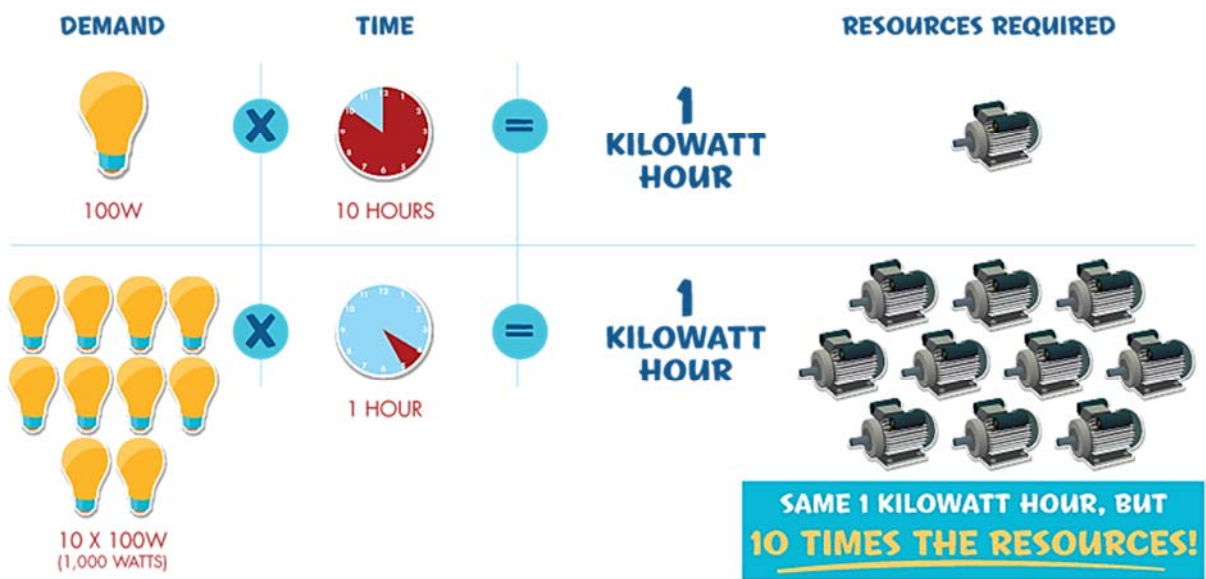
Today, mass market customers have more options (*e.g.*, distributed energy resources (DERs), improvements in energy efficiency, use of smart appliances, and electric vehicles) and demonstrate less homogeneity and greater price elasticity than they did in the past. Under today's mainly volumetric rates, certain technologies, such as DERs or distributed generation (DG), can significantly reduce a residential customer's delivery service bill but will do less to reduce underlying delivery system costs. Responsibility for these costs is then shifted to other customers, creating a cross-subsidy.

Through AMI deployment and related software system upgrades, Con Edison can implement more sophisticated (interval) metering of mass market customers that supports rate designs that more accurately reflect the true cost of delivery service. During the Pilot, two different rate structures will be examined: (1) demand-based rates, and (2) subscription rates.⁴ Both rates will be based on customer peak demand, which is illustrated in Exhibit D-3.

Exhibit D-3 Peak Demand v Time Illustration⁵

PEAK DEMAND IN ELECTRICITY USAGE

In power, time is a factor. The energy used by one 100-watt light bulb lit for 10 hours is the same as the energy used by 10 bulbs lit for 1 hour.



⁴ Demand-based rates can also be referred to as "efficiency" rates since they encourage more efficient use of the electric delivery system.

⁵ For example, see SRP materials at: <https://www.srpnet.com/prices/home/custgraphic.aspx>

Demand-based delivery rates collect delivery costs on a kW demand basis and can be designed in several ways. For example, demand can be measured based on:

- the customer's maximum kW use during each month,
- the customer's maximum kW use during a specified (peak) period(s) each month,
- the customer's maximum kW use during a year, or
- the customer's kW use during the system peak of the year.

There are several positive attributes associated with demand-based rates:⁶

- Demand-based rates result in an allocation of distribution costs based on the facilities required to meet each customer's requirements of the grid during a specific period.
- Demand-based rates encourage higher customer load factors and better use of the system.⁷
- Demand-based rates are consistent with a longstanding method of allocating distribution facility costs across the different classes of customers.⁸

Demand-based rates have been used for commercial and industrial customers for decades. A handful of utilities have optional demand charges for residential customers,⁹ and a few electric utilities are now proposing a demand charge as part of a three-part rate (*i.e.*, a fixed charge, a demand charge, and an energy charge) for DG customers. More experience is needed to determine the best ways to educate and engage with customers participating in demand-based delivery rates. This is why Con Edison is focusing on this approach in the Pilot.

D.2.3 Rate Design—Pilot Proposal

Con Edison delivers power to a population of 9.3 million people with more than 3 million electric accounts in New York City and Westchester County. With a distribution system covering 604 square miles, Con Edison's service area is diverse, and its electric delivery system varies in design and size, and

⁶ For discussions of the attributes of demand-based rates, see *Recovery of Utility Fixed Costs: Utility, Consumer, Environmental and Economist Perspectives* - June 2016 Lisa Wood (Institute for Electric Innovation) and Ross Hemphill (RCHemphill Solutions), John Howat (National Consumer Law Center), Ralph Cavanagh (Natural Resources Defense Council) and Severin Borenstein (UC-Berkeley).

⁷ See Ryan Hledik, *Rediscovering Residential Demand Charges*, The Electricity Journal, Vol. 27, Issue 7 (Aug/Sept 2014), p. 84. Also see Ross C. Hemphill and Kenneth W. Costello, *Regulators Can Win the Trifecta with Residential Demand Charges*, Public Utilities Fortnightly, Vol. 154, No. 7 (July 2016), p. 33.

⁸ A description of the process of allocating distribution facility costs by coincident and non-coincident demand can be found in National Association of Regulatory Utility Commissioners (NARUC). 1992. *Electric Utility Cost Allocation Manual*. Washington, D.C.

⁹ Utilities that offer voluntary demand rates to residential customers include: SRP (AZ), Arizona Public Service – APS (AZ), Black Hills (SD & WY), Duke (NC & SC), Dominion (VA & NC), Georgia Power, Alabama Power, Xcel Energy, and Alaska Electric Light & Power Company.

peaks at different times. There are four main types of systems which can be categorized as follows: networks that peak during the evening, networks that peak during the day, midday peaking networks, or radial systems. Overall, there are four predominant load shapes (or profiles) in the Con Edison service territory:

- **Networks that peak in the evening.** The evening peak shape is most common in Brooklyn, Bronx, and Queens and reflects a large presence of residential customers with room air conditioning. Networks in these regions exhibit a prolonged peak and tend to peak late into the evening or at night. Manhattan, however, has some evening or night peaking networks as well.
- **Networks that peak in the day.** The day peaking shape is most common in Manhattan and reflects the operation of buildings during standard business hours.
- **Other Networks.** This includes networks that are neither day peaking or evening peaking but fall somewhere in between.
- **Radial systems.** Radial networks are mostly located in Staten Island and Westchester County and reflect a higher incidence of row houses and single-family homes with central air conditioning. The residential peak is 8 AM to midnight, with a commercial peak of 8 AM to 10 PM weekdays.

To determine the appropriate demand rate structure for each of the four network groups and for the system load overall, Con Edison examined loads exceeding 90 percent of the historical peak to develop a peaking risk allocation estimate that, in turn, was used to identify peak periods. The hours from noon-to-8 PM capture most of the peaking risk for most network load shapes while the hours from 2 PM-to-10 PM capture most of risk for later peaking networks.¹⁰

As described below, the base rate for the Pilot was selected by balancing the multiple goals of rate design and reviewing the load analysis, cost alignment, and customer bill impacts—both in aggregate and volatility by month/season. Demand Base Rate I reflects the following characteristics:

- A peak period that applies from noon-to-8 PM on weekdays. All other time periods, including weekends and designated holidays, are subject to the off-peak demand charge. The noon-to-8 PM period aligns well with the distribution peaks of boroughs and counties eligible for the pilot in Year 1 and with the Con Edison system peak.
- A summer period from June to September.
- The monthly peak and off-peak demand charges are based on the average of the three highest daily demands in each applicable time period.

¹⁰ See Appendix C, Section 3 for more detail on the derivation of the demand-based rate and subscription rate structures.

- The supply rate will remain the existing volumetric rate and will not vary by time of day. This allows for an assessment of customer demand rates independently of a change in the supply rates.

The other three demand rates were developed to assess the impact of a change in the rate structure on customer acceptance and load response.

- Demand Rate II: In the summer period, Demand Rates I and II will be identical. In the non-summer months, demand charges will not vary by time of day for Demand Rate II and will be the same on weekdays and weekends.
- Demand Rate III: This rate will have the same characteristics as Demand Rate I except that the peak period will be from 2 PM-to-10 PM rather than from noon-to-8 PM. Peak and off-peak demand prices will be slightly different between rates I and II in order to maintain revenue neutrality across the two rate structures. This slight difference in prices is due to the difference in demand for the average customer across the noon to 8 PM period compared with the 2 PM-to-10 PM period.
- Demand Rate IV: This rate will be the same as Demand Rate I except supply charges will also vary by time of day. Since Con Edison does not set supply prices for customers served by competitive Energy Supply Companies (“ESCOs”), this rate can only be offered to non-ESCO customers.

Exhibit D-4 provides a summary of the four demand rates that will be tested on a default basis in the Pilot. Only Demand Rate I will be offered on an opt-in basis, as discussed more fully in Section D.4.1.

Exhibit D-4: Residential Demand Rates to be tested in Pilot

Rate	Attributes	Summer Peak	Summer Off-Peak	Nonsummer Peak	Nonsummer Off-Peak
I	Peak: Noon to 8 p.m. (Mon-Fri) Off-Peak: All other hours	\$19.92 per kW	\$6.72 per kW	\$15.32 per kW	\$6.72 per kW
II	Peak: Noon to 8 p.m. Off-Peak: All other hours One all-hours price for non-summer months	\$19.92 per kW	\$6.72 per kW	\$18.76 per kW	
III	Peak: 2 p.m. to 10 p.m. (Mon-Fri) Off-Peak: All other hours	\$19.25 per kW	\$6.62 per Kw	\$14.81 Per kW	\$6.62 per kW
IV	Peak: Noon to 8 p.m. (Mon-Fri) Off-Peak: All other hours Time-of-use for supply	\$19.92 per kW	\$6.72 per kW	\$15.32 per kW	\$6.72 per kW

In addition to one of the four demand rates summarized above, two subscription rates will be offered on an opt-in basis. The development of subscription rates has been informed by initial learnings based on

results from in-person focus groups and online surveys. Based on this customer research, two subscription rate plans will be tested in the Pilot:

- Subscription Rate V is a fixed price, demand-based delivery charge tied to customers' historical maximum demand during certain hours and days.
- Subscription Rate VI includes a base level of demand to which customers are subscribed and "overage" charges that are assessed when demand exceeds that subscription level during defined time periods.

D.2.4 Bill Protection

The demand and subscription rate structures defined above are a new concept that have limited experience and uncertain impact on customers. While the precise bill impacts are not known, the potential range of impacts from Demand Rate I—without behavioral changes—is estimated to be:

- A bill increase: 51%
- A bill decrease: 49%
- A bill impact of less than \$5 per month: 69%
- A bill impact of less than \$10 per month: 82%
- A bill impact of less than 10%: 78%

In the Pilot, Con Edison prefers to protect participants from bill increases while at the same time implementing a Pilot that effectively tests whether participants respond to alternative rates.¹¹

Con Edison plans to provide bill protection ("price guarantee") consistent with the strategic approach detailed below: (1) Low-Income and CONCERN¹² Program customers, (2) Opt-in Recruitment Treatment Cell (described in D.4.1), and (3) Opt-out Enrollment Population (described in D.4.2). This approach will allow Con Edison to (1) protect Low-Income and CONCERN Program participants against potentially higher bills; (2) study the impact that bill protection has on opt-in rates; and (3) determine the effect that bill protection has on the opt-out customers' decision to remain in the Pilot.

Low-Income and CONCERN Program Customers: Due to sensitivities regarding this population segment, Con Edison will provide and communicate bill protection to customers enrolled in Con Edison's Low-Income and CONCERN Program customers. A report will be created for this segment so that, on a quarterly basis, a proactive comparison of that period's bills versus the otherwise applicable tariff

¹¹ As discussed in Appendix C, while Con Edison will test (and provide) bill protection (guarantee) to different populations groups, it is (1) not feasible or practical to provide immediate bill credits, and (2) not a customer retention strategy for customers desiring to opt-out of the Pilot.

¹² Con Edison's CONCERN Program includes customers who are age 62 or older, blind or disabled.

("OAT") will be available for analysis. The analysis will identify those low-income customers, if any, who are experiencing negative bill impacts in excess of a given threshold. Con Edison will perform this bill impact analysis on a quarterly basis and provide an immediate bill credit for the difference to those eligible customers.

Opt-in Recruitment Treatment Cell: Con Edison believes that it is important to test whether a customer is more likely to "opt-in" to an innovative rate, if they know prior to enrollment that they will receive bill protection. To study the impact that bill protection has on opt-in enrollment rates, Con Edison will offer first-year bill protection to any enrolled customer assigned to this treatment cell.¹³ In addition to enrollment rates, Con Edison believes there is value in documenting if/how bill protection impacts customer behavior with a degree of certainty. For instance, is a customer *less likely* to make behavioral changes (*i.e.*, shifting and/or staggering their usage to minimize demand) knowing there is no risk of higher bills? If, through bill impact analysis over the entire first year of the Pilot, individual customers are determined to be negatively impacted by the Pilot rate (total bills are greater under the Pilot rates than the OAT), they will receive a bill credit after the first year of Pilot enrollment.

Opt-out Enrollment Population: Con Edison also believes that it is important to understand the impact, if any, on a customer's decision to opt-out (or not) if they know they are protected against a bill increase for a period of time. All eligible opt-out customers will be notified at the launch of the Pilot that they will receive one year of bill protection.¹⁴

D.2.5 Pilot Proposal Summary

As described above, in the Pilot, the different residential demand rates will: (1) evaluate whether load impacts and customer acceptance differ with variation in the timing of the peak period for demand pricing; (2) examine variation in demand rates across time periods in both summer and winter; and (3) examine the impact of electricity commodity prices that vary by time of day. The two subscription rates will determine how such rate plans affect customer behavior and satisfaction and provide an opportunity to compare impacts produced by demand rates and subscription rates. The Pilot will also include a demand rate for small commercial customers.

¹³ For a subset of opt-in customers, the Company will test bill protection during the initial recruitment stage ("Stage 0") as outlined in Appendix D, Section 3: Pilot Structure – Recruitment Strategy. The Company will determine, based on the test results, and after consultation with Department of Public Service Staff, whether a wider application of bill protection for opt-in customers is needed in future Pilot stages.

¹⁴ A subset of the opt-out population will not initially receive notification of the bill protection benefit but will instead be advised of its existence at the end of year one, so Con Edison can determine the effect of notification on the opt-out and retention rates.

D.3 Pilot Structure—Recruitment Strategy

Con Edison plans to study the demand rates under two different enrollment strategies. Both strategies offer the new rates on a voluntary basis, but one uses “opt-in” enrollment and the other “opt-out,” or default, enrollment.¹⁵ The opt-in enrollment strategy requires significant communications and education activities to facilitate enrollment, while the opt-out strategy depends on communications and education to enhance customer awareness of the benefits of the Pilot to maintain enrollment (prevent opt-out). Both enrollment strategies will follow the same process: Engage → Recruit → Enroll.

To optimize the recruitment strategy for opt-in customers, Con Edison will employ a “Test & Learn” stage of the Pilot with 13,200 customers from Staten Island/Westchester County (SI/W) during the first four-to-six weeks of the Pilot (Fall 2018)—see Exhibit D-5. Results from this stage will allow Con Edison to use the most viable methods to engage, recruit and enroll customers during full enrollment of the Pilot scheduled for Q1 2019.

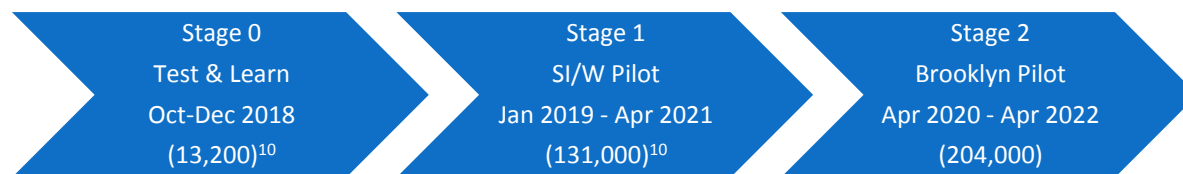
To be eligible for Pilot participation, all opt-in and opt-out customers must have a smart meter installed on or before March 31, 2018. This group of customers will have received smart meter communications approximately one-year prior to receiving pilot communications.

Exhibit D-5 Customer Experience Journey

	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18
Customer Experience Journey	Eligible pilot participants must have their meters installed prior to March 31, 2018 (SI/W)		Customers will have received smart meter education materials via quarterly smart meter engagement emails sent 6 months post-installation.						T&L participants recruited for Test & Learn campaigns must have meter installed prior to Dec. 31, 2017.	

The combination of rate plans and enrollment strategies (opt-in or opt-out) will leverage a three-step approach to Pilot structure and customer involvement. Exhibit D-6 shows the three steps with the estimated customer populations for each stage.

¹⁵ See Electric Rate Case, AMI Customer Engagement Plan, p. 56: “Opt-in and opt-out enrollment will each provide different and important insights. Because much needs to be learned about the most effective recruitment techniques, and demand-based rates are new to residential (SC-1) customers, the Companies will use only the opt-in approach during the first phase of the pilots. This will allow the Companies to build success and gain experience with volunteer customers in the process. This early insight will then be used to develop the most effective and customer-focused opt-out recruitment process. The opt-out phase is important as it will provide results that are more representative of the customer population in general and will be more useful in informing future default rate designs.”

Exhibit D-6 Three Stages of the Pilot Design**Stage 0 | Test & Learn**

The Test & Learn stage will examine early results for key recruitment communication elements. Over an initial four-to-six week period in Fall 2018, small scale tests with 13,200 customers from SI/W will be conducted to determine the impact of various opt-in marketing features on customer acceptance of a single base demand rate and the two subscription rates. The goal will be to test which combination of enrollment strategies, rate benefit and communication activities are most successful in encouraging customers to opt-in to each rate structure. The most viable treatment features will then be used to recruit the remaining SI/W customers into all three opt-in rate structures in January 2019. These initial tests will also allow Con Edison to determine if the target enrollment projections are likely to be achieved and will guide any changes that would improve the Pilot's full-scale recruitment.

Exhibit D-7 details the eligible customer populations and the nine different treatment groups that will be randomly selected in the Fall 2018 timeframe. The Test & Learn stage is designed to examine two strategic recruitment elements. The first element is feature-based and represented by treatment groups 2, 3, and 4. These customers will be provided selected mechanisms to encourage participation—structural bill information, bill protection, or sign-up incentives. These three alternative mechanisms are explained in more detail in the Opt-In Enrollment Strategy, Section D.4.1. The second element is channel-based and represented by the remaining treatment groups (5-9). These customers will be provided various messaging channels to encourage response—business reply card, phone, and email.

The Test & Learn stage will also measure customer response to nine communication treatments, ranging from messaging and customer benefits information to differing communication channels. The most viable artifacts and channels discovered during the Test & Learn stage will be used for opt-in full-scale recruitment for optimal effect. These elements are further explained in Appendix E, Section E.4.3.1.

¹⁶ The 13,200 customers who participate in Test & Learn will be from the 131,000 selected customers in SI/W Stage I Pilot and will be part of the full enrollment Pilot commencing in January 2019.

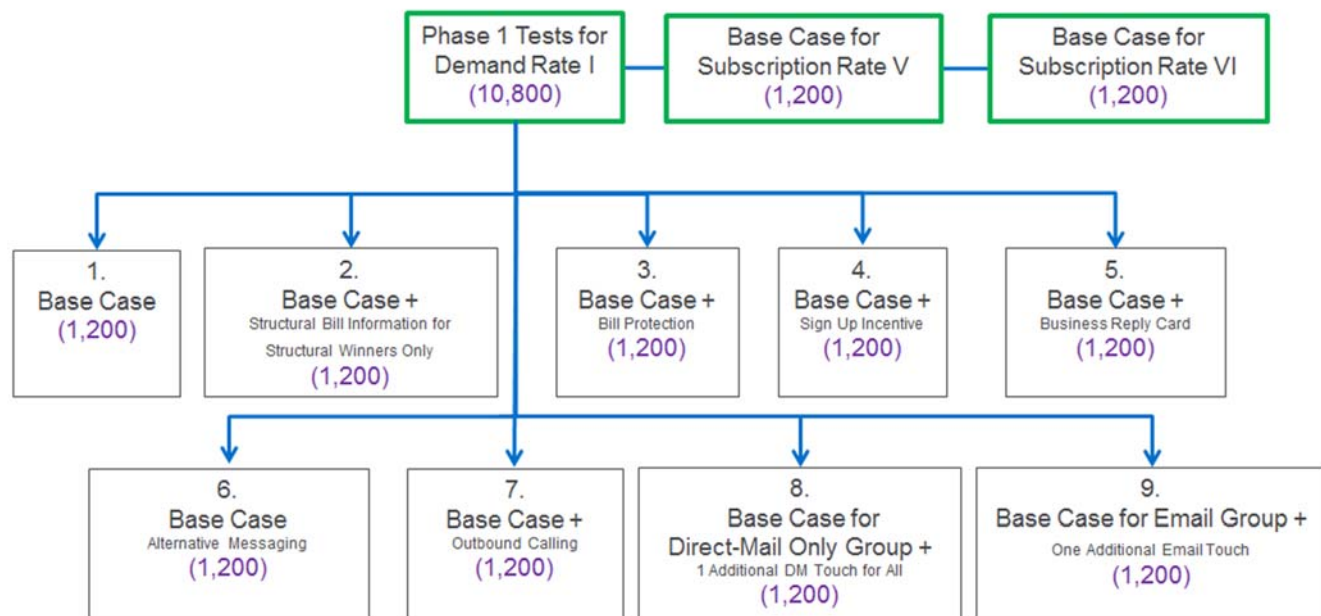
Exhibit D-7 Customer Population for Test & Learn Stage (SI/W)**Stage 1 | Staten Island/Westchester County**

Exhibit D-8 identifies the recruitment population in SI/W, where a total AMI population of 131,000 customers will have smart meters installed at least 12 months prior to commencement of billing under Pilot rates. Of this total, 90,000 will be recruited on an opt-in basis and 24,800 will be recruited on an opt-out basis. The remaining 16,200 customers will be held out to use as control customers for estimation of load impacts. As discussed in Appendix C,¹⁷ Con Edison estimates an opt-in rate of 3.5%, which equates to 3,150 participants for the rate structures—Demand Rate I, and Subscription Rates 1 and 2. For the opt-out recruitment population (32,000 - 7,200 = 24,800), Con Edison is assuming an initial opt-out rate of 10%;¹⁸ this equates to approximately 22,300 opt-out customers enrolling in the new demand rate. Customers can opt-out at any time after going onto the new rates.

¹⁷ As described in Appendix C, an assumption about likely outcomes is necessary to determine how many customers must be contacted for each treatment. Based on a power analysis, Nexant computed a target enrollment of 1,050 is needed to estimate load impacts. Thus, the estimate of 30,000 is derived from the required sample size of 1,050 and the assumed enrollment rate of 3.5% (e.g., $30,000 = 1,050 / 0.035$). In reality, the enrollment rate may differ across each rate structure and, indeed, determining the acceptance percentage for each rate is one of the primary objectives of the Pilot.

¹⁸ The 10% opt-out rate is based on historical experience with rate pilot programs nationwide (see Appendix C).

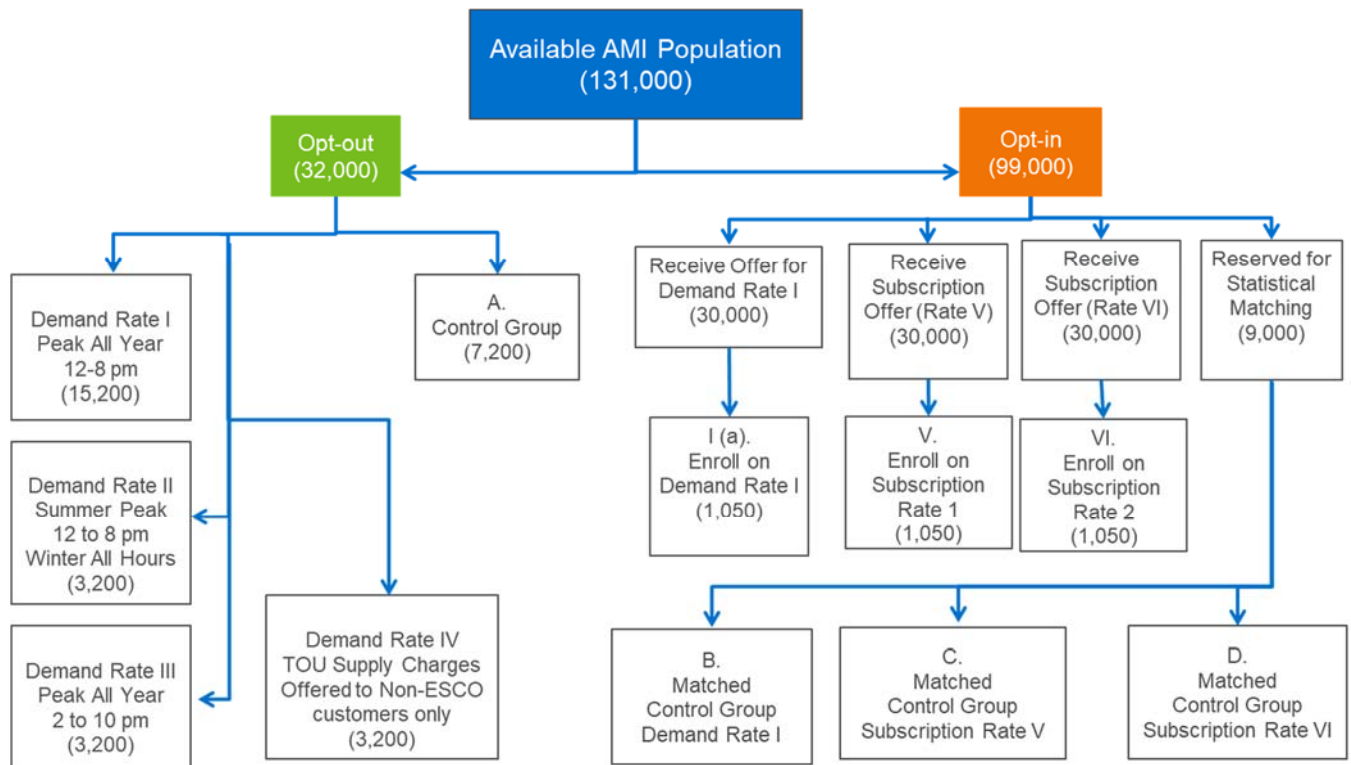
Exhibit D-8 Opt-in and Opt-Out Recruitment Population from Staten Island and Westchester County**Stage II | Brooklyn**

Exhibit D-9 identifies the total AMI population and recruited population in the second Pilot test group—Brooklyn—where a total of 204,000 customers will have smart meters installed at least 12 months prior to commencement of billing under Pilot rates. As illustrated, 140,000 of these customers will be recruited under the opt-in group, and 64,000 customers enrolled in the opt-out group. Of these customers 20,000 are in the opt-in control group, and 22,400 in the opt-out control group. With an expected opt-in rate of 3.5%, the Pilot will have 4,200 opt-in participants. Assuming an initial opt-out rate prior to enrollment of 10%, roughly 37,440 customers will be expected to enroll on an opt-out basis.¹⁹

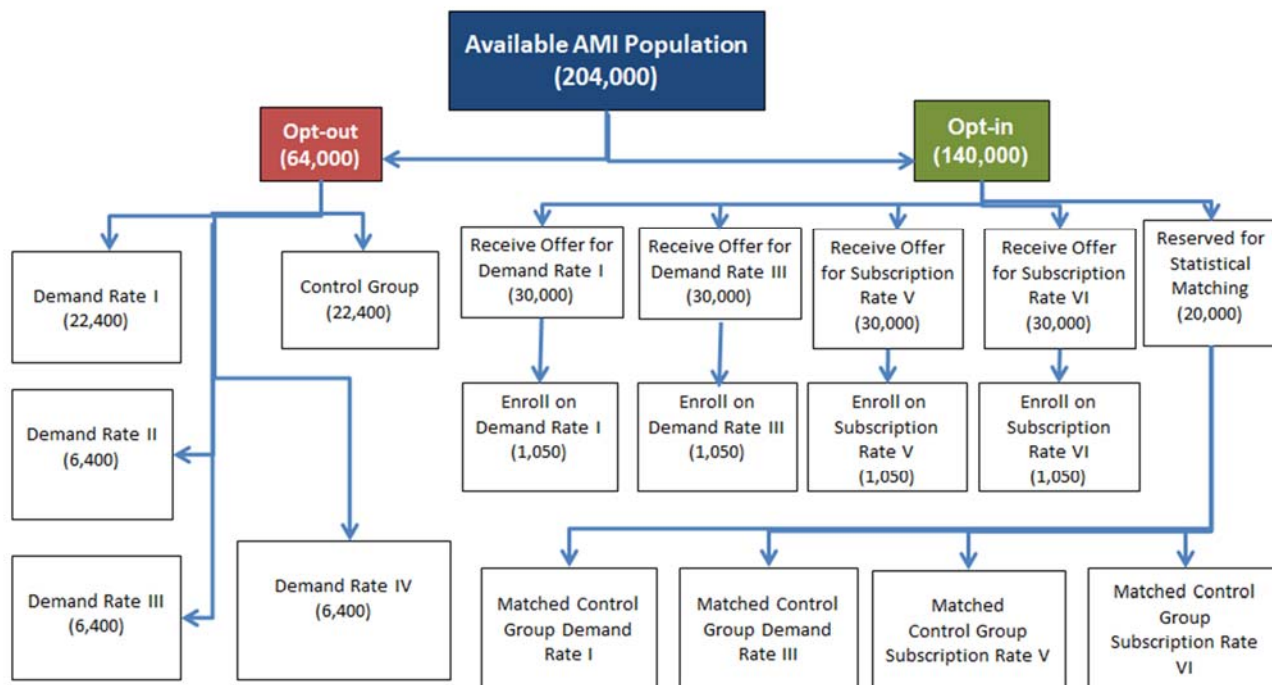
In both Stages 1 (SI/W) and 2 (Brooklyn) AMI customers who will not be recruited include those who are: (1) net metering customers, (2) Time of Use (TOU) customers, (3) Electric Vehicle (EV) customers on TOU, and (4) energy-supply-company (ESCO) customers recruited for Demand Rate IV. All other customers may be recruited.²⁰

¹⁹ See Notes 11 and 12 for an explanation of the assumed opt-in and opt-out rates used in the Pilot.

²⁰ See Appendix C for population eligibility for Pilot recruitment.

The total estimated Pilot population to be enrolled in Stage 1 (SI/W) is 25,470 and for Stage 2 (Brooklyn) is 41,640, for a total estimated enrolled population of 67,110.

Exhibit D-9 Opt-in and Opt-out Recruitment Population from Brooklyn



D.4 Customer Enrollment Strategy

The Pilot will test various elements to encourage customer enrollment. The first treatment is the rate structure most likely to achieve the most viable results. The second treatment is whether opt-in or opt-out customer enrollment strategies are preferred. The third treatment is the most preferred customer benefit: incentives to enroll, bill protection, or structural information. These last three benefit tests will be examined during the Test & Learn Stage. The most viable treatment element(s) will be offered to the rest of the Pilot's opt-in customer population.

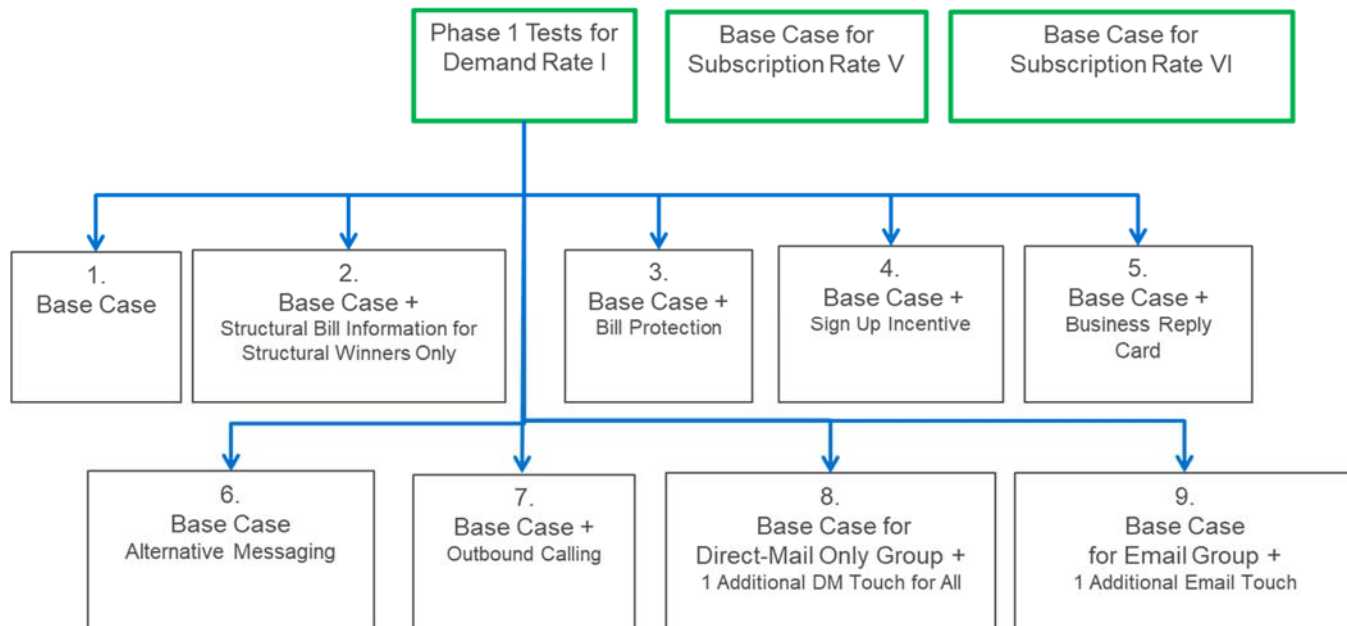
Note: Communication and outreach activities are part of the Customer Communication Strategy addressed in Appendix E.

D.4.1 Opt-in Enrollment Strategy

Opt-in enrollment strategy includes nine opt-in communication treatments during the Test & Learn stage (Stage 0). The most effective communication treatments from this stage will be used to optimize opt-in recruitment during full-scale implementation in January 2019. Exhibit D-10 identifies the total set

of opt-in communication treatments; a subset of most viable methods will be used during the full-scale recruitment.

Exhibit D-10 Opt-in Enrollment Strategy²¹



Treatment 1: Base Case

The base case consists of two touch points with customers—two business letters sent during the recruitment period—that will convey the rationale for the new rate offer and Pilot information. There will be a description of the applicable rate and an invitation to opt-in to the Pilot (and associated rate). Additional resources will be provided through a link to the opt-in portal on Con Edison website and call center information.

According to the Pilot design, each opt-in treatment cell will include this base case with a specific alternative feature and/or channel as described below.

Treatment 2: Structural Bill Information

In this treatment group, the effect of knowing whether the customer will benefit from the Pilot rates in advance of opt-in will be tested. Using a randomly selected population in this group, Con Edison will compare the cost of electricity under a customer's current rate (otherwise applicable tariff, OAT) versus the Pilot rate, using the prior 12-month period, to determine whether the Pilot rate is beneficial or not,

²¹ Base case (A.1) consists of two business letters. This will be supplemented with other communication treatments (A.2-A.9).

assuming no change in customer behavior. Only those customers for whom billing under the Pilot rate is less than under the otherwise applicable tariff (cost savings would arise based on prior year consumption) will be notified via their opt-in letter. This will test the impact of knowing in advance that cost savings will be realized under the Pilot (due only to the rate difference; not any behavioral change) based on the customer's decision to "opt-in."

Treatment 3: First Year Bill Protection

As described in Section D.2.4, Con Edison prefers to protect participants from bill increases while at the same time implementing a Pilot that effectively tests whether participants respond to different rates.²² To study the impact that bill protection has on opt-in enrollment rates, Con Edison will offer first-year bill protection to any enrolled customer assigned to this treatment cell.

Treatment 4: Sign Up Incentive

To determine if customers are more likely to "opt-in" to the Pilot, a sign-up incentive will be tested. As currently envisioned, a \$25 gift card will be provided to any enrolled customer from Treatment Group 4 in their Welcome Packages.

Treatment 5: Business Reply Card

This treatment will provide a third opt-in opportunity—a business reply card that will be delivered as the final touch point (after two business letters in base case)—to test an additional communication and new response mode on customer acceptance and opt-in enrollment rates.

Treatment 6: Alternative Messaging

Similar to Treatment 1, this treatment will include two business letters with the exception of alternative means to explain the rationale for the new rate being offered to opt-in customers.

Treatment 7: Outbound Calling

In addition to Treatment 1, customers will receive an additional communication via phone call to explore the impact of increased frequency and alternative communication mode on customer acceptance and opt-in enrollment rates.

Treatment 8: Direct Mail + 1 Touch

In addition to Treatment 1, customers will receive an additional communication via direct mail to explore the impact of increased frequency on opt-in enrollment rates.

²² As discussed in Appendix C, while Con Edison will test (and provide) bill protection (price guarantee) to different groups, it is (1) not feasible or practical to provide immediate bill credits, and (2) not a customer retention strategy for customers desiring to opt-out of the Pilot.

Treatment 9: Email + 1 Touch

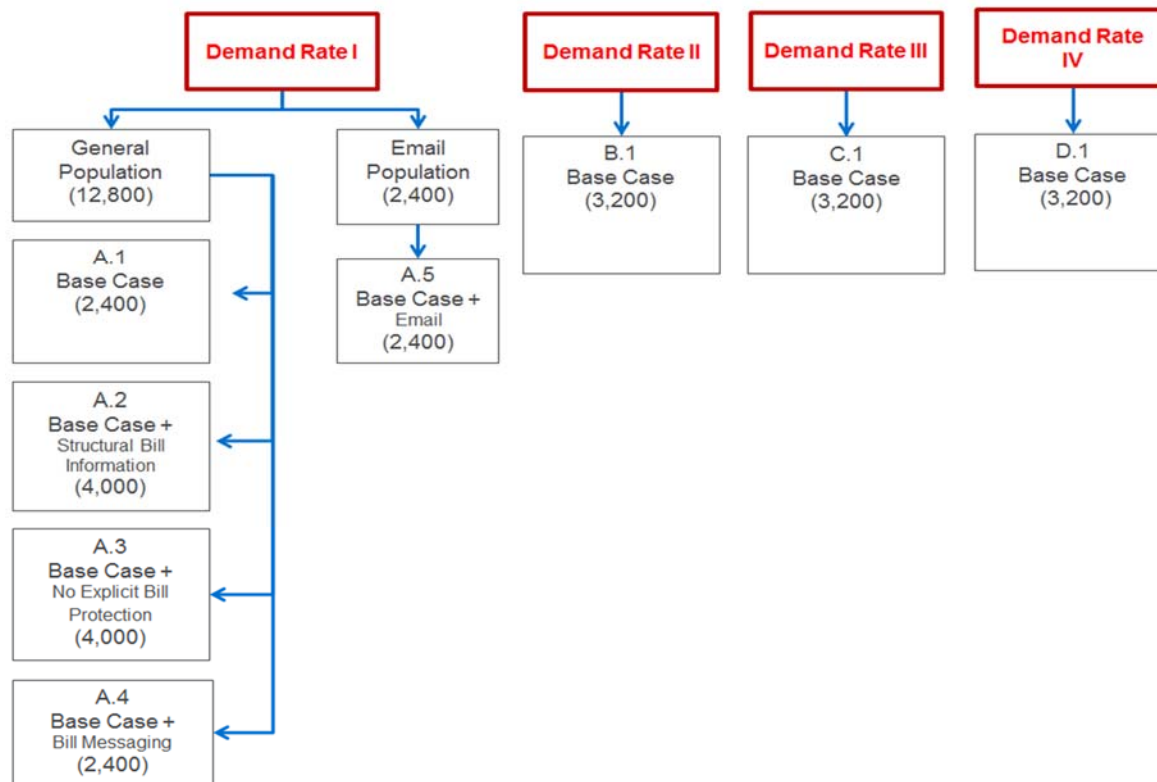
Similar to Treatment 8, customers with email addresses on file (with Con Edison) will receive an additional communication via email to explore the impact of increased frequency and digital communication on opt-in rates.

D.4.2 Opt-out Enrollment Strategy

As noted earlier, certain customers in the Pilot will be selected to participate by default in one of four demand-based rates. These customers will have the option of remaining on their otherwise applicable tariff but must take action to do so. They can also “opt out” at any time after being enrolled on the new rate. To maximize awareness and help ensure a good customer experience, Con Edison is committed to (1) provide robust communications indicating that customers must opt-out if they do not want to participate; (2) make it as easy as possible for customers to opt-out if they choose to (e.g. offer multi-channel opt-out); and (3) provide customers with the support necessary to be successful on their Pilot rates.

In keeping with this approach, the opt-out enrollment strategy includes five opt-out communication treatments for full-scale recruitment. These are shown in the Exhibit D-11.

Exhibit D-11 Opt-out Enrollment Strategy



A description of each treatment cell is summarized below, with more detailed discussion in Appendix E.

- Treatment A.1 is the base case that consists of three notifications (letter, post card, email).
- Treatment A.2 includes structural bill information for customers when billing under the Pilot rate is less than under the otherwise applicable tariff (cost savings would arise based on prior year consumption). This will test the impact of knowing in advance that cost savings will be realized under the Pilot (due only to the rate difference; not any behavioral change) based on the customer's decision to not "opt-out."
- Treatment A.3 is A.1 but without explicit notification of bill protection during recruitment. Con Edison believes that it is important to understand the impact, if any, on a customer's decision to opt-out (or not) if they know they are protected against a bill increase for a period of time. Bill protection notification will be divulged upon customer-specific reconciliation at Pilot mid-point.²³
- Treatment A.4 will deliver essentially the same content as A.1 but will add an additional communication, which will be delivered via bill messaging.
- Treatment A.5 will add an additional communication to the base case in the form of an email notification. Treatment A.5 can only be done among customers for whom Con Edison has email addresses, which is currently roughly 60% of customers.

In addition to differences among Pilot rates, and variations in communication channels and content, the opt-out strategy will test the added value of communicating to customers' information about structural bill impacts (Treatment A-2) and bill protection (Treatment A-3). The structure and information in these two treatments are the same as in those discussed in the opt-in scenarios above.

D.5 Pilot Analysis Goals

Con Edison intends to gain insights before, during, and after the Pilot to (1) tailor the communication messages for effective customer engagement; (2) identify the effectiveness of the rate structures on customer opt-in/opt-out decisions; and (3) define the degree and frequency of response by customers to the rate structures. The lessons learned during the early Pilot deployments (*e.g.*, Staten Island/Westchester County) will also be critical to improve the effectiveness of the subsequent deployment (Brooklyn).

²³ A subset of the opt-out population will not initially receive notification of the bill protection benefit but will instead be advised of its existence at the end of year one, so Con Edison can determine the effect of notification on the opt-out rate.

As noted, customer research will be a primary focus of this Pilot and will be conducted during multiple phases. Exhibit D-12 shows the evaluation of the SI/W pilot being conducted at the end of each stage (SI/W, Brooklyn; “Post Eval”). Initial enrollment and awareness will be reported shortly after recruitment is completed; additionally, initial load impacts will be produced at the end of the first year of the Pilot.

Between Q2 2019 and 2020, a focus of the opt-in customer research will be on marketing treatment, with the goal to gauge customer preference to alternative rates/rate structures. Exhibit D-13 identifies the intended learnings and metrics of the opt-in marketing treatments.

Exhibit D-12 AMI Rate Pilot Elements in Staten Island and Westchester County and AMI Deployment Schedule for the Con Edison Service Territory

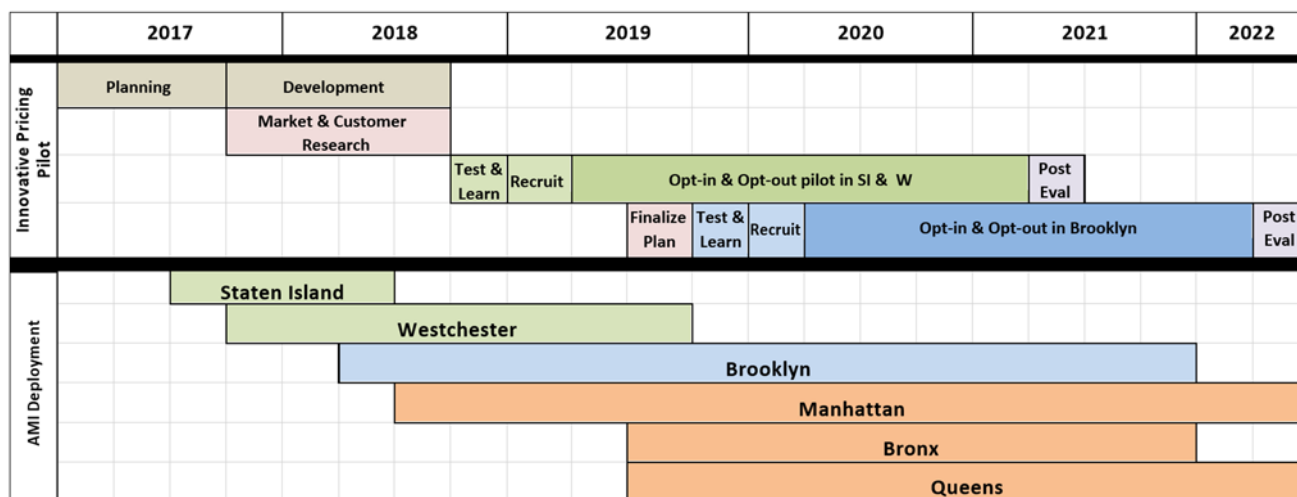


Exhibit D-13: Key Learnings from Opt-in Marketing Treatments

Outcome Metric	Key Learnings
Relative effectiveness of marketing options	<ol style="list-style-type: none"> 1. Does structural bill information increase customer acceptance? 2. Does the offer of explicit bill protection increase customer acceptance? 3. Do sign up incentives (e.g., \$25) increase customer acceptance? 4. Does the format of the offer (e.g., high visual content vs. business letter) increase customer acceptance? 6. Does outbound calling in conjunction with direct mail increase customer acceptance and is it cost-effective relative to other marketing options? 7. How do acceptance rates vary across different combinations of direct mail and email channels?
Customer preferences	<ol style="list-style-type: none"> 1. What do customers prefer more, standard demand rates or demand subscription rates?

	<ol style="list-style-type: none"> 2. What are the acceptance levels for each rate structure? 3. How do the characteristics of customers vary across participants who accept each rate structure? 4. How does customer satisfaction vary across each rate structure?
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During the same period, additional customer research will focus on rate structure evaluations for both opt-in and opt-out customers. The objective will be to gauge customer acceptance of alternative pricing for delivery service and their response to such prices, including changes in usage, peak demand, and total electricity bills. Exhibit D-14 delineates the key learnings anticipated and the metrics to evaluate them. Surveys will gauge customer acceptance of and satisfaction with alternative pricing for delivery service, and their response to such prices, including changes in usage, peak demand, and total electricity bills.

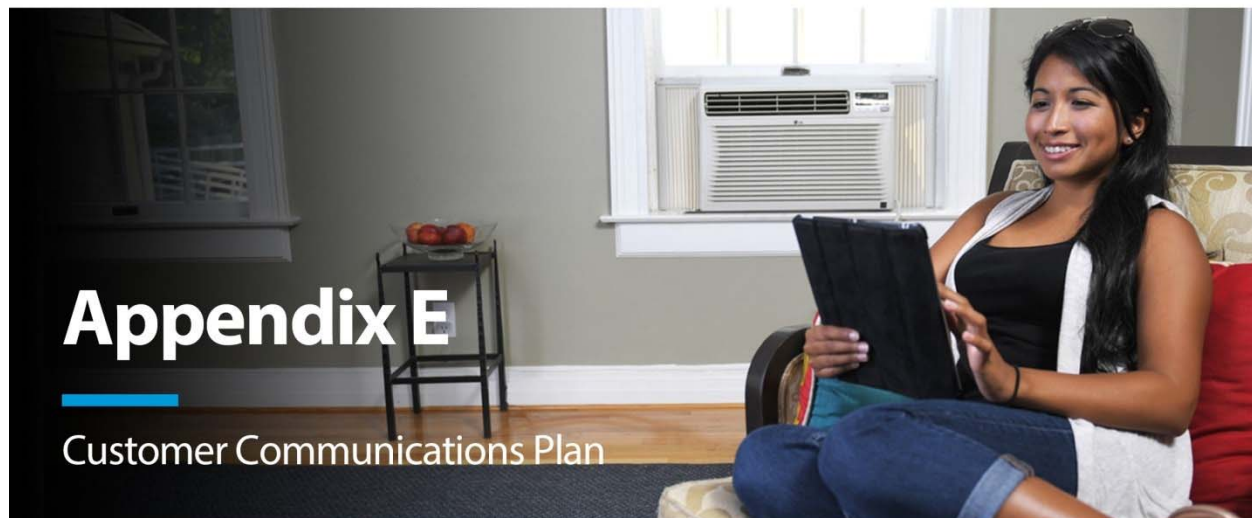
Exhibit D-14: Key Learnings from Rate Treatments

Outcome Metric	Key Learnings
Customer preferences	<ol style="list-style-type: none"> 1. What are the opt-out rates for default enrollment for each of four rate structures prior to and after enrollment? 2. How do enrollment rates differ between opt-in and opt-out enrollment strategies? 3. How do opt-in rates differ between demand rates and demand subscription rates? 4. Which type of demand subscription rates do customers prefer?
Customer satisfaction	<ol style="list-style-type: none"> 1. How does the level of customer satisfaction compare across rate structures and enrollment approaches?
Bill impacts	<ol style="list-style-type: none"> 1. For each rate, what are the bill impacts for customers annually, seasonally and monthly?
Load Impacts	<ol style="list-style-type: none"> 1. For each rate, what is the change in loads by rate period, annually, seasonally, monthly and on high demand days? <ul style="list-style-type: none"> • Do load impacts differ in summer if peak period is later in the day? • In winter, do loads by time of day (TOD) differ if demand charges vary by TOD? • Do load impacts in summer differ if demand rates vary by TOD in winter? • For Demand Rate I, do load impacts differ across selected customer segments? 2. How do aggregate coincident load impacts vary between opt-in and default enrollment for Demand Rate I?

D.6 Appendix D Summary

This Appendix (D) describes Con Edison's Pilot approach to study multiple innovative rate structures that will provide customers with opportunities to better manage their energy bills, better align delivery prices with system costs, and improve economic efficiency. The Appendix also outlines how the Pilot will engage and recruit customers for enrollment. Additionally, the Appendix defines the framework to test the influence of various communications methods on customer acceptance, awareness, understanding, behavior, and satisfaction. Such insights are essential for developing a viable recruitment plan for full-scale implementation of the Pilot's rate structures.

Appendix E will describe the Customer Communication Plan to implement the Pilot.



E.1 Introduction

As noted in Appendix D, Con Edison has designed an innovative pricing pilot (the Pilot) to test a range of rate structures, engagement approaches, and communications activities to achieve a successful level of customer engagement and behavioral change, and to maximize customer benefits associated with AMI implementation. Rate structures are one of a handful of tools and levers that will enable Con Edison to augment the value and customer benefits of AMI deployment.

Appendix D discusses the technical structure and customer recruitment/engagement strategy for the Pilot. This Appendix (E) outlines the Customer Communications Strategy and proposed activities envisioned for the Pilot.

- Section E.2 presents a summary of the Pilot Communications Strategy, including drivers, objectives, and activities.
- Section E.3 discusses significant research and planning where results will contribute to specific strategic elements of the overall communications plan.
- Section E.4 presents the framework and details of the actual Pilot Customer Communications activities over the three-year Pilot.
- Section E.5 summarizes the framework and direction of continuous and ongoing Regulatory and Stakeholder updates driven by key project milestones.

E.2 Pilot Customer Communications Strategy

As demonstrated repeatedly by rate pilots across the industry, customer enrollment, education, and ongoing outreach are critical to the success of any rate pilot.¹ These communication activities are critical for customers on demand-based rates for the first time. Con Edison designed the Pilot to (1) evaluate customer acceptance of demand rates, (2) assess customers' awareness and understanding of demand rates and time-of-use concepts (for both supply and delivery charges), and (3) maximize engagement and communications strategies to achieve successful recruitment of eligible customers.

Eligible residential customers selected for the Pilot are those with AMI meters installed for at least 12 months. During this period, these customers will continue to receive regular communications regarding AMI meters, their usage data, and usage choices driven by that data.

The Pilot Customer Communications Strategy is based on robust market research, including Con Edison's customer research, benchmark studies, and stakeholder feedback (see Section E.3). Further, the strategy will build upon customers' current smart meter awareness and education, by adding tailored, tested, and validated rate and demand information (see Section E.4). Communication vehicles,

¹ Cases 15-E-0050, *et al.*, *Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Consolidated Edison Company of New York, Inc. for Electric Service* ("Electric Rate Case"), AMI Customer Engagement Plan (filed July 26, 2016) ("AMI Customer Engagement Plan"), p. 46, Section 5.2.1.

frequency, channels, and content will be tested before the Pilot during the “Test & Learn” Stage and over the course of the Pilot.

In its Communication Plan, Con Edison intends to use multiple messaging strategies to recruit and enroll participants in the Pilot, while also educating them about the new rates and associated benefits. In addition, Con Edison will provide resources to help participants manage their usage and bills under the new proposed rates.

The activities described in the rest of this section will help achieve the Pilot Customer Communication Strategy objectives:

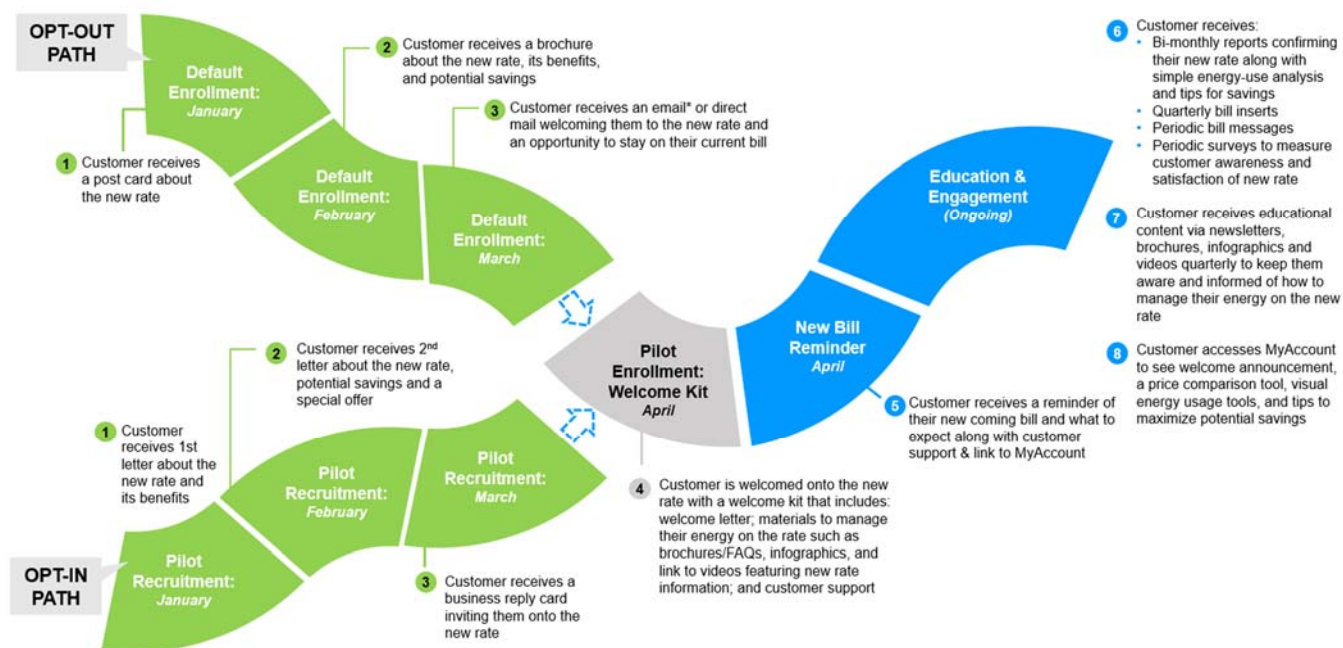
1. Encourage the target customer population to participate in the pilot by educating them on
 - The Pilot
 - Demand rates and subscription rates
 - Additional AMI-enabled benefits, such as opportunities to better manage energy costs
2. Develop and test a portfolio of marketing, education, and outreach materials to
 - Support recruitment, enrollment, and ongoing education and outreach campaigns
 - Educate and support customers pre-, during, and post-enrollment
3. Launch targeted marketing, education, and outreach to recruit, retain, and engage customers in the Pilot

E.2.1 Pilot Customer Communications Strategy--Recruitment

In addition to awareness and acceptance of various rate structures, the primary strategic decision studied in the Pilot is the choice to participate in a new rate. Customers eligible for Pilot participation will be recruited in two ways: (1) “opt-in” where customers must take action to enroll, or (2) “opt-out”, where customers are enrolled into the Pilot unless they explicitly decline to participate.

Exhibit E-1 depicts the Customer Engagement Pathway for opt-in and opt-out customers. Customers will be provided multiple channels (*e.g.*, online, business reply cards, phone) through which to respond to recruitment efforts. As illustrated, there is a different communication and recruitment/engagement pathway for each, until a customer is enrolled. After enrollment, the communication strategy will be consistent by providing customers with similar information and continuous engagement.

Exhibit E-1 Customer Engagement Strategy Pathway²



The opt-in recruitment strategy includes nine combinations of opt-in communication treatments during the Test & Learn stage. The communication treatments determined to be most viable will be used for opt-in full-scale recruitment for optimal effect. The opt-out recruitment strategy includes five opt-out communication treatments that will be used for full-scale recruitment.³

The Communications Strategy is key to the success of both enrollment approaches. Every customer in the Pilot will be randomly assigned to a treatment option⁴ that will dictate the combination of communication materials that they will receive, and how they will receive it. Unique content assets (mailings, emails, webpages, etc.) will be used to combine information on each treatment feature with rate-specific content.

In the opt-in scenario, the customer will be presented with evidence and information that resonates with specific interests and preferences. In this scenario, Con Edison will study alternative content, frequencies, and delivery channels, in addition to the structural alternatives around rate structures, bill information, bill protection, and bill messaging (discussed in Appendix D). Similarly, in the opt-out scenario to achieve a 90% retention level or better, customers will be made aware of their assigned rate, its benefits, and its opportunities.

² Exhibit E-1 illustrates the current Customer Communications Strategy and may not depict the actual plan implemented once the Test & Learn state is completed and adjustments are made to reflect the most effect media and messaging to recruit/enroll customers or communicate with them post-enrollment. See discussion in E.4.

³ In addition to communication effectiveness/performance, cost per customer will also be considered.

⁴ Treatment option is a combination of rate design and communication media/message.

The Pilot will also test the efficacy and value of various customer communication channels. Primary communication channels, such as direct mail, email, and post card, will be used to notify customers that their rates will change. Several of the tests in both the opt-in and opt-out customer populations are designed to assess the relative effectiveness and customer satisfaction associated with these communication channels.

E.2.2 Pilot Customer Communications Strategy—Summary

The following three primary activities are necessary for successful execution of the Pilot Customer Communications Strategy:

1. *Communication Deployment and Management.* Produce and deploy content assets for customer recruitment, enrollment, and education and outreach as prescribed by multiple communication treatments as well as leverage resources and tools to help customers manage their energy use and costs under the new rates.
2. *Communication Monitoring, Analytics, and Reporting.* Collect, validate, and track campaign performance data from multiple sources to provide integrated performance reporting at the campaign and overall pilot levels through each phase of the Pilot.
3. *Ongoing Quantitative Research.* Gauge customers' understanding, engagement, and satisfaction with their participation in the Pilot, and provide insights about the customer journey, perceived benefits, behavioral change, and the potential for acceptance of future innovative rate designs.

E.3 Pilot Communications Research & Planning

The Pilot Communications Strategy is based on a robust set of research and planning activities that Con Edison started in early 2018. Throughout 2018 Con Edison plans to continue to evolve the Pilot Communications Strategy through a series of outreach activities, design analyses, and testing of key messaging and content elements through focus groups and online surveys. During Fall 2018 this research will be validated with the Test & Learn Stage in Staten Island/Westchester County (SI/W).

E.3.1 Pilot Communications Research (Q1-Q2 2018)

These pre-pilot research activities are being undertaken for readiness and success in the execution stage of the Pilot when recruitment efforts launch in the fall 2018.

One of the more significant research activities is focused on Pilot messaging. Results from this research include a strategic roadmap for communications: to include (but not limited to) exact words and phrases to use with key audiences, and a set of communication principles to help guide efforts across channels, as well as future long-term applications. Outputs of this research included customer perspectives regarding:

- Most effective messages to motivate customer recruitment and engagement

- Most effective messages to address low-income customers
- Most important differences by borough and customer segment

Communications research also included a review of Con Edison's existing research and in-depth interviews with Con Edison's key internal stakeholders. Additionally, customer-focused research included qualitative and quantitative testing through the following vehicles:

- In-person sessions with customers that combine emotional measures with rational discussion: in-depth message testing with potential Pilot customers to understand which messages resonate, which do not, and why
- Online survey across customer markets: based on insights from the instant response sessions, a broader survey was used to assess differences among boroughs and customer segments
 - Pre-/Post-Testing: Assess perceptions of Con Edison, rates, and rate structures, and Pilot consideration before and after messaging
 - Proactive/Reactive Message Ranking: used to prioritize best messages by customer segment (elderly, millennial, low-income)
 - Word and Phrase Testing: used to evaluate specific words, phrases, and proof points

Through this research the following was produced during Q1-Q2 2018:

- Names for Pilot rate structures
- Best practices and benchmarking for rate communications
- Best practices and benchmarking for new rate education, including "demand" and "subscription" concepts
- Best practices for opt-out recruitment communications
- Customer response to drivers of rate change and correlations to rate acceptance

E.3.2 Pilot Communications Planning (Q3 2018)

The communications research will inform the following planning activities so that the Customer Communications Strategy and its content resonates with customers:

- *Customer research* will gauge initial communications effectiveness and optimize communication strategies for successful customer engagement throughout the Pilot
- *Content ideation and creative development* will leverage customer research to develop customer-focused communication materials for the recruitment, enrollment, education, and outreach phases of the Pilot
- *Multi-channel planning* will explore the effectiveness of different customer communication treatments across the Pilot's multiple phases

These activities will achieve:

- *Creative testing and communications effectiveness of content*
- *Comprehension testing of content*

Based on this communications research and planning, a portfolio of up to 30 content assets will be examined for use during multiple communication phases—recruitment, enrollment, education, and outreach. The portfolio of assets and potential opt-in/opt-out materials that will be tested for effectiveness include:

Potential Communication Assets (Pre-Enrollment)

- Pilot website
- Customer enrollment/opt-out portal
- Key messages/tips/FAQs
- Pilot brochure
- Welcome Package
- Direct mail letters
- Direct mail postcards
- Business reply cards (BRC)
- Emails
- E-newsletters
- Infographics
- Videos

Participant Communication Assets (Enrollment through Pilot)

Printed materials

- Welcome Package
- 1st Bill Reminder
- Bi-monthly reports
- Quarterly bill inserts/inserts
- Periodic bill messages
- Periodic surveys
- Quarterly educational content⁵
- Link to MyAccount⁶

Digital materials

- Welcome Package
- 1st Bill Reminder
- Bi-monthly reports
- Quarterly bill inserts/inserts
- Periodic bill messages
- Periodic surveys
- Quarterly educational content⁵
- Link to MyAccount⁶

E.4 Pilot Customer Communications Plan

Con Edison will partner with an adaptive campaign vendor to support the Pilot Customer Communications Strategy implementation and execution. The campaign vendor will leverage the pre-Pilot design, message strategy, and market, communications, and customer research conducted by Con Edison to inform the ideation and development of communication materials to be used during the Pilot.

⁵ Quarterly educational content via newsletters, brochures, infographics, videos

⁶ The link to MyAccount will provide a welcome announcement, a price comparison tool, visual energy usage tools, and tips to maximize potential savings.

In addition to communication materials, the research will inform the customer plan and the development of customer engagement tools throughout the Pilot.

The content concepts will be developed into communication materials and produced for deployment across various channels as directed by the Pilot treatment plans. This is so that each customer in each test cell receives the designated treatment, and that communication with each customer delivers information relevant to the treatment to which that customer is assigned.

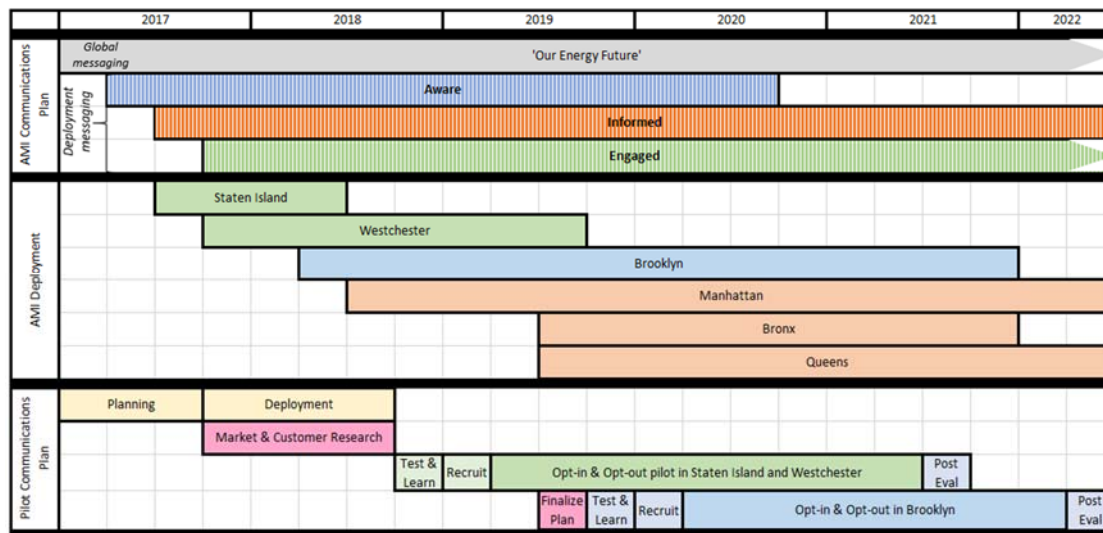
In addition to production, Con Edison will validate and track customer communications to determine their effectiveness and provide reporting on their performance as necessary.

E.4.1 Integrated Communications Plan

The customers selected for the Pilot will receive multiple communications prior to, during, and after the Pilot period. This Pilot Communications Plan is a subset of the overall Customer Education Plan described in the Company's AMI Customer Engagement Plan.⁷ As part of AMI Customer Education, customers receive information prior to, during, and after they receive their AMI meter including ongoing outreach and education activities. The AMI Customer Education Plan and Pilot Communication Plan are occurring at the same time and are integrated and leveraged as described below.

Exhibit E-2 contains three sets of activities. The top set of activities summarizes the AMI Customer Education Plan proposed in the original AMI Customer Engagement Plan.⁸ Under this Plan, every customer receiving an AMI meter is contacted during three distinct phases of communication activities: Aware, Inform, and Engage. The three activities will occur for each customer region, tied directly to the meter deployment timing. Global Messaging will occur throughout the six-year deployment phase.

Exhibit E-2: AMI and Pilot Communication Timeline



⁷ Electric Rate Case, AMI Customer Engagement Plan, p. 8, Section 3, Customer Education

⁸ *Id.*

The next set of activities in Exhibit E-2 depicts the planned AMI meter deployment schedule. Customers in each of the six customer regions will go through the AMI Communications Plan described above. Even after meters are fully deployed, Con Edison will continue to communicate with all customers to (1) roll-out new programs (such as new rate plans, demand response), (2) gain insight and feedback on customer energy usage and control, (3) facilitate adoption of home area networks, and (4) provide information on beneficial third-party programs as envisioned in future Reforming the Energy Vision (REV)⁹ activities.

The third set of activities in Exhibit E-2 captures the specific Pilot Customer Communications Plan. This Plan begins in Q4 of 2018 with Stage 0: Test-and-Learn and it runs through the end of the two-stage Pilot period:

Stage 1 – Staten Island and Westchester County (Q1 2021)

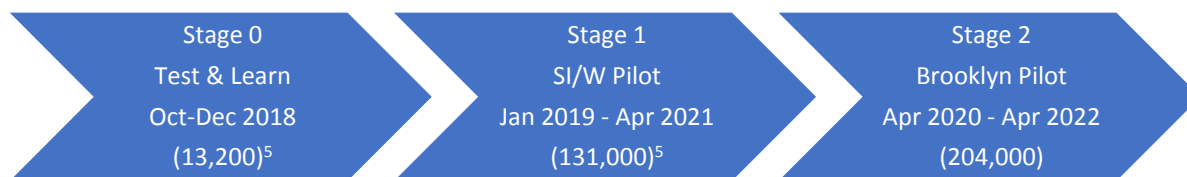
Stage 2 – Brooklyn (Q1 2022)

E.4.2 Stages of Pilot Customer Communication Plan

The Pilot and its Communications Plan are structured as an innovative approach that leverages design thinking. The three stages will evaluate a range of customer communication artifacts and channels. These elements will be examined and modified at key milestones such as after the formal “Test & Learn” stage for the Staten Island/Westchester County pilot (SI/W), and again, after year one of the SI/W Pilot itself in preparation for the Brooklyn pilot. This process of design, test, modify, and test again will provide Con Edison with a wealth of information on customer preferences and efficacy of communication artifacts.

Exhibit E-3 illustrates the customers who will be communicated with during the three Pilot stages. In Stage 0, 13,200 customers in SI/W will be contacted in the Test & Learn Stage. In Stage 1, 131,000 customers will be contacted in the SI/W Pilot, which will include the 13,200 customers contacted during Stage 0. The Brooklyn Pilot will contact 204,000 customers; the Test & Learn Stage for Brooklyn will be determined after lessons learned from the SI/W Test & Learn Stage.

Exhibit E-3 Stages of Pilot Customer Communications Plan



⁹ Case 14-M-0101, *Proceeding on Motion of the Commission in Regard to Reforming the Energy Vision*.

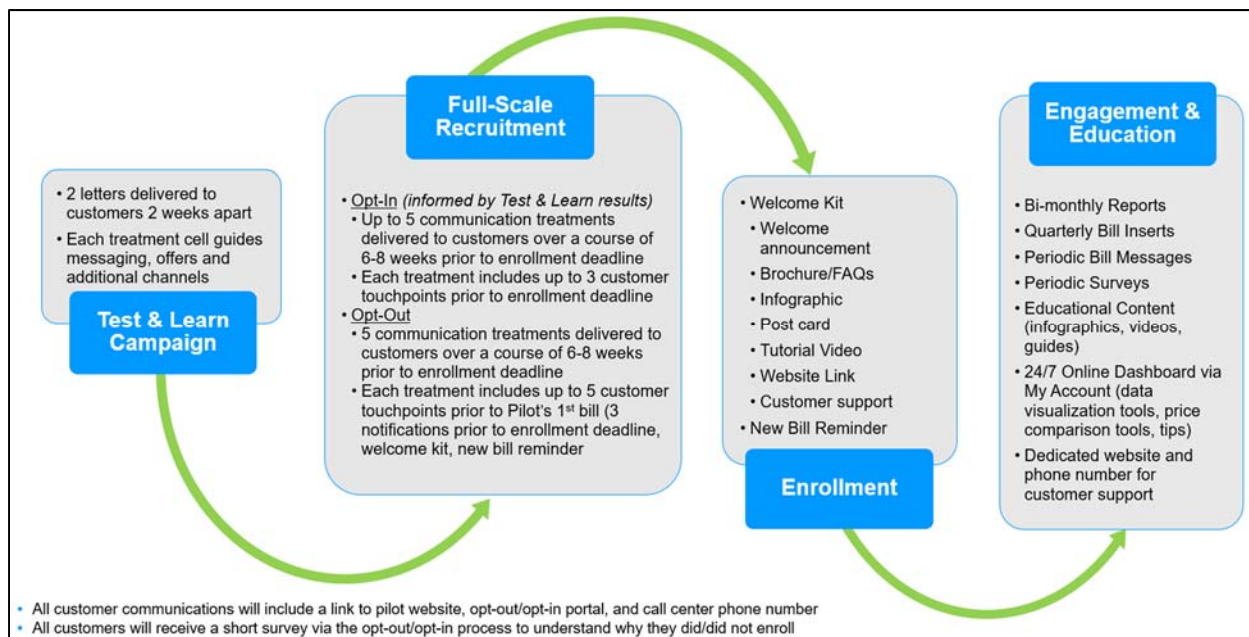
¹⁰ The 13,200 customers who participate in Test & Learn will be extracted from the 131,000 target customers in SI/W Stage 1 Pilot, and will be part of the full enrollment in March 2019.

Exhibit E-4 is a more detailed summary of the envisioned Pilot Customer Communications Plan that will impact customers in the Pilot. The Plan will include different communications for three specific periods: Recruitment, Enrollment, and Ongoing Education and Outreach. As illustrated, communications will be tested for opt-in customers in the Test & Learn stage; this will influence the communications used for opt-in customers during the Recruitment phase. The opt-in population is best suited for Test & Learn due to the size of eligible population that can be allocated across the treatment cells; sufficient opt-out test population is not available to produce scalable results.

Con Edison will be conducting customer communications research and analysis to ensure a robust set of communications and channels are available for all customers in the Pilot. As illustrated in Exhibit E.4 (and E.1), the same communications will be used for both opt-in/opt-out customers during the Enrollment and Engagement & Education phases, with the exception of rate-specific content.

Eligible Pilot customers are currently part of the AMI Communications Plan (discussed earlier), and in addition a part of the Pilot Customer Communications Plan. Together, these Plans will be used to engage, recruit, and support all customers to leverage their AMI meter and information combined with innovative rate plans to control and manage their energy usage. The specific activities, artifacts, and channels for each of the three Pilot Customer Communications Plan stages (Recruitment, Enrollment, and Ongoing Education and Outreach) are discussed in Sections E.4.3 – E.4.5.

Exhibit E-4 Pilot Communications Plan



E.4.3 Customer Communication Phase 1: Recruitment

As discussed above, Con Edison will conduct a Test & Learn stage (Stage 0) in Q3 2018. The most viable combination of marketing features, based on results from Stage 0, will be used to complete the recruitment effort for opt-in enrollment during Q1 2019. In parallel with this opt-in recruitment activity,

notifications will also be sent to the opt-out group beginning in January 2019 with the goal of placing both opt-in and opt-out customers on new rates in their billing cycles starting in April 2019.

The Pilot Customer Communications Strategy for full-scale recruitment will include messaging and multiple marketing channels to drive Pilot enrollment and sustain enrolled participation. Customers in both the opt-in and opt-out groups will receive:

- Rate-specific information and associated benefits
- Information on staggering energy use, especially in peak periods, as a means of achieving savings and lowering energy costs on the rate
- Messaging emphasizing that customers are in control of their energy usage
- Reinforcement that participation is the customer's decision, and
- Commitment that Con Edison is available to answer any customer questions or concerns about the Pilot and participation, including support from knowledgeable customer service representatives in the Call Center.

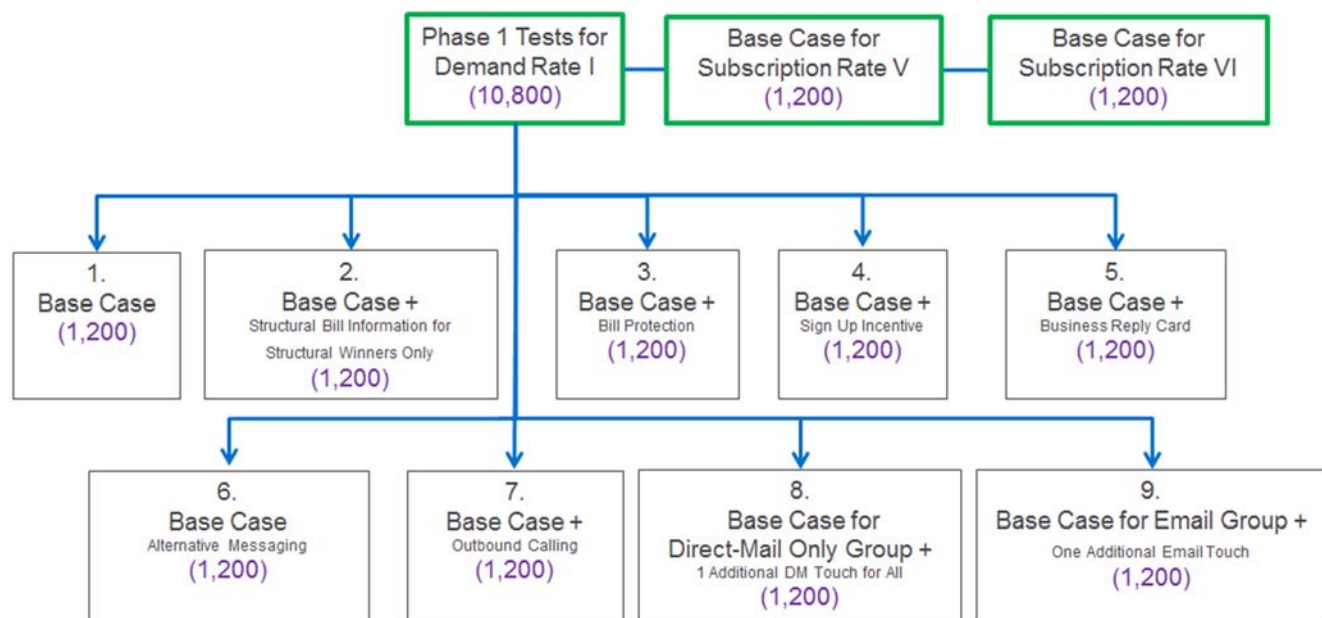
E.4.3.1 Opt-in Recruitment

Exhibit E-5 shows the planned marketing tests for opt-in enrollment for residential customers in the Test & Learn stage of the Pilot. The top row indicates the three rates that will be tested during the Test & Learn stage: Demand Rate I (as representative of all demand rates), Subscription Rate V, and Subscription Rate VI. The next rows describe the nine treatments to be executed during the Test & Learn stage.

The base case (Treatment 1) is simply the base communication package to be presented to all customers during the Pilot. The remaining treatments differ in the type of information provided as well as the channels and frequencies of communication. Applying treatments 2 through 9 only to Demand Rate I will significantly reduce costs and simplify the tracking and implementation requirements for this initial phase.

If treatments are done for the two subscription rates as well as for Demand Rate I, 27 different collateral pieces would be needed to combine information on the features of each offer with rate-specific content. Under the planned approach by Con Edison, 11 specific marketing combinations are proposed for opt-in recruitment.

E-5 Test & Learn Opt-in Recruitment Elements



In Appendix D (Section D.4.1) the treatment alternatives in groups 2, 3, and 4 are explained in detail.

Treatment 2: Structural Bill Information

In this treatment group the effect of knowing whether the customer will benefit from the Pilot rates (assuming no behavioral change) in advance of opt-in will be tested. Using a randomly selected group in this treatment, Con Edison will compare the cost of electricity under a customer's current rate (otherwise applicable tariff, OAT) versus the Pilot rate, using the prior 12-month period, to determine whether the Pilot rate is beneficial or not. Only those customers for whom billing under the Pilot rate is less than under the otherwise applicable tariff (cost savings would arise based on prior year consumption) will be notified in their opt-in letter. This will test the impact of knowing in advance that cost savings will be realized under the Pilot (due only to the rate difference; not any behavioral change) based on the customer's decision to "opt-in."

Treatment 3: First Year Bill Protection

Con Edison understands the importance of whether and how to provide bill protection to Pilot participants—both opt-in and opt-out. In the Pilot, Con Edison prefers to protect participants from bill increases while at the same time implementing a Pilot that effectively tests whether participants respond to different rates.¹¹

Treatment 4: Sign Up Incentive

¹¹ As discussed in Appendix C, while Con Edison will test (and provide) bill protection (price guarantee) to different treatment groups, it is (1) not feasible or practical to provide immediate bill credits, and (2) not a customer retention strategy for customers desiring to opt-out of the Pilot.

To determine if customers are more likely to “opt-in” to the Pilot, a sign-up incentive will be tested. As currently envisioned, a \$25 gift card will be provided to any enrolled customer from Treatment Group 4 in their Welcome Packages.

Communication elements in Treatment groups 5 – 9 are summarized below with further detail in Appendix D (Section D.4.1).

Treatment group 5 will test if the addition of materials impacts acceptance rates. For example, in addition to standard business letters, Con Edison will test sending highly-visual content, such as a business reply card to increase customer acceptance.

Treatment group 6 will test the effects of alternate messaging (relative to Base Case/Treatment 1) in the offer letter rather than changing the format substantially.

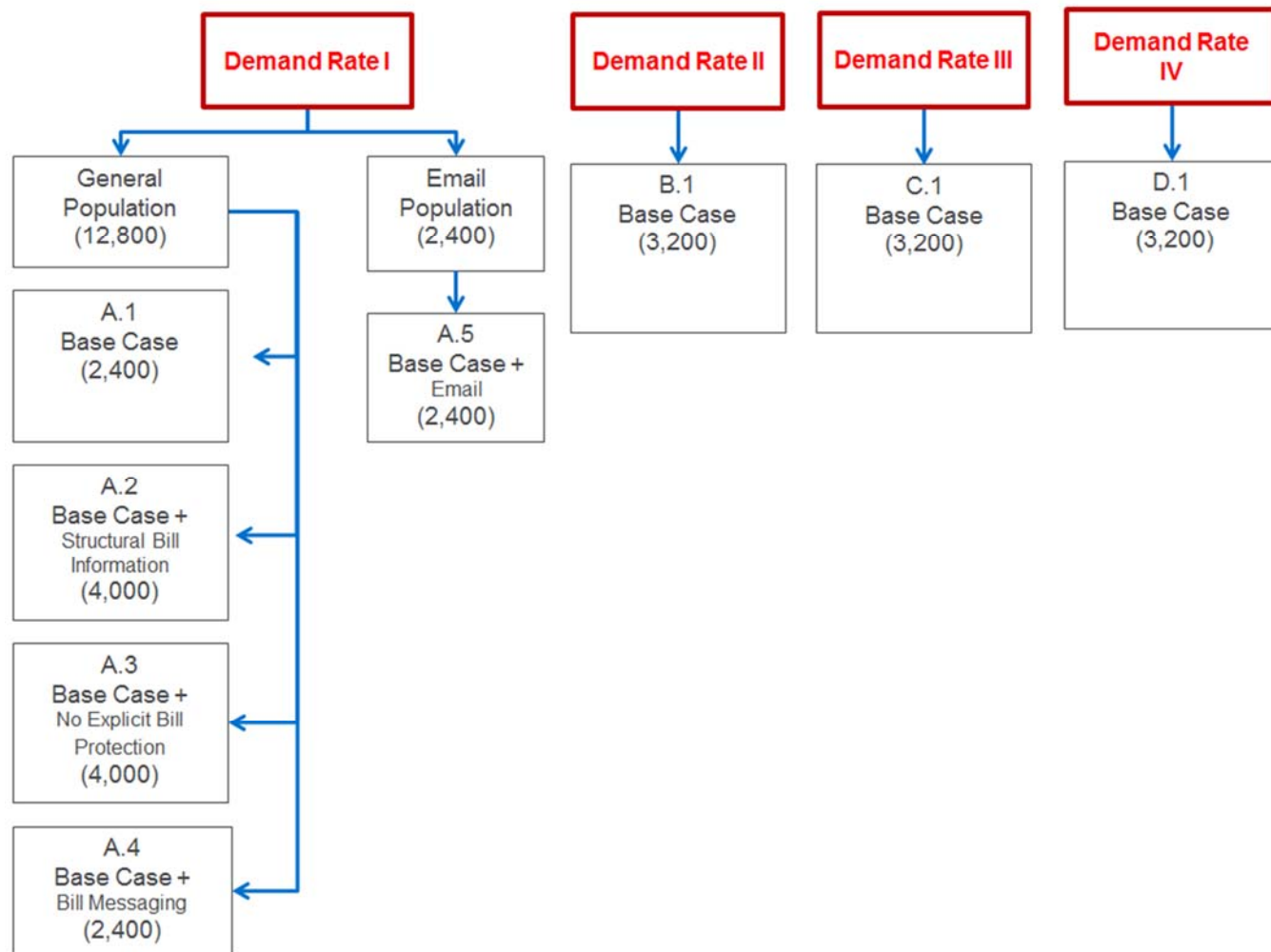
The final three Treatment groups vary in the number of touches and communication channels. Treatment groups 7 and 8 begin with a direct mail piece and then follow that up with outbound calling in group 7 and one additional direct mail piece in group 8. In treatment group 9, an additional direct mail piece is only sent to customers for whom Con Edison does not have email addresses while email customers will receive additional information via e-mail.

The most viable artifacts and channels discovered during the Test & Learn stage will be used for the remainder of the Pilot opt-in customer population. In addition to the specific outbound communication materials, rate-specific and Pilot information will be available on the MyAccount portal for (only) eligible customers.

E.4.3.2 Opt-out Recruitment

Opt-out recruitment will commence along with full-scale opt-in recruitment beginning January 2019. While the opt-in population is best suited for Test & Learn due to the size of eligible population that can be allocated across the treatment cells, there is not sufficient opt-out test population available to produce scalable results.

Con Edison will be conducting customer communications research and analysis to ensure a robust set of communications and channels are available for all customers in the Pilot. As shown in Exhibit E-6 five communication treatments will be delivered to eligible customers through a variety of channels (*e.g.*, direct mail, email) as prescribed by their designated communication treatment cell.

Exhibit E-6: Opt-out Recruitment Treatment Plans

All opt-out customers will be provided bill protection and most will be notified of this at the time of enrollment. The only exception will be a small test cell (approximately 4,000) who will be notified at the end of the year. This cell will be used to test the differences in energy-use behaviors between those who know that they will receive bill protection and those who do not (see Appendix D for detailed discussion). Treatment groups A.1, A.4 and A.5 in Exhibit E-6 are focused on the relative effectiveness of different communication channels for creating awareness among the opt-out population.

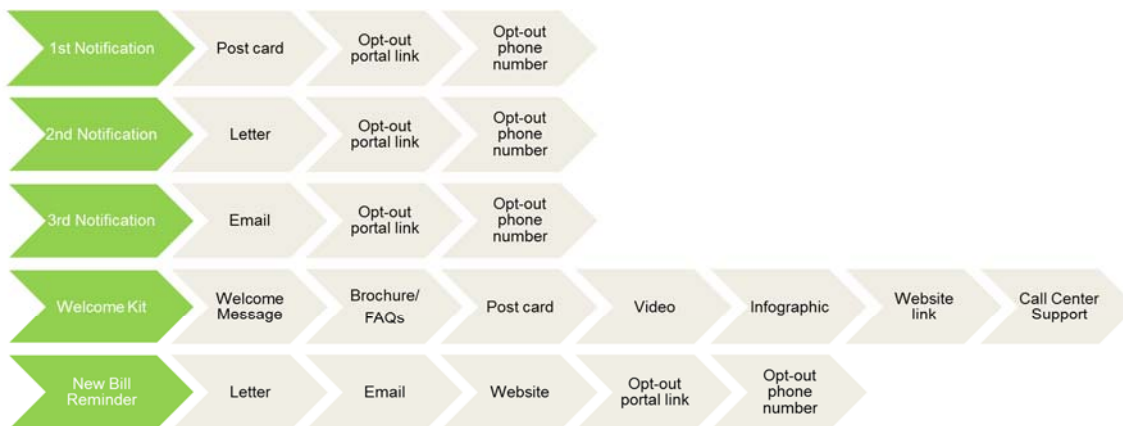
- Treatment A.1 is the base case that consists of three notifications (letter, post card, email); see Exhibit E-7.
- Treatment A.2 includes structural bill information for customers when billing under the Pilot rate is less than under the otherwise applicable tariff (cost savings would arise based on prior year consumption). This will test the impact of knowing in advance that cost savings will be realized under the Pilot (due only to the rate difference; not any behavioral change) based on the customer's decision to not "opt-out."

- Treatment A.3 is A.1 but without explicit notification of bill protection during recruitment. Bill protection notification will be divulged upon customer-specific reconciliation at Pilot mid-point.
- Treatment A.4 will deliver essentially the same content but will add an additional communication, which will be delivered via bill messaging.
- Treatment A.5 will add an additional communication to the base case in the form of an email notification. Treatment A.5 can only be done among customers for whom Con Edison has email addresses, which is currently roughly 60% of the general population.

All treatment groups will test opt-out rate and customer awareness. The primary metric of interest for these tests is awareness, which will be measured through a survey. Insights from the notification tests will determine opt-out preferences.

For opt-out enrollment, a key metric of interest is customer awareness. Customers cannot proactively choose to (1) stay on the new rate, or (2) opt-out, if they are not aware that their rate will change unless they take action. A low opt-out percentage for a new rate can only be construed as beneficial if customers are aware that their rate will change unless they take action. If a low opt-out rate is due largely to low awareness, the opt-out rate is not a good measure of customer preferences. This approach will inform Con Edison about customer opt-out preferences.

Exhibit E-7: Opt-out Communication Elements



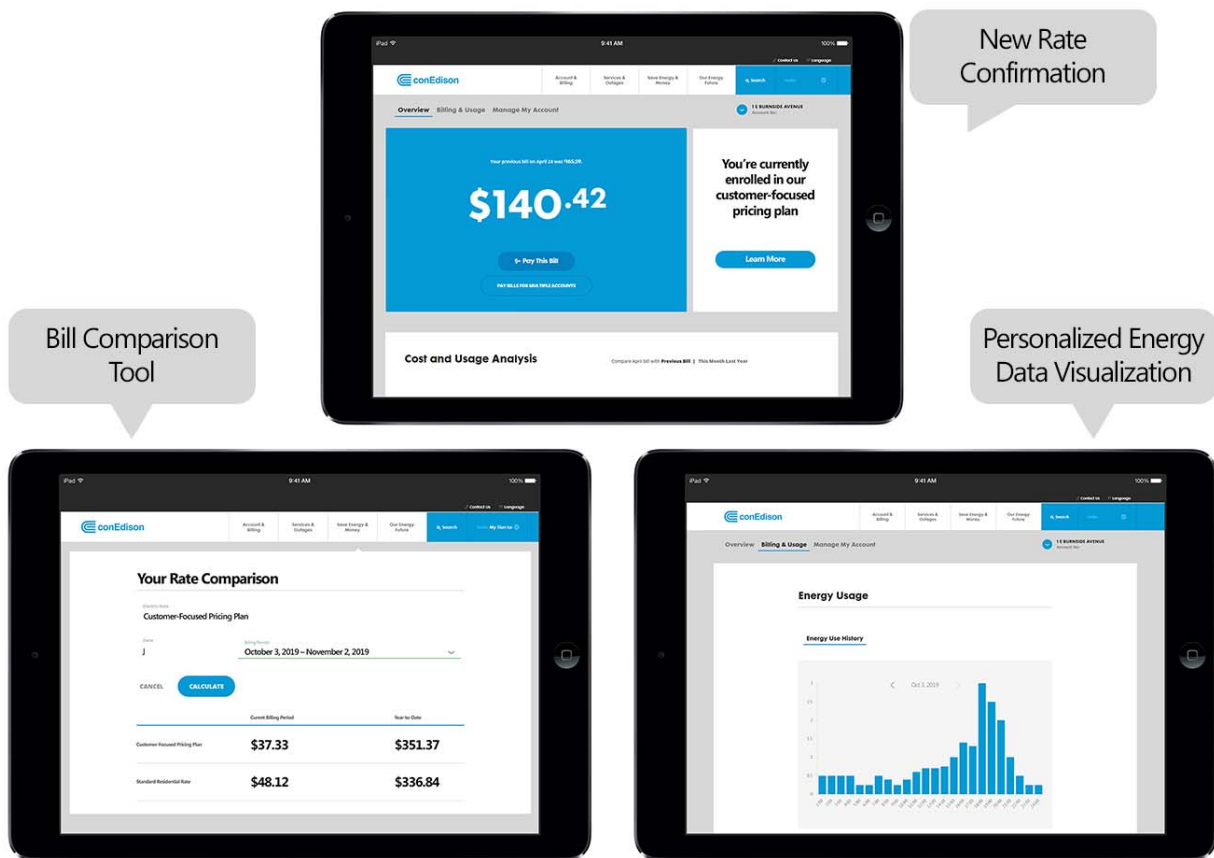
- Opt-out customers will receive at least 5 opportunities to opt-out of the pilot prior to the pilot's start date
- Opt-out messaging will be on every material customers receive
- Opt-out web portal and opt-out call center is available to customers to opt-out easily and seamlessly
- Opt-out customers will receive a short survey via the opt-out process to understand why they chose to opt-out
- Customers reserve the right to opt-out of the pilot anytime

In the opt-out strategy, customers will receive a minimum of three communication touchpoints along with a final notification of impending Pilot enrollment and a first bill reminder just prior to receiving the first bill on their new rate. Con Edison will accept customer requests to opt-out of the Pilot both before and after the commencement of billing under the Pilot rates and will provide them with multiple channels through which to submit these requests. As shown in Exhibit E-7, there will be communications and:

- an opt-out portal link via Con Edison's MyAccount
- dedicated call center support, and
- other options to enable customers to opt-out.

Exhibit E-8 illustrates some concepts of tools currently in development that could be used by customers to learn more, and analyze their energy use/cost under the applicable rate. These visual outreach concepts will be tested via customer focus groups to determine their effectiveness in improving customer understanding and inducing behavioral change. In addition, customers who opt-out and leave the Pilot may receive a short survey (delivered as part of the opt-out process) to understand the drivers and motivations of their decision and gain insights to inform future Pilot communications and design.

Exhibit E-8: Customer Communication Outreach Concepts



E.4.4 Customer Communication Phase 2: Enrollment

By March 2019, participating customers will be enrolled in the SI/W phase of the Pilot. The Pilot Customer Communications Strategy for enrolled customers is designed to promote and reinforce customers' understanding of the Pilot, their assigned rates, and related benefits. As currently

envisioned, the Pilot Customer Communications Strategy will commence with a welcome packages, followed by multi-channel communications delivered per each customer's communication treatment, as well as ongoing access to trained call center personnel for questions and concerns.

Welcome packages will also include multi-channel contact information for customer support during the Pilot. The packages will include customers' enrollment confirmation and important information about their new rate and educational tools to inform and guide them to manage their energy use. Additional customer resources and tools will be provided by Con Edison in Phase 3 to help customers manage their bills under their new rate and reinforce and encourage engagement and participation.

E.4.5 Customer Communication Phase 3: Ongoing Education & Outreach

All customers who participate in the Pilot will receive Ongoing Education & Outreach for the duration of the Pilot. There will be no difference in delivery method and/or content of the outreach communications for customers on the six demand rates, except customers with email addresses with Con Edison will also receive digital communications.

Exhibit E-9: Delivery Methods for Ongoing Education and Outreach

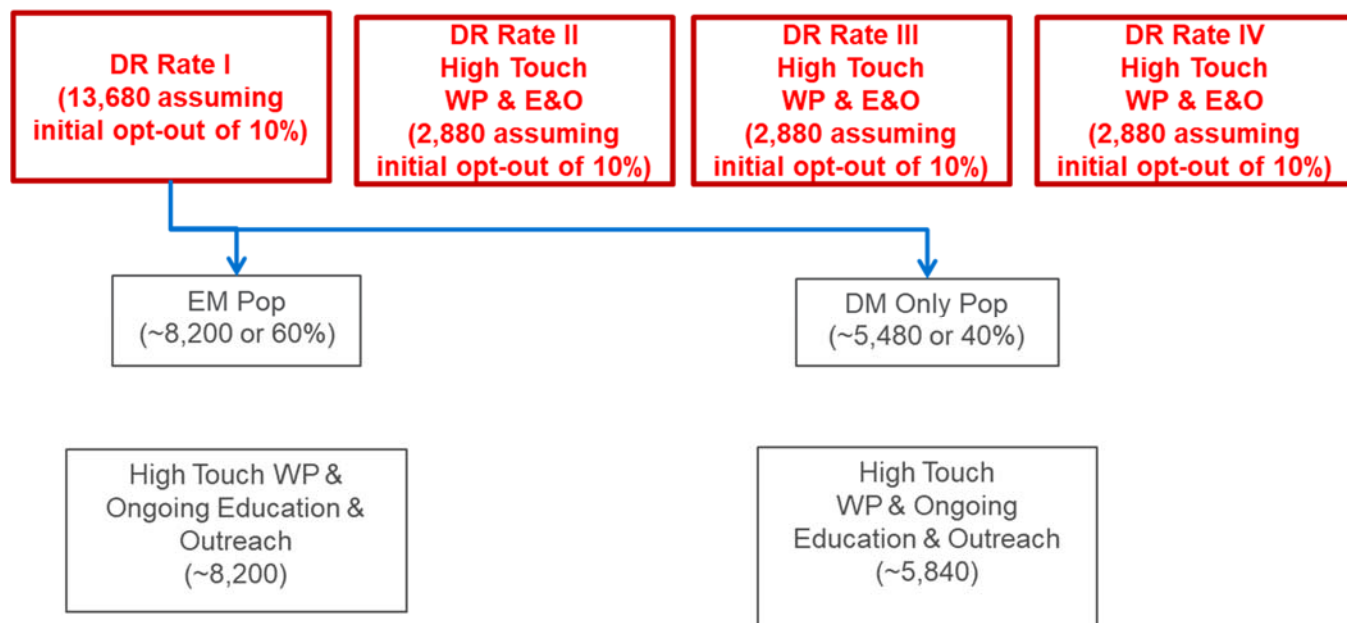


Exhibit E-9 identifies the delivery methods for ongoing education and outreach by treatment group. This plan includes key content and channel differences for each Demand Rate (DR), including the basic Welcome Package (WP), Education and Outreach material (E&O), and e-mail (EM) and direct mail (DM) channels.

The Welcome Package will contain a variety of information including:

- Demand-based delivery rates versus volumetric rates
- Information on subscription rates (where applicable)
- The potential impact on customer bills

- The benefits of demand rates
- Ways to save money and manage customer energy use

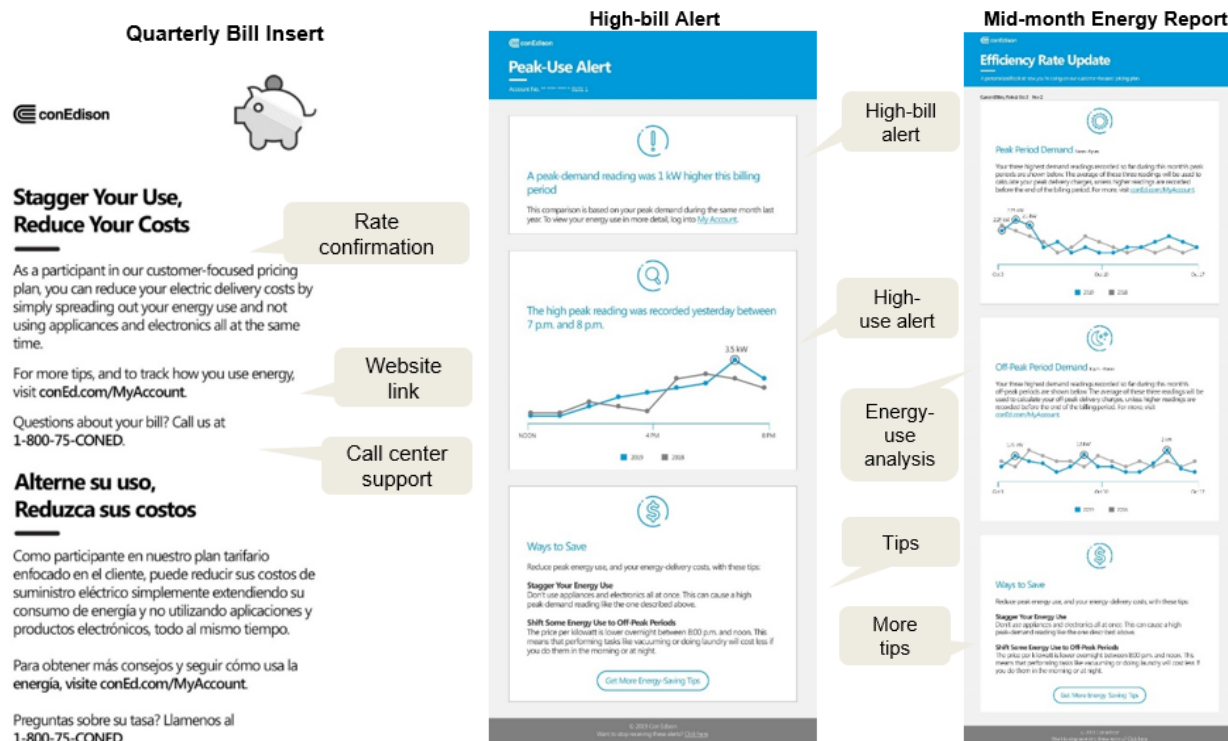
In addition, customers will have access to online visual tools that will allow them to review their energy data, compare their demand-delivery charges (and subscription rates where applicable) with what they would have paid on their standard delivery rate (OAT) and explore seasonal demand-reduction tips. The Pilot's anticipated digital tools are outlined below:

- Landing pages on conEd.com for each customer based on their rate structure
- Opt-in and opt-out functionality for each of the rate structures
- Data visualization for the new rates within customers' "MyAccount" profiles
- A bill analysis/comparison tool, which will allow customers enrolled for one of the new rates to determine what their bill would have been on their otherwise applicable tariffs
- Customer tools such as infographics, tutorial videos, guides, tips, etc. will be hosted in My Account to educate customers and help them manage their bill under the new rate
- Tips for reducing demand and maximizing potential savings

Finally, Con Edison will continue to evolve a set of ongoing communication techniques and touch points to encourage customers to take advantage of their smart meter data and their new rate plan. Mock-ups of this bill messaging collateral are shown in Exhibit E-10. The message type and frequency include:

- New bill reminder email/letter sent prior to start of new rate billing
- Monthly bill messages
- Bi-monthly reports reminding participants of their new rates, providing basic energy-use analysis and offering tips for savings
- Quarterly bill inserts
- Quarterly educational content delivered via post cards, brochures/PDF, newsletters, infographics, videos
- Dedicated phone number for Pilot participants
- Periodic surveys to engage customers and measure their customer experience on the new rate

Exhibit E-10: Illustrative Bill Messaging Mockups



E.5 Stakeholder Engagement

Con Edison has strong relationships with community leaders, advocacy groups, elected officials, and other partners. Stakeholder engagement is critical to the success of the Pilot. In addition to stakeholder engagement interactions to date, Con Edison will be conducting stakeholder engagement prior to the start of the Pilot. The stakeholder engagement will include a discussion of the proposed learnings from the Pilot and the Pilot Customer Communications Plan. Con Edison will maintain stakeholder engagement throughout the Pilot and conduct meetings at appropriate points in the process.

APPENDIX F

PSC NO: 10 - Electricity
 Consolidated Edison Company of New York, Inc.
 Initial Effective Date: d/mm/yyyy

Statement Type: MSC CAP
 Statement No:

Statement of Market Supply Charge - Capacity

The following charges are applicable to billing to Full Service Customers in the New York City NYISO load zone and in the combined Westchester NYISO load zones, pursuant to General Rule 25.1 and General Rule 20.6.2.

Charges assessed in dollars per kilowatthour:

<u>SC</u>	<u>NYC</u>	<u>Westchester</u>
1 - Rate I	\$ 0.04860	\$ 0.04046
1 - Rate II *	\$ 0.10410	\$ 0.08660
1 - Rate III ***	\$ 0.62552	\$ 0.51831
<u>1 - Rider Z Rate IV*</u>	<u>x.xxxxx</u>	<u>x.xxxxx</u>
2 - Rate I	\$ 0.04730	\$ 0.03940
2 - Rate II *	\$ 0.08760	\$ 0.07290
6	\$ 0.00070	\$ 0.00050
12 - Rate I Energy Only	\$ 0.03340	\$ 0.02780
12 - Rate III Energy Only	\$ 0.08760	\$ 0.07290

Charges assessed in dollars per kilowatt:

	<u>NYC</u>	<u>Westchester</u>
5 - Rates I and III	\$ 11.15	\$ 9.28
5 - Rates II and IV **	\$ 11.15	\$ 9.28
8 - Rates I and IV	\$ 14.06	\$ 11.71
8 - Rates II and V **	\$ 18.47	\$ 15.38
8 - Rate III **	\$ 15.27	\$ 12.71
9 - Rates I and IV	\$ 9.19	\$ 7.65
9 - Rates II and V **	\$ 15.18	\$ 12.64
9 - Rate III **	\$ 9.33	\$ 7.76
12 - Rates I and IV	\$ 14.33	\$ 11.93
12 - Rates II and V **	\$ 15.18	\$ 12.64
12 - Rate III **	\$ 15.43	\$ 12.85
13 - Rates I and II **	\$ 0.02	\$ 0.02

Charges assessed to Rider M customers based on ICAP tag per kilowatt:

	<u>NYC</u>	<u>Westchester</u>
\$	12.30	\$ 12.20

The above charges are not applicable to power and energy that is supplied by NYPA under Special Provision G of SC 9.

Notes:

* Charges are applicable only to the "On peak" period.

** Charges are applicable Monday through Friday, 8 AM to 6 PM, for the months of June, July, August and September, and Monday through Friday, 8 AM to 10 PM, for all other months.

*** Charges are applicable Monday through Friday, 2 PM to 6 PM for the months of June, July, August and September.

Issued by: William A. Atzl, Jr., Director, Rate Engineering, New York, NY