

**STATE OF NEW YORK
PUBLIC SERVICE COMMISSION**

CASE 16-E-0060 – 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.

**Con Edison
2017 Energy Efficiency
Earnings Adjustment Mechanism
Achievement Report**

March 30, 2018

1. Background

The New York Public Service Commission’s (“Commission”) *Order Approving Electric and Gas Rate Plans* (“Rate Case Order”) adopted program-achievement based and outcome-based earnings adjustment mechanisms (“EAMs”) for Consolidated Edison Company of New York, Inc. (“Con Edison” or the “Company”).¹ The EAM concept was introduced in the Reforming the Energy Vision (“REV”) proceeding and formalized in the REV Track 2 Order.²

Program-achievement based EAMs are designed to incent the Company to deliver higher levels of energy and demand savings through its direct efforts implementing its energy efficiency and demand management programs. The programmatic EAMs incentivize incremental annual energy (“GWh”) savings and incremental annual system peak demand (“MW”) reductions.

Outcome-based EAMs seek to incentivize the Company to facilitate activities linked to desired outcomes within the entire Con Edison service territory regardless of whether they result solely from the Company’s efforts or are facilitated through broader actions by a number of market actors. The outcome-based EAMs developed pursuant to the rate proceeding and applicable to Rate Year 1 (“RY1”), i.e., 2017, are Distributed Energy Resource (“DER”) Utilization, Residential Energy Intensity, and Commercial Energy Intensity.

2. Achievement Summary

a. Programmatic EAMs

The Company has achieved 300.48 GWh of energy savings, 263.66 GWh resulting from efforts funded pursuant to authorization under the Commission’s Order Approving Energy Efficiency Transition Implementation Plan (“ETIP Order”),³ including programs that have been prorated to reflect only the portion of funds from ETIP and the corresponding energy savings, and 36.82 GWh from efforts funded pursuant to the authorization under the Rate Case Order, including programs that have been prorated to reflect only the portion of funds from Rate Case contributions, and the corresponding energy and demand savings. These achievements result in a programmatic GWh EAM of \$9,220,000 out of a maximum available EAM of \$9,220,000.

With regard to system peak reduction, the Company has achieved 61.387 MW reductions, 47.091 MW from energy efficiency programs using funds authorized pursuant to the ETIP Order, including programs that have been prorated to reflect only the portion of funds representing ETIP contributions and the

¹ Case 16-E-0060, *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 Electric and Gas Rate Plans (“Rate Case Order”) (issued January 25, 2017), Appendix A – Joint Proposal.

² Case 14-M-0101, *Proceeding on Motion of the Commission in Regard to Reforming the Energy Vision*, Order Adopting a Ratemaking and Utility Revenue Model Policy Framework (issued May 19, 2016) (“Track 2 Order”).

³ Case 15-M-0252, *In the Matter of Utility Energy Efficiency Programs*, “Order Authorizing Utility-Administered Energy Efficiency Portfolio Budgets and Targets for 2016 – 2018,” (issued January 21, 2016) (“ETIP Order”).

corresponding energy savings and 14.296 MW from energy efficiency programs, system peak reduction programs and the electric vehicle program using funds authorized pursuant to the Rate Case Order, including programs that have been prorated to reflect only the portion of funds representing Rate Case contributions, and the corresponding energy and demand savings. These achievements result in a programmatic MW EAM of \$3,460,000 out of a maximum available EAM of \$3,460,000.

As noted in the concurrently filed ETIP Q4 Scorecard, the 2017 ETIP cash expenditures include \$11,770,116 of expenses related to both 2016 acquired projects and 2016 programmatic activities that were incurred in 2017, which related to 17.78 GWh and 2.80 MW of energy and demand savings. They do not include \$7,941,796 of expenses related to both 2017 acquired projects and 2017 programmatic activities that were incurred or that the Company expects to incur in 2018. Of \$7,941,796, a total of \$5,348,443 have been expended by March 15th, 2018 and the Company anticipates spending the remaining estimated \$2,593,353 in 2018. As a result, the expenses related to the 2017 ETIP energy savings of 263.66 GWh, demand savings of 47.091 MW, and related programmatic activities is derived as follows: \$78,163,704 (the total cash expenditures of all activities reported in the scorecard for 2017) less \$11,770,116 (2016 cash expenditures incurred in 2017) plus \$7,941,796 (2017 cash expenditures incurred or expected to be incurred in 2018), which is equal to \$74,335,384.

As noted in the concurrently filed Rate Case Q4 Scorecard, the total reported expenses of \$14,115,296 include \$6,418,637 of expenditures related to both 2017 acquired projects and 2017 programmatic activities that were incurred or that the Company expects to incur in 2018. As a result, the expenses related to the 2017 Rate Case energy savings of 36.82 GWh, demand savings of 14.296 MW, and related programmatic activities is \$14,115,296.

Unit Cost

The Company is reporting unit costs as follows. Total expenditures related to the authorizations under the ETIP Order and the Rate Case Order are the sum of \$74,335,384 and \$14,115,296, equal to \$88,450,680. The total energy savings related to programs implemented pursuant to the ETIP Order and Rate Case Order are the sum of 263.66 GWh and 36.82 GWh, equal to 300.48 GWh. The total demand savings related to programs implemented pursuant to the ETIP Order and Rate Case Order are the sum of 47.091 MW and 14.296 MW, equal to 61.387 MW. Consequently, on a portfolio-wide basis, inclusive of efforts pursued under authorization provide by both the ETIP Order and the Rate Case Order, the Company is reporting a unit energy savings cost of \$294,361/GWh and a unit demand savings cost of \$1,440,870/MW.

b. Outcome-based EAMs

The Company reports territory-wide achievement of 92,468 megawatt-hours (“MWh”) of annual incremental DER MWh. This achievement results in an outcome-based EAM of \$0 out of a maximum available EAM of \$2,720,000.

The Company reports Residential Energy Intensity of 4.70 MWh sales/active residential accounts. This achievement results in an EAM of \$0 out of a maximum available EAM of \$950,000.

The Company will not be reporting an EAM for Commercial Energy Intensity at this time as monthly total private employment for the six counties in Con Edison's service territory, based on Quarterly Census of Employment and Wages, as defined by the US Bureau of Labor Statistics, is unavailable at this time. This data is necessary to calculate achievements. The Company expects this data to become publicly available in spring 2019 and will file the associated EAM report at that time.

c. Total EAMs Reported

The Company is reporting the following EAM achievements.

Programmatic								
	Minimum Target	Mid-point Target	Maximum Target	Minimum Earnings	Mid-point Earnings	Maximum Earnings	Achievement	EAM Earned
Net GWh	158	178	198	\$0.58M	\$4.03M	\$9.22M	300.48	\$9.22M
Net MW	28.3	43.5	58.7	\$0.29M	\$1.15M	\$3.46M	61.387	\$3.46M

Outcome-Based								
	Minimum Target	Mid-point Target	Maximum Target	Minimum Earnings	Mid-point Earnings	Maximum Earnings	Achievement	EAM Earned
DER Utilization (MWh)	150,000	244,500	360,000	\$0.06M	\$1.11M	\$2.72M	92,468.08	\$0
Energy Intensity: Residential (kWh sales/residential customers)	4.676	4.587	4.409	\$0.11M	\$0.39M	\$0.95M	4.70	\$0
Energy Intensity: Commercial (kWh sales/private employment)	7.164	6.931	6.465	\$0.20M	\$0.72M	\$1.76M	TBD	TBD

3. Achievement Details

a. Programmatic EAMs

The programmatic Incremental GWh EAM incentivizes the Company to achieve energy efficiency savings targets while the programmatic Incremental System Peak MW Reduction EAM is intended to incentivize the Company to achieve system peak reduction targets. As noted previously in section 2, the Company has achieved 300.48 GWh in energy savings and 61.387 MW in system peak reductions. A breakdown of these achievements by program is included below.

Electric Program	Expenditures	Net GWh	Net MW
ETIP			
ETIP Commercial	\$16,085,972	77.21	13.712
ETIP Commercial Direct Install	\$32,484,172	100.10	21.068
ETIP Multifamily	\$15,693,907	49.16	5.184
ETIP Residential	\$9,531,710	22.09	6.145
ETIP Smart Kids	\$194,804	2.14	0.095
ETIP Retail Lighting	\$344,819	12.96	0.887
Rate Case			
Rate Case Smart Kids	\$2,080,275	15.68	0.698
Rate Case Retail Lighting	\$919,725	17.20	1.178
Rate Case System Peak Reduction Program	\$10,193,778	3.94	11.862
Rate Case Electric Vehicles	\$921,518	-	0.558
Total	\$88,450,680	300.48	61.387

These 2017 achievements are relative to the targets established for incremental GWh savings and incremental system peak MW reductions for 2017.

Metric target	Min	Target	Max	Achievement
Incremental GWh Savings	158	178	198	300.48

Metric target	Min	Target	Max	Achievement
Incremental System Peak MW Reductions	28.3	43.5	58.7	61.387

Program Descriptions

The aforementioned programs are further described below.

ETIP Commercial & Industrial Programs

Con Edison offers a robust suite of products and services to commercial customers of all sizes and business types. Critical to the success of the Company's efforts, and to meet energy savings goals, is the engagement of over 1,000 market partners, who work every day with customers to deliver energy savings and leverage Con Edison incentives to make efficiency projects economic. This work includes identifying energy saving opportunities, developing a performance improvement plan, and installing cost-effective energy efficient technologies. Customer education and buy-in are paramount throughout the process so that there is both a firm understanding of the customer's unique needs as well as confirmation that customers have the knowledge and skills to operate and maintain equipment to sustain energy savings throughout the equipment's lifetime.

There is no one-size-fits-all program or solution for every energy user, particularly for large, sophisticated customers. Recognizing the distinct nature of commercial customers, the Company offers four separate market-based offerings through which customers may address their particular business objectives and constraints. These are large commercial and industrial ("C&I") prescriptive incentives, large C&I custom incentives, the Commercial Direct Install program, and the Self-Direct program. The Company is not limited to these approaches and will be launching new offerings utilizing midstream and upstream delivery channels to incentivize energy efficiency measures in this sector.

ETIP Residential Electric Program

The traditional residential program targets renters and owners living in existing 1-4 family housing who pay into the SBC. Prior to 2017, the residential rebate programs consisted of electric and gas rebate measures, including appliance rebates, appliance recycling, and electric and gas HVAC efficiency rebates. In 2017, the Company's traditional residential program offerings were reorganized to better serve customers, improve cost-effectiveness, and bolster energy savings. The expansion to the residential portfolio is intended to broaden energy efficiency penetration to acquire new savings in non-traditional or new markets, be more inclusive, comprehensive, and flexible in facilitating energy savings and peak demand reduction, and expedite the transition to a more REV-like environment with strong focus on customer experience.

ETIP Multifamily Electric Program

The Multifamily Program promotes energy efficiency for existing multifamily electric and gas customers. The multifamily market consists of nearly 70,000 residential buildings across New York City and Westchester County. Many of these buildings were constructed decades ago without attention to the most basic inefficiencies in their thermal, mechanical, and electrical systems. The multifamily program is targeted to owners and property managers of residential buildings with five or more units.

Retail Lighting

The retail lighting program is designed to increase market share of ENERGY STAR Light Emitting Diode (“LED”) lamps within the Con Edison territory. Through coordination with manufacturers and retailers, Con Edison is making discounted ENERGY STAR LED lamps available to its customers. The program has an “upstream” design, with Con Edison providing incentives directly to lighting manufacturers, under the terms of an executed Memorandum of Understanding (“MOU”), to provide instant discounts to customers purchasing eligible lamps at participating retailers. Through effective incentives upstream and enabling achievement of scale by reaching customers where they make their lighting purchases, this program is aligned with the Rate Case Order as well as the Commission’s REV policy goals of leveraging innovative market transformation efforts and animating markets.

Smart Kids

The Smart Kids Energy Efficiency Program is designed to educate 5th grade students on the role energy plays in their daily lives, as well as give them the tools to learn real-world energy-saving tactics. Participating students are guided through an educational program by their teachers and are also given a customized Smart Kids Energy Efficiency Kit to take home. The Smart Kids Energy Efficiency Kits include three 9-watt LED lightbulbs, a high-efficiency three-way showerhead, a kitchen faucet aerator, a bathroom faucet aerator, a digital thermometer, a student guide and a workbook. Instilling an energy aware mindset in students at an early age with the knowledge and tools needed to be engaged and educated about their energy choices provides long-term positive benefits as the State works towards REV goals and transitions to a cleaner energy profile.

System Peak Reduction

Con Edison’s Demand Management Program (“DMP”) offers incentives for installing qualified measures that reduce the Company’s system peak load, which typically occurs on hot summer weekday afternoons. These measures generally also help customers lower their electricity bills by reducing their energy use and related maintenance costs while increasing operating efficiencies. The goal of the DMP is to incent development of qualifying technologies that reduce existing electric demand or avoid known expected growth in system peak demand, thus also serving to directly reduce expected summer electric demand. The table below illustrates the list of technologies currently being incented through the DMP and provides the percent of the demand reduction expected to be provided by advanced technologies.

Advanced Technology Use	
Technology Type	MW
Battery Storage	0.327
Thermal Storage	0
DR Enablement	1.813
BMS/Controls	0.985
Chiller/HVAC	0
Fuel Switching	1.866
Total	4.991
Percent total MW from advanced technology ⁴	42%

Electric Vehicles

The Company's SmartCharge NY program incentivizes off-peak charging for light-duty electric vehicles within the Con Edison service territory. Customers are given a cellular-enabled connected car device that has access to their charging and driving data. Participants receive incentives to keep the device installed and to charge their vehicles in the Con Edison service territory, plus an additional incentive during summer peak months (June– September) if participants charge during off-peak hours (12 midnight – 8 AM, all days) and abstain from charging during peak hours (2-6 PM, Monday- Friday) for the entire month.

b. Outcome-based EAMs

DER Utilization

The DER Utilization EAM incentivizes Con Edison to work with DER providers and expand the use of DER in its service territory to both reduce customer reliance on grid-supplied electricity and encourage beneficial electrification. DERs are measured in terms of the annualized MWh produced, consumed, discharged, or reduced from incremental resources. Eligible resources are listed below.

Reducing customer reliance on grid-supplied electricity	Beneficial electrification
Solar photovoltaics ("PV")	Thermal storage
Combined heat and power ("CHP")	Heat pumps
Fuel cells	EV charging
Battery storage	
Demand response ("DR")	

⁴ Advanced technologies include localized battery storage packaged systems, thermal storage, advanced BMS/controls, and non-electric air-conditioning with certain advanced controls components.

In 2017, the Company reports territory wide achievement of 92,468 MWh of annual incremental DER MWh. A breakdown of these achievements by technology is in the table below.

DER Utilization	
Technology	MWh
Solar PV	47,625.04
CHP	17,870.40
Fuel Cells	18,414.40
Storage: Battery	241.43
Storage: Thermal	-
Demand Response	90.79
Heat Pumps	3,714.81
EV Charging	4,511.21
Total	92,468.08

Metric target	Min	Target	Max	Achievement
DER Utilization (MWh)	150,000	244,500	360,000	92,468.08
Residential Energy Intensity	4.676	4.587	4.409	4.70
Commercial Energy Intensity	7.164	6.931	6.465	TBD*

\$Million	Min	Target	Max	Achievement
DER Utilization	0.06	1.11	2.72	0
Residential Energy Intensity	0.11	0.39	0.95	0
Commercial Energy Intensity	0.20	0.72	1.76	TBD*
TOTAL	0.37	2.22	5.43	0 + CEI**

* - To be reported when requisite external data becomes available

** - Commercial Energy Intensity to be reported later

Energy Intensity

The Energy Intensity outcome-based EAM incentivizes efforts that will result in a decrease in energy intensity beyond recent trajectories. To the extent that the decline in energy intensity improves beyond the trend in energy intensity that has taken place since 2010, the Company will earn the Energy Intensity outcome-based EAM. The two Energy Intensity metrics applicable for 2017 is defined for Residential

Energy Intensity as energy use per customer for Service Classification 1 (“SC1”), and for Commercial Energy Intensity as energy use per employee for the combined Service Classification 2 (“SC2”) and Service Classification 9 (“SC9”), respectively.

The sales numerator for the residential and commercial energy intensity metrics are the 12-month rolling weather normalized monthly sales.

The denominator for the residential energy intensity metric is calculated using the average monthly number of active SC1 residential customer accounts in each monthly measurement period, i.e., over 2017 in this report.

The denominator for the commercial energy intensity metric is to be calculated from the average monthly total private employment for the six counties in Con Edison’s service territory, based on Quarterly Census of Employment and Wages, as defined by the US Bureau of Labor Statistics. The Company expects this data to be made publicly available in spring 2019 and will file the associated EAM report at that time.

Residential Energy Intensity

The Company reports a Residential Energy Intensity metric of 4.70 MWh/SC1 customer. The numerator is 13,679,154 MWh with a denominator of 2,910,283 active residential customers.

Commercial Energy Intensity

The Company will not be reporting EAM related computations or achievement for Commercial Energy Intensity as the requisite external data to determine the denominator is not yet available for the purposes of calculating achievements. As noted in footnote 25 of the November 2016 *Comments Supporting Resolution of Outcome-based EAM Collaborative Issues*, the Company will report the achievement of this EAM once the external data becomes available.⁵

⁵ Case 16-E-0060, *Proceeding on the Motion of the Commission as to the Rates, Charges, Rules and Regulations of Consolidated Edison Company of New York, Inc. for Electric Service*, Comments Supporting Resolution of Outcome-based EAM Collaborative Issues (filed November 1, 2016), page 14.

Portfolio Performance

	Total ETIP plus Rate Case	Total ETIP	Total Rate Case	ETIP Commercial & Industrial	ETIP CDI	ETIP Multifamily Electric	ETIP Residential Electric	ETIP - Smart Kids	ETIP - Retail Lighting	Rate Case EE - Smart Kids	Rate Case EE- Retail Lighting	Rate Case System Peak Reduction Program	Rate Case EVs
Net MWh Acquired	300,483.20	263,664.93	36,818.27	77,212.26	100,102.66	49,161.17	22,088.50	2,140.74	12,959.60	15,681.28	17,199.99	3,937.00	n/a
Net MW Acquired	61.387	47.091	14.296	13.712	21.068	5.184	6.145	0.095	0.887	0.698	1.178	11.862	0.558
Total Expenditures	\$88,450,680	\$74,335,384	\$14,115,296	\$16,085,972	\$32,484,172	\$15,693,907	\$9,531,710	\$194,804	\$344,819	\$2,080,275	\$919,725	\$10,193,778	\$921,518
Total \$/MWh	\$294	\$282	\$383	\$208	\$325	\$319	\$432	\$91	\$27	\$133	\$53	\$2,589	n/a
Total \$/MW	\$1,440,870	\$1,578,548	\$987,360	\$1,173,131	\$1,541,873	\$3,027,374	\$1,551,133	\$2,050,568	\$388,747	\$2,980,337	\$780,751	\$859,364	\$1,651,466
Incentive Expenditures	\$59,363,618	\$48,538,809	\$10,824,809	\$11,246,628	\$22,750,991	\$9,057,318	\$4,944,249	\$194,804	\$344,819	\$1,533,596	\$456,223	\$8,772,473	\$62,517
Incentive \$/MWh	\$198	\$184	\$294	\$146	\$227	\$184	\$224	\$91	\$27	\$98	\$27	\$ 2,228	n/a
Incentive \$/MW	\$967,039	\$1,030,745	\$757,191	\$820,203	\$1,079,884	\$1,747,168	\$804,597	\$2,050,568	\$388,747	\$2,197,129	\$387,286	\$739,544	\$112,038
Total Non- Incentive Expenditures	\$29,087,062	\$25,796,575	\$3,290,487	\$4,839,344	\$9,733,181	\$6,636,589	\$4,587,461	-	-	\$546,679	\$463,502	\$1,421,305	\$859,001
Non- Incentive \$/MWh	\$97	\$98	\$89	\$63	\$97	\$135	\$208	-	-	\$35	\$27	\$361	n/a
Non- Incentive \$/MW	\$473,831	\$547,803	\$230,168	\$352,928	\$461,989	\$1,280,206	\$746,536	-	-	\$783,208	\$393,465	\$119,820	\$1,539,428
Program Participation	314,975	135,600	179,375	515	3,337	1,122	48,809	12,011	69,806	87,989	90,379	121	886
Total EM&V Expenditures	\$3,029,792	\$1,685,452	\$1,344,340	\$821,610	\$203,042	\$278,327	\$382,473	-	-	-	-	\$1,315,873	\$ 28,467
EM&V \$/MWh	\$10	\$6	\$37	\$11	\$2	\$6	\$17	-	-	-	-	\$334	n/a
EM&V \$/MW	\$49,356	\$35,791	\$94,036	\$59,919	\$9,637	\$53,690	\$62,241	-	-	-	-	\$110,932	\$51,016