



**Earnings Adjustment Mechanisms
First Quarter 2020 Report**

Cases 17-E-0238 and 17-G-0239

Niagara Mohawk Power Corporation d/b/a National Grid

June 1, 2020

I. INTRODUCTION

Pursuant to Section 3.0 of Appendix 7 of the Joint Proposal (“Joint Proposal”) adopted by the New York State Public Service Commission (“Commission”) in its *Order Adopting Terms of Joint Proposal and Establishing Electric and Gas Rate Plans* in Cases 17-E-0238 and 17-G-0239 (“Rate Case Order”),¹ Niagara Mohawk Power Corporation d/b/a National Grid (“National Grid” or the “Company”) submits this quarterly report for the first quarter of calendar year 2020, ending March 31, 2020 on the Company’s electric and gas earnings adjustment mechanisms (“EAMs”).

The EAMs incentivize the Company to deliver beneficial outcomes to customers through system efficiency, energy efficiency, and environmentally beneficial electrification. Section II, below, describes the Company’s efforts year-to-date to achieve the EAM targets.

II. EAM RESULTS THROUGH 03/31/2020

<u>Earnings Adjustment Mechanism</u>	<u>Results through 03/31/2020</u>	<u>2020 Targets</u>		
		<u>Min</u>	<u>Mid</u>	<u>Max</u>
<u>Electric EAMs</u>				
<u>System Efficiency</u>				
Peak Reduction (MW)	N/A	6,734	6,604	6,524
DER Utilization (MWh)	30,169	238,290	322,096	365,079
<u>Energy Efficiency</u>				
Incremental EE (MWh)	156,045	278,321	312,042	355,324
LED Street Lighting (MWh)	9,019	9,124	13,686	18,248
Energy Intensity – Residential (% kWh/customer change)	N/A	0.80%	1.00%	1.22%
Energy Intensity – Commercial (% MWh/customer change)	N/A	0.86%	1.10%	1.34%
<u>Environmentally Beneficial Electrification</u>				
Beneficial Electrification (MT CO ₂)	30,317	17,756	29,505	52,044
<u>Gas EAMs</u>				
<u>Energy Efficiency</u>				
Incremental Gas EE (Dth)	268,294	783,718	943,934	1,195,900

¹ Cases 17-E-0238 and 17-G-0239, *Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Niagara Mohawk Power Corporation d/b/a National Grid for Electric and Gas Service*, Order Adopting Terms of Joint Proposal and Establishing Electric and Gas Rate Plans (issued March 15, 2018) (“Rate Case Order”).

Electric EAMs

System Efficiency

The System Efficiency EAM is composed of two metrics: Peak Reduction and Distributed Energy Resources (“DER”) Utilization.

Peak Reduction

The Peak Reduction metric, which focuses on reducing the Company’s New York Control Area (“NYCA”) coincident peak, is calculated as the sum of:

- The weather-normalized demand on National Grid’s system during the NYCA peak hour; plus
- Any amounts actually curtailed from contracted resources enrolled in the New York Independent System Operator Installed Capacity – Special Case Resource program during the NYCA peak hour.²

The NYCA coincident peak for 2020 has not yet occurred. The Company has prepared the relevant capacity resources and customer outreach tactics for the peak 2020 summer season.

DER Utilization

The DER Utilization metric focuses on efforts to expand the use of DERs in the Company’s service territory by working with third-party DER providers. The metric measures the sum of the annualized megawatt-hours (“MWh”) from incremental DERs within the Company’s service territory, including solar, combined heat and power, energy storage systems, and fuel cells. The metric does not include demand response, electric vehicles (“EVs”), or heat pumps.

The Company interconnected 25.7 MW of solar DERs as of March 31, 2020. This represents 30,169 annualized MWh. Beginning in March, restrictions on economic activities in New York State due to the coronavirus pandemic significantly impacted DER developers, and affected the Company’s ability to make substantial progress on the DER Utilization EAM goals in 2020.

Energy Efficiency

The Energy Efficiency EAM is composed of four metrics: Incremental Energy Efficiency, Light Emitting Diode (“LED”) Street Light Conversions, Residential Energy Intensity, and Commercial Energy Intensity.

Incremental Energy Efficiency

² Demand response curtailments from National Grid customers who are enrolled in the NYISO’s Special Case Resources program will be added back to the Company’s weather-normalized metered load for consistency with the NYISO’s process to determine installed capacity requirements.

The Incremental Electric Energy Efficiency metric focuses on achieving customer energy savings above the Company’s annual savings target for the calendar year, as set forth in the Company’s Energy Efficiency Transition Implementation Plan (“ETIP”) filed June 1, 2017 in Case 15-M-0252 (“June ETIP”). The metric is measured as the annual sum of MWh savings from Company-administered electric energy efficiency programs, including the ETIP and E-Commerce Platform.³ As a condition to earning this incentive, the Estimated Useful Life (“EUL”) of the Company’s ETIP portfolio must be at least 90 percent of its current EUL of 6.7 years. The Company must achieve its current EUL of 6.7 years to earn the full incentive.

The Company reports electric savings of 156,045 net annual MWh through the administration of its energy efficiency programs through March 31, 2020. The Company has since had to curtail some energy efficiency program implementation activities in consideration of the coronavirus pandemic impacting our customers.

LED Street Light Conversions

The LED Street Light Conversion metric focuses on increasing the conversion of street lights to more efficient LED lighting technology. The metric is calculated based on the MWh saved as generally established using a percentage of street light conversions each year.

The Company converted 9,019 street lights to LED through March 31, 2020. The Company focused on enabling the conversion of street lights in municipalities across the service territory—both Company-owned and customer-owned assets.

Residential Energy Intensity

The Residential Energy Intensity metric incentivizes reductions to residential customers’ total usage on a per customer basis. The metric is measured as the year-over-year percentage change in kilowatt hours (“kWh”) per customer for the residential customer class. The kWh per customer is calculated as the weather-normalized annual kWh usage for the residential customer class divided by the 12-month average number of residential customers, adjusted to exclude the impacts of beneficial electrification such as new load from heat pumps and EVs.

The adjusted 2019 residential energy intensity baseline was 7,638 kWh per residential account. Thus, the calculated kWh targets for 2020 are:

	Target (% Reduction)	Calculated Target (kWh/Account)
Minimum	0.80	7,576.9
Midpoint	1.00	7,561.6
Maximum	1.22	7,544.8

³ The E-Commerce Platform is an online marketplace located at <http://marketplace.nationalgrid.com>. The online marketplace is a user-centric site for the Company’s customers to learn about and purchase energy-efficient equipment, connected-home devices, and electric vehicle supply equipment for their residence.

The Company will be challenged to meet the Residential Energy Intensity metric goals in 2020 given the impacts of the coronavirus pandemic. The response to the pandemic has necessitated that many customers stay at home more than usual, which may increase energy consumption above expected levels.

Commercial Energy Intensity

The Commercial Energy Intensity metric focuses on reducing commercial customers’ total usage on a per customer basis. The metric measures the year-over-year percentage change in MWh per customer for the commercial customer class. The MWh per customer is calculated as the weather-normalized, annual MWh usage for the commercial customer class divided by the 12-month average number of commercial customers, adjusted to exclude the impacts of beneficial electrification such as new load from heat pumps and EVs.

The adjusted 2019 commercial energy intensity baseline was 71.73 MWh per commercial account. Thus, the calculated MWh targets for 2020 are:

	Target (% Reduction)	Calculated Target (MWh/Account)
Minimum	0.86	71.11
Midpoint	1.10	70.94
Maximum	1.34	70.77

Although commercial customer energy usage may be reduced as a result of economic restrictions related to the pandemic, the suspended energy efficiency programs are a key component of the Company’s portfolio of initiatives to reduce customer energy intensity. Therefore, it is challenging to forecast this metric at this time.

Environmentally Beneficial Electrification

The Environmentally Beneficial Electrification metric focuses on reducing carbon emissions by facilitating the penetration of EVs and heat pumps in the Company’s electric service territory. The metric is calculated as the lifetime metric tons of avoided carbon dioxide (“MT CO₂”) from incremental EVs and heat pumps, as described in the Joint Proposal.⁴ The EV metric measures incremental battery EVs and plug-in hybrid vehicles registered in the Company’s service territory as compared to those registered in the electric service territories of peer utilities.⁵ Incremental heat pumps are measured by the number of rebates provided by the Company for air-source and ground-source (geothermal) heat pumps.

The Company reports 28,025 lifetime MT CO₂ saved via beneficial electrification technologies in the first quarter of 2020.⁶ This includes an incremental 487 EVs in operation in the Company’s

⁴ See Joint Proposal at Appendix 7, Attachment A.

⁵ The peer group is comprised of non-National Grid ZIP Codes in New York and Massachusetts within three standard deviations of the Company’s average population and household income.

⁶ MT CO₂ Avoided = (487 Incremental EVs * 38.5 lifetime MT CO₂) + (60 Air Source Heat Pumps * 52.5 lifetime MT CO₂) + (49 Ground Source Heat Pumps * 125 lifetime MT CO₂)

electric service territory compared to the adjusted peer utility ZIP codes⁷ as well as 60 new air-source heat pumps and 49 new ground-source heat pumps.

A. Gas EAM

Incremental Energy Efficiency

The Incremental Gas Energy Efficiency EAM focuses on achieving customer energy savings above the Company's annual savings target for the calendar year as set forth in the Company's June ETIP. The metric measures the annual sum of Dekatherm ("Dth") savings from Company-administered gas energy efficiency programs, including the ETIP and E-Commerce Platform.

National Grid helped its gas customers save 268,294 net annual Dth through the administration of its gas efficiency programs through March 31, 2020.

⁷ EVs in operation in National Grid ZIP codes: 11,102. EVs in operation in adjusted peer ZIP codes: 10,615.

Appendix A
EAM Performance through First Quarter of 2020

Cases 17-E-0238/17-G-0239					
Niagara Mohawk Power Corporation d/b/a National Grid					
Earnings Adjustment Mechanisms					
First Quarter 2020 Report					
		TARGETS	2020 ANNUAL EARNINGS ADJUSTMENT OPPORTUNITY⁸ (\$M)	ACTUAL YTD RESULTS THROUGH 03/31/2020	POSITIVE REVENUE ADJUSTMENT (\$M)
<u>Earnings Adjustment Mechanisms:</u>					
<u>ELECTRIC EAMS</u>					
<u>System Efficiency</u>					
<u>Peak Reduction (MW)</u>	Min	6,734	\$1.5	N/A	N/A
	Mid	6,604	\$2.3		
	Max	6,524	\$4.6		
<u>DER Utilization (MWh)</u>	Min	283,290	\$0.6	30,169	N/A
	Mid	322,096	\$1.2		
	Max	365,079	\$2.3		
<u>Energy Efficiency</u>					
<u>Incremental EE (MWh)</u>	Min	278,321	\$0.9	156,045	N/A
	Mid	312,042	\$1.8		
	Max	355,324	\$3.6		
<u>LED Street Light Conversion (MWh)</u>	Min	9,124	\$0.0	9,019	N/A
	Mid	13,686	\$0.9		
	Max	18,248	\$1.8		
<u>Energy Intensity - Residential (% kWh/Customer Change)</u>	Min	0.80%	\$0.4	N/A	N/A
	Mid	1.00%	\$1.1		
	Max	1.22%	\$2.9		
<u>Energy Intensity - Commercial (% MWh/Customer Change)</u>	Min	0.86%	\$0.4	N/A	N/A
	Mid	1.10%	\$1.1		
	Max	1.34%	\$2.9		
<u>Environmentally Beneficial Electrification</u>					
<u>Beneficial Electrification (MT CO2)⁹</u>	Min	15,355	\$0.5	28,025	N/A
	Mid	26,143	\$1.1		
	Max	45,861	\$2.5		
<u>GAS EAM</u>					
<u>Energy Efficiency</u>					
<u>Gas Incremental EE (Dth)</u>	Min	783,718	\$0.2	268,294	N/A
	Mid	943,934	\$0.4		
	Max	1,195,900	\$0.9		

⁸ Earnings are pro-rated between minimum, midpoint, and maximum target levels.

⁹ MT CO2 Avoided = (487 Incremental EVs * 38.5 lifetime MT CO2) + (60 Air Source Heat Pumps * 52.5 lifetime MT CO2) + (49 Ground Source Heat Pumps * 125 lifetime MT CO2)