NON-PIPELINE ALTERNATIVES IMPLEMENTATION PLAN

CONSOLIDATED EDISON COMPANY OF NEW YORK 4 Irving Pl. New York, NY 10003

Contents

1. Introduction

On December 22, 2021, Consolidated Edison Company of New York, Inc. ("Con Edison" or "the Company") petitioned for approval of a series of proposed Non-Pipeline Alternative ("NPA") Projects.[1] On June 17, 2022, the New York Public Service Commission ("Commission") issued its *Order Approving Non-Pipes Alternative Projects Amortization Period And Shareholder Incentive Mechanism For Specified Projects* ("Petition Order"), approving cost recovery, an incentive mechanism, and reporting requirements for a set of NPA Projects.[2]

The Company submits this NPA Implementation Plan in compliance with the Petition Order, providing information on the components of the NPA projects, including:

- Measures that are part of each NPA
- Third-party procurement approach
- Customer and community outreach plan
- Matters that apply to all NPA portfolios including project identification
- Measurement and Verification ("M&V"), and project evaluation
- A demonstration of whether NPA project expenditures are incremental to the Company's revenue requirement

[1] Case 19-G-0066, *Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Consolidated Edison Company of New York, Inc. for Gas Serv., et al.*, ("Gas Rate Proceeding"), Petition of Consolidated Edison Company of New York, Inc. For Approval of Specific Non-Pipeline Alternative Projects (filed December 22, 2021).
[2] Gas Rate Proceeding, Order Approving Non-Pipes Alternative Projects Amortization Period and Shareholder Incentive Mechanism for Specified Projects (issued and effective June 17, 2022) ("Petition Order").

2. Identification of Area Load Relief NPAs

The Company uses the process described below to identify and implement NPAs.

2.1 System Need

The Company's gas system planning process assesses the system's current and expected future operating conditions relative to the Company's design standards. This includes accounting for forecasted changes in peak demand and changes in regulations, such as those implemented by the federal Pipeline and Hazardous Materials Safety Administration ("PHMSA"). Through this process, engineers identify system needs and develop various options for addressing them. Options are assessed for: (1) effectiveness in meeting the system need; (2) cost; (3) implementation timing; and (4) risks. Solutions are then prioritized by balancing available capital and resources against the risk of not addressing the system need within the timeframe of the capital plan. Traditional infrastructure solutions to address identified system needs may include system reinforcement upgrades to regulator stations or mains supplying gas to the area. Potential NPA projects may also be evaluated as an alternative to the traditional solutions.

2.2 Project Suitability

Projects are evaluated as a potential NPA if they meet the "Suitability Criteria," as outlined in Con Edison's Proposals for Non-Pipe Alternative Screening and Suitability Criteria.[3] Applying the Suitability Criteria, the Company identified gas distribution system reinforcement projects associated with system load growth as suitable for NPA consideration. Projects excluded from NPA consideration include, capital projects associated with immediate system needs related to

[3] Case 20-G-0131, *Proceeding on Motion of the Commission in Regard to Gas Planning Procedures* ("Gas Planning Proceeding"), Con Edison's Proposals for Non-Pipe Alternative Screening and Suitability Criteria (filed August 10, 2022).

safety, reliability, and service obligation, where construction is expected to commence within 12 months and be completed within 24 months; and non-distribution projects where NPAs are not applicable. Additionally, projects with insufficient lead time for the development of pricing estimates and implementation of the non-traditional portfolio of customer-sited solutions are excluded from NPA consideration.

2.3 Feasibility Analysis

Projects that are identified and meet the Suitability Criteria are then evaluated for overall feasibility to determine whether there is the potential for achievable and sufficient load relief within the defined geographic area to enable deferral or elimination of the traditional solution.

NPA portfolios incorporate a balance of electrification and gas energy efficiency ("EE") measures that achieve peak day dekatherm ("Dth") reductions on the gas distribution system, with the portfolios weighted towards lower cost interventions to deliver a positive benefit-cost analysis ("BCA") score. For each proposed NPA, the Company performs a customer segment analysis to understand the best measures available to meet the requirements for load relief. This includes detailed analysis of customer consumption patterns, existing appliances and equipment connected to the gas distribution system, and customer demographics across customer market segments. This analysis is critical in determining whether there is sufficient potential for load relief to meet the reduction needs indicated by the forecast and if year-over-year program implementation goals are reasonably achievable with a positive BCA score. Following customer segmentation analysis, the Company analyzes the results of existing programs to identify feasible programmatic load-reduction opportunities for the newly proposed NPA and establish a preliminary portfolio of solutions. A combination of additional incentives to existing programs

(i.e., NPA adders), and market solutions are evaluated for the ability to meet the required peak day dekatherm reduction. For example, the Company will determine potential load relief from measures included in the New York State Clean Heat Program ("Clean Heat") through the process described above. The Company will adjust potential load relief to account for expected customer participation rates based on program experience and examine in combination with other potential EE and electrification options.

If the portfolio is deemed potentially feasible based on the analysis above, a Request for Proposals ("RFP") may be issued to solicit proposals from customers and potential vendors for the NPA target area and develop a more granular understanding of the total costs and benefits that may be achieved. If the proposed projects to be included creates a portfolio BCA greater than 1, and have an appropriate level of execution risk, the portfolio is "greenlit" via an approval mechanism for the Con Edison NPA Team to take ownership of delivering the load relief.

2.4 Procurement Strategy and Market Solicitation

The Company deploys different procurement approaches as appropriate. In many cases, this first includes leveraging existing contracts which have been previously bid and awarded to offer additional incentives for customers within the NPA target areas. If there is additional need for EE or electrification, competitive procurement approaches are used. This may include Requests for Information ("RFIs") or RFPs. Other strategies may include prescriptive incentive offerings provided on a first-come, first-served basis for qualifying applicants, and as appropriate, a sole-source approach where a unique solution[4] is available or a specific customer or developer

[4] While the implementation plan outlined here represents the standard process the Company intends to follow for NPA, some sections of the implementation plan may not be applicable with respect to unique solutions.

presents an opportunity. Con Edison's procurement approach is dynamic and will likely continue to be strategically timed to meet NPA portfolio needs as opposed to static, one-time buying events.

The Company generally assembles finalized NPA portfolios utilizing projects proposed through market solicitation (*e.g.*, RFPs). Proposed solutions are reviewed in detail, with the objective of achieving a cost-effective portfolio while maintaining continued reliability of the gas distribution system. Proposals are evaluated based on the following criteria:

- Proposal content and presentation
- Execution risk
- Respondent qualifications
- Customer acquisition strategy
- Load reduction potential
- Community impact
- Solution innovation
- Project costs
- BCA score

To date, the Company has released two RFPs identifying new load relief needs in different areas of the Con Edison service territory. As targeted areas are identified, the Company intends to continue providing the necessary information regarding status and load relief needed in its solicitations and the Con Edison NPA webpage.[5]

[5] http://www.coned.com/nonpipes

2.5 Portfolio Development

The Company uses market responses to analyze the mix of resources that can meet the need in the targeted area and develop an appropriate portfolio. Portfolio development and BCAs are conducted concurrently through an iterative process to find the best combination of resources for the NPA. Considerations for assembling an NPA portfolio include, but are not limited to, ability of the solutions to meet the identified load relief, cost-effectiveness, execution risk of the various solutions, estimated useful life of proposed solutions, implementation costs, diversity of technology and vendors, and the ability to achieve a Societal Cost Test ("SCT") score of 1.0 or greater.

In consultation with DPS Staff, the Company developed and filed a Gas BCA Handbook, which is used to provide and calculate the benefits and costs of potential projects and investments.[6] The Handbook is used to evaluate the effectiveness of NPA project portfolios.

3. Implementation of Area Load Relief NPAs

3.1 Community Engagement

The Company prioritizes community engagement as an important aspect of NPA deployment and recognizes the importance of being proactive in understanding the needs and priorities of targeted communities as it pursues successful deployment of NPA projects. Community engagement depends on the plan and program type developed for a specific NPA. As specific

[6] Case 19-G-0066, *Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Consolidated Edison Company of New York, Inc. for Gas Serv., et al.,* ("Gas Rate Proceeding"), Petition of Consolidated Edison Company of New York, Inc. For Approval of Specific Non-Pipeline Alternative Projects (filed December 22, 2021).

projects are identified in scope, technology, and geographic location, the Company shares those specifics, to the extent confidentiality considerations permit, with a comprehensive list of key stakeholders in the targeted area. While NPA projects are specially designed to address load relief needs, which may also provide system improvements and environmental benefits, customer needs are also carefully considered. The Company is committed to transparency in sharing the goals, objectives, project schedule, status, and impacts with community stakeholders.

The Company plans to develop an ongoing presence and build strong relationships with important stakeholders in NPA areas by convening formal and informal meetings with the stakeholders. Depending on the type of program implemented, the stakeholders may include elected officials; local chambers of commerce; business improvement districts; local development corporations; not-for-profit, community-based organizations; government entities, such as community boards and the New York City Housing Authority; community housing associations; block associations; and tenant associations. The Company also works closely with community-based organizations who regularly work with local communities on environmental and energy issues.

The Company plans to work with local leaders in several ways, including placement of program information in newsletters and other communications with links to the Company's NPA website and social media accounts. Con Edison plans to continue to further engage local communities and conduct outreach to customers through a variety of meetings, as well as future events with public officials, community groups and local businesses.

While the deployment of typical EE programs has general customer benefits, NPA projects are even more customized and local, requiring greater customer engagement and proactive communication to address concerns and promote participation. In addition to direct community engagement, the Company will develop and deploy focused marketing and education campaigns to program-eligible customer segments.

The Company will reach out to small business customers in a targeted area by augmenting current marketing strategies through continual involvement with local business associations, email, street sweeps, and digital advertising.

For multi-family programs, the Company will reach out to eligible building owners and tenants using marketing material produced for contractors authorized to work in the targeted area. This outreach will be coordinated with marketing campaigns informing tenants and building managers of potential measures that may be installed in their homes or buildings.

For commercial and industrial EE customers, the Company will deliver offerings through multiple channels including the Company's website and email as well as direct engagement through business development representatives. For eligible large commercial customers, the Company also plans to employ custom solutions to increase the penetration of EE and electrification. The Company will market the program through leveraging an established event calendar, social media, content marketing, and trade industry channels.

Finally, the Company plans to align messages across multiple solution providers and customer segments to mitigate possible confusion caused within the targeted community as the result of multiple actors participating in the market.

3.2 Evaluation, Measurement and Verification

The goal of Measurement and Verification ("M&V") is to assess the impact of NPA program solutions on the peak day load relief. M&V is ongoing until program completion, as described later in Section 3.4. The Company will provide some form of M&V oversight either via desk review and/or onsite verification. Additionally, onsite ex-ante and ex-post in-situ metering and analysis may be used. These efforts provide sufficient information to verify expected load relief within the forecasted peak demand period. The Company may develop project-specific M&V plans for large projects, as appropriate. A combination of desk reviews, verifications, ex-ante and ex-post metering, billing analyses, and sampling may be used in all projects.

The Company is continually engaging with third-party contractors to perform evaluation, verification, and quality assurance/quality control ("QA/QC") activities. These activities provide additional levels of review and greater confidence in the load relief provided by the various solutions acquired under NPA efforts.

3.3 Changes to Area Load Relief Portfolio

As an NPA project is implemented, the Company annually updates the system load relief need based on the most recent winter experience. If the need has changed in an area of an active NPA for the next upcoming winter (November – April), the Company will attempt to adapt the

programmatic goals of the NPA portfolio so that adequate resources are in place to provide load relief for the upcoming peak load season consistent with the project's original intent. This may be accomplished with additional NPA adder projects, the acceleration of a custom customer project, or procurement of additional customer-sided resources. If it is not feasible for the NPA to meet the current projected needs through customer-sided solutions, the Company will implement a traditional infrastructure solution.

Conversely, if the system need changes to require greater load reduction, the Company will seek to procure additional customer-sided resources beyond the initially targeted need. If the load required decreases over three consecutive years, and the amount of peak load relief required decreases more than 30 percent below the initial load relief expected at the beginning of the NPA, the Company may reduce the customer-sided solutions to the new amount necessary to effectuate deferral or elimination of the traditional solution to the extent contractually feasible. The Company will consult with Department of Public Service Staff ("DPS Staff") if it determines that a lower peak load relief procurement will be effective.

Subsequent updates to this NPA Implementation Plan will be filed annually and, should any NPA require modification as the result of a change to the length of the proposed deferral/elimination period or an increase or reduction in the amount of NPA peak (Dth/day) of the portfolio, those changes will be reflected in the updated plan. Further information on program activities is available in the NPA Annual Reports.

3.4 Area Load Relief Program Closeout

Once the Company has achieved or anticipates achieving the deferral or elimination of the traditional solution, the Company will indicate the anticipated timeline for closing the NPA program in its Annual Report. A program will be considered closed when the Company no longer needs or offers further resources to achieve load relief and all costs for implementing the NPA are accounted for. Closure of an NPA is likely to occur in the final year of implementation of the program but may occur sooner following a material reduction in the forecasted peak load relief needed or the pursuit of the traditional solution. An update to the NPA Implementation Plan will reflect closure of the NPA program.

4. Identification of Main Replacement Program NPAs

4.1 System Need

The Company's Main Replacement Program ("MRP") is designed to replace leak-prone gas mains, including small diameter, cast iron, wrought iron, and unprotected steel (pre-1972) mains. Planned main replacement can be driven by multiple reasons such as risk level, methane emissions reduction opportunity, or potential for system planning improvement. Under an MRP NPA, customers currently connected to a targeted main would be incentivized to convert all their current gas uses to electricity, thereby eliminating the need to replace the main.

4.2 Project Suitability

The Company has set up a process for MRP NPA identification to target radial mains, such as those with one source of supply, and mains where the elimination of the segment will have no detrimental impacts on system safety or reliability. Segments of main are prioritized for NPA consideration based on the number of associated segments connected and the types of customer

accounts. Customers connected to the targeted leak-prone segment must fully disconnect from the gas system for the MRP NPA project to proceed with the elimination of the targeted segment. All customer segments are eligible; however, the Company currently expects that small one- to four-family residential and small commercial customers will be the customer segments most frequently found on eligible main segments. The MRP NPA project is a collection of customer-sited measures that defer or displace the need for traditional infrastructure. As such, the Company will treat each main that is deferred or displaced as a separate NPA project for cost recovery, accounting, and incentive purposes.

As of this current Implementation Plan, the Company has identified an initial set of 46 mains that are candidates for an MRP NPA and developed indicative portfolios of potential NPA solutions. Details on the MRP NPA can be found in Appendix C under the programmatic name “Whole Building Electrification Services” or “WBES.”

4.3 Feasibility Analysis

Projects that are identified as suitable under the process described above are then evaluated for overall feasibility to determine whether whole-building electrification of the targeted properties is cost effective and achievable prior to the planned replacement of the associated leak-prone main.

Each building eligible to participate in a suitable project undergoes a bottom-up model analysis of potential measures that include, but are not limited to, air-source heat pumps, heat pump water heaters, induction stoves, heat pump dryers, weatherization and envelope efficiency upgrades, and electric make-ready costs.

Potential measures may vary based on different factors – such as customer segment, building specifics, and a three-year average of the customer's gas usage – to meet the identified load relief at the location provided. Each project will undergo a portfolio development to ensure all location-specific needs are met by the target date, to compare costs to traditional project needs, and to gather all necessary inputs for the BCA process.

Using the Gas BCA Handbook, if the project is deemed feasible by achieving an SCT score of 1.0 or greater, customer information is shared with the selected implementation contractor and is included in customer outreach campaigns associated with the WBES program.

4.4 Procurement Strategy and Market Solicitation

In December 2021, the Company issued an RFP to solicit an implementation contractor for the MRP NPA program under the trade name "Whole Building Electrification Services." The selected respondent of that RFP worked with the Company on developing its plan to implement this program and will begin customer acquisition with targeted marketing, stakeholder education and eligible customer information sessions alongside company representatives.

5. Implementation of Main Replacement Program NPA

5.1 Community Engagement and Customer Acquisition

The Company is partnering with an Implementation Contractor ("IC") skilled in engaging customers to undertake fuel switching and overseeing multiple skilled trades necessary to complete the installation. The Company and IC are developing a targeted community engagement strategy and seamless customer journey to enable successful customer acquisition. Unlike the Area Project NPA, the number of eligible customers is limited not by geography but

by segments of targeted leak-prone main identified by the Company and provided to the implementation contractor.

5.2 Evaluation, Measurement and Verification

The Company will utilize a combination of in-situ metering for certain measures as well as select the most suitable International Performance Measurement Verification Protocol ("IPMVP") Option as per the Efficiency Valuation Organization ("EVO") for each of WBES project. The objective is to yield a unique load profile and a measurement of the total peak day gas demand reduction to be achieved. We will conduct a variety of measurement and verification processes to understand the electric energy consumption post-NPA installation.

5.4 Changes to the Portfolio

If a customer declines to participate, the Company may elect at a later date to reapproach the customer about NPA opportunities prior to the need for traditional work.

The Company has systems in place to monitor an emergent need for main replacement work on any of the eligible segments of leak-prone gas main. Should a project require main replacement prior to the successful implementation of electric alternatives on customer properties, the NPA will no longer be eligible, and the traditional main replacement will take place. Any commitments made to eligible customers prior to identification of emergent work that requires main replacement prior to full completion of the NPA will be kept by the Company and its Implementation Contractor. Examples of emergent work may include damages to a gas main, a water main break undermining a cast iron gas main, a municipality announcing a new road

paving schedule that affects natural gas infrastructure, or a main replacement that is required to eliminate an active leak.

The Company will file annual updates to the Implementation Plan that reflect any eligibility changes to previously eligible projects. Appendix C describes each MRP NPA opportunity identified by the Company.

5.5 Project Closeout

The Company will indicate the anticipated timeline for closing an NPA project in its Annual Report. A project will be considered closed when the full portfolio of customers associated with a targeted segment of leak-prone main have fully replaced all gas equipment and appliances with electric alternatives or when the timeline on the need for main replacement does not allow for full electrification of each customer associated with the segment. When full electrification of each customer is confirmed, the Company will schedule the main to be cut and capped, allowing the length of leak-prone main to be abandoned in place. Each of the current 46 identified, eligible projects may be closed out on their own timeline, as long as the associated properties are fully electrified prior to the scheduled replacement of the associated leak-prone main. An update to the NPA Implementation Plan will reflect closure of MRP NPA projects and the Company will file a final BCA that reflects actual costs and savings implemented through the project.

6. Budgeting Expenditures and Collections

The Company will file annual updates to its Implementation Plan concurrently with its Annual Report. These Annual Reports will track total NPA expenditures, Monthly Rate Adjustment ("MRA") recoveries, incremental costs, and the progress of each NPA project including in-

service dates, assessment of savings, and other benefits. The Company developed and filed a draft General Accounting Procedure[7] ("GAP") with appropriate accounting procedures in compliance with NPA implementation.

NPA project expenditures incurred by the Company are to be recovered as a regulatory asset, including the overall pretax rate of return on such expenditures. Recovery of these expenditures during the Gas Rate Plan will be recovered through the MRA until such costs are incorporated into base rates when base gas delivery rates are next reset. All unamortized NPA expenditures associated with this program are expected to be included in the Company's revenue requirement in its next Gas Rate Plan for recovery via base delivery rates.

Once reasonable cost certainty for additional MRP NPAs has been determined, the Company will notify the DPS Staff. Annual updates will be made to the Implementation Plan and will reflect anticipated NPA costs, and any costs of NPA projects incremental to the Company's revenue requirement.

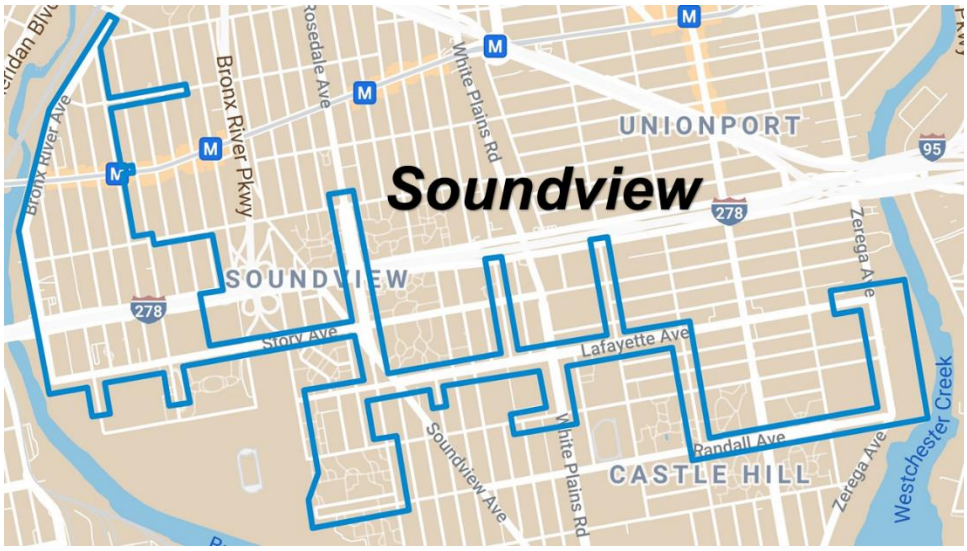
7. Project Specific Updates

The following appendices describe each NPA opportunity identified by the Company. Subsequent updates to the NPA Implementation Plan will be filed in accordance with the Petition Order.

[7] Case 19-G-0066, Gas Rate Proceeding, Accounting Procedure for the Recovery of Financial Incentives (filed July 21, 2022).

Appendix A: Soundview Area Load Relief

In December 2021, the Company released a market solicitation for the Soundview Area, seeking load relief in order to eliminate the need for distribution system upgrades. The total load relief required is 1,136 peak day dekatherms and must be achieved by November 1, 2024. The area targeted is represented on the map below.



The RFP identified geographic boundaries that encompass the areas surrounding planned distribution system reinforcement projects that require targeted load reductions via electrification, energy efficiency, or other customer-sited measures. All customers within the identified boundary west of the Bronx River Parkway are eligible for NPA incentives. However, customers east of the Bronx River Parkway must be connected to the high-pressure distribution system in order to be eligible for incentives under this NPA. A favorable RFP response enabled the Company to develop a potentially viable NPA portfolio and proceed with a series of solutions to achieve the targeted load relief.

Appendix B: Port Chester Area Load Relief

In December 2021, the Company released a market solicitation for the Port Chester Area, seeking load relief in order to eliminate the need for distribution system reinforcement. The load relief required be the winter heating season of each associated year is:

Year	Dth/Dy
2023	310
2024	207
2025	4,339

Note: The load relief identified for each year will need to persist through the full time period, requiring the peak dekatherm day reductions from measures implemented to also persist across the entire time period. The reduction target must be met by November 1 of the stated year.

Further post-RFP analysis demonstrated that Port Chester was not a viable NPA option to pursue based on high peak load reduction needs.

Appendix C: Whole Building Electrification Services

In July 2021, the Company released a market solicitation for Whole Building Electrification Services, seeking an implementation contractor to provide end-to-end services. The services would enable the conversion of all gas connected equipment and appliances at targeted properties to electric alternatives and the elimination of associated leak-prone mains. The summary of the initial targeted portfolio is below.

Project #	Customers to be Electrified	Leak-Prone Main Length (Feet)	Estimated gas main replacement year
M003	1	490	2032
M005	1	315	2025
Q001	1	56	2034
Q002	3	216	2027
Q004	1	189	2024
Q005	1	45	2033
Q006	4	195	2023
Q009	2	110	2023
Q010	2	120	2023
Q012	2	205	2023
Q013	2	170	2029
Q014	2	136	2029
Q015	4	107	2033
W001	1	391	2024
W002	2	461	2023
W003	3	248	2033
W004	3	244	2023
W007	1	175	2029
W008	1	197	2023
W009	1	214	2023
W011	2	216	2029
W012	2	176	2034
W014	2	190	2025
W017	3	230	2025
W020	1	123	2025
W022	2	804	2025

W023	10	1050	2025
W025	3	106	2025
W026	4	206	2024
W027	8	222	2024
W028	7	445	2025
W029	2	110	2034
W030	2	145	2025
X001	2	101	2028
X002	2	45	2032
X003	2	51	2030
X004	3	25	2024
X005	2	205	2028
X006	2	230	2025
X007	2	108	2024
X008	3	203	2029
X009	5	171	2023
X010	6	250	2025
X014	4	120	2028
X015	4	76	2023
X017	3	140	2023