STATE OF NEW YORK PUBLIC SERVICE COMMISSION

Proceeding on Motion of the Commission)	
as to the Rates, Charges, Rules and Regulations of)	Case 19-E-0065
Consolidated Edison Company for Electric Service)	
Proceeding on Motion of the Commission)	
as to the Rates, Charges, Rules and Regulations of)	Case 19-G-0066
Consolidated Edison Company for Gas Service)	

STATEMENT OF ENVIRONMENTAL DEFENSE FUND IN OPPOSITION TO JOINT PROPOSAL IN CASE 19-G-0066

Dated: November 4, 2019

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STATEMENT OF ENVIRONMENTAL DEFENSE FUND IN OPPOSITION TO JOINT PROPOSAL IN CASE 19-G-0066

Pursuant to the New York State Public Service Commission's ("Commission") October 23, 2019 Ruling on Schedule, Environmental Defense Fund ("EDF") respectfully submits its Statement in Opposition regarding the gas rate plan of the Joint Proposal ("JP") filed by Consolidated Edison Company of New York, Inc. ("Con Edison" or "Company") on October 18, 2019 in the above-captioned proceedings. EDF supports the electric rate plan (Case 19-E-0065) of the JP, addressed in a separate filing. EDF opposes the gas rate plan (Case 19-G-0066) of the JP, addressed herein. EDF submits that the gas provisions of the JP are neither reasonable nor in the public interest based primarily on three substantial issues:

1. The JP fails to address the inadequate service in those areas affected by the Company's moratorium on new gas service in Westchester County, which, consistent with the standards that govern ratemaking, is inextricably a part of this rate case. In accordance with the constitutionally based standards that govern ratemaking, the moratorium and the facts surrounding it should be addressed by ordering a reduction in the otherwise applicable return on equity awarded the Company under the JP, with a mechanism to restore the otherwise applicable return once the service issues are satisfactorily addressed.

- 2. The JP fails to address necessary procedural reforms for the Commission's review of the Company's gas planning and procurement processes.
- 3. The JP fails to require or in any way commit the Company to implement and utilize advanced leak detection technologies and the data from their use.

I. INTERESTS OF EDF.

EDF is a membership organization whose mission is to preserve the natural systems on which all life depends. Guided by science and economics, EDF seeks practical solutions to resolve environmental problems. EDF uses the power of markets to speed the transition to clean energy resources, and consistent with its organizational purpose is engaged in activities to facilitate cost-effective and efficient energy market designs that encourage investment to modernize the energy system so that it can support economy-wide reductions in greenhouse gas emissions through reduced reliance on oil and gas. EDF works collaboratively with market participants sharing these goals. Before this Commission, EDF has highlighted the importance of harmonizing the Commission's natural gas policies with the state's ambitious climate goals, applying heightened scrutiny to infrastructure buildout that undermines drivers for more efficient solutions and potentially imposes long-term economic and environmental costs on ratepayers. And in the REV proceeding and related proceedings, EDF has highlighted the importance of valuing the benefits and costs (including environmental costs and benefits) of utility system

See, e.g., Comments of the Environmental Defense Fund, In the Matter of Staff Investigation into a Moratorium on New Natural Gas Services in The Consolidated Edison Company of New York, Inc. Service Territory, Case 19-G-0080 (submitted Feb. 28, 2019); Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Niagara Mohawk Power Corporation for Electric and Gas Service, Case 17-E-0238 and 17-G-0239, Testimony and Attachments of Simi Rose George on behalf of the Environmental Defense Fund (August 25, 2017); EDF Letter to Secretary Burgess, Heightened Scrutiny of Precedent Agreements Supported by Affiliates, Case 93-G-0932 (November 29, 2016).

assets and alternatives and providing accurate, value-based price signals and incentives to all market participants including utilities and their customers.²

II. THE COMPANY AND OTHER PROPONENTS OF THE JP BEAR THE BURDEN OF PROOF.

In a rate case considering increases in the Company's rates, the burden of proof is on the Company. N.Y. Pub. Serv. Law §§ 66(12)(i), 72; 16 N.Y.C.R.R. § 61.1. That burden extends to the utility's "rates, rules and regulations" thus encompassing the terms and conditions under which the Company provides service. 16 N.Y.C.R.R. § 61.1. Under the Commission's settlement procedures, the burden of proving the reasonableness of all aspects of the JP rests solely on the proponents.³

III. THE JP'S GAS PROVISIONS FAIL TO ADDRESS THE GAS MORATORIUM IN WESTCHESTER COUNTY.

The Company has imposed a temporary moratorium of indefinite duration on new, firm gas service in substantial parts of Westchester County. Such service is less than the quality of service required by law. Due to the moratorium and the facts surrounding it, EDF proposes that the Commission use its ratemaking powers to impose a 50 to 100 basis point reduction in the

See, e.g., In the Matter of the Value of Distributed Energy Resources Working Group Regarding Value Stack, Matter 17-01276, In the Matter of the Value of Distributed Energy Resources, Case 15-E-0751, and Proceeding on Motion of the Commission as to the Policies, Requirements and Conditions for Implementing a Community Net Metering Program, Case 15-E-0082, Comments in response to the Notice Soliciting Comments on Staff Proposal and Related Matters (August 6, 2018); Case 15-E-0751 and In the Matter of the Value of Distributed Energy Resources Regarding Rate Design, 17-01277, Coalition for Sustainable Distributed Clean Energy, Comments on Rate Design Successor to Net Energy Metering for Mass Market Customers (May 29, 2018); Proceeding on Motion of the Commission in Regard to Reforming the Energy Vision, Case 14-M-0101, Reply Comments of Environmental Defense Fund Regarding the Staff White Paper on Benefit-Cost Analysis Framework (September 10, 2015).

Re Procedures for Settlement and Stipulation Agreements, Cases 90-M-0255 and 92-M-0138, Opinion, Order and Resolution Adopting Settlement Procedures and Guidelines (March 24, 1992); see also, Re Consolidated Edison Company of New York, Inc., Case 04-E-0572, 240 P.U.R.4th 1 (March 24, 2005).

JP's proposed rate of return on common equity ("rate of return" or "ROE"). While the Company and other JP Proponents bear the burden of proof on this and all issues in this matter, EDF submits facts surrounding the moratorium—including information available since 2010 regarding the inadequacy of resources for the future and inaction by the Company—to support the recommended ROE adjustment. EDF further suggests that the ROE reduction may be lifted upon the Company appropriately ending the moratorium.

A. Facts Related to ROE Adjustment for the Westchester Moratorium.

On January 17, 2019, the Company announced a temporary moratorium commencing March 15, 2019 in most of Westchester County on accepting new service applications that would increase firm winter peak demand.⁴ The Company's announcement prompted the Commission Staff to open an investigation.⁵ The moratorium currently remains in place.⁶

EDF witness Gregory M. Lander provides an analysis "demonstrating that hourly takes have exceeded hourly contract rights in Westchester since at least November of 2015" and states that the "Company knew or should have known in 2010 that additional peak hour capacity was or would be required to meet foreseeable demand." Mr. Lander finds that the Company "failed to plan sufficiently for the capacity needs of its system which resulted in the moratorium." Direct Testimony of Gregory M. Lander, p4. Mr. Lander further notes that there were opportunities for

Letter Re: Notice of Temporary Moratorium for Gas Service, from Enver Acevedo, Con Edison, to Hon. Kathleen H. Burgess, New York Public Service Commission, submitted in N.Y. P.S.C. Cases 16-G-0061 & 17-G-0606 (Jan. 17, 2019); see also Direct Testimony of Gregory M. Lander, pp. 5-8.

In the Matter of Staff Investigation into a Moratorium on New Natural Gas Services in the Consolidated Edison Company of New York, Inc. Service Territory, Case No. 19-G-0080.

See Con Edison, About the Westchester Natural Gas Moratorium, https://www.coned.com/en/save-money/convert-to-natural-gas/westchester-natural-gas-moratorium/about-the-westchester-natural-gas-moratorium (accessed Nov. 3, 2019).

the Company to obtain additional peak capacity through an "open season" expansion, but it failed to do so. *Id.* at p14.

B. NY Gas Utilities are Required to Provide Safe and Adequate Service, Which Includes the Requirement to Provide Service to New Customers.

New York Public Service Law ("NY PSL") § 65.1 provides that "[e]very gas corporation . . . shall furnish and provide such service, instrumentalities and facilities as shall be safe and adequate and, in all respects, just and reasonable." The Commission has adopted regulations requiring gas utilities to provide service to new customers. 16 N.Y.C.R.R. § 230.2. The Commission expects that gas companies will "manage their gas portfolios to meet the needs of their systems."

Consistent therewith, NY PSL § 31 requires that gas utilities "provide residential service upon the oral or written request of an applicant." NY PSL § 30 states that it is "declared to be the policy of this state that the continued provision of all or any part of such gas, electric and steam service to all residential customers without unreasonable qualifications or lengthy delays" is in the public interest.

C. The Standard for Setting a Rate of Return in a Rate Case Includes Consideration of Quality of Service and Management and Authorizes a Commission to Reduce the Return Based on Management or Service Deficiency.

The setting of a rate of return on common equity (i.e., the rate a utility is authorized to earn on the capital devoted to service) is a central part of a base rate case. The utility's right to earn a fair return on the property devoted to public service is based on the Fourteenth

In the Matter of the Commission's Request for Gas Distribution Companies to Reduce Gas Cost Volatility and Provide for Alternate Gas Purchasing Mechanisms, Case No. 97-G-0600, Statement of Policy Regarding Gas Purchasing Practices (April 28, 1998).

See, e.g., Kahn, Alfred E., *The Economics of Regulation*, p. 42 (1970) ("In essence, every part of the regulatory price making exercise involves determining the proper level of earnings to be permitted the regulated companies. This is obviously true of the explicit determination of return....").

Amendment, which acts to prohibit states from taking private property for public use without just compensation. *Smyth v. Ames*, 169 U.S. 466, 522-23 (1897). *Smyth* holds that the rate setter is required to investigate the value of the property being used in public service and what constitutes a fair return thereon, but that compensation may be limited to a lower level based upon the considerations of the service provided:

What the company is entitled to ask is a fair return upon the value of that which it employs for the public convenience. On the other hand, what the public is entitled to demand is that no more be exacted from it for the use of a public highway than the services rendered by it are reasonably worth.

Id. at 547. The constitutionally-based standard for providing an adequate rate of return is:

A public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs for the convenience of the public equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties; but it has no constitutional right to profits such as are realized or anticipated in highly profitable enterprises or speculative ventures. The return should be reasonably sufficient to assure confidence in the financial soundness of the utility and should be adequate, *under efficient and economical management*, to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties.

Bluefield Water Works & Improvement Co. v. West Virginia Pub. Serv. Comm'n, 262 U.S. 679, 692-93 (1923) (emphasis added). The U.S. Court of Appeals for the D.C. Circuit elaborated on the authority to reduce an authorized return provided to a utility based upon management inefficiency or inferior service:

It has long been recognized that the caliber of a utility's service need not remain a neutral factor in determinations as to its allowable return. The cases have consistently said that superior service commands a higher rate of return as a reward for management efficiency; more importantly for present purposes, they

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See, e.g., Case 15-G-0382; Case 13-G-0076, Re St. Lawrence Gas Company, Inc. (July 15, 2016), at note 18; Re United Water New York, Inc., Case 13-W-0295 (June 26, 2014), at note 17; Re New York State Electric & Gas Corporation Cases 15-E-0283, 15-G-0284 15-E-0285 & 15-G-0286 (June 15, 2016) at note 51.

have also maintained that inefficiency and inferior service deserve less return than normally would be forthcoming.¹⁰

Thus, it is consistent with the due process-based standard to reduce the otherwise applicable rate of return based upon inferior service, as well as based upon poor management.

This Commission has set a utility's rate of return at zero based on "two general factors that warrant a return less than a normal equity allowance": "grossly inadequate management and unsafe and inadequate service." *Proceeding on Motion of the Commission as to the Rates and Charges of Hurley Water Company, Inc.*, Case 28820, Opinion No. 85-5 at 21-22, 1985 N.Y. PUC LEXIS 668, 25 NY PSC 1319, *aff'd*, *Hurley Water Co. v. New York State Public Service Comm'n*, 122 A.D. 2d 410 (NY App. Div. 1986), *app. denied*, 58 N.Y. 2d 601. The Commission ordered that the utility receive a zero rate of return until it met certain conditions, at which time the Commission would be prepared to set a "suitable" rate of return in a second proceeding. *Id.* at 27. The NY Appellate Division cited *D.C. Transit System* in affirming the Commission's order. 122 A.D. 2d, at 411.

Other state public utility commissions have limited or denied rate increases based on poor service and been upheld by their courts. For example, in *National Utils. v. Pennsylvania PUC*, 709 A.2d 972, 979 (Pa. Commw. Ct. 1998) the Court upheld a Commission order denying a rate increase due to the utility's poor service, stating:

[T]he Fifth and Fourteenth Amendments to the U.S. Constitution are not violated when a public utility is denied an increase in rates when it fails to provide adequate service to the public, even if the result is a rate of return less than it would otherwise be entitled to receive. Because the evidence supports the PUC's finding that NUI provided inadequate service to its customer, its determination to refuse NUI's request to increase its rates which consequently may result in a reduced rate of return is not in violation of the United States Constitution.

D.C. Transit System, Inc. v. Washington Metropolitan Area Transit Comm'n, 466 F.2d 394, 419 (DC Cir. 1972), cert. denied, 409 U.S. 1086 (emphasis added).

Similarly, in *In re Valley Road Sewerage Co. for Approval of an Increase in its Rates for Sewer Service*, 285 N.J. Super. 202, 666 A.2d 992 (App. Div. 1995), the Court upheld a New Jersey Board of Public Utilities order denying a rate increase due to "mismanagement resulting in the company's abysmal failure to furnish adequate service to its customers." *Id.* at 208. The Court further stated that "inferior service deserves less return than normally would be forthcoming. The public is entitled to demand that no more money be extracted from it than the services rendered by the utility are reasonably worth." *Id.* at 210 (citations omitted).

Argument

Under the standards addressed above, the imposition of a gas moratorium on new firm service and the limitations on service expansions constitute service that is not adequate because it does not meet the Company's statutory and regulatory service obligations. The moratorium results from poor capacity planning or program implementation, or both by the Company. Under the black-letter law on ratemaking, service and management issues are considerations in setting a fair rate of return for a utility. EDF proposes a 50 to 100 basis point reduction to the ROE set by the JP, which may be restored upon elimination of the current moratorium.

A. An Adjustment to ROE Related to the Moratorium is an Inextricable Part of This Rate Case.

Based on the constitutionally based standard set out in *Smyth* and *Bluefield*, setting a utility's rate of return involves consideration of management and service. Regardless of whether the Company's moratorium on new service in Westchester County is being addressed, investigated, or litigated in other dockets or tribunals, it is properly before the Commission in this rate case for consideration in setting an appropriate ROE.

The JP states that "[t]he Signatory Parties agree not to litigate in this proceeding any claims regarding Con Edison's temporary gas moratorium in certain areas of Westchester . . . and

that such claims should not be adjudicated in this proceeding."¹¹ This statement in the JP cannot change the legal and factual elements that require inclusion of the issue in this rate case. This statement does make it clear that the Signatory Parties did not consider the moratorium in this docket and therefore that the proposed ROE of 8.80% in the JP¹² does not reflect any consideration of and adjustment for the moratorium. Thus, an adjustment to the ROE based upon the moratorium and its relationship to quality of service or management remains an open issue for the Commission's consideration in this rate case.

EDF further notes that the Chairman of the Commission, in his statement on the moratorium dated January 28, 2019, stated that the Commission will use "all available methods—including its rate-making authority" to address the Westchester moratorium.¹³

B. The Inadequate Service Due to the Moratorium and Related Facts Justifies an ROE Reduction.

The record in this case demonstrates that the Company's imposition of the moratorium in Westchester County results from its failure to adequately act on the results of its own capacity planning, which as far back as 2010 identified gas supply portfolio shortfalls.

Furthermore, as EDF witness Lander demonstrates, there were opportunities in the marketplace for the Company to obtain the capacity that was clearly needed to avoid having to impose a moratorium.

¹¹ JP at 94.

¹² JP, Appendix 2, p.11.

Statement from Public Service Commission Chair John B. Rhodes on Consolidated Edison's Decision to Stop Accepting New Gas Customers on a Temporary Basis in Westchester County, Case No. 17-G-0606 (Jan. 28, 2019)
http://www3.dps.ny.gov/pscweb/webfileroom.nsf/ArticlesByCategory/3C7D8C6B68ECD458852583
9000553443/\$File/pr19006.pdf?OpenElement.

Had the Company's management acted properly and competently based on its own gas planning process and results, the recent moratorium on new service connections in Westchester County would have been avoided. This deficient management by the Company of its gas portfolio is significant, is directly tied to the inadequate service being provided, and supports a ROE reduction.

The Joint Proposal is not in the public interest because it fails to address the Company's deficient management practices and the resulting moratorium. EDF proposes a 50 to 100 basis point reduction from the ROE proposed in the JP, which is reasonable under the facts of this case. The Commission could provide that the ROE adjustment would be removed in the future upon the lifting of the moratorium on a reasonable and sustainable basis or similar action that the Commission finds acceptable.¹⁴ Such an adjustment is much less than the ROE of zero that the Commission gave to Hurley Water in the above referenced case.

IV. THE COMMISSION SHOULD IMPLEMENT CHANGES TO ITS PROTOCOLS FOR REVIEWING THE COMPANY'S GAS SUPPLY PORTFOLIO PLANS.

EDF recommends to the Commission that it adopt certain protocols for the filing and reviewing of the Company's long-range gas plans. The recommendations support the Commission's ability to assess the Company's ongoing planning activities and reconcile them with plan implementation. The objective is to improve the current processes with more robust processes that hopefully will, among other things, mitigate the need by the Company to impose moratoria on new firm service connections or limitations on expansions as is now occurring in Westchester County. EDF submits that the JP's minor provision providing one meeting on gas planning and procurement is insufficient and is neither reasonable nor in the public interest.

Consideration of the lifting of the ROE could occur for example in a second stage proceeding with opportunity for interested parties to participate in an evidentiary hearing on the facts presented.

The current gas supply planning process outside of a rate case is focused to a large extent on Company interaction with the Commission Staff, and lacks formal procedures and opportunity for intervenor participation. A summary of current gas planning processes from the Company is as follows:

There are currently various Commission gas supply planning processes that precede gas utilities reaching the contract filing stage. For example, each year, the Commission establishes a formal proceeding, the subject of which is Staff examination of gas utility supply plans; for 2017, the proceeding is Case 17-M-0280. On the Commission webpage for that proceeding is myriad redacted material filed by all of the State's gas utilities, including Con Edison, in response to Staff's inquiries regarding various gas supply matters, including expected portfolio changes over the next five years; supply diversity and price risk management; evolving market conditions; and impacts on customer bills. The Company also makes a formal presentation on gas supply matters through testimony submitted in gas rate cases, and did so most recently in Case 16-G-0061. These interactions are supplemented by additional and ongoing informal interactions, as necessary and appropriate, when circumstances change and/or new information becomes available.

Petition of Consolidated Edison Company of New York, Inc. for Approval of the Smart Solutions for Natural Gas Customers Program, Case 17-G-0606, at 20-21 (Feb. 21, 2018).

The Company's explanation of its gas planning process is consistent with the Commission rule requiring that testimony in a rate case address "both the long- and short-term gas procurement plans as well as a description of existing gas supply contracts." 16 N.Y.C.R.R. § 61.3(d)(6). Nevertheless, EDF submits that the complexity and time horizon of a rate case typically make the topics of gas portfolio planning and procurement for the future unlikely to be substantively addressed in that forum.

EDF submits that while Commission Staff has surely worked diligently to make the current process work, the process requires substantial reform. The inadequacy of the current planning process is evidenced by the Company's need to impose a moratorium on new firm service connections in Westchester County.

The only gas supply planning provision in the JP is a commitment from the Company to "convene a meeting with parties in 2021 to discuss the Company's plans for addressing gas supply and gas infrastructure related issues in the Company's next gas rate case filing." JP at 95. EDF submits that one meeting with the Company and parties more than a year from now to address the limitations and shortcomings of the current gas planning process and in light of the Company's moratorium is neither reasonable nor in the public interest. Indeed, earlier this year the Commission recognized that "[g]as supply constraint solutions will need to involve greater visibility of the distribution planning process to stakeholders and local communities, to enable joint problem solving." ¹⁵ This JP does not do that.

EDF witness Mr. Lander provides detailed recommendations for a comprehensive and transparent gas supply planning process that the Commission should implement:

- The Company should submit its long-range gas plans annually to the Commission, at least for the next five years, with interested party participation through discovery, conferences and evidentiary hearing if needed.
- The agreed-upon long-range plan would become the basis for both the annual gas cost reconciliation proceedings and for rate case revenue requirement development, soundly based on information, resources, structures and costs previously revealed and reviewed.

Direct Testimony of Gregory M. Lander at 26-29 (Nov. 4, 2019). The planning process should provide for inclusion of intervenors, with clear rights of discovery and technical conferences as needed. EDF's recommendations will facilitate a more robust planning process providing multiple benefits, including:

"(1) identifying potential issues well in advance of experiencing demand/supply mismatches requiring moratoria; (2) a way to manage and contain the fixed cost commitments made by the Company, which will protect ratepayers against unreasonable financial risk and protect the Company against prudency risk from after-the-fact

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Petition of Consolidated Edison Company of New York, Inc. for Approval of the Smart Solutions for Natural Gas Customers Program, Case No. 17-G-0606 (Order Approving with Modification the Non-Pipeline Solutions Portfolio) (Feb. 7, 2019), at 35.

regulatory challenges; and (3) a more thorough framework for the Company to consider alternatives that would have lower all-in costs to customers."

Id. at 30-31.

In sum, the current gas supply procurement review procedures rely too heavily on interaction between Staff and the Company, and lack the robust inquiry process that discovery, other parties, and a potential hearing involves. The one Company-convened meeting provided for in the JP is inadequate. The JP should either be rejected or modified to require improved gas supply review procedures for the Company, such as the procedures outlined by EDF witness Mr. Lander.

V. THE COMMISSION SHOULD ADOPT EDF'S RECOMMENDATIONS FOR IMPLEMENTING ADVANCED LEAK DETECTION TECHNOLOGY IN CONJUNCTION WITH REVISING THE COMPANY'S GAS PERFORMANCE MECHANISM.

EDF submits that it is reasonable and in the public interest for the JP to include in it a scope and timeframe for integrating advance leak detection ("ALD") technology into the Company's leak management program, used in combination with and not in replacement of the Company's current leak detection methods. Such integration will provide substantial safety, cost, and environmental benefits; and will move the Company forward in its ability to track methane emissions system-wide. EDF proposes that when ALD technology deployment is accomplished, the appropriate earnings adjustment mechanisms ("EAMs") for leak management in the Company's Gas Performance Mechanism shown in the JP, Appendix 17, be revised to reflect the appropriate performance incentives.

EDF proposes that the JP include a provision that the Company submit to the Commission within 21 months of the Commission's order in this case a leak management plan developed using ALD technology in combination with current leak detection methods to achieve

a 50% reduction in emissions in a 3- to 5-year time frame. The plan would form the basis for the Commission to revise the appropriate EAMs for leak management in the Company's Gas Performance Mechanism shown in the JP, Appendix 17.

EDF witness Virginia Palacios provides testimony supporting EDF's position. Her testimony presents information relating to the use of ALD technology and its benefits; the results of the Company's current ALD technology pilot program; a recommended scope and schedule for integrating ALD technology into the Company's leak management program, including reporting requirements; and recommended adjustments to the Company's Gas Performance Mechanism to give the Company the appropriate metrics and incentives for reducing leaks and methane emissions.

A. <u>ALD Technology, When Used in Combination with Traditional Leak</u> Detection Methods, Benefits the Utility System and the Environment

ALD technology refers to high sensitivity methane detection equipment (i.e. with detection limits on the order of parts per billion) capturing data at high frequency (at least twice per second) by mobile vehicles equipped with global positioning systems. The vast amount of data collected is processed through advanced analytics to estimate methane flow rate (e.g., in liters per minute) that can indicate system gas leaks. Direct Testimony of Virginia Palacios ("Palacios") at 12. Academic research and utility experience demonstrates that "[c]ombining advanced leak detection technology with traditional leak surveys offers utilities unique insight into their systems that is not possible using only traditional leak survey methods." Studies have shown that "advanced leak detection technology is capable of finding many more existing leaks than traditional leak survey methods." *Id.* at 13. And traditional methods and ALD may find different subsets of leaks, suggesting that ALD "can substantively enhance a company's existing

datasets by providing up-to-date information about otherwise undiscovered leaks in a system." *Id.* at 14.

Studies show that traditional leak detection methods typically find only 35% of leaks in a utility system compared with using ALD in combination with traditional methods. *Id.* at 13. Studies also show that using ALD technology with advanced analytics to prioritize main repairs can yield a 54% reduction in distribution system emissions by repairing the top 20% of ranked leak indications. *Id.* at 20. EDF witness Palacios observes that, "prioritizing pipelines for replacement using leak flow rate data allows utilities to improve the efficiency and efficacy of pipeline replacement expenditures, for the benefit of ratepayers." *Id.* at 21.

ALD technology has recently been deployed by PSE&G pursuant to an order of the New Jersey Board of Public Utilities approving a settlement for an accelerated pipe replacement program. Information provided by PSE&G shows that the utility "achieved an 83% reduction of methane emissions early on by replacing one-third fewer miles of gas lines than that needed to achieve the result under a business as usual scenario." Palacios at 34. PSE&G concludes that its use of ALD is "better for the environment, [provides] less chance of non-hazardous leaks getting worse, and [results in] fewer potential customer calls/complaints." *Id.* at 33 (footnote omitted).

Other utilities are pursuing deployment of ALD technology to quantify emission flow rate data to enhance leak repair and pipeline replacement efforts. In New York, significantly, Keyspan Gas East Corporation d/b/a National Grid and Brooklyn Union Gas Company d/b/a National Grid have implemented a suite of pilot projects on Long Island pursuant to a Joint Proposal in a rate case settlement. *Proceeding on Motion of the Commission as to the Rates*,

I/M/O Public Service Electric and Gas Company for Approval of a Gas System Modernization Program and Associated Cost Recovery Mechanism, Docket No. GR15030272 (Nov. 16, 2015).

Charges, Rules and Regulations of KeySpan Gas East Corporation d/b/a National Grid for Gas Service, Case No. 16-G-0058 et al., Page 51, Section 8.2.2 (Sep. 7, 2016). Niagara Mohawk also entered into a Joint Proposal by which it will continue to "develop a methodology for assessing leak size and volume using leak quantification methods" and consider "best practices for identifying and abating high volume leaks." 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 Gas Service, Case No. 17-G-0239 et al., Joint Proposal at 42, Section 7.6 (January 19, 2018). 17

ALD technology deployment provides better metrics for utilities, regulators and stakeholders in evaluating a pipeline replacement program by providing "information including leak flow rate data and leak frequency . . . to evaluate the pace at which risk is mitigated, and whether the scheduling of each grid for replacement has been prioritized in a way that optimizes risk mitigation, and allows for replacement program progress to be tracked and assessed frequently and easily." Palacios at 27.

In sum, ALD technology and associated analytics "can aid utilities in reducing system risk by providing more actionable information than they currently have available for making leak abatement decisions, and aid in prioritizing leak investigations for leaks that are likely to be hazardous." *Id.* at 26. ALD technology and associated advanced analytics "allow utilities to maximize the return on investment . . . from both a financial and safety perspective." *Id.* at 19. ALD technology deployment will provide the Commission and Staff with more detailed

Other utilities pursuing ALD technology deployment include the Peoples' Gas Light and Coke Company, Chicago IL and Peoples Gas of Pittsburgh. *See* Testimony of Virginia Palacios at 36-38.

information than traditional leak detection methods can provide to evaluate the cost-effectiveness of leak management programs and benefits to ratepayers and the environment.¹⁸

B. The Company's Pilot Program Demonstrates the Efficacy of ALD Technology.

The Company has implemented an ALD technology pilot program and completed multiple field trials of ALD technology. In 2016, in collaboration with EDF and Colorado State University ("CSU"), the Company provided Type 3 (non-hazardous) leak backlog data, including location information, which EDF then used to deploy field methane sensors fitted to Google Street View mapping cars. The Company used the data obtained to rank leaks by size and prioritize leaks in the backlog for repair. *See* Palacios at 40-42. CSU's analysis indicated that, as a result of the leak flow rate information obtained, the average emissions mitigation doubled, from 15% to 31%. *Id.* at 41.

In Summer 2018, the Company completed a field trial of cavity ring down spectroscopy ("CRDS"), a specific type of ALD technology, involving approximately 66 miles of gas main in Queens, NY, with the following results.

 $\underline{https://www.dec.ny.gov/docs/administration_pdf/mrpfinal.pdf}\ .$

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Notice should be taken of Governor Cuomo's Methane Reduction Plan, which directs state agencies, including the Department of Public Service ("DPS"), to develop proposals and policies to inventory emissions and identify strategies for methane capture and elimination. The Plan directs the DPS to "utilize rate cases to incentivize utilities to maintain a low backlog of leaks and replace leak-prone pipe for State jurisdictional pipeline operators." Methane Reduction Plan, at 6 (May 2017);

ConEd Leak Detection 2018 Field Trial¹⁹

(Source: Company Response to Interrogatory EDF-7-51.)

	Type 1	Type 2/2A	Type 3	MS	Total
Traditional Only	7	18	13	4	42
CRDS Only	5	17	23	9	54
Traditional & CRDS	12	29	29	9	79
Total Leaks Included in Trials	24	64	65	22	175

In 2019, the Company did three additional trials, covering 13.2 miles of gas main,²⁰ with the following results:

ConEd Leak Detection 2019 Field Trial

(Source: Company Response to Interrogatory EDF-11-64(c), attachment "2019 All Leaks Found Tracking Spreadsheet")

	Type 1	Type 2/2A	Type 3	MS	Total
Traditional Only	0	3	0	1	4
CRDS Only	1	2	6	1	10
Traditional & CRDS	0	6	4	7	17
Total Leaks Included in Trials	1	11	10	9	31

As shown, ALD technology markedly increased the number of leaks detected by the Company compared to traditional leak detection methods.²¹ The Company recognized the value of the increased number of leaks found in its field trial as "ultimately reducing risk and increasing public safety." Company Response to Interrogatory EDF-1-7.

¹⁶ N.Y.C.R.R. §§ 255.811 to 255.817 classify leaks as follows: Type 1 leaks are hazardous and require immediate attention. Type 2A, 2, and 3 leaks are not immediately hazardous. Type 2A leaks require frequent surveillance and scheduled repair. Type 2 leaks require scheduled repair. Type 3 leaks are to be reevaluated during the next required leakage survey or annually, whichever is less. "MS" refers to "Meter Set." CRDS refers to cavity ring down spectroscopy.

²⁰ Company Response to EDF Interrogatories, Set EDF-7, Question No: 51.

In the 2018 trials, with regard to Type 1 leaks (the most hazardous leaks), traditional methods would have found 19 (7 + 12) Type I leaks, but 5, or 26.3% (5/19 x 100) more were found adding ALD technology. Overall, 121 (42 + 79) leaks would have been found using traditional methods only, but 54, or 44.6% (54/121x100) more were found using ALD technology. The trials in 2019 show similar results, with 21 leaks that would have been found with traditional methods and 10 or 47.6% (10/21 x 100) more found adding ALD technology.

EDF is not recommending that the Company abandon traditional leak detection methods deployed under its Distribution Integrity Management Program ("DIMP"), which have been effective, but also have limitations, as shown by the Company's field trials above described.

Rather, it is EDF's position that:

"[A]dvanced leak detection technology and leak quantification can provide data that is relevant to predictive risk models, which would integrate well with the Company's rankings identified through the Company's DIMP. Through capturing additional information regarding the current state of the system in each project area with advanced leak detection technology and leak quantification, the Company can determine a more accurate number of active leaks per mile in each project area and the leak flow rate per mile in each project area. Incorporating these two data points into the Company's existing databases will allow the Company to make prioritization decisions based on up-to-date data on system threats, rather than relying primarily on historical leak repair and walking-survey data."

Palacios at 28.

Despite the foregoing, the JP does not commit to any actions regarding ALD technology integration into the Company's leak management program. And the Company has shown reticence to move forward with ALD integration. Con Edison stated in May 2019 that after completion of the field trials, it would complete its evaluation of ALD and share its findings with the Commission and interested stakeholders in the third quarter of 2019.²² But in October 2019, the Company stated that it does not expect to complete its evaluation until the end of the first quarter of 2020.²³ The Joint Proposal's failure to require the Company to fully deploy a valuable technology that it has already invested resources in is unreasonable and not in the public interest.

C. The JP's Gas Performance Mechanism Does Not Provide the Proper Incentive to the Company for Finding and Mitigating Leaks.

²² Company's Response to Interrogatory EDF 1-2 (available at Exhibit __(VP-15), attached to the testimony of Virginia Palacios).

Company's Response to Interrogatory EDF 11-64 (available at Exhibit __(VP-12), attached to the testimony of Virginia Palacios).

Appendix 17 of the JP proposes the Company's Gas Performance Mechanism, which among other elements provides both negative and positive earnings adjustments to the Company for reducing its leak management backlog. For example, the Company would be assessed a negative revenue of adjustment of 15 basis points on its ROE if its year-end backlog of all leak types exceeds 300 in number in 2020. JP, Appendix 17, at 1-2. On the other hand, if the Company reduces its year-end leak backlog to 125 or less in number, it would receive a positive earnings adjustment of 4 basis points to its ROE. *Id.*, at 7-8.

As explained by EDF witness Palacios, the Gas Performance Mechanism incents the Company for reporting a lower number of leaks in its backlog at year-end, rather than incenting the Company to find more leaks using the best available technology. Palacios at 50. A proper incentive should motivate the Company to "find more leaks using [ALD], estimate their flow rate, and to reduce those leaks, prioritize the highest volume leaks first by using a leak distribution curve." *Id.* at 50.

Thus, EDF submits that the JP's Gas Performance Mechanism is not in the public interest because it does not properly incent the Company to find and reduce more leaks and achieve a greater rate of emissions reduction through prioritization of repairs and replacements based on a leak distribution curve.²⁴

Moreover, the JP's Gas Performance Mechanism in this regard is not supportive of New York's recently enacted Climate Leadership and Community Protection Act ("CLCPA"), 2019 N.Y. Laws 106. The law requires substantial decreases in greenhouse gases.²⁵ A properly

For an example of a leak distribution curve, *see* Palacios at 20 (graph plotting Percent of Estimated Emissions versus Percent of Ranked Leak Indications).

The law requires reductions in greenhouse gas emissions by 2030 at 60% of 1990 emissions, and by 2050 at 15% of 1990 emissions.

structured incentive using ALD technology in combination with traditional leak detection methods should be developed making use of leak detection curves to prioritize leak repairs and pipelines for replacement. Such an incentive would not only advance the State's greenhouse gas emission reduction goals, but also improve the Company's "efficiency and efficacy of pipeline replacement expenditures, for the benefit of ratepayers." Palacios at 21.

D. <u>EDF Recommends that the JP Provide for the Development of a Definitive</u>
Plan for the Company's System-Wide Deployment of ALD Technology and a
Corresponding Revision to the Company's Gas Performance Mechanism.

The JP proposes a three-year capital expenditure for the Company's replacement of 85 miles of leak-prone pipe ("LPP") annually at an aggregate cost of \$1.31 billion. JP, Appendix 6, p. 1. The JP also proposes to allow a cumulative, 3-year recovery of \$150.7 million in incremental operations and maintenance expenses to reduce the Company's leak backlog. *Id.* at 3. While supportive of the Company's action to repair or replace LPP and reduce its leak backlog, EDF submits that developing a plan on an accelerated basis to deploy ALD technology and associated advanced analytics will increase the cost-effectiveness of the Company's expenditures, increase the rate of emissions reduction, and increase benefits to ratepayers.

EDF witness Palacio recommends a 3- to 5-year time frame for the Company to achieve a 50% reduction in emissions from its gas distribution system, which she estimates would require abatement of approximately the largest 20% of leaks in the Company's non-hazardous inventory. She recommends the following approach:

complete a system-wide baseline methane leak survey, which would take
approximately 18 months to complete for the Company's 4,400 miles using
currently available ALD technology in combination with the Company's current
leak detection methods;

- integrate during that period the leak flow rate and other data captured by the survey into the Company's geospatial information systems;
- submit to Commission Staff and interested parties a Methane Leak Survey Report for review and comment;
- Update the Company's Distribution Integrity Management Program ("DIMP")
 with a plan for prioritizing leak repairs and pipeline replacements based on leak
 flow rate, taking safety into consideration; and
- submit the updated DIMP to the Commission for implementation of a new incentive structure under the Company's Gas Performance Mechanism based on emission reduction percentages achieved, with the annual maximum positive incentive tied to achievement of a 50% reduction within the 3- to 5-year time frame.

See Palacios at 5-6.

In furtherance of this approach, EDF proposes that, if the JP is to be modified on these issues (rather than rejected) the following paragraph be inserted into the JP:

Within the 18 months of the date of the Commission's order disposing of this case, the Company will complete a system-wide baseline survey of leak flow rates using advanced leak detection ("ALD") technology and leak quantification methods. Such technology shall not replace traditional leak detection methods. The integration of ALD technology and analysis will build on the Company's experience in its ALD pilot program. During the performance of the survey, the Company will convene monthly technical meetings with Staff and interested parties (technical working group, or "TWG") to discuss progress and issues encountered. Upon completion of the survey, the Company will submit a methane leak survey report to the TWG for review and comment. Within 3 months thereafter, the Company will submit to the Commission for approval (1) an update to its Distribution Integrity Management Program ("DIMP") incorporating the survey report and a plan to repair leaks and replace leak-prone pipe ("LPP") to achieve a 50% reduction in methane emissions within 3 to 5 years from the date of the Commission's order disposing of this case, and (2) proposed revised Gas Performance Mechanism designed to revise the provisions in Appendix 17 and provide a maximum positive

incentive for achieving the 50% reduction within the 3- to 5-year time frame. The TWG will meet periodically to review the progress toward achievement of the reduction targets and recommend schedule adjustments as necessary in light of issues encountered during the course of the work.

EDF further submits that the Company should receive cost recovery through rates for the reasonable incremental costs of integrating ALD technology and leak quantification methods into the Company's operations. EDF takes no position on the form of such recovery of reasonable incremental costs, whether it be deferred to the future, through the Monthly Rate Adjustment (MRA) or another mechanism.

VI. CONCLUSION

EDF opposes the Joint Proposal in Case 19-G-0066 because it does not adequately address the current moratorium in Westchester County, does not adopt needed changes to the Commission's protocols for reviewing the Company's gas supply portfolio plans, and does not contain provisions for the Company's system-wide development and implementation of advanced leak detection technology.

The JP unreasonably fails to substantively address the Company's current moratorium on new firm gas service connections and limitation on expansions in Westchester County. The JP proponents cannot show that the moratorium "should not be adjudicated in this proceeding" because as a matter of law issues on the quality of service and sufficiency of management are inextricably a part of this rate case and properly before the Commission. The evidence demonstrates that the moratorium could have been avoided had the Company taken appropriate action in light of its own capacity planning. Given these facts, EDF submits that the Company should receive a negative earnings adjustment of 50 to 100 basis points, which could be restored

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²⁶ JP at 94.

should the Company take steps to lift the moratorium on a sustainable basis to the satisfaction of the Commission, with opportunity for stakeholder review and input

The JP's provisions also unreasonably fail to implement changes to the Commission's protocols for reviewing the company's gas supply portfolio plans. EDF suggests that the current protocols should be improved, as follows:

- The Company should at least for the next five years submit its long-range gas plans annually to the Commission, with interested party participation through discovery, conferences and evidentiary hearing if needed.
- The agreed upon long-range plan would become the basis for both the annual gas cost reconciliation proceedings and for rate case revenue requirement development, soundly based on information, resources, structures and costs previously revealed and reviewed.

EDF submits that a more robust a more robust review of the Company's plans including stakeholder participation will, among other things, mitigate the need by the Company to impose moratoria on new firm service connections or limitations on expansions as is now occurring in Westchester County. The burden is on the Company and proponents to prove that the JP's provision of one meeting on gas planning and procurement is reasonable and in the public interest.

The JP's provisions further unreasonably fail to require ALD in the company's operations. They also provide unreasonable Positive and Negative Revenue Adjustments for leak management under the Gas Performance Mechanism which provide disincentives to find leaks, as under these mechanisms finding more leaks and adding them to the leak inventory has negative financial consequences. If modified, the JP should include requirements to include ALD, and provide processes to improve the Gas Performance Mechanism. EDF submits that the Company should receive cost recovery for reasonable incremental costs of implementing ALD.

The foregoing supports a finding that the JP is not reasonable or in the public interest.

Thus, EDF requests that your Honor order modifications to the JP consistent with the proposals in this statement. In the alternative, the foregoing also supports rejection of the JP, which EDF requests if your Honor does not modify the JP consistent with the foregoing.

Dated: November 4, 2019 Respectfully submitted,

By: Martin C. Rothfelder, Esq. Rothfelder Stern, L.L.C. 407 Greenwood Avenue, #301 Trenton, NJ 08609 (609) 394-1000

hatin C. Peter feld

Erin Murphy
Attorney, Energy Markets and Utility Regulation
Environmental Defense Fund
1875 Connecticut Ave. NW, Suite 600
Washington, DC 20009
(202) 572 3525
emurphy@edf.org

N. Jonathan Peress
Senior Director, Energy Markets and Utility Regulation
Environmental Defense Fund
16 Tremont Street, Suite 850
Boston, MA 02108
(617) 406-1838
njperess@edf.org