Modernized Gas Planning Process: Standards for Reliance on Peaking Services and Moratorium Management

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Date Filed: July 17, 2020

Case 20-G-0131

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STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

Proceeding on the Motion of the Commission in Regard to Gas Planning Procedures	)))	Case 20-G-0131

MODERNIZED GAS PLANNING PROCESS: STANDARDS FOR RELIANCE ON PEAKING SERVICES AND MORATORIUM MANAGEMENT

1. INTRODUCTION

On March 19, 2020, the New York Public Service Commission (Commission) initiated this proceeding to consider issues related to the planning procedures used by New York's natural gas local distribution companies (LDCs).[1] As noted in the *Order Instituting Proceeding* (Gas Planning Order),[2] the proceeding responds to recent actions by certain LDCs to invoke moratoria on new service connections based on their assessment that supply constraints would prevent them from maintaining reliable service to all customers during every hour of the year in parts of their service territories.[3]

A. Gas Planning Issues to be Addressed

The Gas Planning Proceeding will address four interrelated issues: (1) the identification of "vulnerable locations" where there is an expected/forecasted future imbalance in the supply of and demand for natural gas; (2) reliance on peaking services to meet demand; (3) management of

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1 Case 20-G-0131, *Proceeding on the Motion of the Commission in Regard to Gas Planning Procedures* (Gas Planning Proceeding).

2 Gas Planning Proceeding, Order Instituting Proceeding (issued March 19, 2020) (Gas Planning Order).

3 Gas Planning Order, p. 1.

moratoria conditions when such events are contemplated; and (4) the design of a "modernized" gas system planning process.

The identification of "vulnerable locations" is addressed in a separate filing that each LDC is making today, pursuant to Ordering Clause 3 of the Gas Planning Order.[4] Each LDC will expand this analysis to cover its entire service territory in a supplemental filing on July 31, 2020.[5] In addition, each LDC will file a status report on August 17, 2020 that identifies demand-side and other measures it will propose to use to address the supply/demand imbalance in locations that have been identified as "vulnerable" to aid in the management of potential moratoria (Ordering Clause 6).

This joint filing by seven of New York's LDCs (Joint LDCs)[6] addresses the reliance on peaking services and management of moratoria, pursuant to Ordering Clause 5. The Commission has expressed concern that some LDCs have become increasingly reliant on peaking services in the form of compressed natural gas (CNG) and delivered services to meet natural gas demand during the winter season and particularly on the coldest hours and days of the year. The Commission also noted that, "the specific manner in which moratoria are declared and managed can itself create or mitigate hardship and inequity."[7] Reliance on peaking services and moratoria management are pressing issues, especially in light of recent moratoria for natural gas service in specific locations in New York.

In the Gas Planning Order, the Commission concluded that conventional gas planning and operational practices "have not kept pace with recent developments and demands on energy systems."[8] In response, Ordering Clause 7 directs the Department of Public Service Staff (Staff) "to file a proposal to modernize the gas system planning process" by August 17, 2020.

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4 Gas Planning Proceeding, Letter from Commission Secretary Michelle L. Phillips (dated June 17, 2020) granting an extension to July 17, 2020.

5 *Ibid*.

6 The Joint LDCs are: Central Hudson Gas & Electric Corporation; Consolidated Edison Company of New York, Inc.("Con Edison"); The Brooklyn Union Gas Company, KeySpan Gas East Corporation, and Niagara Mohawk Power Corporation, which together d/b/a National Grid; National Fuel Gas Distribution Corporation; New York State Electric & Gas Corporation; Orange and Rockland Utilities, Inc.; and Rochester Gas and Electric Corporation.

7 Gas Planning Order, p. 8.

8 Gas Planning Order, p. 2.

The Joint LDCs are committed to providing safe, reliable and affordable natural gas service to customers throughout New York State and appreciate the opportunity to work with the Commission, Staff, and other stakeholders to consider gas system and supply planning practices that achieve these objectives.

B. Organization of Filing

The remainder of this document is organized into the following sections:

Section 2	The need to modernize the gas system planning process
Section 3	Standards for assessing LDC reliance on peaking services
Section 4	Standards for LDC management of moratoria events
Conclusions	Summary of the Joint LDCs' proposals for a modernized gas planning process

2. THE NEED TO MODERNIZE THE GAS SYSTEM PLANNING PROCESS

Historically, New York's LDCs have seen consistent growth in natural gas connections and utilization. Because natural gas is reliable, affordable, and a cleaner alternative to fuel oil products, this growth was supported by customers, municipalities, regulators, and other stakeholders. To the extent that the gas network required additional infrastructure investments and could present a viable business case, these investments were typically approved, permitted, and constructed in a timely manner to meet projected demand.

In recent years, however, opposition to incremental fossil fuel infrastructure has challenged the ability to add additional natural gas pipeline capacity. Energy efficiency and demand management programs have become more sophisticated and viable alternatives. New York's Climate Leadership and Community Protection Act (CLCPA) and similar municipal legislation (*e.g.*, New York City's Local Law 97) have challenged utilities to consider how energy networks can reduce carbon emissions. These changes are having a profound impact on the long-term gas system planning process. In particular, the following issues have emerged and need to be addressed:

- There is uncertainty around the ability to increase capacity through traditional infrastructure investments, the pace of new connections, and the impact of energy efficiency, demand management, and electrification programs on gas demand, particularly on the coldest days of the year.
- The increased reliance on peaking services to meet customer demand, including trucked CNG, must be evaluated and managed from a risk and cost perspective.
- There is a need for further study of Renewable Natural Gas (RNG) and hydrogen to reduce emissions across the natural gas LDC network. How these programs and pilots expand and contribute to achievement of emissions targets must be evaluated and considered across all demand and supply planning efforts.

With these emerging issues in mind, the Joint LDCs recognize the need to collaborate with stakeholders regarding how to best evolve the gas system planning process. Furthermore, the evolution of the gas system planning process is closely related to peaking services and moratoria management.

Peaking services are an integral component of an LDC's resource portfolio, which is designed to meet customer demand in a safe, reliable, and economic manner. The LDC portfolio

also includes baseload pipeline supplies, off-system gas storage delivered by pipelines, and demand-side resources. Maintaining safety and reliability is the top priority for the Joint LDCs, especially in times of peak demand. It is, therefore, a portfolio requirement and not solely a matter that relates to reliance on peaking supplies. The potential for and management of moratoria is also related to the design and performance of the overall LDC portfolio. The standards[9] that the Joint LDCs propose in Sections 3 (peaking services) and 4 (moratorium management) will affect the design of the portfolio and contracting for all resources, including non-pipe alternatives (NPAs). Evaluation of potential solutions, including moratoria, must consistently include associated risks and potential impacts to customers in terms of cost, safety, reliability, and risk of service interruption. It is therefore appropriate to address the reliance on peaking services and moratorium management standards with reference to potential enhancements to the gas system planning process.

A. Context: Recent Experience and Viable Resource Options

Commission proceedings provide thorough documentation of the recent experience Con Edison and National Grid have had with supply constraints that ultimately led to their decisions to implement moratoria for new natural gas firm service.[10] In many respects, the need to declare a moratorium is a "signpost" for New York's LDCs and policy makers. As utilities, LDCs are obligated by State Law to provide customers who request natural gas with safe, reliable, and affordable service. [11] As regulatory policy makers, the Commission and Staff are responsible for establishing policies, rules, and regulations that promote the public interest, consistent with the Commission's governing statute.

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[9] The Joint LDCs use the term 'standard' to mean a definitive level or threshold that must be achieved (*e.g.*, safety or reliability standards). After meeting service standards, it may also be appropriate to consider 'criteria,' which the LDCs define as significant, central, or important features that establish rationale for selecting an option (*e.g.*, low costs, price risk, flexibility, and renewal rights).

[10] Case 19-G-0080, Staff Investigation into a Moratorium on New Natural Gas Services in the Consolidated Edison Company of New York, Inc. Service Territory, and Case 19-G-0678, Proceeding on Motion of the Commission to investigate Denials of Service by National Grid, respectively. In February 2015, New York State Electric and Gas Corporation (NYSEG) declared a moratorium on new gas customer attachments in the Town of Lansing, in Tompkins County.

[11] New York State Public Service Law §65 (1), New York State Transportation Corporations Law §12.

It was not long ago that State and local policies actively promoted natural gas as a cleaner and more affordable substitute for fuel oil products.[12] From a policy perspective, however, much has changed over the past few years leading up to and including the enactment of the CLCPA. The most significant change in circumstances impacting LDCs' resource planning is the fact it has become increasingly difficult to gain approval for development of new baseload interstate pipelines to serve portions of the Northeast, including New York markets.[13] This factor is the largest single contributor to increasing reliance on peaking services and has, at the same time, restricted the availability of and market for delivered services. Consequently, utilities in downstate New York have had to implement moratoria for new firm gas service.

The Commission has recognized that the increasing reliance on peaking services, particularly in downstate markets, presents reliability, operational, and planning concerns. In addition, there are significant implications of moratoria on New York households, businesses, municipalities, and other entities that are planning to invest or have already begun making investments to convert homes and businesses to natural gas. These concerns are shared by customers, the Commission, and LDCs and must be addressed with a forward-looking perspective.

There are also potentially viable resource options that can be part of a solution that maintains safety, reliability, and affordability while contributing to clean energy goals. These include:

- Energy efficiency and demand-side resources that play a role in reducing peak demand and enabling achievement of environmental objectives;

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[12] For instance, in the Commission's Order dated November 30, 2012 in Case 12-G-0297, Proceeding on Motion of the Commission To Examine Policies Regarding the Expansion of Natural Gas Service (Gas Expansion Order), the Commission declared "Natural gas is cleaner than other fossil fuels used for home heating and under current market conditions costs a third as much. Moreover, New York State is well-located geographically to take advantage of existing and newly developed natural gas supplies located outside our State but which, when competitively priced, are available to supply customers within the State. New York's location relatively close to these new sources of supply could provide the State a competitive advantage in attracting and retaining employers concerned about costs of, and access to, a reliable source of energy". Indeed, the focus of that proceeding was to examine policies to encourage expansion of gas service.

[13] *E.g.*, Williams Pipeline Northeast Supply Enhancement project was shelved after permits were denied (S&P Global Platts Gas Daily, "Williams will not refile after New York, New Jersey deny 400,000 Dt/d gas project," May 19, 2020.)

- The potential for economic full or partial electrification of homes and commercial buildings to reduce peak day demand;
- NPAs that may be preferred over traditional pipeline solutions; and
- Technology advances that improve the availability and economics of renewable natural gas (RNG) in the near term and the potential that power-to-gas (hydrogen) resources will provide economically viable alternatives within a longer-term planning horizon.

These developments add complexity to the natural gas system planning process. As the Commission states in the Gas Planning Order:

> Recent developments have challenged conventional approaches to gas system planning. These developments include, but are not limited to, recent and current instances of supply/demand imbalance, the emergence of viable, less-traditional and increasingly cleaner alternative solutions for demand and supply, the controversy and uncertainty associated with major gas infrastructure decisions, and the CLCPA's establishment of state policy directions.[14]

The Commission acknowledged the importance of the effort to evolve the gas system planning process, noting that it, "will have implications for economic development, emissions, consumer prices, and customer choice."[15] The Joint LDCs are particularly focused on our customers and our statutory obligation to serve. Although our customers are increasingly aware of the environmental impacts of their energy "footprint," the overwhelming majority of our residential and business customers pay close attention to costs. Natural gas remains a preferred option for many customers. In fact, the Joint LDCs continue to receive requests for new connections.

For decades, the Joint LDCs have focused on meeting their obligation to serve by constructing a portfolio of resources at the lowest reasonable cost that is reliable throughout the year – especially during the coldest days and hours. LDCs are now faced with the question of whether they will have the necessary resources to serve new firm customers reliably. These considerations have consequences for natural gas planning and increase the importance of establishing planning practices that incorporate state policy objectives while continuing to place the interests of customers in the forefront. The Joint LDCs support the State's clean energy

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[14] Gas Planning Order, p. 6.

[15] Gas Planning Order, p. 5.

objectives and plan to address these challenges by considering all potential resource options, including demand-side resources and electrification, while continuing to comply with their statutory obligation to serve.

B. The Gas System Planning Process

With this backdrop, the Joint LDCs endorse the effort to modernize the gas system planning process in a way that considers supply-side, demand-side, and distribution solutions to meet customer demand. With respect to demand-side options, the Joint LDCs recognize electrification, energy efficiency, interruptible service, and NPAs as resource options. Among the supply-side options, the Joint LDCs emphasize that it is appropriate to consider the potential for RNG and power-to-gas solutions to contribute to deep decarbonization pathways that include low- and zero-carbon gas networks complementing electrification.[16]

The Gas Planning Order provides initial guidance for a "modernized" gas system planning process, stating that it should be, "comprehensive, suited to forward-looking system and policy needs, designed to minimize total lifetime costs, and inclusive of stakeholders."[17] The Joint LDCs would add, however, that changes to this process must reflect our statutory obligation to serve. In addition, the Commission notes that, "[t]he transparency of planning practices also merits reexamination."[18]

The Joint LDCs support these objectives and offer the following set of "design principles" to guide the evolution of the long-term gas system planning process:

1. The natural gas system planning process should continue to provide safe and reliable gas delivery service, while supporting New York's environmental, economic development, and other policy goals as cost-effectively as possible.
2. The natural gas system planning process should be designed to meet the anticipated demand for natural gas by customers through all viable supply-side and demand-side resources, such as electrification, energy efficiency, and demand response initiatives.

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[16] See discussion on pages 74-75 of National Grid's May 2020 Natural Gas Long-Term Capacity Supplemental Report. As noted in the report with reference to three recent reports, there are net-zero pathways that include natural gas that are more cost-effective than relying exclusively on electrification.

[17] Gas Planning Order, p. 7.

[18] Gas Planning Order, p. 5.

3. The natural gas planning process should balance the need to protect the confidentiality of information for security and procurement purposes with the desire to provide transparency to stakeholders.
4. The natural gas system planning process should enable participation of stakeholders, consistent with the LDC's statutory obligation to provide service at reasonable cost.[19] The LDCs and policy makers should clearly communicate the implications of changes in the gas system planning process to customers and other stakeholders.
5. The natural gas system planning process should guide the LDCs in the development of periodic long-term Gas System Resource Plans that reflect the latest information regarding anticipated demand, the expected contribution of existing and potential supply-side and demand-side resources, market conditions, and policy goals;
    - The plans should include the LDC's proposed long-term actions including demand-side programs, supply-side resources commitments and any investments necessary to address capacity needs, with consideration to the time that may be required to implement such options;
    - The plans should reflect uncertainty regarding the future through analytical techniques that include sensitivity and scenario analyses where appropriate; and
    - The plans should include identification of and updates regarding the status of vulnerable locations, including the status of NPAs and other efforts to address supply/demand imbalances.

The Joint LDCs support a transparent long-term gas system planning process that objectively evaluates the potential costs, environmental impacts, and timing of implementation of all solutions and believe that this approach is superior to a process that preemptively eliminates or mandates options before performing comparative analyses to inform resource decisions. In addition, the Joint LDCs endorse a gas system planning process that is designed to preserve community economic development opportunities, as well as protect the financial strength and credit quality of the State's natural gas utilities so that they can provide safe, reliable, and affordable service.[20]

The periodic LDC Gas System Resource Plans will document the methodology, assumptions, analyses results, proposed set of actions, and describe the involvement of

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[19] New York Public Service Law §65(1).

[20] This filing represents the Joint LDCs response to Ordering Clause 5 of the Gas Planning Order. It does not reflect our perspectives with respect to positions expressed in a report filed in this case file by the Natural Resources Defense Council (NRDC) on June 30, 2020. The Joint LDCs note, as a preliminary matter, that the NRDC introduces several issues that are beyond the scope of this proceeding, including pipeline safety and cost recovery issues.

stakeholders.[21] As contemplated by the Joint LDCs, stakeholders will have the opportunity to participate in the gas system planning process.

The Joint LDCs recommend filing the long-term Gas System Resource Plan approximately every third year, generally in coordination with rate case filings. The Joint LDCs would continue to file the winter preparedness plans every year as they address short-term reliability issues.

As noted in Section 4 specifically with respect to moratoria management, stakeholders will also be invited to propose solutions to address vulnerable locations at sessions that focus on these locations soon after they have been identified. This would include the opportunity to comment at an appropriate time on the framework for design of market solicitations, such as requests for proposals (RFPs) seeking viable alternative solutions to address vulnerable locations, consistent with the potential need to expeditiously implement solutions to resolve system constraints. Developers will be encouraged to respond to these solicitations and propose specific solutions.

As noted above, it is appropriate to address the reliance on peaking services and management of moratoria within the broader context of the enhanced gas system planning process. The standards for reliance on peaking services that the Joint LDCs propose in Section 3 are intended to provide a reliable resource portfolio. These peaking services standards will guide the development of the winter preparedness filings and longer-term Gas System Resource Plan and should also guide the procurement of peaking services and contract negotiations.

Similarly, it is appropriate to align standards for the management of moratoria with the gas system planning process as it evolves, consistent with our desire that declaration of a moratorium should be a "last resort" option. State-wide consistency is appropriate to address when and how to implement a moratorium, when and how to end a moratorium, and protocols that address communications with the Commission, Staff, communities, customers, and developers. These issues are all addressed in Section 4 below.

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[21] Although a proposed Action Plan is a key element of an LDC Gas System Resource Plan, specific programs and investments will be reviewed in rate cases or other proceedings.

3. RELIANCE ON PEAKING SERVICES

As noted above, LDCs have a statutory obligation to deliver natural gas to meet the demand of firm customers on every day of the year, including the coldest days when the LDC experiences peak firm customer demands. There are two aspects to meeting this requirement. First, LDCs require supply-side and/or demand-side resources (*e.g.*, demand response) to meet forecasted firm peak demand. With respect to supply-side resources, LDCs rely on natural gas transported to their service areas using long-term contracts for interstate pipeline capacity from production areas or underground storage facilities. LDCs can supplement pipeline-sourced supplies with contracts for natural gas that is delivered to their service area via pipeline capacity controlled by another entity ("delivered services"), natural gas from local production, natural gas that is stored in facilities located within their service territories including CNG and liquified natural gas (LNG), or CNG delivered by truck for injection into the distribution system. Additionally, LDCs design their local distribution networks to deliver natural gas from receipt points on their system to customers located throughout the service territory.

Peaking services include delivered services, CNG delivered by truck, and CNG or LNG that is stored locally. Peaking services may also include demand response resources that can be called upon to offset demand during peak periods and other demand-side resources that reduce demand for natural gas throughout the year, including peak periods. These year-round demand-side resources can include energy efficiency and electrification. LDCs can also issue market solicitations for NPAs to meet both peak period and year-round requirements.[22]

The Joint LDCs are obligated by State law to maintain a portfolio of resources that will meet firm customer demands during the coldest hours, days, and periods of the year. The Gas Planning Order does not suggest any modification of this statutory obligation. For purposes of this discussion, we refer to this as the portfolio standard of service. As discussed below, standards for peaking services are an integral part of the portfolio standard of service because LDCs rely upon them during the coldest days of the year when the consequences of failure to provide reliable service for even a brief period can be severe.

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[22] We are excluding interruptible customer loads because they are not "planned" for. LDCs do not contract for resources to meet interruptible demand.

A. Resource Reliability Framework

The Joint LDCs consider two primary types of reliability when evaluating resources to be incorporated in their portfolio:

- Deliverability Reliability relates to unplanned delivery interruptions and refers to the on-demand reliability of a resource (*i.e.*, risk concerning whether the resource will be available and able to produce when called upon, especially during extreme cold conditions).

- Recontracting/Renewal Reliability refers to whether a particular contracted resource, or close substitute from another supplier, can be extended after the current contract term expires or whether, in the alternative, issues such as re-permitting challenges, regulatory changes, financial viability, and market conditions preclude the resource or close substitute from being included in the resource portfolio beyond the contract term.

Due to the recent challenges in siting new pipelines to serve New York markets, the downstate LDCs have increased their reliance on peaking resources. Some of these peaking resources either introduce concerns regarding deliverability reliability (*e.g.*, CNG by truck) or recontracting/renewal reliability (*e.g.*, delivered services that are based on the availability of pipeline capacity to service area delivery points). The Gas Planning Order noted these concerns.[23] The Joint LDCs believe that they should evaluate the reliability of all resources to capture each resource's contribution to the reliability of the overall portfolio, rather than limiting the assessment of reliability to peaking services. This provides a complete picture of reliability and is the best and most appropriate way to compare resources.

One approach to addressing the concern about the increasing reliance on peaking services is to develop a simple standard that limits peaking services to a particular percentage of an LDC's portfolio, or limits peaking services to a particular volume level. However, this simple approach does not account for different market conditions, demand profiles, and portfolio designs among the LDCs and across time for an individual LDC. The Joint LDCs' proposed approach addresses the particular reliability concerns of each peaking resource, while providing each LDC the necessary flexibility to design a portfolio that reflects how each resource contributes to its overall portfolio and other circumstances.

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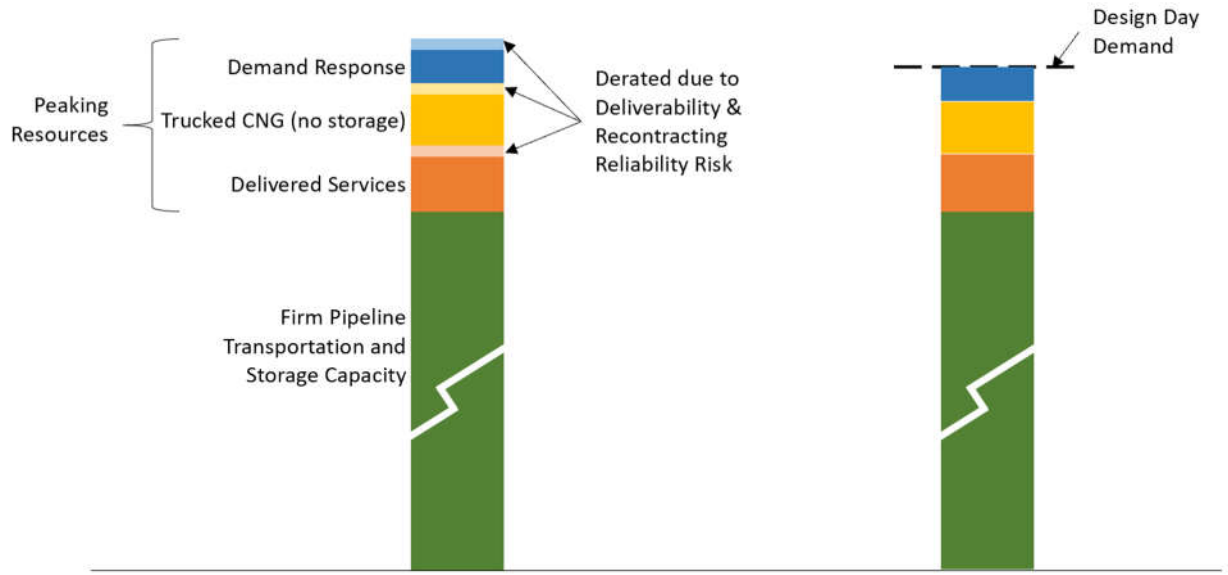
[23] Gas Planning Order, p. 7.

The Joint LDCs' proposed framework and standards for reliance on peaking services distinguishes between deliverability and recontracting/renewal reliability. The framework effectively "derates" the capacity contribution of resources for planning purposes based on historical data (and other relevant information in the absence of historical data). For example, if a particular resource is assumed to be 95% reliable — or, stated another way, if a particular resource is expected to have a 5% chance of a forced interruption — then the capacity of that resource would be derated by 5% when included in demand/supply balance evaluations. In addition, if that same resource is expected to have a 10% chance of not being available to be renewed after contract expiration due to specific market circumstances, that resource would also be derated by another 10% for the period after the current contract expires. Figure 1 below illustrates the derating concept.[24]

Figure 1: Illustration of Resource Capacity Derating



The Joint LDCs have worked together to develop a common derating range for each category of resources, while maintaining the distinction between deliverability and recontracting/renewal reliability. The Joint LDCs also propose a common set of guidelines for determining a specific derating value for each resource that lies within the range for the

[24] Derating resources based on reliability concerns is unrelated to LDCs' responsibility to develop appropriate design day demand forecasts.

respective category. This approach provides a common framework and range but preserves the ability to reflect LDC-specific and resource-specific circumstances when identifying a specific assumption to be used in planning analyses. LDC-specific circumstances include local market conditions, the composition of the overall portfolio, and their customer and demand profile. The resource portfolio will change every year as demand-side resources are added or end-uses are electrified, and it is appropriate for the standards to be able to accommodate these changes. Reliability is one of the key factors that is considered when evaluating any new resource. For planning purposes, each LDC will propose a derating assumption within the relevant range that reflects their circumstances and the particular attributes of each supply-side and demand-side resource and provide the rationale to support this assumption.

B. **Supply-Side Resources**

Figure 2 presents a high-level assessment of deliverability and renewal reliability of supply-side resources (without consideration of specific tariff or contract terms, or physical condition). As noted, specific circumstances may affect the reliability of certain resources. For example, aging infrastructure may decrease the reliability of particular on-system LNG storage resources. Additionally, diversification of the supply-side portfolio may reduce the exposure to any individual resources or any one type of resource and will be considered when evaluating resources.

Figure 2: Illustrative Deliverability Reliability and Renewal Reliability of Various Types of Supply-Side Resources

	Higher Reliability	Medium Reliability	Lower Reliability
Deliverability Reliability *(Will the asset produce when dispatched, especially during extreme cold conditions?)*	• Firm interstate pipeline transportation contracts • Firm interstate pipeline delivery of storage gas • On-system LNG/CNG with several days of storage • Delivered services with proof of firm transportation		• On-system LNG/CNG reliant on trucked supplies
Renewal Reliability *(Will re-permitting, recontracting, regulatory changes, vendor availability, etc. prevent this asset from being available beyond the current contract term?)*	• Delivered services contracts with multiple year rollover/ renewal rights	• Contracts with no renewal rights, but market indicators of high likelihood of recontracting	• Contracts with no renewal rights, and market indicators of low likelihood of recontracting with a close substitute • On-system LNG/CNG facilities with uncertain repermitting ability

i. Interstate Pipeline Contract Resources

Firm transportation and firm storage contracts held by the LDCs with rollover provisions should be considered highly reliable, both in terms of deliverability and renewal. Similarly, arrangements where an LDC becomes an asset manager and controls pipeline capacity held by a third party with rollover provisions and no recall rights would also likely be considered extremely reliable. These types of resources may be assumed to be 100% reliable (*i.e.*, no derating). If LDCs experience unplanned interruptions, are concerned about aging infrastructure, or experience difficulty recontracting for particular assets, they will apply a non-zero derating assumption and explain their rationale. The Joint LDCs propose a derating range of 0 to 15% for

interstate pipeline resources for both deliverability and renewal reliability. Different contracts may receive different deratings based on specific circumstances.

ii. On-System CNG and LNG Storage

On-system CNG and LNG storage facilities are reasonably reliable. In cases where several days of on-site (or near-site)[25] storage of CNG or LNG exists, the deliverability reliability of these resources should be higher because the fuel is at the necessary location and ready to be dispatched when needed. This storage can be in the form of a tank or several full trailers parked on-site (or near-site) ready to be off-loaded.

The derating range should accommodate specific resource circumstances including the number of days that can be served by particular facilities or the condition of aging facilities. The Joint LDCs propose a derating range of 0 to 25% for local CNG and LNG storage for deliverability and renewal reliability.

iii. Delivered Services

The Gas Planning Order noted concerns with delivered services, noting specifically that "[r]eliance on delivered services for a high percentage of a utility's peak load presents significant risks. LDCs currently rely on peaking services to varying degrees, and would need to increase that reliance to serve new load in the near term in the absence of other solutions."[26] Delivered services are firm contracts that LDCs hold with third parties to deliver natural gas supplies directly to the LDC's citygate. This is different from the situation where the LDC buys natural gas supplies in the basin and delivers those supplies via pipeline to the citygate using the LDC's contracted firm pipeline capacity. Delivered services contracts vary in availability during the year and the contracts can range from a baseload service (*e.g.*, the utility can call on it 365 days/year), to a peaking service (*e.g.*, the utility can call on it only up to 10 days/year). LDCs require a commitment that the counterparty holds firm pipeline capacity so that the delivered services will be available when called on throughout a contract term. Therefore, these contracts

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[25] Some utilities may have "staging" sites close to their CNG injection points, but not technically on-site, to store extra full trailers nearby in anticipation of inclement weather. These near-site staging sites also improve deliverability reliability as they significantly reduce the required distance to be traveled to reach the CNG injection point.

[26] Gas Planning Order, p. 8.

should be assigned a high deliverability reliability (*i.e.*, a low derating, similar to firm pipeline contracts). The Joint LDCs propose a derating range of 0 to 15% for deliverability reliability of delivered services during the term of the contract.

Some delivered services contracts are short-term (*e.g.*, one season) and there may be uncertainties associated with the likelihood of the particular contract or a close substitute being available in future years. This is especially true in downstate areas where pipeline constraints exist and LDCs are experiencing reduced responses to RFPs for delivered services, may be contracting for a significant portion of the available capacity, and/or enter into multiple contracts to meet peak demand needs. The Joint LDCs propose to derate these contracts after the contract expires to account for recontracting reliability risks. The Joint LDCs propose a derating range of 0 to 35% for delivered services for renewal reliability. Different delivered services contracts may receive a different derating within the range based on specific circumstances.

iv. On-system LNG/CNG reliant on trucked supplies

The Gas Planning Order also noted that "Con Edison's and National Grid's near-term winter supply plans rely on increased usage of CNG."[27] Some utilities have local CNG and/or LNG sites on their systems where supplies are delivered via tractor-trailer truck. These CNG and LNG sites can be used to address local supply needs or to provide pressure support. However, sites with little or no storage — and that therefore rely on constant turnover of trucks to deliver the necessary supplies on an ongoing basis — have lower deliverability reliability.

The use of trucks to deliver natural gas supplies introduces a number of reliability concerns.[28] First, there are many issues that could prevent one or more trucks from making on-time deliveries including traffic, bridge/road closures, delays caused by adverse weather conditions, truck breakdowns, and truck loading issues. Second, delayed CNG/LNG trucks cannot be substituted for easily. CNG/LNG needs are local; injecting additional supplies at a location remote from a constrained zone on the distribution system when trucks are unable to reach a specific location may not resolve the issue. Third, there may be little time to implement

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[27] Gas Planning Order, p. 8.

[28] Additionally, trucked CNG/LNG is inconsistent with the state's clean energy goals because most transport vehicles do not use low-carbon fuel.

an alternative plan because there may be little advance warning that a truck may not make its delivery on time.

LDCs can take steps to reduce and mitigate deliverability risk for trucked CNG/LNG. For example, on-site (or near-site) storage can potentially be established to limit reliance on long-distance trucked deliveries during cold weather events. It may or may not be possible to site injection operations at locations accessible by multiple delivery routes to reduce the potential for traffic or bridge/road closures to impede deliveries. In addition, if multiple locations are to be used for CNG operations, LDCs can potentially contract with multiple suppliers and supply sources to limit impacts from events affecting one supplier's upstream operations.

Whatever combination of risk reduction and mitigation measures an LDC undertakes, it may not be able to eliminate the deliverability risk inherent with trucked supplies. For that reason, the use of trucked CNG/LNG solutions should be employed cautiously, such as for the following situations:

- As an interim measure to maintain reliability where a permanent solution has been identified and is expected to be available within three winter seasons.
- To meet peak demand committed to during the period between when a moratorium is declared and when it goes into effect (*e.g.*, the 60-day open enrollment period Con Edison offered customers to enroll before its ongoing moratorium went into effect).
- To address force majeure or similar emergency conditions on a temporary basis.

An LDC may also determine that trucked CNG/LNG solutions are necessary to provide longer-term supply solutions in constrained areas of its system when there are no other viable solutions. In these cases, an LDC should conduct risk impact analyses, take applicable risk mitigation measures, and implement controls such that it can recommend a greater reliance on trucked CNG/LNG.[29]

All trucked CNG/LNG volumes that have limited or no on-site or near-site storage should be derated to address deliverability reliability concerns associated with potential trucking issues.

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[29] For example, National Grid filed its *Winter Construction and Operation Plan* that outlines an approach to safely and reliably serve new and expanded customer load in downstate New York over the winters 2019/20 and 2020/21 utilizing a portfolio of portable CNG facilities, as well as additional energy efficiency and demand response programs (see Case 19-G-0678). The Operation Plan describes National Grid's efforts to mitigate risks associated with its CNG construction, transportations, and operations activities.

For planning purposes, the LDCs will provide derating assumptions and rationale that reflect their contracts and local delivery circumstances. In addition, different sites may receive a different derating within the range based on specific circumstances. The Joint LDCs propose a derating range of 0 to 50% for trucked CNG/LNG for both deliverability and renewal reliability.[30]

C. Demand-Side Resources

Demand-side resources include energy efficiency, demand response, NPAs, and conversion of end-uses to electricity. The Joint LDCs note that we will be providing comments on energy efficiency and non-pipe alternatives in our August 17, 2020 filing and will propose an approach for these categories in that filing.

Demand response and other customer-based solutions affect gas system planning by reducing demand. Demand response programs generally specify the number of times and when a customer can be called upon to reduce demand. Demand response resources can provide value by offsetting the need to procure other supply or infrastructure-based resources. LDCs should derate demand response resources to reflect the expected performance factor based on historical curtailment data, if available. However, the use of natural gas demand response is relatively new and in most cases is in the pilot phase. Therefore, there is not a lot of experience regarding performance factors. Additionally, diversification will reduce exposure to any one type of resource and will be considered when evaluating demand-side resources.

As experience is gained, and natural gas demand response pilots are expanded to be implemented more widely as full programs, LDCs will be in a better position to develop derating assumptions and diversification strategies. Therefore, the Joint LDCs propose to develop a derating range for natural gas demand response for both deliverability and renewal reliability after they implement demand response on a full program basis and more experience is available.

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[30] It may be appropriate to modify this range as more experience with trucked CNG becomes available.

D. Summary of Proposed Standards for Reliance on Peaking Services

The Joint LDCs propose the following set of standards for peaking services to be reflected in winter preparedness filings and any long-term planning analyses:

1) The resource portfolio, including all demand-side and supply-side resources, must be 100% reliable to meet customers' gas requirements.
2) Each LDC will propose a derating assumption for each resource that lies within the range that has been established for each resource category. Each LDC will provide a rationale for their derating assumption.

The Joint LDCs will work together and engage Staff before implementation of these standards so that methodologies and definitions are consistent.

Peaking services standards should apply generically to New York LDCs. However, it is important to recognize that there may be circumstances that warrant exceptions to these standards. An LDC seeking an exception will have the responsibility to submit a request and must demonstrate the appropriateness of the exception given the circumstances.

4. MORATORIUM MANAGEMENT

The Joint LDCs believe that they should implement a moratorium only as a last resort. The Joint LDCs are committed to avoiding moratoria through appropriate long-term and short-term planning activities. The process begins with the identification of a "Vulnerable Location" and communication to the Commission, Staff, and stakeholders. The LDC will begin to plan and take appropriate actions to offset demand from new or expanded gas service from customers including efforts to engage third parties in the delivery of non-traditional solutions (*e.g.*, energy efficiency and demand response). If, however, these efforts fail to address the issue and the LDC forecasts a potential shortage of resources (physical or supply) to provide reliable service in a particular portion of its service territory, it will implement a moratorium on new or expanded firm gas service connections. Prior to implementing a moratorium, the LDC will execute a communications plan that provides adequate notice to policymakers, civic leaders, customers, and other stakeholders to minimize any adverse impacts that a moratorium could have. In addition, the LDC will make every effort to resolve the conditions that led to the declaration of the moratorium and avoid a cycle of repeating moratoria.

In this Section 4, the Joint LDCs describe standards for moratoria management that should apply once a particular area has been identified as a vulnerable location. These standards address:

- justification for declaring a moratorium;
- communication and customer care practices throughout the duration of the moratorium;
- analyses and reporting that should be prepared and proactively shared during and after the moratorium; and
- conditions that support a decision to end a moratorium.

A. Declaration of a Moratorium on New Natural Gas Service

The identification of vulnerable locations provides the first opportunity to apprise the Commission, Staff, civic leaders, stakeholders, and customers of the possibility of a moratorium up to five years in advance of its implementation.

An LDC facing a potential moratorium will remain committed to providing safe and reliable service while communicating essential updates to stakeholders with clarity, transparency, and completeness. This requires providing notice to regulators and municipal officials in

advance of implementing a moratorium and maintaining open channels of communication to resolve issues that arise as a result of a moratorium. The Joint LDCs commit to maintaining the standard of service for existing customers before, during, and after declaring a moratorium. In addition, given their statutory obligation to serve, the Joint LDCs commit to actively pursuing natural gas planning opportunities to alleviate system constraints.

Prior to a public declaration of plans to establish a moratorium, an LDC should demonstrate to the Commission that it has assessed available resources and exhausted all reasonable alternatives. The assessments and resources LDCs should pursue include (but may not be limited to) the elements in Figure 3, below.

Figure 3: Pre-Moratorium Assessments and Resources

Supply, Demand Assessments	Available Resources, Alternatives

• Long-term supply and demand forecast that reflects:
  ○ Collaboration between subject matter experts in commodity supply and distribution, transmission engineering, and load forecasting
  ○ Separate assessment of geographic zones (*e.g.*, gas transmission and distribution pressure and flow analyses)
  ○ Assessment of vulnerable locations
• Market tests to ascertain availability of high-reliability supply resources
	• Energy efficiency
	• Peak demand reduction measures (not already included in forecasts)
	• Interruptible rates
	• Non-pipe alternatives (*e.g.*, beneficial electrification)
	• On-system peaking projects
	• On-system transmission and distribution capital projects
	• Pipeline projects

The purpose of these analyses is to assess the LDC's ability to meet its obligation to provide safe and reliable service to existing customers and to meet new customer firm demand in its service territory. The LDC will evaluate projected demand to determine if it can be met (including, but not limited to maintaining acceptable pressure both on the LDC's system and at the end-use customer's site). The LDC will pursue alternative solutions with the understanding that reliability for existing customers may not be compromised under any circumstances.

The LDC will declare the moratorium when it reaches the conclusion that it may not be possible to address the supply/demand imbalance in time to avoid the imbalance. This will depend on the particular circumstances but could be six months or longer prior to the anticipated

shortfall. The time period is intended to be sufficient to alert customers in advance of plans to convert to or expand their reliance on natural gas. Many stakeholders, but perhaps not all customers, will have been aware of the potential for a moratorium for up to five years.

B. Moratorium Conditions to be Applied Consistently

As discussed above, an LDC should implement a moratorium as a last resort only. However, when such a scenario occurs, a moratorium declaration should apply consistently to all firm customers across the constrained geographic region. The intent of a moratorium is to maintain reliable service and to treat all customers equitably. Therefore, the Joint LDCs draw no distinction between requests for new service, material increases in demand at existing customer premises or requests to move from an interruptible to a firm rate. All scenarios represent increases in demand that present a challenge to system integrity and should be avoided under a moratorium scenario. Implementing a full moratorium maintains equity in service and provides a clear and consistent approach for alleviating system constraints.

i. Governance Structure for Considering Exceptions

The Joint LDCs support moratorium restrictions that are consistently applied to all existing and new customers, as discussed above. However, the Joint LDCs also recognize that it is impossible to plan for all contingencies and customer circumstances. Situations are likely to arise that will require the LDC to exercise judgment and flexibility in implementing moratorium restrictions. Exceptional circumstances may warrant concessions to provide service to certain customers or communities of customers during the moratorium.

Each LDC may implement a governance structure for consideration of exceptions to the moratorium under extraordinary circumstances. The governance structure could involve relevant experts from across the LDC's functional organizations. For example, it may be useful to have experts from the LDC's Customer Service, Supply Procurement, and Distribution Engineering organizations. The governance team should limit exceptions to moratorium policies to the degree possible to promote equity and fairness, and to accelerate progress toward relieving moratorium conditions.

C. Moratorium Customer Bill of Rights

The initial communication related to identification of vulnerable locations provides customers with sufficient time to plan and adjust to the potential for a moratorium, including an opportunity to become educated on non-gas alternatives and energy efficiency offerings. However, customer communication becomes critical as a moratorium becomes a distinct possibility. The Joint LDCs propose the establishment of a statewide, Commission-approved "Moratorium Customer Bill of Rights" to guide LDC interactions with customers under moratorium conditions that should be a key component of moratorium customer communications. These rights include:

- A methodology by which a potential tenant/lessee/owner can ascertain the volume of gas available for use prior to the execution of a rental agreement/lease/purchase, which may include an application, email request or dedicated phone system to obtain such information on a reasonable basis.
- That all previously submitted applications/service requests/work requests will be honored prior to the declaration of the moratorium, as long as the customer demonstrates sufficient progress towards milestones that have been previously communicated.
- Customers will be permitted to keep their applications/service requests/work requests received during the open application period "valid" in a manner consistent with other similarly situated customers outside the moratorium area (that is, if a work request in a non-moratorium area is valid for six months, customers within the moratorium area cannot be subjected to a shorter period of validity).
- Customers whose service has been off for a period of up to two years due to renovation or vacancy may submit a request for the restoration of such service, provided that the customer does not substantially increase demand from levels observed prior to halting service.[31]
- Customers are free to reallocate gas between/among tenants or occupants provided that all other laws pertaining to the access to heat, hot water, and cooking are met. Redistribution of gas usage will be communicated to the utility so that billing/rate classification may be modified, as necessary.
- Customers and parties interested in connecting to the distribution network should be provided information on non-gas alternatives, including information on any utility or utility partner programs for the duration of the moratorium.

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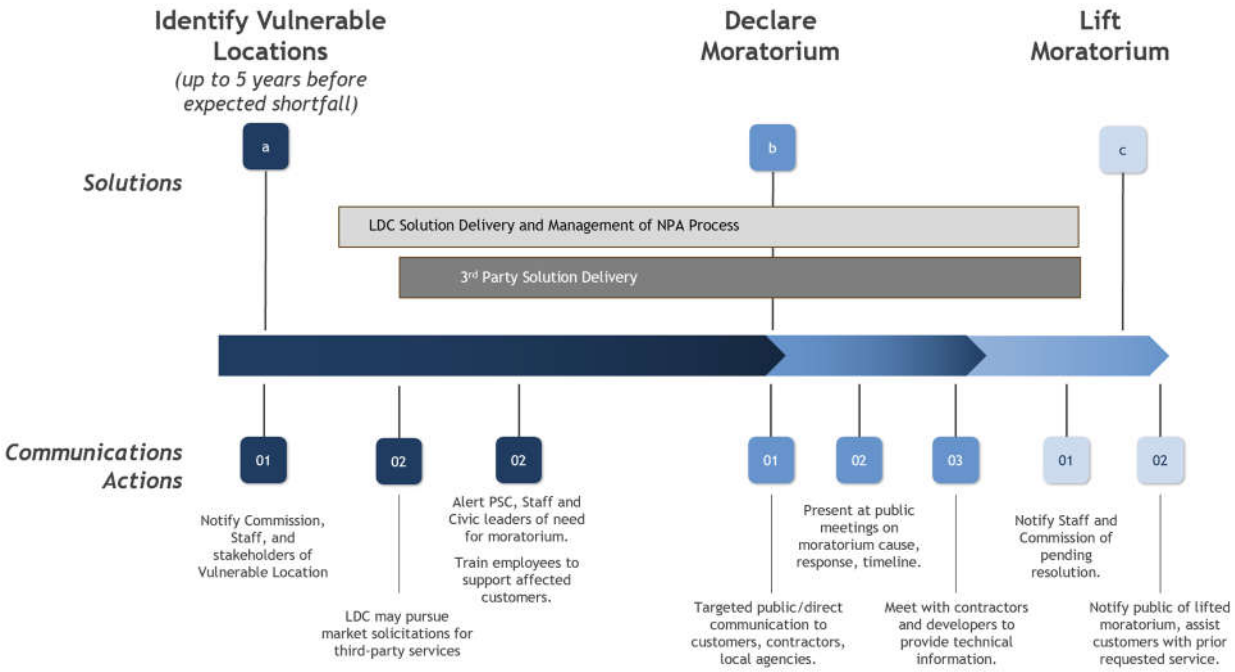
[31] For example, a single-family home that has been rezoned for commercial applications cannot be provided gas to meet a commercial load that is substantially larger than the former residential load.

- Customers should be provided a methodology for expressing their interest to the utility in natural gas service when the moratorium is lifted. No customer should be required to hire a professional to complete this expression of interest, and the customer's information should not be used for any other marketing purposes without their express written permission to do so.

D. Public Communications Plan

Each LDC will prepare a Public Communications Plan that addresses the distinct messaging objectives that apply to a moratorium. The Public Communications Plans will identify the timing, purpose, target audience(s), and departments responsible for preparing the messages. Communications plans should include information regarding non-infrastructure and non-fossil fuel alternatives that may be available to customers. Figure 4, below, illustrates major communications initiatives that will take place throughout the course of a moratorium.

Figure 4: Timeline of Key LDC Actions and Communications During a Moratorium



i. Engage Commission, Staff, and Civic Leaders in Advance

The communication process begins with the identification of vulnerable locations. The first steps include communication with the Commission, Staff, public officials, and community leaders in affected areas. The LDC will turn its focus to identifying solutions that it can implement, as well as solutions that can be delivered by stakeholders, including developers. As

described in Section 2, above, stakeholders will be invited to propose solutions to address vulnerable locations at sessions that focus on these locations soon after they have been identified. This includes the opportunity to comment on the design of market solicitations seeking viable alternative solutions to address vulnerable locations. Developers will be encouraged to respond to these market solicitations and propose specific solutions. The goal is to address the supply/demand imbalance through a combination of LDC and third-party solutions and avoid the need to invoke a moratorium.

LDC should alert key stakeholders of an impending moratorium prior to making a formal announcement in writing to the Commission. These key stakeholders include:

- The Commission;
- Staff (including Gas and Customer Advocacy teams);
- The Governor of the State of New York; and
- The County Executive and all Town Supervisors and Mayors within the affected moratorium area.

LDCs should also take steps so that their employees are provided adequate notice and training to support interactions with potentially affected customers, including all customer-facing employees (call center, customer office, and customer connections/fulfillment staff) and corporate communications personnel (for the development of customer communications pieces and web content).

ii. Declaration of a Moratorium

Once the moratorium declaration has been announced to the public, at a minimum the following stakeholders should receive targeted, public, or direct communications:

- Customers who have an active work request with the LDC;
- Local plumbers, contractors, developers, and regional economic development agencies;
- Local agencies having jurisdiction over customer or utility work such as a Department of Buildings or a Department of Transportation or a Department of Public Works;
- Followers of the LDC's social media platforms (*e.g.*, Twitter, Instagram, or Facebook); and
- Customers with whom the LDC routinely interacts on matters of gas infrastructure, load reduction, energy efficiency or have a dedicated LDC representative.

Customer notifications concerning a moratorium may include contact methods such as outbound calling campaigns, bill messages and/or inserts, website and social media notifications, email campaigns, and radio and tv messaging. In addition, the LDC will provide a specific web page devoted to the moratorium on their corporate website, and maps of the moratorium area down to a neighborhood or Zip Code level or other designation appropriate for the service territory.

iii. Moratorium in Effect

While the moratorium is in effect, LDCs should offer to present at public meetings or widely attended events such as local community boards, town council meetings, or business improvement district events. At a minimum, LDCs should present information at such meetings that includes:

- An explanation of the supply/demand imbalance;
- Steps that the LDC took to mitigate the need for a moratorium prior to calling the moratorium;
- Steps the LDC is taking to resolve the moratorium (*e.g.*, by reducing demand, or pursuing NPA opportunities);
- The Moratorium Customer Bill of Rights; and
- The LDC's best estimate/forecast of when the moratorium may be lifted.

LDCs should hold meetings with members of the construction contracting and real estate development community to address technical questions that may be of limited interest to the general public. Staff should be kept apprised of revisions to models or forecasts in a manner acceptable to them. LDCs should provide customer education programs on non-gas alternatives and should offer an opt-in for third-party providers to receive marketing information.

iv. Moratorium Lifted

Once it is clear that a system imbalance has been addressed through a permanent solution, the LDC should lift the moratorium and repeat Phase I communications with updated messaging. Customers who requested natural gas service during the moratorium period should be notified for purposes of confirming whether they are still interested in receiving gas service.

E. Ongoing Analysis and Reporting

An LDC that has called a moratorium event must report to the Commission, Staff, and policymakers on a periodic basis on the LDC's progress in implementing steps to resolve the conditions that led to the moratorium declaration.

In addition, the LDC should provide Staff with progress reports on efforts to relieve supply and demand imbalances in the geographic zone to which the moratorium applies. These progress reports should, at a minimum, describe:

- The LDC's reliance on CNG to meet peak and baseload demand in constrained areas;
- NPAs the LDC has pursued to mitigate peak demands and relieve moratoria conditions;
- Updates to the forecast of supply and demand in the affected geographic zone as such updates are available; and
- Refined estimates of the timeframe under which the LDC expects to lift the moratorium.

F. Lifting a Moratorium

A moratorium will be lifted once the LDC is confident that it can safely and reliably serve load for an extended period of time as it is not helpful to repeatedly start and end a moratorium in the same location. Therefore, before it can lift a moratorium, an LDC must demonstrate that peak demand has diminished to a sufficient degree and/or that the LDC has acquired sufficient firm resources and/or adequate infrastructure has been put in place to meet forecasted design day demand for a minimum of the next five winter seasons. Demand reductions must be of a reasonably permanent nature so that there is no "bounce-back" effect after a moratorium is lifted. Certain energy efficiency and demand response projects may not satisfy this requirement. To count as contributions to diminished demand, customer transitions to natural gas alternatives should be reasonably expected to be permanent (*e.g.*, ground-source heat pumps, other forms of electrification) for 20 years or more. For instance, customers moving away from traditional heating oil may seek natural gas as an alternative source of energy and such demand should be considered in maintaining long-term system adequacy.

New supply resources or reliability-enhancing infrastructure projects must be in place (including pipelines, LNG storage and vaporization equipment, or distribution enhancements) and fully implemented rather than in development to influence a decision to lift a moratorium.

In addition, all demand and supply resources used to lift the moratorium must satisfy deliverability and renewal reliability requirements.

G. Summary of Proposed Moratorium Management Standards

The LDCs propose the following set of standards for management of moratorium events:

1) Each LDC should prepare a moratorium public communications plan.
2) Prior to a public declaration of plans to establish a moratorium, an LDC should demonstrate to Staff that it has assessed available resources and exhausted all reasonable and feasible alternatives.
3) The LDC will declare the moratorium when it reaches the conclusion that it may not be possible to address the supply/demand imbalance in time to avoid the imbalance.
4) A formal declaration of a moratorium should include a communications plan that addresses the impacts of moratorium events on customers.
5) LDCs will communicate the statewide *Moratorium Customer Bill of Rights* throughout the duration of a moratorium event.
6) Prior to lifting a moratorium an LDC should demonstrate that peak demand has diminished to a sufficient degree and/or that the LDC has acquired sufficient firm resources and/or adequate infrastructure has been put in place to meet forecasted design day demand for a minimum of the next five winter seasons.

5. CONCLUSION

The Joint LDCs are committed to providing safe, reliable and affordable natural gas service to their customers and appreciate the opportunity to work with the Commission, Staff, and other stakeholders to consider gas system and supply planning practices that achieve these objectives. This filing addresses the reliance on peaking services and management of moratoria, pursuant to Ordering Clause 5 of the Gas Planning Order. The standards for reliance on peaking services that the Joint LDCs propose in Section 3 are intended to provide reliable service. Our proposed approach to moratoria management discussed in Section 4 reflects our desire that implementation of a moratorium should be a "last resort" option.

The Joint LDCs have also proposed a collection of "design principles" to guide the development of gas system planning process. These design principles will provide safe and reliable gas delivery service, while supporting New York's environmental, economic development, and other policy goals as cost-effectively as possible. Our proposal also addresses the desire of stakeholders for a more transparent and inclusive planning process.

The Joint LDCs developed all of our proposals by maintaining a focus on customers, consistent with our statutory obligation to serve, while supporting New York's policy goals.

Dated: July 17, 2020

Respectfully submitted,

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