**NATIONAL GRID MONITORSHIP: EIGHTH QUARTERLY REPORT (March 8, 2021)[1]**

**Pursuant to the Settlement Agreement of November 24, 2019 (the "Settlement") between the New York State Department of Public Service ("DPS") and National Grid USA, The Brooklyn Union Gas Company d/b/a National Grid NY and KeySpan Gas East Corporation d/b/a National Grid (collectively, "National Grid")**

## I. Summary

More than a year ago, Governor Cuomo identified core weaknesses in National Grid's operations which National Grid continues to struggle to remedy, including an institutional tendency toward undue reliance upon the prospective completion of future projects without National Grid's sufficiently evaluating contingency plans and options. (First Quarterly Report at 6.) While National Grid has provided gas supply capacity to meet demand for Winters 2019/2020 and 2020/2021 as required under the Action Plan and the Settlement, National Grid must substantially increase the urgency and depth of its efforts -- both as to particular projects under development and as to organizational changes underway -- if it is to satisfy its undertakings in the LT Reports and keep its commitments to its customers in the Service Territory and avoid a future moratorium. Despite improvements made and in progress to date, National Grid has not remedied the organizational weaknesses that resulted in the earlier improvident moratorium and the Settlement some 16 months ago.

As to specific projects, the ability of National Grid to rely upon LNG Vaporizers 13 and 14 and upon the Iroquois ExC project for gas supply capacity in future years is of growing and serious concern. At a minimum, each of these critical projects appears to be delayed. Worse still, each project poses the risk of not proceeding at all due to possible permitting denials, even though National Grid depends upon each of these two projects in its long-term solution under the Settlement (and, indeed, both projects had been underway long before the Settlement, see Third Quarterly Report at 7). Similar to National Grid's earlier mindset regarding the abandoned NESE pipeline, as well as the general tendency of its corporate culture, National Grid puts too much reliance upon the success of a particular development plan and timeline, does not devote sufficient energy and urgency to achieve its plan, fails to consider alternatives in an active and timely manner, and then routinely adopts the posture that any delay or failure of achievement lays with external elements such as government authorities, community activists, or the weather. These delays -- particularly as to the ExC project -- place National Grid at risk of failing to

[1] A draft of this Eighth Quarterly Report was provided for comment to National Grid and to DPS on February 18, 2021. Insofar as the Monitor independently deemed appropriate, their comments have been incorporated herein. Unless a later time is indicated, the Eighth Quarterly Report contains the Monitor's findings as of February 18, 2021. This Eighth Quarterly Report follows seven Reports respectively dated March 13, 2020, April 17, 2020, May 26, 2020, July 15, 2020, September 18, 2020, November 6, 2020, and December 18, 2020, familiarity with which is assumed.

comply with its obligation to implement long-term solutions to meet natural gas demand. (Settlement ¶ IV.c.)

At an organizational level, National Grid's incessant difficulties in delivering on projects critical to meeting forecasted demand in the Service Territory expose inadequate efforts, among other things, to address risk and compliance concerns with a sufficiently robust governance structure and resources. As discussed further below, while National Grid may now possess improved insight into its risks and mitigation efforts as it attempts to meet the Monitor's recommendations in those areas, the risk organization and tools pursued by National Grid have not yet been fully built out almost a year since National Grid committed to implement them. Like its in-process risk group, the immaturity of National Grid's compliance structure also remains a severe vulnerability impairing National Grid's ability to check and control for failures in its pursuit of these important projects. Indeed, despite repeated missed deadlines and aborted projects designed to increase natural gas supply capacity, the Monitor has observed no risk or compliance examination, no remedial planning and no disciplinary measures flowing from National Grid's multiple failures. No institutional consequences or individual accountability can be seen in National Grid's governance.

National Grid's most senior leadership should be alarmed that, despite its expenditure of increased financial and human resources toward efforts to comply with the Settlement and to strengthen its organization and management oversight, National Grid persistently still exhibits inadequate institutional discipline, contingency planning and risk mitigation, and a foundational inability to achieve goals according to plan if they involve a modicum of stress or complexity, despite their importance to National Grid's successful operation in the Service Territory.

In addition, the following recommendations are made:

1) In light of the delays to Vaporizers 13 and 14 and the ExC project, National Grid is at risk of failing to have these solutions in place and functioning within the approximately two-year timeline under the Settlement. Even assuming that Vaporizers 13 and 14 and the ExC project will enter into service without the need for a moratorium, the Monitor recommends that National Grid engage in a further analysis and presentation of options to meet long-term demand, including working with DPS and local officials so that (building on the prior public engagement under the Settlement) National Grid receives public input on its recommendations and any available alternatives as of this time, to be completed no later than three months from National Grid's accepting this recommendation.

2) In conjunction with addressing the concerns raised by the Monitor relating to accountability within National Grid for performance failures such as failing to meet key project deadlines, National Grid should incorporate into annual performance reviews and compensation determinations for specific individuals beginning in 2021 the responsibility for the successful and timely completion of material elements of the Settlement and the Monitor's recommendations. These should include but not be limited to responsibility for the recruitment of an external CCO and the implementation of second-line-of-defense testing in the risk

organization. Any lapses or delays should result in articulable reductions in salary increases and bonus allocations to appropriate executives.

## II. LNG Vaporizers 13 and 14

Under the Settlement ¶ IV.c, National Grid agreed that the "long-term option or options" it identified should be "in place and functioning in approximately two years." Almost one year ago, National Grid publicly proposed building LNG Vaporizers 13 and 14 as part of its long-term solution in the Supplemental LT Report (at 20, 50-53). This project already had been planned, and National Grid had established its planned in-service date as December 2021. Despite this commitment -- made in the context of the Settlement with New York State, multiple public meetings and broad public scrutiny by customers in the Service Territory -- National Grid will fail to meet it. National Grid has been unable to obtain a necessary air permit from the DEC in order to proceed with construction. This hurdle is reminiscent of similar challenges faced by National Grid in building Vaporizers 11 and 12 (see Seventh Quarterly Report at 2-4) and CNG sites (see Fifth Quarterly Report at 3-5). Put another way, National Grid consistently fails to anticipate and plan adequately for what plainly stand out as recurring issues that it might confront when pursuing new construction needed to increase natural gas capacity.

Rather than planning sufficiently for contingencies in the event of permitting delays or denials, National Grid effectively waits for them to arise and then begins to search for alternative solutions. As to Vaporizers 13 and 14, National Grid's need-by date for an air permit was November 1, 2020 (in order to meet the project's planned in-service date of December 2021). Only on October 21, 2020 -- less than two weeks before the need-by date -- did National Grid acknowledge concern with obtaining the permit at its internal Future Winter Supply Meeting. At that meeting, National Grid first identified a delay in DEC's processing of the permit, as to which National Grid executives had no knowledge for the reason behind the delay and bluntly characterized the permit application as "out of our hands."

As discussed in the Monitor's Seventh Quarterly Report (at 4), National Grid determined that a period of "float" built into the project schedule would allow it to deliver Vaporizers 13 and 14 in time for Winter 2021/2022 (consistent with National Grid's commitment under the Supplemental LT Report) as long as National Grid received the DEC air permit by January 15, 2021. In late November 2020, after the original need-by date passed, National Grid changed the permit's need-by date to January 15, 2021 in its internal tracking systems while noting "[n]o more float left in new need by date."

By mid-December 2020, as National Grid began to realize that it was unlikely to receive the air permit by January 15, 2021, National Grid's project management team reviewed its construction plans and "re-phased" the project timeline for Vaporizers 13 and 14. As a result of this review, National Grid now targets obtaining the DEC permit so that construction can begin on July 1, 2021 (if the permit is granted), and Vaporizers 13 and 14 can be in-service by December 2022, which is a full year later than previously projected. Meanwhile, National Grid maintains that under its current demand forecast, the actual "need" date for Vaporizers 13 and 14 -- i.e., the date by which National Grid will need the incremental supply from Vaporizers 13 and

14 in order to meet projected design day demand -- is Winter 2023/2024. But this fact -- even if National Grid's demand forecast remains the same -- should not lead to complacency within National Grid. Indeed, the Monitor repeatedly has stressed concerns about National Grid's missing key project milestones without raising alarm within National Grid as long as it appears that a project will be achieved by the time it is truly "needed" (see Fifth Quarterly Report at 2-3; Seventh Quarterly Report at 3). As the Monitor previously observed (see Fifth Quarterly Report at 3), it is troubling insofar as project deadlines are not viewed as actual deadlines.

In addition, despite National Grid's experience relying on NESE as a long-term solution which failed to materialize, it was not until mid-January 2021 that National Grid began to reevaluate its plans based on the evolving prospect that Vaporizers 13 and 14 do not proceed. For example, at a Long-Term Supply and Strategic Infrastructure Committee Meeting on January 22, 2021, a National Grid executive proposed relying upon building an additional CNG site in order to help offset the loss of supply capacity should Vaporizers 13 and 14 not timely advance, i.e., the additional CNG site might mitigate the risk of a moratorium if Vaporizers 13 and 14 are not completed by Winter 2023/2024. (Of course, such CNG sites themselves also raise the prospect of permit delays or denials.) Ultimately in late January 2021, National Grid reported at a Steering Committee meeting that it had resolved to modify its permit request to DEC and omit a request related to a CNG trucking station in Greenpoint (where Vaporizers 13 and 14 will be built), with the hope that the more focused application might be granted and thereby allow Vaporizers 13 and 14 to proceed.

## III. Iroquois ExC Project

Along with Vaporizers 13 and 14, National Grid put forth the ExC project as a critical element of its long-term solution. The Supplemental LT Report (at 20) provided for the ExC project to be in-service by November 2023. To meet this deadline, the ExC project required a certification from FERC by the first quarter of 2021 (Supp. LT Report at 87). This certification has not been obtained, the ExC project accordingly will not be in-service by November 2023, and National Grid lacks a contingency plan at this time. National Grid has reported to the Monitor and to DPS that the project's need-by date is Winter 2024/2025.

During a meeting on July 23, 2020, National Grid reported to the Monitor that the ExC project remained "on track." Because the ExC project does not involve new pipelines or expanding the footprint of existing compressor stations, National Grid held the view at the time that obtaining permits would not pose a concern. As recently as January 14, 2021, National Grid reported at its internal Steering Committee meeting that the certification from FERC still was expected during the first quarter of 2021, and that FERC had the matter on its agenda for January 19, 2021.

Contrary to National Grid's expectations, FERC removed the ExC project from its agenda for the meeting of January 19, 2021, and National Grid does not know when in the future

FERC might act on the application.[2] During an interview on January 19, 2021 with the Monitor, a National Grid executive stated: "If Iroquois ExC doesn't go through, I don't have a solution to that. And I don't know that I'm going to come up with one." When asked if the potential absence of ExC from National Grid's long-term solution could result in a moratorium, the executive responded: "You said it, not me." National Grid executives seem to recognize the sensitivity in predicting a potential moratorium given the sharp rebuke received from New York State and the public following National Grid's improvident moratorium, yet a future moratorium remains lurking as a possibility as planned projects are delayed or otherwise fail to come to fruition.

In addition, even if the ExC project were completed by the need-by date of Winter 2024/2025, this timeline falls dangerously close to when National Grid's currently forecasted demand might otherwise outstrip supply capacity and, even if the Settlement provisions are construed as accommodating to developing events, to land outside of the deadline for solutions to be "in place and functioning in approximately two years." (Settlement ¶ IV.c.) The impact in the Service Territory of delays with the ExC project would be compounded should any additional delays with the DEC permit process for Vaporizers 13 and 14 result in National Grid pushing back the planned in-service date for the vaporizers beyond the (already delayed) date of December 2022. In short, based on National Grid's modelling analysis as of February 24, 2021, building an additional CNG site by Winter 2023/2024 might mitigate the absence of both Vaporizers 13 and 14 and the ExC project at that juncture, but at least one of them needs to be completed by Winter 2024/2025 in order for supply capacity to meet forecasted demand at that time under National Grid's current planning projections.

## IV. Risk Assessment and Mitigation: Legislative/Regulatory Risk

As discussed above and in prior Quarterly Reports, permitting risk poses a critical requisite for building projects relied upon by National Grid in order to access supply capacity sufficient to meet forecasted demand. To obtain permits successfully, National Grid needs to engage in regular communication with customers in the Service Territory, government officials, and other stakeholders so that there may be broad understanding of available options and their relative risks and benefits before a path forward is determined. After National Grid failed to manage such relationships adequately in connection with the proposed NESE project, the Settlement mandated that National Grid undertake such efforts with the LT Reports and related public meetings. Nonetheless, National Grid still has not matured its organization in order to navigate such risks adequately on its own volition going forward.

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[2] On February 18, 2021, FERC reopened a review of its Policy Statement on the Certification of New Interstate Natural Gas Pipeline Facilities. The review seeks comment on questions relating to, among other things, FERC's consideration of the environmental impacts of proposed pipeline projects. See FERC News Release, *available at* https://www.ferc.gov/news-events/news/ferc-revisits-review-policy-statement-interstate-natural-gas-pipeline-proposals (last visited March 8, 2021). While it is uncertain the extent to which the review and any resulting changes to FERC's Policy Statement might affect the ExC project, the review highlights yet more uncertainty around one of National Grid's key long-term supply projects.

Historically, National Grid has divided responsibility between two groups: one for federal and state government relationships, on the one hand, and another for local relations. In conjunction with other organizational changes, National Grid will be consolidating responsibility for these areas in its Corporate Affairs group as of April 2021. While this seems to be a sensible move that might allow improved internal focus and leadership by National Grid when pursuing permitting needs across multiple external constituencies, such prospective benefits already may be diminished (if not unattainable) in regard to permitting for Vaporizers 13 and 14 and the ExC project.

As recognized by a National Grid Corporate Affairs executive during an interview with the Monitor on January 19, 2021, "where we're running into challenges is looking for alternative solutions" if National Grid's long-term solutions of Vaporizers 13 and 14 and the ExC project do not pan out. Like the other executive interviewed on the same day (per above), National Grid again talked around the potential of another moratorium -- "A moratorium is the last option only after we've exhausted every viable option" -- as though National Grid does not possess the tools to avoid such an outcome and does not accept the responsibility to identify and to navigate a path forward. In the opinion of the Monitor, a resulting moratorium would reveal failure by National Grid's leadership to take sufficient proactive efforts, rather than some inescapable event outside its ability to avert.

In fact, National Grid's Risk Committee specifically recognizes its Corporate Affairs department to constitute a key control and mitigator for addressing the risk that National Grid is "unable to adjust to a changing legislative/regulatory landscape because of increased or rapidly introduced regulatory requirements, not meeting compliance mandates, failure to influence policy, lack of planning for long-term growth or the inability to respond at the proper pace . . . ." Key controls identified by National Grid to address this risk include adding internal and external corporate affairs resources and engaging in robust external stakeholder outreach; National Grid currently self-assesses these controls to be color-coded red or "unsatisfactory." In the view of the Monitor, this currently is a fair evaluation, reflective of the significant further development required by National Grid in this area which is routinely still evidenced, for example, by the nature of National Grid's experience in pursuing permits, which generally comes across as passive and reactive when delays or denials are encountered.

## V. Risk Assessment and Mitigation: Gas Supply

Juxtaposed with the legislative/regulatory risk discussed above, National Grid has adopted the view in its Risk Committee that gas supply risks -- i.e., that National Grid "cannot meet gas supply requirements and anticipate future needs or alternatives in [its] service territories because of opposition to infrastructure projects, permitting and licensing issues, operational disruptions, engineering project execution, supply procurement issues, forecasting and planning error, and lack of commitment and execution to projected demand reduction . . ." -- are adequately addressed at this time. National Grid takes this view in reliance upon several "key controls" including the creation of its new Transformation Office. While National Grid did begin to stand up a new Transformation Office and created a gas scenario planning "process owner" based on working with consultants from E&Y (following the Monitor's recommendation that National Grid review the integrity and quality of data, modelling and forecasts around gas demand and supply capacity, including by engaging outside consultants for advice, see First Quarterly Report at 2-3), it seems exceedingly quick for National Grid to self-assess that the Transformation Office adequately addresses such risks. National Grid's self-evaluation at this stage is based solely on the opinion of those responsible for managing the risk; according to National Grid's interim CRO during an interview on February 10, 2021, National Grid currently still sits at the "beginning" of attaining functional and operational second-level testing of these processes; and, in fact, experience with Vaporizers 13 and 14 and the ExC project demonstrate that National Grid still suffers certain of the same organizational concerns raised by the Monitor a year ago.

When planned with the help of E&Y, National Grid's goals for improving its forecasting and planning process were ambitious, including the appointment of the "process owner" who leads the newly-formed "Transformation Office." For example, at a June 10, 2020 meeting of National Grid's Steering Committee overseeing its commitments under the Settlement, the Office was described as supporting gas planning in "forecasting," "gap identification," and "solutioning," including appointing the "process owner" to conduct evaluations with inputs of other groups, to coordinate between groups, and to evaluate solution options. Overall, the Office was to "[m]anage the end-to-end gas integrated resource planning process, from forecasting through solutioning and evaluation of solutions in place." At the same time, National Grid determined not to materially change its organization but have the Office work across a series of separate groups holding relevant responsibilities. Thus, as to the "key question" explicitly raised with National Grid by E&Y of "how can National Grid better align capabilities across business functions?", National Grid chose to "maintain current organization and manage through improved process, tools, RACI, end-to-end process owner, and increased governance" even though National Grid recognized that that option raised a "[c]oncern with ability to manage across a matrix structure" because of the "[v]olume of organizations (5) involved in analysis and decision-making process."

On December 15, 2020, the Monitor queried senior executives of National Grid regarding how the Risk Committee could view the Office to be color-coded "green" as a mitigator of National Grid's gas supply risk. The Monitor was advised that, while the risk remained, National Grid was doing the activities it agreed to do to mitigate the issue -- "The green is around the process that I'm following." While National Grid may be pursuing the improvements that it has set for itself, the efficacy of this process still remains far from clear at this time. As described by the head of the Transformation Office on January 21, 2021, for example, an "ad hoc working group" was assembled to discuss the risks involving permitting for Vaporizers 13 and 14 and for the ExC project. At the same time, a National Grid senior executive separately had tasked the Vice President of Asset Management to look at options. In effect, National Grid's matrixed organization -- as foretold earlier in the E&Y analysis -- remains burdened with a complex overlay of multiple groups and committees with diverse ownership across the process, as to which the Transformation Office currently stands as a sort of meta-facilitator. As stated in an interview on January 21, 2021 with the head of the Transformation Office: "We're bringing together relevant subject-matter experts who can think through what the scenarios are."  In the opinion of the Monitor, it is premature to conclude that the Transformation Office and the "process owner" -- together with other controls and enhancements being pursued by National Grid -- will satisfactorily mitigate the gas supply risks faced by National Grid and its customers in the Service Territory.

## VI. Compliance

In prior Quarterly Reports over the past year, the Monitor has written extensively about the need for National Grid to revisit and rebuild its compliance structure.  To date, National Grid's efforts have been limited and slow and on occasion misdirected.  As an update regarding the recruitment of an external candidate as CCO, a recruiting agency received the assignment from National Grid in January 2021, and the process stands at an early stage.

In the meantime, National Grid conducted a further review over recent weeks (with the help of Boston Consulting Group, which had been retained at the Monitor's urging) of how National Grid might organize its compliance function.  Based on a presentation given by Boston Consulting Group on February 5, 2021, a diagnostic of National Grid's regulatory compliance processes at the U.S. level found multiple "opportunities for enhancement" which resemble what the Monitor has less euphemistically observed to be substantial weaknesses.  According to Boston Consulting Group (whose views are shared by the Monitor), National Grid has insufficient U.S.-level second-line testing which tends to be ad hoc and limited to the extent it exists at all, insufficient resources and subject matter expertise dedicated to compliance examinations, and a reactive compliance culture that lacks a built-out, formal structure that would permit proactive monitoring, reporting and training.

According to a timeline proposed by Boston Consulting Group, National Grid will require some six months in order to chart its "GRC" (Governance/Risk/Compliance) business requirements.  According to National Grid's U.S. General Counsel, that timeline is "ambitious." Thereafter, National Grid will require some 12 months in order to implement a second line of defense that can test those business requirements.  In sum, National Grid faces at least another year going forward -- on top of the past year during which the Monitor has been strenuously urging such efforts on repeated occasions -- before it might have in place an adequate regulatory compliance structure.

The impact of these delays and paltering upon the success of National Grid's gas planning efforts is concrete and substantial.  The failure of National Grid to have identified the concerns with tie-ins for Vaporizers 11 and 12 (see Seventh Quarterly Report at 2-4) presents a straightforward example of how a strong compliance function could make a difference.  In this instance, there had been no compliance testing of the planning procedures for building the vaporizers.  After the issue had been identified, managers reportedly identified more than 80 "lessons learned."  But when probed by the Monitor, it was discovered that no formal remedial steps were advanced that can fairly be viewed as controls designed to avoid a recurrence, such as requiring additional signoffs or checklists in the planning process.  This is particularly striking because, as stated by one National Grid executive on January 20, 2021, the underlying issue arose because “there wasn’t that discipline in place to document all the key decisions and critical milestones.” Nonetheless, National Grid’s management has simply relied upon the same preexisting procedures with renewed rigor -- yet with no new process. As described by the same National Grid executive -- several months after the issue with Vaporizers 11 and 12 had been identified -- “I wouldn’t say there’s new documentation, but we’re going through a robust review process with documentation from project management, which become artifacts that live with the project file. We’re following the prescribed process that we have in place.”

In further discussion of these matters on February 4, 2021, National Grid executives reviewed with the Monitor a U.S. Network Delivery Process, which includes multiple stages during which risks should be evaluated as a project proceeds; each project includes a “Network Development Playbook” and various checklists and charts assigning responsibility. The types of risks that should be identified include the concerns with tie-ins (as for Vaporizers 11 and 12, see Seventh Quarterly Report at 2-4) and delays with permitting (as for Vaporizers 13 and 14, see above). In fact, in September 2019, permitting was identified in one such document as a “high risk” (and, indeed, the only “high risk”) for developing Vaporizers 13 and 14. Nonetheless, National Grid still finds itself some 18 months later not having adequately mitigated that risk and only now is identifying contingency measures. In addition, the “Playbook” and related templates have not been strengthened or revised as a result of the “lessons learned” efforts putatively undertaken by National Grid.

## VII. Conclusion

National Grid must take swift action, including prompt implementation of the Monitor’s recommendations above, in order to meets its commitments under the Settlement and to its customers in the Service Territory. In addition to completing the long-term solutions it is pursuing (and identifying alternative solutions that may be needed), National Grid must act as an institution with decidedly increased urgency to improve accountability within its overall U.S. gas organization and to make more rapid progress in building out its risk mitigation capabilities and in remedying its deficient compliance structure. The sluggish pace of change and improvement by National Grid in the year since the Monitor first raised concrete and serious risk and compliance concerns is dismaying, and National Grid’s continuing lapses still are hindering its ability to comply with the Settlement and to ensure that the very types of events that led to the Settlement do not occur again.