



October 31, 2018

Honorable Kathleen H. Burgess
Secretary
New York State Public Service Commission
Three Empire State Plaza
Albany, NY 12223

Re: Case 18-E-0130 – In the Matter of Energy Storage Deployment Program

Dear Secretary Burgess,

On October 5, 2018, the New York State Public Service Commission (“Commission”) issued a Notice Soliciting Comments and Announcing Public Statement Hearings (“Notice”),¹ which seeks public input on the findings and recommendations contained in the New York State Energy Storage Roadmap,² and on any other factors that should be considered by the Commission with regard to promoting the development of energy storage. In response to the Commission’s Notice, National Fuel Gas Distribution Corporation (“Distribution” or the “Company”) respectfully submits these comments.

By way of background, Distribution is a natural gas-only utility that provides safe and reliable service to approximately 730,000 customers in western New York and northwestern Pennsylvania. The first natural gas storage facility in the United States was located in the Company’s service territory, and natural gas storage has provided a long and safe track record of reliable energy deliverability within the State.

In May 2016, when establishing the ratemaking policy framework for the Reforming the Energy Vision (“REV”) proceeding, the Commission expressed its intent to encourage outcomes and make decisions in a technology neutral manner.³ Rather than establishing broad-based policy objectives applicable to all technologies, and letting the market develop innovative ideas, strategies and techniques to work toward fulfillment of those objectives, the Commission instead established several proceedings focused on a limited subset of technologies during the past year. Representative examples include this proceeding, the Proceeding on Motion of the Commission Regarding Electric Vehicle Supply Equipment and Infrastructure (Case 18-E-0138), and the Matter of Offshore Wind Energy (Case 18-E-0071).⁴ This approach may prematurely “close the

¹ Case 18-E-0130 – Notice Soliciting Comments and Announcing Public Statement Hearings, issued October 5, 2018.

² Case 18-E-0130 – New York State Energy Storage Roadmap, jointly filed by Department of Public Service Staff (“Staff”) and the New York State Energy Research and Development Authority (“NYSERDA”) on June 21, 2018.

³ Case 14-M-0101 – Order Adopting a Ratemaking and Utility Revenue Model Policy Framework, issued and effective May 19, 2016, at pages 111, 112, 144, and Appendix A.

⁴ Consistent with its public comments, the Commission should strongly consider environmental, emissions, economic, and local community impacts holistically and comprehensively, prior to making a decision on energy

door” on other innovative energy-related opportunities that could potentially make meaningful contributions towards REV proceeding goals and objectives, as well as the stated goals of the New York State Energy Plan.⁵

One such innovative opportunity that the Commission should consider in this proceeding is the power-to-gas solution,^{6,7} which serves as a link between the power grid and the inherent flexibility of the natural gas system, helping to unlock new options for energy conversion and storage.⁸ The power-to-gas concept uses surplus renewable electric power to generate methane (“renewable gas”) using electrolysis and methanation. Such renewable gas could then be injected into the existing natural gas infrastructure. The natural gas pipeline and underground facilities then provide unparalleled, existing storage and transmission capacity to deploy such renewable gas where and when it is needed the most, enhancing the power system while also providing a new source of renewable gas.

One of the unique characteristics of the power-to-gas solution is that it leverages the inherent advantages of the existing natural gas system.⁹ It provides the means to both store and transport energy. By storing and delivering renewable natural gas using existing natural gas pipeline and storage facilities, the stored energy is not physically restricted to the fixed site of generation where batteries are typically located. In effect, the natural gas system serves as a power-by-pipes alternative to the transmission grid, alleviating network congestion and transporting energy via alternative delivery pathways. Separating the location of storage and generation of energy results in a higher overall integrated energy system efficiency. Another major advantage of the power-to-gas solution is safety. Detailed rules and regulations pertaining to the safety of natural gas pipelines and distribution systems have long-existed under both federal and state codes, with the Commission having detailed safety regulations in place concerning the transmission and distribution of gas. Local distribution companies, such as Distribution, have more than a 100 years of experience operating pipeline infrastructure in a safe

storage. Additional information at: https://www.lockportjournal.com/opinion/mailbag-officials-recent-statements-indicate-tide-s-turning-against-apex/article_a2a62ad3-ceca-58b9-9e84-e79e692c9687.html.

⁵ 2015 New York State Energy Plan, Volume I, publicly available at: <https://energyplan.ny.gov/>.

⁶ The European Commission issued a new package of proposed power-to-gas directives in December 2016.

Additional information at: <http://www.itm-power.com/news-item/new-eu-directives-to-drive-the-adoption-of-power-to-gas-energy-storage>.

⁷ The European Power to Gas White Paper, *Power-To-Gas in a Decarbonized European Energy System Based on Renewable Energy Sources*, is available at:

http://www.europeanpowertogas.com/media/files/European%20Power%20to%20Gas_White%20Paper.pdf.

⁸ A news release summarizing project details for the world’s largest remotely-controllable hydrogen/wind plant was issued in September 2018 and is publicly available at: <https://www.hydrogenics.com/2018/09/19/hydrogenics-to-supply-2-5mw-energy-storage-solution-for-haeolus-wind-to-hydrogen-project-in-norway/>.

⁹ A power-to-gas solution could work in lieu of solar plus storage applications. A recent October 2018 S&P Global Platts article noted that solar power projects that include energy storage components are not very well suited for the northeast United States capacity markets, due to power system designs and winter conditions. One panelist noted that during extreme periods of cold temperatures with several inches of snow, solar plus storage was not very helpful. The panelist noted that under such extreme weather conditions, the issue is not about shifting peaks around for a few hours. Additional information at: <https://www.spglobal.com/platts/en/market-insights/latest-news/electric-power/102418-northeastern-us-capacity-markets-have-been-effective-but-challenges-loom>.

and reliable fashion and the power-to-gas solution to energy storage should not be overlooked by the Commission.¹⁰

The Company is ready to work with project designers, operators, and other interested market actors, to explore potential power-to-gas opportunities and demonstrate how its positive benefits, can be a meaningful solution for New York State. Distribution appreciates the opportunity to submit these comments in response to the Notice. Any questions you may have regarding this filing can be directed to the undersigned at (716) 857-7440 or at crahene@natfuel.com.

Respectfully submitted,



Evan M. Crahen
Director
Rates and Regulatory Affairs
National Fuel Gas Distribution Corporation
(716) 857-7440
CrahenE@natfuel.com

¹⁰ This contrasts with CSRIO’s Future Energy Storage Trends Report, which was an assessment of the economic viability, potential uptake, and impacts of electrical storage from 2015 through 2035. Some of the Report’s findings include, but are not limited to: (1) lack of knowledge on how to care for and operate storage systems safely; (2) insufficient accreditation and training for designers and installers; (3) lack of standards for battery system disposal and recycling; (4) emergency response sector has limited education on how to deal with energy storage incidents; and (5) insufficient reporting and recording of incidents. Additional information at: <https://www.energy-storage.news/news/safety-standards-for-battery-storage-critical-to-industry-integrity>.