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VIA ELECTRONIC MAIL
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Commissioner Richard Ball
Chair, Agriculture & Forestry Advisory Panel
Of The Climate Action Council

RE: Comments of the Utility Consultation Group on the Agriculture & Forestry Advisory Panel's Recommendations with Respect to Biomass Feedstocks and Biobased Carbon Fuels

Dear Chair Ball,

On behalf of the Utility Consultation Group ("UCG"),[1] please accept the following comments in support of certain of the Agriculture and Forestry Advisory Panel's ("Ag & Forestry Panel") policy recommendations for the Climate Action Council ("CAC") as presented at that panel's meeting on March 16, 2021. Consistent with the UCG's stated and continued support of New York's clean energy and climate goals, these comments build on their prior commitment to be leaders in working toward a cleaner energy system with reduced greenhouse gas ("GHG") emissions.[2]

I. Ag & Forestry Panel Recommendations to Develop an Action Plan and Innovation Roadmap with Respect to Sustainable Biomass Feedstock and Biobased Products, Respectively, are Important Initiatives That Will Facilitate Comprehensive Decarbonization in New York

At its March 16th meeting, the Ag & Forestry Panel proposed a number of enabling initiatives. From the perspective of the UCG, two of these initiatives, both presented by the panel's Bioeconomy subgroup, are particularly significant.

First, the Ag & Forestry Panel proposed a *Sustainable Biomass Feedstock Action Plan for 2050 Hard-to-Decarbonize Products*. The plan would identify feedstock volumes and production methods that utilize New York biomass resources in a sustainable, sequestration maximizing

[1] For purposes of these comments, the UCG includes the following: The Brooklyn Union Gas Company d/b/a National Grid NY; Central Hudson Gas & Electric Corporation; Consolidated Edison Company of New York, Inc.; KeySpan Gas East Corporation d/b/a National Grid; Municipal Electric Utilities Association; National Fuel Gas Distribution Corporation; New York State Electric & Gas Corporation; Niagara Mohawk Power Corporation d/b/a National Grid; Orange and Rockland Utilities, Inc.; and Rochester Gas & Electric Corporation.

[2] The state has recognized the value that New York's investor-owned utilities can bring to achieve the state's clean energy and climate goals, including the targets articulated in the Climate Leadership & Community Protection Act ("CLCPA"). *See e.g.* Chapter 58 (Part JJJ) of the laws of 2020, § 7 (2) (the "Accelerated Renewable Energy Growth and Community Benefit Act") (calling upon the New York State Public Service Commission (the "PSC"), in consultation with, among others, investor-owned utilities, to conduct a comprehensive study of the state's bulk, distribution, and local electric transmission infrastructure).

manner to create replacements for hard-to-decarbonize fuels, while considering other uses for these feedstocks. This initiative recognizes that fuel derived from biomass will likely have a limited but strategic role in meeting New York's 2030 and 2050 energy needs. Notable components required for achievement of this initiative are (a) identifying the amount and types of 2050 hard-to-decarbonize fuel needs and incentivizing appropriate bioenergy development (feedstock supply chain, conversion systems, end use markets) to meet these needs, and (b) prioritizing use of feedstocks that are residues from existing agricultural, forest and waste systems through preferential pricing.

Second, the Ag & Forestry Panel proposed a *Bio-based Products Research Development & Demonstration Overview*. The initiative would result in a comprehensive Innovation Roadmap to guide key priorities for deep decarbonization and net sequestration investment in the areas of biobased low-carbon fuels, products, and sequestration that considers the intersection of industrial/manufacturing, agriculture, transportation, and power generation sectors. It would fund innovation challenges and focus on projects that can scale beyond business as usual.

The UCG strongly supports both of these enabling initiatives. As explained below, we believe that the development of biofuels, such as renewable natural gas ("RNG"), has significant potential and will be one of many critical solutions to achieve the CLCPA's emissions reduction targets in a manner that is affordable for customers and will ensure energy reliability and resiliency in New York. The planning, financial incentives and development opportunities that will result from these initiatives will greatly facilitate the growth of biofuels and their ability to contribute to decarbonization in the state. In the course of implementing these initiatives we encourage investment in robust research and development programs that result in ambitious and boundary-expanding demonstration projects, with an end goal being the establishment of a bioprocessing industry in New York that will spur ongoing and related economic development opportunities. As the proposed action plan and Innovation Roadmap are developed, we encourage the adoption of generous funding mechanisms for their ultimate implementation.

II. Biobased Low-carbon Fuels Can Help Meet New York's Ambitious Emission Reduction Goals in an Affordable, Resilient and Reliable Manner

The UCG agrees with the Ag & Forestry Panel's determination that fuel derived from biomass resources will play a strategic role in New York's 2030 and 2050 needs. Specifically, for some hard-to-electrify segments (*e.g.*, high temperature industrial processes; heavy duty transportation; older, historic buildings prevalent in New York City), access to a low- or no-carbon fuel delivered through a modified natural gas delivery system may be the most timely and cost-effective path to decarbonization.

These Ag & Forestry Panel initiatives are consistent with recent third-party studies of the potential approaches to achieve the state's 2040 net zero carbon emissions goal for the electric generation sector, which have concluded that having some form of low- or no-carbon renewable gaseous fuel (*e.g.*, RNG and/or green hydrogen produced from renewable electricity) that is delivered through existing natural gas infrastructure will reduce the total cost of achieving the 2040

goal, thereby significantly increasing the cost effectiveness of the state's clean energy and climate efforts, along with other benefits such as electric system reliability and resiliency.[3]

The development of biomass resources and biobased low-carbon fuels will also enable innovative decarbonization solutions such as the use of technologies like hybrid high efficiency gas furnace/electric air source heat pump systems to timely and cost-effectively meet New York's clean energy and climate goals. The hybrid approach can be especially effective in colder regions of the state and also affords increased energy system resiliency, particularly for emergency heat during widespread storm or weather events when hybrid solutions systems are coupled with battery storage and/or fuel cell power capabilities. Indeed, the consultants Energy + Environmental Economics have recognized the problems that could arise as a result of precluding New York from incorporating new low- and no-carbon fuel technologies into its energy mix, including impacts on system reliability and higher energy prices.[4] Thus, the Ag & Forestry Panel initiatives promoting the development of biomass and biobased low-carbon fuels will help to alleviate these concerns.[5]

III. There is an Abundant Supply of Biomass Feedstocks in and Around New York That Can Be Used to Develop Decarbonizing Biobased Low-Carbon Fuels and Products

While the UCG wholeheartedly supports the Ag & Forestry Panel's initiatives to identify additional feedstock volumes to utilize in the development of biobased low-carbon fuels and other products, they would like to point out that a significant amount of these feedstocks already exist in and around New York.[6] For example, according to a recent study performed for the American Gas Foundation by ICF, a global consulting services company, New York has an estimated in-state RNG potential, produced via anaerobic digestion of organic materials, of between 29.1 trillion Btu/year, in the low scenario, up to a technical potential of 94.4 trillion Btu/year from

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[3] *See e.g.* Energy + Environmental Economics, *New York State Decarbonization Pathways Analysis, Summary of Draft Findings* (Dated June 24, 2020), available at: https://climate.ny.gov/Meetings-and-Materials (Last Accessed Feb. 15, 2021) (the "E3 Report Presentation"); Energy + Environmental Economics, *Pathways to Deep Decarbonization in New York State* (Dated June 24, 2020), available at: https://climate.ny.gov/Climate-Resources (Last Accessed Feb. 15, 2020) (the "E3 Report"); The Brattle Group, *New York's Evolution to a Zero Emission Power System—Modeling Operations and Investment through 2040 Including Alternative Scenarios* (Dated June 22, 2020), available at: https://www.nyiso.com/documents/20142/13245925/Brattle%20New%20York%20Electric%20Grid%20Evolution%20Study%20-%20June%202020.pdf/69397029-ffed-6fa9-cff8-c49240eb6f9d (Last Accessed Feb. 15, 2021) (the "Brattle Report"). This result follows from a reduced need for total additional renewable generation. Additionally, a balance of lower emission options within the home, including keeping the natural gas system in the mix, will ensure continued reliability and can help mitigate transmission buildout to the level of a winter heating peak and preserve needed resilience benefits for consumers in cold climates.

[4] *See e.g.* E3 Report, at 45. For example, E3's report and presentation to the CAC last year concluded with the important acknowledgment that flexibility along multiple heating sources (*i.e.*, RNG and electric) is key to maintaining system reliability and reducing cost, particularly when faced with the difficult challenge during New York's winter periods of high heating loads and low renewable energy production (E3 Report, at 45).

[5] Concerns about life cycle analyses and potential GHG leakages for RNG facilities are misplaced in that best practices in construction and operation effectively eliminate such leakage. Any such concerns are further alleviated by the beneficial use of feedstocks that would otherwise be emissions to atmosphere.

[6] The notes for the January 14, 2021 meeting of the Ag & Forestry Panel indicate that "working estimates provided by panel members on biogas potential only equates to a single-digit percentage of the natural gas currently used in state." Agriculture & Forestry Advisory Panel Meeting, Meeting Teleconference – Webex, January 14, 2021, available at climate.ny.gov (Last Accessed March 19, 2021). As noted herein, recent studies show that percentage may be higher, and will grow over time.

available landfill, animal manure, wastewater treatment and food waste resources.[7] ICF also estimates that in the future, the production of RNG via thermal gasification methods could increase available in-state RNG by approximately an additional 23.9 to 176.7 trillion Btu/year utilizing agricultural residues, forest residue, municipal solid waste resources and energy crops. Thus, the in-state RNG technical potential represents about 19% of total natural gas consumption in 2020.[8]

There are additional and increasing amounts of RNG available if one also looks outside the state. According to the aforementioned ICF study, the Middle Atlantic and New England regions of the Northeast will have an estimated RNG potential by 2040 of between 172.8 trillion Btu/year, in the low scenario, up to a technical potential of 952 trillion Btu/year.

The UCG respectfully suggests that the Ag & Forestry Panel also make recommendations related to the framework by which customers can access RNG, other biobased low carbon fuels and green hydrogen. While the state's gaseous fuel distribution system is geographically well deployed, it is not always possible to transport a specific source of supply to a specific source of demand. Utilities and energy service companies procure supplies for customers, and local distribution companies deliver what is supplied to them at their interconnection points with upstream supplies, but the molecules received from the supplier are rarely if ever the same molecules delivered to the customer. The UCG believes a framework that is analogous to the way the state gives credit to electric customer load serving entities for procuring renewable electricity using renewable energy credits that are defined by the Public Service Commission would be helpful in facilitating low-carbon fuel consumption in New York State. As an example, the state could adopt an existing industry definition for RNG and other biobased or renewably produced gaseous fuels,[9] and establish a system for producers of these fuels to earn carbon-reduction credits for their production, and for utilities to purchase the bundled renewable fuel product, including the carbon-reduction credit. Doing so could facilitate growth of these GHG reducing fuels, consistent with state environmental goals, while avoiding the need for additional infrastructure that might be required if physical delivery of the fuels was a mandatory element of consuming RNG or other renewable gas fuels. Such a framework could also facilitate voluntary purchases of renewable gaseous fuels by end-use customers, accelerating a shift from fossil fuels to renewable fuels, funded by customers who are willing to pay for GHG reduction benefits.

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[7] American Gas Foundation Study prepared by ICF, *Renewable Sources of Natural Gas: Supply and Emissions Reduction Assessment* (December 2019), available at https://gasfoundation.org/2019/12/18/renewable-sources-of-natural-gas/ (Last Accessed March 19, 2021).

[8] Based on natural gas consumption in New York as identified by the U. S. Energy Information Administration, State Energy Data System, Table C1. Available at: https://www.eia.gov/state/seds/data.php?incfile=/state/seds/sep_sum/html/sum_btu_1.html&sid=NY (Last Accessed March 19, 2021).

[9] In August 2019, the Northeast Gas Association developed an appropriate definition of RNG as part of its *Interconnect Guide for Renewable Natural Gas (RNG) in New York State* ("RNG Guide"), p. 27. A copy of the RNG Guide can be found at: northeastgas.org/pdf/nga_gti_interconnect_0919.pdf (Last Accessed March 29, 2021). Adopting this definition and the corresponding procedures is responsive to the Public Service Commission's recent invitation in its gas system planning proposal for stakeholders to propose "standards that should be applied to nontraditional methane to qualify a source as 'renewable gas'" that "recognize any ongoing work being conducted by or for the Climate Action Council in this area." *Staff Gas System Planning Process Proposal*, p. 24, filed February 12, 2021 in Case 20-G-0131.

Of course, biobased low-carbon fuel like RNG will comprise an even more meaningful percentage of overall future gas usage as overall customer gas use is expected to trend lower. Ongoing efforts by the UCG and others continue to support customers in reducing their fossil fuel footprint through electrification, hybrid heating and highly developed energy-efficiency programs that reduce natural gas use and prepare customers for efficient, well-planned low- or no- carbon initiatives such as insulation and building envelope improvement measures. Furthermore, the UCG supports the use of biobased low-carbon fuels as an alternative solution to meeting natural gas system needs, when technically feasible and cost-effective as compared to traditional gas utility solutions, often referred to as Non-Pipe Alternatives.

IV. Conclusion

The UCG strongly supports advancing both of the aforementioned policy recommendations from the Ag & Forestry Panel to the CAC, and to endorse a recommendation supporting a framework that will give customers access to low-carbon fuels without requiring physical delivery of those fuels to customers. We believe that the development of biofuels, such as RNG, has significant potential to address identified decarbonization needs in certain industrial/manufacturing, transportation and power generation sectors and will be one of a number of critical, forward-thinking solutions needed to achieve the CLCPA's emissions reduction targets in a manner that is affordable for customers and will ensure energy reliability and resiliency in New York. As the Ag & Forestry Panel's proposed action plan and Innovation Roadmap are developed, we encourage the adoption of generous funding mechanisms for their ultimate implementation.

The UCG appreciates the opportunity to provide these comments and welcome any questions or further discussion.

Sincerely,

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