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February 20, 2024

VIA ELECTRONIC MAIL

Honorable Michelle L. Phillips
Secretary
New York State Public Service Commission
Three Empire State Plaza
Albany, NY 12223-1350

Re: Case 15-E-0302 - Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard

Dear Secretary Phillips:

Pursuant to the Commission's October 20, 2023 *Notice Seeking Further Comment*[1] in the above-referenced case, the Joint Utilities[2] hereby provide these comments. Please contact me if you have any questions concerning this matter.

Respectfully submitted of behalf of the Joint Utilities,

Nikolai Albert T.M. Wolfe

[1] Case 15-E-0302, *Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard*, Notice Seeking Further Comment (October 20, 2023). The deadline for comments was extended to February 20, 2024, by the Commission Secretary's January 17, 2024 Notice Extending Comment Deadline.

[2] Central Hudson Gas & Electric Corporation, Consolidated Edison Company of New York, Inc., Niagara Mohawk Power Corporation d/b/a National Grid, New York State Electric & Gas Corporation, Orange and Rockland Utilities, Inc., and Rochester Gas and Electric Corporation.

STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

Proceeding on Motion of the Commission	)	
To Implement a Large-Scale Renewable Program	)	Case 15-E-0302
And a Clean Energy Standard	)	

RESPONSES OF THE JOINT UTILITIES TO OCTOBER 20, 2023 NOTICE SEEKING FURTHER COMMENT

In its May 18, 2023 Order Instituting Process Regarding Zero Emission Target, the New York Public Service Commission ("Commission") directed the Department of Public Service ("DPS") Staff to host a technical conference to examine a range of issues,[1] including how the Commission should define "zero emissions," a term that appears in Section 4 of the Climate Leadership and Community Protection Act ("CLCPA").[2] On August 16, 2023, stakeholders provided initial responses to the questions in the Zero Emissions Target Order.[3] On October 20, 2023, the Commission issued its Notice Seeking Further Comment concerning a series of questions developed by DPS Staff.[4]

The Joint Utilities[5] hereby provide these comments in response to Staff's supplemental request for stakeholder input. In the sections that follow, the Joint Utilities: (i) reaffirm their commitments to achieving New York State's clean energy objectives and the goals of the CLCPA; (ii) emphasize the Commission's authority under the CLCPA to determine whether sufficient clean energy resources exist to achieve the CLCPA's targets; and (iii) respond to DPS Staff's supplemental questions.

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1 Case 15-E-0302, *Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard* ("CES Proceeding"), Order Instituting Process Regarding Zero Emission Target (issued May 18, 2023) ("Zero Emissions Target Order").

2 Public Service Law (PSL) §66-p.

3 CES Proceeding, Notice Extending Comment Period (June 28, 2023).

4 CES Proceeding, Notice Seeking Further Comment (October 20, 2023) ("October 20th Notice"). The deadline for comments was extended to February 20, 2024, by the Commission Secretary's January 17, 2024 Notice Extending Comment Deadline.

5 Central Hudson Gas & Electric Corporation, Consolidated Edison Company of New York, Inc., Niagara Mohawk Power Corporation d/b/a National Grid, New York State Electric & Gas Corporation, Orange and Rockland Utilities, Inc., and Rochester Gas and Electric Corporation.

Background

The Joint Utilities remain firmly committed to supporting the goals of the CLCPA and New York's clean energy targets. Reducing greenhouse gas emissions is crucial for combating climate change and safeguarding our planet. The Joint Utilities have each committed to reducing emissions (both from greenhouse gases and co-pollutants) and finding innovative ways to help New York achieve its climate objectives. Achieving the State's climate goals will require a multi-faceted approach to clean energy investment, including deployment of energy efficiency programs, electric vehicle infrastructure, battery storage, solar, hydro, and wind generation, implementation of a robust clean energy delivery network, and support for the use of low-carbon alternative fuels. Energy system safety and reliability must be preserved throughout the transition to clean energy. The Commission's questions in the October 20th Notice seek clarity in determining how best to direct these critical efforts.

The Commission issued the October 20th Notice stating that its questions "seek legal interpretations rather than policy" views. However, the Commission's questions have significant policy implications and could potentially determine how successful the State is in reaching its goal of obtaining significant reductions in greenhouse gas emissions. The Commission must implement the CLCPA's 2030 and 2040 electric generation targets in a manner consistent with its responsibility for enabling safe and adequate electric service (i.e., reliable service) "under reasonably foreseeable conditions."[6] Indeed, the CLCPA confirms that the Commission's ultimate responsibility has not changed.[7] Therefore, the Commission should use its expertise to implement the portions of the CLCPA that amend the Public Service Law in a manner consistent with its statutory responsibility to ensure the State continues to have safe and adequate service, at rates that are just and reasonable for customers.

Executive Summary

The CLCPA charges the Commission with establishing a program to require that by 2030, 70 percent of electric energy provided to customers of the State's jurisdictional electric utilities be

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6 *See* PSL § 66-p(2)(b).

7 PSL § 66-p(4) (authorizing the Commission to temporarily suspend or modify the program for achieving the 2030 and 2040 electric generation targets if it determines it would "impede[] the provision of safe and adequate electric service; the program is likely to impair existing obligations and agreements; and/or that there is a significant increase in arrears or service disconnections that the commission determines is related to the program").

generated by "renewable energy systems," and that by 2040, 100 percent of the "statewide electrical demand system will be zero emissions."[8] Unlike the statewide greenhouse gas emissions limits established by the New York State Department of Environmental Conservation ("DEC") in 6 NYCRR Part 496, which are determined in reference to a baseline (1990) emissions level, the program to be established by the Commission relates to the electric generation system serving customers in 2030 and 2040.

DEC's statewide greenhouse gas emissions limits are separate and distinct from the PSC's program to achieve the zero emissions statewide electrical demand system target. Further, although DEC has the statutory authority to determine what is a "greenhouse gas emission source,"[9] only the Commission has the statutory authority to determine whether sufficient "renewable energy systems" and "zero emissions sources" are in place to achieve the CLCPA's 2030 and 2040 electric system targets.

This harmonizes with PSL § 66-p (2), which requires the Commission to establish a program for the statewide electrical demand system to achieve the target of zero emissions by 2040. Reading the statute as a whole, this zero-emission target should be interpreted to apply only to "greenhouse gas emissions sources" and "renewable energy systems." In other words, the target is for electric system "greenhouse gas emission sources" and "renewable energy systems" to be "zero emissions" by 2040. The emissions used to calculate the State's progress in meeting this target (as well as the 2030 target) do not include emissions from any non-participating facility determined by DEC not to be "sources" under the CLCPA. PSL § 66-p (3) supports this interpretation, explaining that the Commission's biennial review must determine progress in meeting the "overall targets for deployment of renewable energy systems and zero emission *sources*." (emphasis supplied)

Indeed, it would be reasonable and appropriate for DEC, in consultation with the Commission, to determine that electric generation powered by green hydrogen or RNG should not be considered to be "sources," consistent with US and international standards for accounting for bioenergy and clean hydrogen, to enable the orderly transition away from fossil fuel fired

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8 PSL § 66-p(2).

9 Environmental Conservation Law (ECL) § 75-0101(11).

generation, which is a central and explicit goal of the CLCPA. Similarly, the Climate Action Council Scoping Plan (December 2022, Ch. 13) supports this position when it states:

> During planning, the State should prioritize zero-emission resources (such as storage, energy efficiency, and renewable energy) where feasible when considering the need to meet demand for end uses, technology limitations, GHG emission impacts, and costs. Green hydrogen and RNG should be targeted to strategic uses or when needed for safety, reliability, resilience or affordability and should demonstrate air quality, health and life cycle GHG benefits including avoiding localized pollution in Disadvantaged Communities before implementation.

The Joint Utilities' responses to the six questions from the October 20th Notice are informed by these passages in the CLCPA and the Public Service Law.

Question 1

PSL §66-p does not expressly indicate whether "zero emissions" refers to greenhouse gas emissions only, or greenhouse gases and also the "co-pollutants" referred to elsewhere in the CLCPA. Commenters offered different interpretations. Staff asks for further comment on this issue. Does the CLCPA, the PSL, and other relevant sources of authority argue for reading "emissions" in the term "zero emissions" as encompassing all air pollutants, greenhouse gas emissions only, or some other subset of air pollutants?

Response: The term "emissions" in the phrase "zero emissions" should be interpreted to refer to greenhouse gas emissions, not co-pollutant emissions.

The Joint Utilities support reducing greenhouse gas (GHG) emissions and emissions from co-pollutants; both actions help advance State policy to reduce environmental harm. But only GHG reductions impact climate change, which is the chief concern of the CLCPA. The brief answer to the Commission's question is that the term "emissions" in the phrase "zero emissions" should be interpreted to refer to sources of greenhouse gas emissions. The CLCPA's focus of co-pollutant reductions relates to pollutants only from those sources of GHG emissions. Determining that the word "emissions" in the phrase "zero emissions" also includes co-pollutants would be a policy choice with little backing in the CLCPA and could make it harder for the State to achieve CLCPA's GHG emissions reductions goals by tying such reductions to reductions in co-pollutants. It could also rule out the use of low carbon fuels including hydrogen, and some fuel cells, which

could impact efforts to maintain electric and natural gas service reliability in the future. The Joint Utilities believe that, with appropriate care in the methodology, the State can continue reducing co-pollutants and other non-greenhouse gas emissions without compromising utility service reliability.[10] The CLCPA's emissions reduction goals and reliability are not in conflict; achieving the objectives of the CLCPA should not compromise reliable service, which is essential for New York utility customers and the State's economy.

The Commission should interpret the CLCPA by looking at the whole act "as a cohesive unit, and understanding and applying all sections of an act together to figure out what the Legislature meant and, if possible, should make [ ] [all sections of a statute] consistent with each other ... and [give] effect and meaning ... to the entire statute and every part and word thereof" and avoid rendering any of the language of a statute superfluous.[11] Based on a review of the portions that amend the Public Service Law and the Environmental Conservation Law, the CLCPA demonstrates the Legislature's intent that the term "zero emissions" encompasses only greenhouse gas emissions and not co-pollutants emissions. First, co-pollutants are not even referenced in the portions of the CLCPA that refer to the powers and duties of the Commission related to zero emissions. Second, when the terms "co-pollutants" and "greenhouse gas emissions sources" are referred to in the CLCPA, they are treated in such a way that it is evident that the Legislature intended for them to have different emission reduction trajectories. The CLCPA identifies specific reduction targets for GHGs sources but does not contain corresponding language regarding reductions in co-pollutants. Reductions in co-pollutants are important because they can impact local air quality, often affecting disadvantaged communities; however, the law does not establish corresponding mandatory percentage reductions in co-pollutants like it does for sources of greenhouse gas emissions.

The CLCPA emphasizes the risks of GHG emissions and the need for carbon reduction. The specific limits in the CLCPA are intended to address warming gases measured in units of CO_2 equivalence for each type of GHG emission. The CLCPA is replete with references on the need to reduce GHG emissions to specific targets established within the law. The CLCPA does not likewise mandate specific reduction percentages in co-pollutants. Moreover, despite the numerous

[10] The Commission should also consider how its efforts to implement PSL § 66-p will interact with mandatory emergency power and standby generation requirements typically applicable to hospitals and some larger buildings in New York.

[11] *Friedman v. Connecticut Gen. Life Ins. Co.,* 9 N.Y.3d 105, 115, 846 N.Y.S.2d 64, 877 N.E.2d 281 [2007].

references to co-pollutants in other sections of the law, co-pollutants are not even referenced in the parts of the CLCPA that require the Commission to establish a program to achieve a zero emissions statewide electrical demand system. This is not an oversight.[12]

The CLCPA amended the Public Service Law by adding, among other things, § 66-p which requires the Commission to establish a program that will govern the environmental and emissions attributes of electricity in New York State. Section 66-p (2) directs the Commission to establish a program no later than June 30, 2021, requiring that:

> (a) minimum of seventy percent of the statewide electric generation secured by jurisdictional load serving entities to meet the electrical energy requirements of all end-use customers in New York state in two thousand thirty shall be generated by *renewable energy systems*; and (b) that by the year two thousand forty (collectively, the "targets") the statewide electrical demand system will be *zero emissions*. In establishing such program, the commission shall consider and, where applicable, formulate the program to address impacts of the program on safe and adequate electric service in the state under reasonably foreseeable conditions. The commission may, in designing the program, modify the obligations of jurisdictional load serving entities and/or the targets upon consideration of the factors described in this subdivision. (emphasis added)

Likewise, PSL § 66-p(3)(a) states, in pertinent part, that the Commission shall determine "progress in meeting the overall targets for deployment of renewable energy systems and zero emissions sources." The phrase "renewable energy systems" is defined in the CLCPA as "systems that generate electricity or thermal energy through use of the specific technologies" such as tidal energy, wave energy, wind, solar, ocean thermal and geothermal, and fuel cells "which do not utilize a fossil fuel resource in the process of generating electricity."[13] The targets referred to in section 66-p(3)(a) are the 70 percent by 2030 and zero emissions statewide electrical demand

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[12] *See Long v. State of New York*, 7 N.Y.3d 269, 273, 819 N.Y.S.2d 679, 852 N.E.2d 1150 [2006]; *Ryder v. City of New York*, 32 A.D.3d 836, 837, 821 N.Y.S.2d 227 [2006], lv. dismissed 8 N.Y.3d 896, 832 N.Y.S.2d 899, 865 N.E.2d 8 [2007]) ("in discerning the meaning of statutory language, must "avoid objectionable, unreasonable or absurd consequences".)

[13] PSL § 66-p(1)(b).

system by 2040 referenced above in Section 66-p(2).[14] The legislation consistently refers to "zero emissions sources" separately from "renewable energy systems," which means zero emissions sources are distinct from renewable energy systems.

Separately, the CLCPA's amendment of the ECL references specific greenhouse gas emissions targets and requires the DEC to set specific greenhouse gas emissions limits.[15] Notably, the DEC is required to set a "statewide greenhouse gas emissions limit as a percentage of 1990 emissions, . . . as follows: a. 2030: 60% of 1990 emissions. b. 2050: 15% of 1990 emissions."[16] Although ECL § 75-0101 defines co-pollutants as "hazardous air pollutants produced by green[]house gas emissions sources," there is no mandate that these co-pollutants be reduced at the same rate as greenhouse gases or that they be subject to a "zero emissions" standard. Section 75-0103(14)(d) requires the Climate Action Council to "[i]dentify measures to maximize reductions of both greenhouse gas emissions and co-pollutants in disadvantaged communities as identified pursuant to section 75-0111 (Climate Justice Working Group)" of this article. Other sections of the ECL confirm this as well. Section 75-0109(3)(c) states that the DEC's implementing regulations shall "[e]nsure that activities undertaken to comply with the regulations do not result in a net increase in co-pollutant emissions." Also, ECL § 75-0109(4)(l)(iii) states that DEC shall "design the alternative compliance mechanism to prevent any increase in the emissions of co-pollutants." The above language, taken together, demonstrates that reduction/elimination of statewide greenhouse gas emissions does not also mandate a corresponding reduction/elimination in "co-pollutant" emissions, but rather that co-pollutant emissions reductions shall be prioritized and not increased.

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[14] The Commission may temporarily suspend or modify the program to achieve the targets if necessary to maintain service reliability, avoid impacts to existing obligations, or avoid significantly impacting arrears or service disconnections. *See* PSL § 66-p(2)(b).

[15] ECL § 75-0107.

[16] ECL § 75-0107(1).

Question 2

Multiple commenters discussed the relationship between the term "zero emissions" and the term "net zero emissions," which appears elsewhere in the CLCPA but not in provisions to be codified in the PSL. Staff asks whether the Commission must read these terms as distinct, and if so, how the Commission should characterize and apply the distinction between them.

Response: The terms "zero emissions" and "net zero" are separate and distinct in the context of the CLCPA. The Commission should define the term "zero emissions" in a manner that is consistent with New York's nation leading climate goals and that will maintain electric reliability.

The terms "zero emissions" and "net zero" are separate and distinct in the context of the CLCPA. The term "net zero" appears in two places in the CLCPA: a) direction to the Climate Action Council for inclusion in its Scoping Plan (ECL § 75-0103(11)), and b) DEC's permissive authority to establish an "alternative compliance mechanism to be used by sources subject to greenhouse gas emissions limits to achieve net zero emissions" (ECL § 75-0109(4)(a)). The term "net zero" is not defined and appears nowhere else in the CLCPA. Separately, Section 66-p(2) of the PSL as amended by the CLCPA establishes the requirement for a program to create a "zero emissions" statewide electrical demand system by 2040. Since it is established separately under the law, the term "zero emissions" must have a different meaning than the term "net zero."

Interpreting "zero emissions" to mean no greenhouse gases are emitted to the atmosphere (*e.g.*, no carbon dioxide, no methane, no nitrous oxide or other greenhouse gases) from any electric source, anywhere, ever again after 2040 is infeasible.[17] GHG emissions occur at some point in the value chain for all energy sources. Even solar and wind farms that produce green energy are sourced, manufactured, constructed, and transported using methods that produce GHG emissions.[18] Emitting no lifecycle greenhouse gases at all can be very difficult, costly,[19] and is not required by the CLCPA.

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[17] Comments by Sierra Club and Earthjustice submitted in this proceeding on August 16, 2023, propose a simplistic and ultimately flawed interpretation of the CLCPA's zero emissions target that violates their own cannon of statutory interpretation to "read the statute literally." While they acknowledge that State agencies "could, on a rolling basis, add new technologies to a longer 'zero emissions sources' list," they overlook that the threshold determination of what constitutes a "source" is itself subject to the regulatory determination of DEC under Section 2 of the CLCPA codified as ECL § 75-0101(11).

[18] *See, e.g.*, NREL, Life Cycle Greenhouse Gas Emissions from Solar Photovoltaics (Nov. 2012); *available at*: https://www.nrel.gov/docs/fy13osti/56487.pdf.

[19] *See, e.g.*, 2023.https://lcri-netzero.epri.com/en/executive-summary.html; *see also* MIT Climate Portal, Net Zero Emissions | MIT Climate Portal.

The Commission has already noted that "technologies defined as "renewable energy systems" under §66-p(1)(a) are de facto zero emissions for purposes of meeting the 2040 target," notwithstanding GHG emissions that may be produced in the value chains of such technologies. The Commission also confirmed that the term "zero emissions" is not defined by the CLCPA and it is left to the discretion of the Commission to define it.[20] Because the Commission is charged with enforcing and interpreting the Public Service Law and it has special competence, it should use its discretion and define "zero emissions" through regulations. According to New York law, an agency's "interpretation of the statute it is charged with implementing is entitled to varying degrees of judicial deference depending upon the extent to which the interpretation relies upon the special competence the agency is presumed to have developed in its administration of the statute."[21] Therefore, the Commission should define the term using its expertise and specialized knowledge as the New York State agency charged with ensuring that electric utility service is safe, adequate and just and reasonable.[22]

The Commission should define the term "zero emissions" in a manner that is consistent with New York's nation leading climate goals and that will maintain electric reliability. As stated in the August 16, 2023, comments submitted by the New York Transmission Owners ("NYTOs") in this proceeding, "PSL §66-p(2)(b) refers to a zero[]emissions electric system. The definition in that context should be technology-agnostic and focus on the attributes of clean resources that meet electric grid needs." The NYTOs also urged the Commission not to adopt a narrow definition of zero emissions that would limit the participation of existing or evolving technologies and resources. The Joint Utilities support the NYTOs' comments on the definition of zero emissions and adopt them here as if set forth fully in this response.

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[20] Case 15-E-0302, Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard, Order Initiating Process Regarding Zero Emissions Target, pp. 12-13 (May 18, 2023) ("DEFR Order"). We agree with the PSC's determination here; however, considering upstream activity, it is likely that the "renewable energy systems" labeled *de facto* "zero emissions" are <u>not</u> and can never be zero emissions because of actions to produce, fabricate, and transport renewable infrastructure.

[21] *See Matter of Rosen v. Public Empl. Relations Bd.,* 72 N.Y.2d 42, 47, 530 N.Y.S.2d 534, 526 N.E.2d 25 [1988]; *Matter of Gruber (New York City Dept. of Personnel–Sweeney*), 89 N.Y.2d 225, 231, 652 N.Y.S.2d 589, 674 N.E.2d 1354 [1996].

[22] *See* PSL § 65(1), which charges the Commission with the obligation to ensure that electric corporations provide services that are safe and adequate and just and reasonable.

Question 3

The Commission's Initiating Order notes that the Department of Environmental Conservation (DEC), pursuant to regulations it adopted at 6 NYCRR pt. 496 under the Environmental Conservation Law as amended by the CLCPA, has counted the emissions arising from the combustion of biomass for electricity generation on a gross rather than a net basis. Staff asks for further comment on whether DEC's emissions accounting regulations constrain or otherwise inform the Commission's definition of the phrase, "by the year [2040] the statewide electrical demand system will be zero emissions."

Response: DEC's emissions accounting regulations do not constrain or otherwise inform the Commission with respect to the "zero emissions" requirement in PSL § 66-p(2). The Commission has the discretion to determine that electricity generated from the combustion of bioenergy is "zero emissions" under PSL § 66-p(2), consistent with established US and international standards.

DEC's emissions accounting regulations in Part 496 relate to setting statewide GHG emissions limits at 2030 (40% reduction from 1990 levels) and 2050 (85% reduction from 1990 levels) as required by the CLCPA. Nothing in the CLCPA, however, indicates that the statewide emissions limits determined by DEC control or inform the Commission's determination of what constitutes a zero emission "statewide electrical demand system." Part 496 is relevant only to the establishment of the statewide GHG emissions limits, which is separate and distinct from the "zero emissions" requirement under PSL § 66-p(2).

Further, DEC's current approach of including emissions from the combustion of bioenergy, sometimes referred to as "biogenic CO2," in "gross" emissions totals is not established in or supported by the CLCPA, is inconsistent with established US and international standards, and should not constrain the Commission with respect to determining "zero emissions."

The CLCPA defines "Statewide greenhouse gas emissions limit" as the "maximum allowable level of statewide greenhouse gas emissions in a specified year, as determined by the department . . ." (ECL § 75-0101(14)). In Part 496, DEC added the word "gross" to the statutory definition to create a regulatory definition of "Statewide greenhouse gas emissions limit" that reads: "maximum allowable level of gross statewide greenhouse gas emissions in a specified year." (6 NYCRR § 496.3(f)) (emphasis added). The term "gross" does not appear in the CLCPA, nor is it defined in Part 496.

DEC's addition of the word "gross" to the regulatory definition is appropriate so long as it is applied as authorized under the CLCPA. However, DEC's view that biogenic emissions should be included in the "gross" limits but excluded in the context of "net emissions" accounting is not supported in the CLCPA.

According to the Regulatory Impact Statement (RIS) accompanying the Part 496 rulemaking, "gross" is used to differentiate the accounting method related to the State's 2030 and 2050 emissions limits from any future "net accounting framework."[23] Part 496 does not establish a "net accounting framework," and no such framework exists under New York law or regulation.

Therefore, the term "gross emissions" in the context of Part 496 must be understood to be: *emissions relevant to accounting for the statewide limits,* as opposed to emissions relevant to accounting for net zero or "zero emissions."

The RIS describes an approach for reporting biogenic CO2 emissions as "gross" emissions, while stating it may "revaluate" such emissions as net-zero in the annual emissions report "to avoid double-counting."[24] DEC explains its rationale for use of the term "gross" in the Part 496 Assessment of Public Comments (APC):

> DEC applied the term 'gross' in this rule because the law refers to two emissions targets for 2050, one of which is referred to as a "net" zero emission goal…. As discussed in the RIS, given these two separate statutory directives [i.e., 85% reduction from 1990 levels by 2050, and "net zero emission" goal] and the fact that only the former applies directly to this rulemaking, the Department developed the statewide GHG emission limit in this rule as a 'gross' limit. Otherwise, the rule would inappropriately include two different emission limits [i.e., 85% and "net zero"] for 2050.[25]

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[23] DEC Regulatory Impact Statement 6 NYCRR, Pt. 496, Statewide Greenhouse Gas Emissions Limits, pp. 11, 37; *available at*: https://dec.ny.gov/sites/default/files/2023-12/6nycrrpart496adopted2020.pdf.

[24] *Id.*, p. 11.

[25] DEC Assessment of Public Comments 6 NYCRR, Pt. 496, Statewide Greenhouse Gas Emissions Limits, Comments received from August 19, 2020, through October 27, 2020, p. 19; *available at*: https://dec.ny.gov/sites/default/files/2023-12/6nycrrpart496adopted2020.pdf.

The Department's approach to biogenic CO2 accounting is stated most succinctly in the Energy Sectoral Report of the Statewide GHG Emissions Report:

> "In this report, biogenic sources of CO2 are included in gross emission totals but omitted in net totals."[26]

DEC's Statewide GHG Emissions Summary Report establishes that biogenic CO2 emissions are *intended to be accounted for within the sector where the carbon-stock changes originally occur to avoid double counting*, and that biogenic CO2 emissions are "omitted from net emission totals to avoid double counting CO2 sources across the Energy and Land Use sectors."[27] However, although DEC's stated objective is to avoid double counting emissions, the practical result is that under the current approach, biogenic CO2 emissions *are* double counted in the "gross" emissions inventory. Subtracting biogenic CO2 emissions to arrive at "net" totals fails to avoid double counting because, under Part 496, the only inventory that matters for the purposes of the statewide emissions limits is the "gross" inventory.

The Commission has the authority under the CLCPA to determine "zero emissions" according to the best available scientific guidance from US and international authorities related to accounting for biogenic CO2 emissions. Such established standards exclude biogenic CO2 emissions from energy sector emissions totals and report them separately as follows:

- The US EPA's Greenhouse Gas Inventory Guidance, which is based on the reporting standards established by the GHG Protocol (a partnership between the World Resources Institute and the World Business Council for Sustainable Development) explains that "the GHG Protocol requires that CO2 emissions from biomass combustion at stationary sources are reported as biomass CO2 emissions (in terms of total amount of biogenic CO2 emitted) and are tracked separately from fossil CO2 emissions. Biomass CO2 emissions are not included in the overall CO2-equivalent emissions inventory for organizations following this guidance."[28]

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[26] DEC 2022 NYS Greenhouse Gas Emissions Report, Sectoral Report #1, Energy, p. 3; *available at*: https://extapps.dec.ny.gov/docs/administration_pdf/ghgenergy22.pdf.

[27] DEC 2023 Statewide GHG Emissions Report, Summary Report, p. 4; *available at*: https://dec.ny.gov/sites/default/files/2023-12/summaryreportnysghgemissionsreport2023.pdf.

[28] https://www.epa.gov/sites/default/files/2016-03/documents/stationaryemissions_3_2016.pdf.

- For the EPA's Inventory of US Greenhouse Gas Emissions and Sinks, "emissions from biomass and biofuel consumption are not included specifically in summing energy sector totals."[29] Further, "the biogenic CO2 emissions from combustion of biomass for energy are also quantified for informational purposes in the energy sector of the Inventory as a memo item, but are not included in that sector's total to avoid double counting."[30]
- The IPCC's approach is that CO2 emissions from the combustion of bioenergy are not reported in the energy sector, but are "recorded as an information item that is not included in the sectoral total emissions in the energy sector." Further, "CO2 emissions from the combustion of biomass or biomass-based products are captured within the CO2 emissions in the AFOLU [agriculture, forestry, and other land use] sector through the estimated changes in carbon stocks from biomass harvest, even in cases where the emissions physically take place in other sectors (e.g., energy)." This is for the "pragmatic reason to avoid double counting."[31]

Treating biogenic emissions as "gross" emissions to be counted against the statewide emissions cap is contrary to the treatment of the IPCC and EPA. The CLCPA recognizes and builds upon the authoritative work of the IPCC, and nowhere in the legislation is there any indication that the Legislature intended New York State to deviate from the IPCC's treatment of biogenic CO2.

The EPA and IPCC exclude biogenic CO2 from energy sector emissions totals because any effect on climate change from the production and use of bioenergy will be accounted for in the sector where the biomass was originally harvested. According to the IPCC, "the CO2 emitted due to bioenergy use was earlier sequestered from the atmosphere and will be sequestered again if the bioenergy system is managed sustainably." For all annual crops, IPCC guidelines "assume that biomass carbon stock lost through harvest and mortality equal biomass carbon stock gained through growth in that same year," resulting in no effect on climate change. The only case where the CO2 emitted from the use of bioenergy would result in an increase in the atmospheric concentration of GHGs is if the crop that produced the original biomass was not cultivated again, in which case the resulting change in emissions would be accounted for as "land use change."

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29 https://www.epa.gov/system/files/documents/2023-04/US-GHG-Inventory-2023-Main-Text.pdf.

30 https://www.epa.gov/sites/default/files/2018-04/documents/biomass_policy_statement_2018_04_23.pdf.

31 https://www.ipcc-nggip.iges.or.jp/public/2019rf/pdf/2_Volume2/19R_V2_2_Ch02_Stationary_Combustion.pdf.

Reporting biogenic CO2 emissions as energy sector emissions "double counts" them in either case. To put it simply, as a contributor to the NRDC aptly wrote it in 2015, "[t]he only way to add to the carbon in the atmosphere is to take it from a sequestered source like fossil fuels—where it has been safe from the atmosphere for millions of years—and combust it."[32]

The Commission has the discretion to determine that electricity generated from the combustion of bioenergy is "zero emissions" under PSL § 66-p(2), consistent with established US and international standards. Nothing in the CLCPA or Part 496 constrains the Commission's authority to do so. There is significant potential for biofuels including those delivered by the existing gas pipeline network to fuel Dispatchable Emissions Free Resources (DEFRs), which the New York Independent System Operator (NYISO) says will be necessary to ensure the reliability of New York's electric system after 2040. Adopting the standard approach to biogenic CO2 accounting for the purposes of PSL § 66-p(2) is necessary to keep this important option on the table to enable the achievement of a safe, reliable, affordable, and zero emissions electric system in New York.

Question 4

Defining an emissions limit requires specifying, among other things, which elements of the lifecycle of a given emissions source are to be counted, and the threshold level above which emissions from that source are impermissible or disqualifying. Staff seeks comments on what discretion the CLCPA leaves for the Commission when it specifies each of these parameters.

Response: The Commission may determine what constitutes a zero emissions statewide electrical demand system differently than DEC determines GHG emissions for compliance with Part 496. In establishing a program to achieve a zero emissions electrical demand system, the PSC may include lifecycle emissions and removals for the purposes of determining "zero emissions."

As discussed in response to Question 2, every known resource for producing electric energy has some degree of lifecycle GHG emissions. Section 66-p(2) provides no basis for finding that the Commission's responsibility to develop a zero emissions electrical demand system program requires consideration of embodied carbon of the electricity production facilities or

[32] *See* Do We Exhale Carbon? (May 19, 2015); *available at*: https://www.nrdc.org/stories/do-we-exhale-carbon#:~:text=The%20only%20way%20to%20add,dioxide%20on%20an%20average%20day.

infrastructure,[33] nor does the statutory language support a conclusion that individual electric generation resources that are among the facilities serving the statewide electrical demand system must have no emissions throughout their entire operation. A reasonable interpretation, therefore, is that when considering the GHG emissions of an individual resource type, as well as the overall system serving New York State electric customers, the focus should be on "steady-state" or on-going operational emissions impacts over an extended period of time rather than on the embodied carbon of the resources or very short periods of operation. Further, as explained in response to Question 1, above, the Commission's responsibilities under PSL § 66-p(2) are limited to consideration of GHG emissions, not non-GHG co-pollutants.

The CLCPA explicitly specifies some on-going operational considerations to be included when assessing the emissions impacts of energy resources. The statute requires that GHG emissions "produced outside of the state which are associated with the generation of electricity imported into the state and the extraction and transmission of fossil fuels imported into the state" be counted for the purposes of establishing and determining compliance with the statewide GHG emissions limits (ECL §75-0101(13); *see also* ECL §75-0105(3)). Although these statutory provisions relate directly to determining annual GHG emissions under Part 496, they are instructive in informing the scope of emissions the Commission should consider in executing its obligations under PSL § 66-p(2). In other words, the Commission may determine what constitutes a zero emissions statewide electrical demand system differently than DEC determines GHG emissions for compliance with Part 496.

In establishing a program to achieve a zero emissions electrical demand system, the PSC may include lifecycle emissions and removals for the purposes of determining "zero emissions." The following provisions of the CLCPA frame the Commission's authority for such determination:

- ECL §75-0101(6) defines "emissions reduction measures" to mean "programs, measures and standards, authorized pursuant to this chapter, applicable to sources or categories of sources, that are designed to reduce emissions of greenhouse gases."

[33] Sections 60503 and 60506 of the IRA provide over $2 billion in funding for construction materials and products with "substantially lower levels of embodied greenhouse gas emissions" [… where embodied] emissions are defined as those "associated with all relevant stages of production, use, and disposal."

- ECL §75-0101(7) defines "greenhouse gas" to mean "carbon dioxide, methane, nitrous oxide, hydroflourocarbons, perflourocarbons, sulfur hexaflourides, and any other substance emitted into the air that may be reasonably anticipated to cause or contribute to anthropogenic climate change."
- PSL § 66-p establishes the "Renewable Energy Program," of which the "zero emissions" requirement is a component. These programs must be considered an "emissions reduction measure" as defined in ECL §75-0101(6), the purpose of which is to reduce emissions of "greenhouse gases" as defined in §75-0101(7).

Accordingly, the Commission can consider lifecycle GHG emissions when determining what generation sources are "zero emissions" for purposes of achieving a "statewide electrical demand system" that is zero emissions and is not limited to considering emissions which are subject to the statewide emissions limits, which are defined separately. The Commission may consider any or all lifecycle emissions or removals associated with a source, including any in-state or out-of-state emissions associated with production of biofuel and any in-state or out-of-state reduction of emissions associated with the production of biofuels. This would ensure that the full emissions implications of bioenergy are accounted for, and that no source of bioenergy with lifecycle emissions greater than zero – including from emissions associated with agricultural inputs such as fertilizer and fuel -- is considered "zero emissions."

The Scoping Plan explicitly calls for State agencies to support the deployment of alternative fuels, including bioenergy and hydrogen, and for such fuels to be assessed according to "life-cycle accounting with strong preference given to zero- or negative-emission sources."[34] Consistent with the Scoping Plan, the Commission may incorporate lifecycle assessment of emissions from alternative low-carbon fuels into determinations related to the "zero emissions" standard.

It is also instructive to look at federal law to ensure alignment with federal clean energy programs. The Inflation Reduction Act (IRA) of 2022 represents the largest investment in clean energy in US history and will be the foundation of US climate policy going forward. Under the IRA's provisions establishing the new Clean Electricity Production and Investment Credits (26 USC 45Y and 48E), facilities eligible for tax credits must have a greenhouse gas emissions rate

[34] Scoping Plan. New York State Climate Action Council. December 2022.

that is "not greater than zero." For any facility producing electricity through "combustion or gasification," the emissions rate must account for "lifecycle greenhouse gas emissions," as defined by the Clean Air Act (42 USC 7545 Section 211 (o)(1)(H)). The IRA also establishes that bioenergy and hydrogen lifecycle emissions are calculated according to the Greenhouse gases, Regulated Emissions, and Energy use in Technologies (GREET) model established by Argonne National Laboratory.[35] The Commission has the discretion under the CLCPA to adopt a similar approach for determinations related to "zero emissions."

Question 5

PSL §66-p(2) designates "fuel cells which do not utilize a fossil fuel resource in the process of generating electricity" as a "renewable energy system." What significance, if any, does this designation have for characterizing fuel cells that consume hydrogen, biogas, renewable natural gas, or other non-fossil fuels as "zero emissions"?

As stated in response to Question 1 above, the terms "renewable energy system" and "zero emission sources" are separate and distinct in the CLCPA. PSL§ 66-p(1)(b) clarifies that fuel cells using natural gas or other fossil fuels are not "renewable energy systems" as the fuel inputs have resulting GHG emissions on a lifecycle basis under US and international standards for GHG accounting. Any fuel cell generating electricity using non-fossil fuels, including hydrogen that is not directly extracted from a fossil fuel or is not produced with electricity that is generated using fossil fuel, should be considered a "renewable energy system" under PSL§ 66-p(1)(b). Even if the Commission does not consider such resources to be "renewable energy systems," however, it could nevertheless determine that such resources are "zero emissions sources" eligible to support the statewide electrical demand system. As discussed in the answer to Question 3, above, any fuel cell utilizing bioenergy including but not limited to biogas or RNG should be considered "zero emissions," as established through US and international standards for accounting for biogenic CO2 from the US EPA, the GHG Protocol, and the IPCC. Whether used in fuel cells or combustion applications, bioenergy such as biogas and RNG should be considered "zero emissions."

[35] Inflation Reduction Act of 2022. 117th Congress Public Law 169. August 16, 2022.

Question 6

As some commenters point out, the "statewide electrical demand system" is not defined in the CLCPA or elsewhere. Staff asks for further comment on the meaning of this term. What definitions does the law support, and how do those definitions relate to electricity generated by resources that are located:

(a) outside of New York State, or

(b) behind-the-meter?

Response: "Statewide electrical demand system" should be defined such that "zero emissions" can be achieved if the aggregate annual energy output from renewable energy systems and zero-emissions supply resources in New York and renewable energy systems and zero-emissions sources outside the State that are procured by New York consumers (*e.g.*, contracted imports from neighboring states and Canadian provinces) is equal to or greater than the aggregate annual electric energy consumption within the State, even if zero-emissions or renewable energy resources did not serve all load in every hour of the year.

The term "statewide electrical demand system," like "zero emissions" is only referenced, but not defined, in PSL § 66-p.[36] No further definition of the term is provided by this statute or in other applicable statutory language, and the phrase "statewide electrical demand system" has no commonly ascribed meaning within the industry. Under general statutory construction principles, the contextual language in the statute in question is to be used when defining or determining the meaning of certain terms. It is only appropriate to look outside the words in the statue when such language is not clear or instructive. PSL §66-p focuses on renewable energy technologies and other clean energy technologies that could support the attainment of the zero emissions target, but definitional language concerning the term "statewide electrical demand system" is not included.

PSL §66-p does not explicitly require all generation sources within New York State to have zero emissions. Rather, it focuses on limiting the emissions associated with the "electrical demand system." This could be interpreted to mean that electric energy procured for New York consumers should have zero emissions, while the regulation of emissions from individual generation units would be addressed through other sections of the CLCPA.

Therefore, it is necessary to undertake a broader analysis to establish an appropriate definition. Such analysis should be revisited once other definitional matters, including those raised in the other questions reflected in the Notice Seeking Further Comment, are determined. Those

[36] PSL § 66-p(2)(b) provides that "that by the year two thousand forty (collectively, the "targets") the statewide electrical demand system will be zero emissions."

determinations can then further inform the definition of "statewide electrical demand system," and the application of the definitions.

The Joint Utilities recognize that the context in which these terms are to be used is a key consideration when designing CLCPA compliance matters and therefore recommend that the definition of terms ultimately adopted should expressly provide that such terms apply specifically to CLCPA compliance and that other similar or related definitions would not apply. More specifically, the Joint Utilities recommend 'ring fencing' the terminology. "Zero emissions" and "statewide electrical demand system" should be limited to the implementation of this PSL statute and CLCPA compliance, focusing on renewable energy generation and clean energy standards only.

"Zero emissions" is a term that should only apply to:

A) renewable energy systems (as defined in CLCPA and adopted in PSL §66 p(1)(b),

B) electric generation resources that have no GHG emissions at the point of electric generation, including nuclear generation and clean hydrogen,

C) electric generation resources that have no GHG emissions when biogenic CO2 emissions are excluded, consistent with US EPA and IPCC guidelines, and

D) electric generation resources that have lifecycle GHG emissions no greater than zero.

Reviewing other portions of the paragraph in which the term "statewide electrical demand system" appears, the Joint Utilities note that the 2030 goal of 70 percent renewable electric generation clearly focuses on electrical *energy* as the metric. The Commission, through its Clean Energy Standard, has used the mechanism of requiring jurisdictional load serving entities to procure attributes associated with renewable electric energy ("renewable energy credits"), defined by the Commission and accounted for pursuant to the New York Generation Attribute Tracking System as the primary path to financing new renewable energy resources. Similarly, the Commission has also used the very similar mechanism of requiring jurisdictional load serving entities to procure the non-emitting attributes ("zero emissions credits") associated with nuclear electric energy generation within the State as the path to retaining nuclear power production and its carbon-free electricity. Because this section of the CLCPA focuses on energy procurement,

and because the primary means of reducing the GHG emissions profile of the State's Clean Energy Standards has focused on electric energy (and not electric capacity), this suggests that the application of 'statewide electrical demand system' refers to the annual aggregate amount of in-state electrical energy consumption. Achieving "zero emissions" under this definition could then be achieved if the aggregate annual energy output from renewable energy systems and zero-emissions supply resources in New York and renewable energy systems and zero-emissions sources outside the State that are procured by New York consumers (*e.g.*, contracted imports from neighboring states and Canadian provinces) was equal to or greater than the aggregate annual electric energy consumption within the State, even if zero-emissions or renewable energy resources did not serve all load in every hour of the year. Once the aggregate generated energy from "renewable energy systems" and "zero emissions" sources meets or exceeds the State's aggregate electric energy need, the State will have satisfied the zero emissions target.[37]

The Joint Utilities agree that, ultimately, issues associated with electricity generated outside of New York State and behind the meter ("BTM") should be addressed as part of the State's ongoing implementation of the CLCPA. The Commission has the discretion to make baseline decisions before decisions are made concerning whether and how the term "statewide electrical demand system" should be defined with respect to electricity generated by resources that are located outside of the State or BTM.

The Commission should defer the determination of which generation resources are included as part of the "statewide electrical demand system" until the foundational definitions addressed in the prior questions are clarified. Once established, those foundational matters will form a better basis upon which to determine the interpretation and application of the term. Whether it is necessary or appropriate to include out of State or BTM resources to support compliance with CLCPA requirements will become clearer as other terms are defined.

With respect to BTM resources, the Joint Utilities also recommend that such consideration should follow the adoption of term definitions on the matters raised in the other questions

[37] Contrary to what commenters such Sierra Club and Earthjustice argue, it is not reasonable to interpret the CLCPA to prohibit the use of *emitting* generating systems that maintain electric system reliability when generation from renewable energy systems is not available (no sun, no wind, no hydro).

responded to above. Consideration of BTM resources should necessarily include a requirement that data needs to be available, accurate and validated.

To ensure that the term "statewide electrical demand system" is ultimately clearly defined, the Joint Utilities recommend that, as the terms included in the other questions in the Notice Seeking Further Comments are developed, consideration should be given to how those definitions impact how the term "statewide electrical demand system" should be defined.

Conclusion

The Joint Utilities remain strongly committed to achieving New York State's clean energy objectives and the goals of the CLCPA in a manner consistent with their obligation to provide safe and reliable service to all customers. We offer these comments to assist the Commission in the dispatch of its authority to define terms that direct the efficient deployment of a safe, reliable, clean, and affordable energy system.

The Joint Utilities emphasize that the Commission's statutory authority empowers it to establish definitions and policies that differ from those of other State agencies. The legal matters at the center of the October 20th Notice implicate important policy matters for the Commission's consideration as it directs the deployment of clean energy resources in New York.

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Respectfully submitted,

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