Via Email

February 6, 2022

Mark Lanzafame
New York State Department of Environmental Conservation
Division of Air Resources
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Re: ***Comments on Draft DAR-21: The Climate Leadership and Community Protection Act and Air Permit Applications***

Dear Mr. Lanzafame:

New York Lawyers for the Public Interest, Sierra Club, Earthjustice, Environmental Advocates, UPROSE, Long Island Progressive Coalition, Seneca Lake Guardian, Scenic Hudson, Catskill Mountainkeeper, the Hudson Center for Community and Environment, Hudson River Sloop Clearwater, Clean Energy Group, Alliance for a Green Economy, Food & Water Watch, Fossil Free Thompkins, Clean Air Coalition of WNY, Green Education and Legal Fund,

New Paltz Climate Action Coalition, Orange Residents Against Pilgrim Pipelines, New York Energy and Climate Advocates, New Yorkers for Clean Power, and the Committee to Preserve the Finger Lakes respectfully submit the following comments on the Department of Environmental Conservation's ("DEC") proposed guidance ("DAR-21") regarding the requirements for analyses developed pursuant to Section 7(2) of the Climate Leadership and Community Protection Act ("CLCPA") in support of air pollution control permit applications. We appreciate DEC's efforts to provide clarity about its application of Section 7(2), and support the proposed approach to determining consistency with the CLCPA's greenhouse gas limits. However, the following modifications to DAR-21 are needed to ensure that Section 7(2) is properly enforced and that the state fulfills its obligations under the CLCPA. In particular, DEC must clearly state that Section 7(2) authorizes DEC to deny permit applications, and clarify the requirements for justifications, alternatives, and mitigation analyses.

I. DAR-21 Must Clarify that Section 7(2) Authorizes DEC to Deny Permit Applications

DAR-21 must make clear that Section 7(2) vests DEC with the authority to deny permit applications where a project would be inconsistent with or interfere with the CLCPA's greenhouse gas limits, and where 1) no justification exists *or* 2) a justification exists but neither alternatives nor mitigation measures can be identified.

Section 7(2)'s use of the word "shall" makes plain that, before permitting a project that would be inconsistent with or would interfere with the CLCPA's greenhouse gas reduction mandates, a state agency is required to provide a justification *and* identify alternatives or mitigation measures. *See McMillian v. Krygier*, 153 N.Y.S.3d 198, 201 (App. Div. 2021) ("[U]se of the word 'shall' generally denotes a mandatory requirement.") (quoting *Haynie v. Mahoney*, 48 N.Y.2d 718, 719 (App. Ct. 1979)). Put differently, Section 7(2) sets forth a three part process: 1) consider whether the project would be inconsistent with or interfere with the CLCPA emissions limits; 2) if so, determine whether a sufficient justification exists; 3) if so, identify alternatives or mitigation measures. As DEC has recognized, if a sufficient justification does not exist, then the inquiry ends at Step 2, and no permit can issue.[1] Similarly, if a sufficient justification exists but the project fails to satisfy Step 3, DEC must deny the permit application.

Reading Section 7(2) any other way would render it meaningless and produce an absurd result. "In matters of statutory and regulatory interpretation, 'legislative intent is the great and controlling principle….'" *Nostrom v. A.W. Chesterton Co.*, 15 N.Y.3d 502, 507 (App. Ct. 2010) (quoting *Matter of ATM One v. Landaverde,* 2 N.Y.3d 472, 477 (App. Ct. 2004)). DEC must "give the statute a sensible and practical over-all construction, which is consistent with and furthers its scheme and purpose and which harmonizes all its interlocking provisions." *People v.*

[1] DEC, *Draft Commissioner Policy-49* 7 (Dec. 1, 2021), https://www.dec.ny.gov/docs/administration_pdf/cp49revised.pdf ("Draft CP-49"); Notice of Denial of Title V Permit to Astoria Gas Turbine Power, LLC at 15, 17 (Oct. 27, 2021), https://www.dec.ny.gov/docs/administration_pdf/nrgastoriadecision10272021.pdf; Notice of Denial of Title V Permit to Danskammer Energy Center at 14 (Oct. 27, 2021), https://www.dec.ny.gov/docs/administration_pdf/danskammer10272021.pdf.

Iverson, 37 N.Y.3d 98, 103–04 (App. Ct. 2021) (quoting *Long v. Adirondack Park Agency*, 76 N.Y.2d 416, 420 (App. Ct. 1990)). The CLCPA's unambiguous purpose is to address climate change, including by reducing greenhouse gas emissions. *See* CLCPA § 1(4), S.B. 6599, 242d Sess. (N.Y. 2019) (declaring "a goal of the state of New York to reduce greenhouse gas emissions from all anthropogenetic sources 100% over 1990 levels by the year 2050, with an incremental target of at least a 40 percent reduction in climate pollution by the year 2030").

If DEC lacked the authority to deny permits under Section 7(2), the Department would be compelled to allow projects that will unjustifiably impede the state from meeting statutorily required emissions limits. DEC must "interpret [the] statute so as to avoid [this] unreasonable [and] absurd application of the law." *Lubonty v. U.S. Bank Nat'l Assoc.*, 116 N.Y.S.3d 642, 645 (App. Ct. 2019) (citation omitted). Accordingly, DAR-21 should clarify that DEC has the authority to deny permit applications that fail to meet the strictures of Section 7(2).

II. DEC Must Clarify that a Full Emissions Analysis and Consistency Determination Is Required for Air Permit Renewals as Well as Permits for New Emission Sources

Draft DAR-21 provides that DEC's determination of project scope "does not include existing equipment whose operations are not being changed unless deemed necessary to assess CLCPA consistency."[2] The draft policy therefore concludes that "[a] permit renewal that does not include a significant modification and would not lead to an increase in actual or potential GHG emissions would in most circumstances be considered consistent with the CLCPA pending finalization of the scoping plan and future regulations."[3] The language of the policy should be amended to clarify that a full emissions analysis and consistency determination is required even for permit renewals where no source modification has occurred.

A. Section 7(2) Requires a Full Emissions Analysis and Consistency Determination for Permit Renewals

By purporting to deem unmodified existing sources consistent with the CLCPA, DEC is improperly truncating the analysis required by Section 7(2). From a climate perspective, there is no difference between greenhouse gases emitted from existing sources and those from new sources. An existing major source of greenhouse gas emissions is just as inconsistent and incompatible with the CLCPA's climate mandates as a proposed new one. Terminating the Section 7(2) analysis at the consistency stage cannot be squared with the plain language of the CLCPA and is also imprudent as a matter of policy. The plain language of Section 7(2)—and the framework DEC set forth in the Astoria and Danskammer Title V permit denials—is fully capable of addressing existing sources.

First, as a matter of statutory interpretation, deeming unmodified existing sources consistent with the CLCPA without undergoing a full emissions analysis violates the statute's plain language. Section 7(2) requires in relevant part that in "considering and issuing" all

[2] DEC, *DAR-21: The Climate Leadership and Community Protection Act and Air Permit Applications* 2–3 (Dec. 1, 2021), https://www.dec.ny.gov/docs/air_pdf/dar21.pdf ("Draft DAR-21").
[3] *Id.* at 3.

permits, licenses and other administrative approvals, agencies "*shall consider* whether such decisions are inconsistent with or will interfere with the attainment of the statewide greenhouse gas emissions limits established in article 75 of the environmental conservation law." CLCPA § 7(2) (emphasis added). This broad language does not authorize DEC's categorical exemption. "Where statutory language is clear and unambiguous, the court should give effect to its plain meaning." *Overton v. Town of Southampton*, 857 N.Y.S.2d 214, 215 (App. Div. 2008). DEC must give effect to the CLCPA's plain and mandatory language and require full consideration of greenhouse gas ("GHG") impacts in the context of air permit renewals.

Second, ignoring the emissions from existing sources during permit renewal creates a significant roadblock to achieving the emission reductions from existing sources that must occur to achieve New York's CLCPA climate mandates. New York's current GHG emissions far exceed requirements for an 85% reduction in emissions by 2050, and in the electricity sector in particular, the CLCPA mandates reducing emissions to zero by 2040. Renewing permits for major greenhouse gas emissions sources without considering their inconsistency with New York's 2040 and 2050 emissions requirements hamstrings New York's ability to achieve those mandates. DEC's proposal to exclude permit renewals from its implementation of Section 7(2) also runs afoul of the CLCPA's requirement to prioritize emissions reductions in disadvantaged communities because it would allow polluting facilities sited in environmental justice areas—such as the Valhalla Plant and the Caithness Plant—to remain in operation without proper scrutiny. *See* CLCPA § 7(3).[4]

Third, DEC's proposed approach of exempting existing sources at the consistency stage of the analysis is misguided as a matter of policy. Distinctions between new and existing sources are best dealt with at the justification stage rather than the consistency stage of DEC's Section 7(2) analysis, and categorially exempting existing sources means that those sources will be improperly shielded from mitigation requirements. While GHG emissions from new and existing sources equally interfere with New York's ability to achieve its climate mandates, the justification for allowing the continued operation of new versus existing sources may differ markedly. For example, an existing emissions source that is providing an ongoing, critical service in New York may be better positioned to make the case that some degree of future emissions is justified than could a proposed new major emissions source. DEC can best account for these new versus existing distinctions through how it characterizes justification in its final policy.

Fourth, step three of DEC's Section 7(2) analysis properly and helpfully requires DEC to address mitigation requirements. The mitigation options for existing sources may vary depending on the type of facility and the nature of the need for the facility. But that does not mean that DEC should not address appropriate mitigation consistent with Section 7(2) in permit renewals. Categorically exempting unmodified sources would significantly delay when mitigation may be

[4] *See, e.g.*, DEC, *ENB Region 3 Completed Applications 9/22/2021*, New York State (Sept. 22, 2021), https://www.dec.ny.gov/enb/20210922_reg3.html#355340018900001 (proposing to renew Title V permit for Valhalla facility and stating: "The facility is located in an Environmental Justice Area. Since there are no changes from the previous permit, a CLCPA analysis was not necessary at this time."); *see generally* Comments from the Brookhaven Landfill Action and Remediation Group, Long Island Progressive Coalition, Sierra Club, and Earthjustice regarding the Draft Title V Air Permit for the Caithness Long Island Energy Center (Feb. 7, 2022).

required from these facilities. Indeed, 84 percent of Title V-permitted facilities will not be subject to a CLCPA-compliant permit review under DEC's proposed policy until the period between 2026 and 2029. These facilities collectively emitted 28,395,117 tons of carbon dioxide in 2019—conservatively representing nearly 12 percent of the entire statewide GHG emissions limit for 2030, and roughly half the entire statewide limit for 2050.

Finally, DEC's qualification that its assumption that an unmodified existing facility is consistent with the CLCPA is "pending finalization of the scoping plan and future regulations"[5] is insufficient to excuse consideration of the emissions from these facilities at this time. The Climate Action Council's final scoping plan is not slated to be submitted to the Governor until January 2023. E.C.L. § 75-0103(12). Title V air permit renewals only occur once every five years. Reliably transitioning New York's power sector to zero emissions by 2040 requires attention to facilities at their next Title V permit renewal and cannot await finalization of the scoping plan and subsequent regulations.

B. DEC's Proposed Treatment of Permit Renewals is Unworkable

Additionally, the qualifications on the exemption for non-modified existing sources that DEC provides in Draft DAR-21 are insufficient. The draft policy provides that "DEC staff may require an applicant to submit a CLCPA analysis for a permit renewal to ensure the requirements of Section 7(2) are met, *if the facts surrounding the project indicate that an analysis is warranted*."[6] But such an approach is not workable. It provides too little guidance and too much discretion to DEC to determine when to conduct such an analysis. The better course, as explained above, is to require the analysis for all permit renewals and address distinctions between new and existing sources at subsequent steps in the analysis.

Finally, even if DEC were to retain the current scope, in determining whether a project leads to a significant emission increase, allowing the applicant to rely on the highest 24-month average GHG emissions during the five years preceding the permit application is inappropriate.[7] DEC qualifies this authorization with the language "unless another period is more representative."[8] However, this is inadequate. The default should either be the immediately preceding 24 months or the most representative period. Cherry-picking the highest possible emissions baseline distorts the analysis. Facilities typically run less over time as they age. The highest emissions period in the prior five years should not be assumed to be representative.

III. DEC Should Provide Additional Guidance About the Required GHG and CO2e Emissions Analysis and Alternatives Analysis

Draft DAR-21 provides that:

> To determine whether a given project is consistent with the requirements of CLCPA, the applicant must provide an objective analysis of the GHG and CO2e

[5] Draft DAR-21 at 3.
[6] Draft DAR-21 at 3 (emphasis added).
[7] *See* Draft DAR-21 at 3.
[8] *Id.*

> emissions from the project, that includes any upstream or downstream emissions known to be attributable to the project, including upstream emissions attributed to production, transmission, and use of fossil fuels or imported electricity.[9]

DEC must provide additional guidance to ensure that this emissions analysis is meaningful.

A. Need for an Accurate Baseline

The foundation for any meaningful emissions analysis is the use of an appropriate emissions baseline. For new facilities, this baseline must accurately reflect expected future emissions in the absence of the proposed project. For projects being proposed at the site of an existing facility, this means carefully scrutinizing the likely future of the existing facility and whether its retirement is actually conditioned on development of the new facility. If the existing facility is likely to retire or experience limited runtime for reasons unrelated to the development of the new facility, the likely zero or near-zero future emissions must be accounted for in the baseline.

Commenters' concerns about the potential for manipulation of the baseline stem from claims made by the developers of the three most recent gas plant proposals in New York. In calculating the emissions baseline, the developers have inappropriately attempted to tether the development of a new emissions source to the retirement of existing emissions sources, even where those existing sources would likely be retired in the absence of the new source. For example, Astoria Generating Co., the developer of the previously proposed Gowanus Generating Station in Brooklyn, attempted to tether the development of a new 590 MW floating barge facility to the retirement of its existing 640 MW floating barge facility at the site and a separate 320 MW floating barge facility in Bay Ridge Channel,[10] suggesting that the development of the new facility would *reduce* fossil fuel capacity. However, the existing units were barely running (operating on average 29.3 hours in 2018, the year preceding Astoria's application[11]) and were subject to New York's peaker nitrogen oxide regulations that require them to reduce their emissions rate or retire by 2023. Indeed, the day after Astoria Generation filed its notice terminating its new Gowanus proposal,[12] the company filed a deactivation notice for 320 MW of the existing Gowanus facility,[13] making clear that development of the "replacement" facility was not in fact a requirement for retiring the existing facility.

The situation with the proposed Astoria and Danskammer facilities is similar. Like Gowanus, Astoria Gas Turbine Power also styled its proposed 437 MW gas peaker as a "replacement project," tethering the development of the facility to the retirement of 22 of the 24

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[9] Draft DAR-21 at 3.
[10] Astoria Generating Co., L.P., *Gowanus Generating Station Gowanus Repowering Project: Preliminary Scoping Statement* at 2-2–2-4, Case No. 18-F-0758 (N.Y. P.S.C. May 14, 2019) (Docket No. 17).
[11] Data from EPA, Air Markets Program Data, https://ampd.epa.gov/ampd/.
[12] *Re: Discontinuance of Article 10 Proceeding*, Letter from E. Gail Suchman, Att'y for Astoria Generating Co., Sheppard Mullin, to Michelle L. Phillips, Sec'y to the Comm'n, N.Y. P.S.C. (Dec. 15, 2021), Case No. 18-F-0758 (Docket No. 69).
[13] *Re: Notice of Intent to Retire Generating Facility, Gowanus Barges 1 and 4*, Letter from Mark R. Sudbey, CEO, Eastern Generation, to Michelle L. Phillips, Sec'y to the Comm'n, N.Y. P.S.C. (Dec. 16, 2021), Case No. 05-E-0889 (Docket No. 195).

existing gas turbines at the site. In describing the "no action" alternative in its draft scoping document, the developer made no mention of the existing units' plans for compliance with the NOx peaker regulations, merely stating that "the Applicant will not replace the existing [simple cycle combustion turbines] with new CCCTs."[14] It was not until Sierra Club commented that the "no action" alternative must be properly characterized to address compliance with the NOx peaker regulations that the developer added a sentence in the final scoping document noting that "[t]he current Facility also will have to comply with 6 NYCRR Subpart 227-3, 'Ozone Season Oxides of Nitrogen (NOx) Emission Limits for Simple Cycle and Regenerative Combustion Turbines.'"[15] Once required to properly characterize the "no action" alternative in the Draft Supplemental Environmental Impact Statement, the developer conceded that it would be uneconomical to do anything other than retire the existing units to comply with the NOx peaker regulation.[16] Thus, as with Gowanus, the proper baseline for Astoria is retirement of the existing facility and the proposed project must be treated as what it really is: a new source of GHG emissions.

The application for a Title V permit for the Greenidge Generation Station further demonstrates the need for an accurate baseline. In seeking a permit, the facility operator argued that its onsite and upstream potential greenhouse gas emissions were already substantially lower than its actual emissions in 1990.[17] However, in 1990 the facility was a large coal-fired power plant, and it was out of operation for several years in the intervening period from 1990 until 2017, when it was repowered as a gas plant.[18] Treating the facility's own 1990 emissions as a baseline by which to measure reductions is therefore illogical. This further demonstrates the need for DEC to provide clear guidance with respect to determining an accurate baseline.

B. Appropriate scope of "indirect" emissions

DEC proposes to consider indirect emissions "that are a consequence of the activities of the reporting facility but occur at sources owned or controlled by another entity."[19] DEC should

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[14] Astoria Gas Turbine Power LLC, *State Environmental Quality Review Act Draft Scoping Document: Astoria Replacement Project* 5-3 (June 2020), https://www.nrg.com/assets/documents/legal/astoria/Astoria-Gas-Turbine-LLC-Draft-Scoping-Document-6-12-2020.pdf. The reference to "CCCTs" (combined cycle combustion turbines) appears to be a typographical error as the current proposal is for a single simple cycle combustion turbine, perhaps a holdover from the prior proposal to construct several CCCTs at the site.

[15] Astoria Gas Turbine Power LLC, *State Environmental Quality Review Act Final Scoping Document: Astoria Replacement Project* 5-3 (Sept. 18, 2020), https://www.nrg.com/assets/documents/legal/astoria/09-18-20AstoriaFinalScope.pdf.

[16] Astoria Gas Turbine Power LLC, *Draft Supplemental Environmental Impact Statement: Astoria Replacement Project* 4–5 (June 2021) (noting that the cost of reducing NOx by installing modern controls on the existing gas turbines would be "approximately $938,800 per ton of NOx controlled, a value that is clearly not cost-effective when compared to the cost threshold that NYSDEC has determined to be economically feasible under NOx RACT ($3,000/ton)").

[17] *Response to NYSDEC Request for Additional Technical Information & Suspension of Time Frame Request: Greenidge Generation LLC's Greenidge Generating Station*, Letter from David T. Murtha, Consultant Dir., ERM, to Kimberly Merchant, Deputy Permit Adm'r, DEC at 12 (Aug, 2, 2021), https://www.dec.ny.gov/docs/permits_ej_operations_pdf/greenidgeclcpaassmnt.pdf ("ERM Letter to DEC").

[18] Comments from Seneca Lake Guardian, The Committee to Preserve the Finger Lakes, Fossil Free Tompkins, Sierra Club, and Earthjustice in Opposition to the Draft Title V Air Permit for Greenidge Generating Station (Nov., 19, 2021), https://earthjustice.org/sites/default/files/files/2021_11_19_slg_cpfl_fft_sc_ej_comments_dec.pdf.

[19] Draft DAR-21 at 4.

be clear in its policy that any "indirect" emissions included in the calculation must be proximate and directly flow from the proposed project.

The appropriate scope of indirect emissions must be clearly delineated or the analysis can be subject to misuse. As discussed in detail in Commenters' comments on the Astoria permit application,[20] without a clear limiting principle, applicants may seek to claim "credit" for emissions reductions that have no meaningful connection to the proposed project and may never occur. In the case of the Astoria project, the developer's consultant relied on a Rube Goldberg-like chain of events that strayed far from the Proposed Project to claim an "indirect" emission benefit. The consultant, Guidehouse, attributed monetary "savings" to the Proposed Project based on poorly supported claims regarding how much incremental battery storage resources would need to be installed if the plant were not constructed.[21] Guidehouse then assumed that these "savings" were used to accelerate the deployment of an additional 543 MW of offshore wind, which, Guidehouse assumed, generated zero emission electricity at a 50 percent capacity factor and displaced 2,400 GWh of fossil generation.[22] Guidehouse then credited the emission reductions resulting from this hypothetical offshore wind facility displacing hypothetical fossil fuel generation to the Astoria project, claiming up to approximately one million tons per year of carbon dioxide reductions.[23]

DEC properly rejected that analysis, explaining that Guidehouse's purported "indirect" GHG emissions benefits "are based on a convoluted series of interconnected actions and consequences, which may or may not occur in the manner projected by the consultants."[24] The Department should affirm the narrow scope of "indirect" emissions impacts in DAR-21, providing concrete examples of what emissions are sufficiently concrete and proximate—such as, but not limited to, truck trips per day associated with a facility—that they should be included in the analysis. Indirect emissions reductions wholly disconnected from the proposed project, such as those claimed by the developer of the Astoria project, amount to emissions offsets, which are proscribed for the electric sector under the CLCPA. E.C.L. § 75-0109(4)(f).

C. Calculation of upstream emissions

DEC should require upstream emission calculations to include emissions associated with non-fossil fuels. Draft DAR-21 provides that "upstream emissions calculations are only required for fossil fuels and imported electricity. Accordingly, facilities using fuels such as wood, ethanol, biodiesel, green hydrogen, and renewable natural gas (RNG) do not need to provide upstream

[20] Comments from the New York City Environmental Justice Alliance, THE POINT CDC, UPROSE, Chhaya CDC, and Clean Energy Group, together with Sierra Club, New York Lawyers for the Public Interest, and Earthjustice regarding the Draft Title V Air Permit and the Draft Supplemental Environmental Impact Statement for the Astoria Replacement Project at 20–21 (Sept. 13, 2021), https://nyc-eja.org/wp-content/uploads/2021/12/PEAK-Coalition-Comments-Re-Astoria-Replacement-Project-09-2021.pdf.
[21] Guidehouse, *Supplement to GHG Impacts of Astoria Replacement Project* 12–13 (Feb. 2021), https://www.nrg.com/assets/documents/legal/astoria/00_2021/appendices-e-m-06-30-21.pdf.
[22] *Id.* at 13.
[23] *Id.*
[24] Notice of Denial of Title V Air Permit to Astoria Gas Turbine Power, LLC, *supra* note 1, at 13–14.

emissions calculations for the non-fossil fuel portion of those fuels . . . ."[25] This distinction is inconsistent with the CLCPA and lacks a rational basis.

Under the CLCPA:

> 'Statewide greenhouse gas emissions' means the total annual emissions of greenhouse gases produced within the state from anthropogenic sources and greenhouse gases produced outside of the state that are associated with the generation of electricity imported into the state and the extraction and transmission of fossil fuels imported into the state. Statewide emissions shall be expressed in tons of carbon dioxide equivalents.

E.C.L. § 75-0101(13). This definition does not provide a basis for DEC's proposed exclusion of non-fossil fuel emissions from emissions calculations. First, the definition of "statewide greenhouse gas emissions" in the CLCPA only excludes upstream emissions from non-fossil fuel production occurring out of state. But Draft DAR-21 is much broader and would exclude such upstream emissions even if they occur within New York. Draft DAR-21's exclusion of upstream emissions associated with non-fossil fuels is thus flatly at odds with the CLCPA.

Moreover, exclusion of these emissions even from out of state would be perverse. Sourcing biofuels or hydrogen out of state does not change or lessen the climate impacts associated with those fuels. Indeed, the adverse climate impacts for importing these fuels would presumably be even greater than sourcing them in New York, given the greater potential for leakage during transport.

In addition, Draft DAR-21 refers to "green hydrogen," but does not address other types of hydrogen that are produced using fossil fuels, including gray hydrogen (which is produced through a greenhouse gas-intensive process called steam methane reformation) and blue hydrogen (which is produced through steam methane reformation with the use of carbon capture technology).[26] Production and use of these fuels results in significant greenhouse gas emissions and other environmental impacts.[27] In particular, hydrogen combustion creates significant emissions of nitrogen dioxide, a precursor to both ground-level ozone and fine particulate matter.[28] These pollutants adversely impact local air quality and can cause serious health

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[25] Draft DAR-21 at 4.

[26] Sasan Saadat & Sara Gersen, Earthjustice, *Reclaiming Hydrogen for a Renewable Future: Distinguishing Oil & Gas Industry Spin from Zero-Emission Solutions* 13–15 (Aug. 2021), attached as Exhibit A; *The hydrogen colour spectrum*, National Grid, https://www.nationalgrid.com/stories/energy-explained/hydrogen-colour-spectrum (last visited Feb. 3, 2022).

[27] Saadat & Gersen, *supra* note 28, at 10–11.

[28] *See, e.g.*, Jeffrey Goldmeer et al., Gen. Elec., *Hydrogen as a Fuel for Gas Turbines* 5 (2021), https://www.ge.com/content/dam/gepower-new/global/en_US/downloads/gas-new-site/future-of-energy/hydrogen-fuel-for-gas-turbines-gea34979.pdf (finding that a 50/50 mixture of hydrogen and fossil gas (by volume) increased concentrations of NOx in gas exhaust by 35% using General Electric combustion turbines); Mirko Bothien et al., ETN Global, *Hydrogen Gas Turbines: The Path Towards a Zero-Carbon Gas Turbine* 9 (2020), https://etn.global/wp-content/uploads/2020/01/ETN-Hydrogen-Gas-Turbines-report.pdf (warning that higher flame temperatures for hydrogen-gas blends will produce more health-harming NOx emissions "if no additional measures are undertaken"); Mehmet Salih Cellek & Ali Pinarbasi, *Investigations on Performance and Emission*

problems, and disproportionately affect communities of color.[29] Production of other non-fossil fuels such as RNG also results in harmful environmental impacts and can increase net GHGs.[30]

IV. DAR-21's Proposed Inconsistency Analysis is Appropriate

Commenters strongly support Draft DAR-21's discussion regarding determination of inconsistency with the CLCPA.[31] Given the tripartite structure of the Section 7(2) analysis, with the consistency determination being only the first step, it is appropriate to construe inconsistency broadly. DEC's identified bases for determinations of inconsistency and incompatibility do this, properly accounting for the fact that new facilities must not only not add GHG emissions, but also must not make it more challenging to decrease GHG emissions, or interfere with attainment of a zero-emission electric generation sector by 2040.[32] And Draft DAR-21 correctly recognizes that projects that facilitate the expanded or continued use of fossil fuels are inconsistent with the CLCPA.[33]

V. DEC Should Make Changes to DAR-21's Proposed Application of Step Two: The Justification Analysis

Draft DAR-21's justifications analysis is too broad and will undermine New York's efforts to reduce greenhouse gas emissions consistent with the CLCPA.

As an overarching matter, Draft DAR-21 fails to articulate any requirements that a proposed justification must meet. Instead, the draft offers "potential examples" of acceptable justifications and states that each determination will "be based on the facts surrounding the project itself."[34] Under such broad guidance, almost any proposed justification could pass muster.

Characteristics of an Industrial Low Swirl Burner While Burning Natural Gas, Methane, Hydrogen-Enriched Natural Gas and Hydrogen as Fuels, 43 Int'l J. of Hydrogen Energy 1994, 1205 (2018), https://www.sciencedirect.com/science/article/abs/pii/S0360319917319791 (finding that hydrogen combustion can emit more than six times as much NOx as does methane combustion).

[29] NOx is a pollutant that damages heart and respiratory function, impairs lung growth in children, and leads to higher rates of emergency room visits and premature death. Further, the state's Department of Health has identified the reduction of air pollution, including ozone, as a key indicator to drive improvements in asthma rates and public health outcomes throughout the state. The New York State Prevention Agenda 2019-2024 notes the "extensive evidence" linking ozone with respiratory and cardiovascular illness and death and establishes a goal to "reduce exposure to outdoor air pollutants," with an emphasis on vulnerable groups. *See* N.Y. State Dep't of Health, *New York's State Health Improvement Plan: Prevention Agenda 2019-2024* 72–3 (updated Sept. 2, 2021), https://www.health.ny.gov/prevention/prevention_agenda/2019-2024/docs/ship/nys_pa.pdf; *see also* Nitrogen Dioxide & Health, California Air Resources Board, https://ww2.arb.ca.gov/resources/nitrogen-dioxide-and-health (last visited Feb. 3, 2022); *see also* Christopher W. Tessum et al., *PM2.5 Polluters Disproportionately and Systemically Affect People of Color in the United States*, 7 Sci. Advances eabf4491 (2021), https://www.science.org/doi/pdf/10.1126/sciadv.abf4491.

[30] *See* Sasan Saadat et al., Earthjustice & Sierra Club, *Rhetoric vs. Reality: The Myth of "Renewable Natural Gas" for Building Decarbonization* (July 2020), https://earthjustice.org/sites/default/files/feature/2020/report-decarb/Report_Building-Decarbonization-2020.pdf.

[31] Draft DAR-21 at 5.

[32] *Id.*

[33] *Id.*

[34] *Id*.

DAR-21 should provide a clear standard that DEC can apply to determine whether a justification is acceptable. Doing so would give effect to Section 7(2)'s justification requirement, ensuring that it acts as a true backstop to prevent projects that will unjustifiably interfere with the state's ability to meet its greenhouse gas mandates. Moreover, a clear standard would facilitate the permitting process for all parties involved—and insulate DEC from claims of arbitrary and capricious decision-making—by providing clear guidance to project developers in preparing justifications and to DEC in making permitting decisions.

Additionally, the proposed "potential examples" of justifications at Step Two are all too broadly drawn and will undermine New York's efforts to meet its greenhouse gas reduction requirements. Our concerns with each of these "potential examples" is discussed below.

1. Draft DAR-21 would allow a project to be justified through "[a] demonstration that the lack of the project within the State would result in emissions leakage (e.g. the applicant would transfer operations to a neighboring state)."[35] The threat that an applicant will take a project to another state should not be a basis for DEC to approve a project that is inconsistent with its statutory mandates. Rather, this proposed potential justification gives applicants far too much power to hold the state hostage. DEC, on behalf of New York residents, should instead focus on what it can and must do to achieve the CLCPA requirements, and not be swayed by the possibility of a proposed project being sited elsewhere.

2. Draft DAR-21 provides that a project may be justified where "[n]o technically feasible alternatives exist to achieve the desired ends."[36] This improperly conflates the justification and alternatives analyses. As discussed above, Section 7(2) requires that before permitting a project that would be inconsistent with or interfere with the CLCPA's greenhouse gas reduction mandates, a state agency is required to provide a justification *and* identify alternatives or mitigation measures. Therefore, DEC should only move onto the alternatives analysis after determining that a sufficient justification exists. Providing that the absence of a technically feasible alternative can serve as a justification for the project is circular and defeats the logical functioning of the three-step analysis set forth in the CLCPA, proposed CP-49, and DEC's decisions to deny permits for the Astoria and Danskammer gas plants.[37]

   Additionally, it is unclear what "desired ends" means, and who determinates what those means are. If DEC includes this proposed justification example in DAR-21 against our recommendation, "desired ends" should be required to have a clear societal benefit. For example, an applicant's desired end is often to earn money on an investment. That is plainly not an end that would justify a project that is otherwise inconsistent or incompatible with CLCPA emissions reduction mandates. Similarly, the desire to develop a facility that mines cryptocurrency would not meet this threshold because it lacks

[35] *Id.* at 6.
[36] *Id.*
[37] *See supra* note 1.

inherent societal value. "Desired ends" should only provide a justification if they include meeting a clear and immediate local need.

3. Under Draft DAR-21, a project may be justified where "[t]he applicant will undertake mitigation efforts to offset GHG emissions."[38] This is plainly inappropriate as a justification. As discussed above, under Section 7(2) if a project is inconsistent or incompatible with the CLCPA emission requirements *and adequately justified*, the applicant *must* undertake mitigation measures or identify alternatives. Providing that the applicant's mitigation measures can serve as the justification for the project is, again, circular and defeats the purpose of the three-step analysis set forth in the CLCPA, CP-49, and DEC's Astoria and Danskammer decisions.[39]

4. Draft DAR-21 provides that a project may be justified where "[t]he absence of the project will result in economic, social, or environmental harm to the public." Draft DAR-21 at 6. DEC must define the baseline against which "harm to the public" will be measured and clarify that foregone economic opportunity does not constitute harm to the public. The economic benefits of development alone cannot justify a project that is inconsistent with or will interfere with the emissions limits; otherwise, any project, no matter how incompatible with the CLCPA, would be justified, given that most major investments will create some degree of economic development.

   More fundamentally, the aim of this proposed justification is uncertain. To the extent that DEC retains this justification, DEC should provide clear examples of when it would be appropriate to invoke, in addition to clarifying that economic benefit alone cannot serve as a justification under Section 7(2).

5. Finally, Draft DAR-21 provides that a project may be justified where "[t]he project is needed to improve or maintain the safety and reliability of existing systems." Draft DAR-21 at 6. Without defining "improve" or making this justification available only where reliability needs exist, DEC risks undermining the CLCPA's purpose. It is not the case that any "improvement" to the reliability of existing systems—without any limiting principle or reference to a reliability baseline—can justify a project that will impede the state's greenhouse gas reduction efforts.

   In considering this potential justification, DEC should be guided by Climate Action Council's Draft Scoping Plan, which provides:

   > If a reliability need or risk is identified, emissions-free solutions should be fully explored, such as storage, transmission upgrades or construction, energy efficiency, demand response, or another zero-emissions resource. Only after these alternatives are fully analyzed and determined to not be able to reasonably solve the identified grid reliability need shall new or repowered fossil fuel-fired generation facilities be considered. These should only be considered if the NYISO and local transmission operators

[38] Draft DAR-21 at 6.
[39] *See supra* note 1.

> confirm that the fossil fuel fired facility is required to maintain system reliability and that need cannot reasonably be met with the alternatives listed above.[40]

Similarly, any justification based on a project's contribution to reliability or safety should be allowed only where a certified reliability or safety need cannot otherwise be addressed.

Additionally, a permit applicant must clearly characterize any claimed reliability. Applicants claiming reliability as a justification must disclose underlying analyses regarding reliability so that impacted communities and other members of the public are able to analyze and respond to that claim.

VI. DAR-21 Must Provide Greater Clarity Regarding the Scope of the Alternatives Analysis

The alternatives analysis provided in Draft DAR-21 must be fleshed out and clarified. For alternatives to fossil fuel generation projects, DEC can again look to the Draft Scoping Plan. The Draft Scoping Plan provides a number of alternatives that should be considered before any fossil fuel generation source is permitted, including transmission, energy storage, emissions-free electric generation, demand response, energy efficiency, and any combination thereof.[41]

Draft DAR-21 also identifies as an alternative the "[u]se of lower emission technologies . . . that may reduce downstream GHG emissions."[42] As discussed above, alternative fuels can have significant lifecycle greenhouse gas impacts (and generate other serious environmental and public health harms). This alternative should therefore be revised to refer to the use of lower emission technologies that reduce *overall* greenhouse gas emissions.

Additionally, DAR-21 should require DEC to consider the non-greenhouse gas air emissions of technologies that would reduce or eliminate greenhouse gas emissions. This would ensure that DEC accounts for the public health impacts of alternative fuels, such as the nitrogen oxides produced by burning hydrogen, and the air pollution and other safety risks associated with carbon capture and sequestration (discussed below).

DAR-21 should also clarify that alternatives need not be feasible at the site of the proposed project, or implemented by the applicant, to be considered viable. For example, as recognized by the Climate Action Council, demand response and energy efficiency measures implemented on the consumer side can obviate the need for fossil fuel electricity generation and should be included among the alternatives to a proposed generation project. Likewise, if a renewable or energy storage project would address an identified reliability need but would not

[40] N.Y. State Climate Action Council, *Draft Scoping Plan* 155 (Dec. 30, 2021), https://climate.ny.gov/-/media/Project/Climate/Files/Draft-Scoping-Plan.ashx.
[41] *Id*.
[42] Draft DAR-21 at 6.

occupy the same footprint as the proposed project, it should still be included in the alternatives analysis.

Finally, Draft DAR-21 lists "no reasonable alternative exists" as a potential alternative. However, as discussed above, at Step 3 DEC must identify *either* alternatives or mitigation measures. The lack of an alternative therefore triggers need for mitigation; it cannot itself satisfy the alternatives analysis. DEC should eliminate this scenario as a potential alternative to avoid confusion or, worse, allow permit applicants to skirt the mitigation requirement by claiming that "no reasonable alternative exists" *as* a suitable alternative.

VII. DEC Should Clarify the Mitigation Requirements

For electric generating units, DEC should require mitigation plans to establish how the project will bring its emissions in line with the CLCPA's 2040 zero emissions generation mandate through enforceable limits. Indeed, this is expressly required under Draft CP-49: "Mitigation options must result in at least a reduction in GHG emissions equivalent to the GHG emission increases from the project, or must ensure that the project is reducing GHG emissions over time consistent with the requirements of the CLCPA."[43] In identifying potentially appropriate mitigation measures, DEC should clarify several points.

First, DEC should clarify that a bare commitment to reduce emissions to zero beginning in 2040 does not constitute adequate mitigation. Commitments to reduce emissions beginning in 2040 raise multiple concerns. If the commitment is predicated on the implementation of technology that is not currently commercialized or which would require modifications to the facility or access to a novel fuel (such as "green" hydrogen), there is a significant risk that these emission reductions will not be achieved in practice. More fundamentally, even if a facility committed to retire in 2040, it would be crucial that the mitigation proposal also include a plan for ensuring system reliability using CLCPA-compliant non-emitting resources at the time of the facility's retirement. If New York's power grid approaches 2040 with a high percentage of current fossil generation resources still operating it will be extremely challenging if not impossible for New York to reliably transition to a zero-emissions grid in 2040. Consequently, mitigation plans must account for and address the impacts of facility retirements on system reliability. In addition, mitigation plans must also achieve an appropriate portion of the applicable mitigation during the relevant term of the permit.

Second, DEC should clarify in DAR-21 that offsets are not a permissible form of mitigation. The CLCPA expressly prohibits the use of offsets in the electric generation sector. E.C.L. § 75-0109(4)(f). The CLCPA also imposes certain restrictions on the use of offsets in other sectors. *Id*. § 75-0109(4)(g), (i).

Third, financial mitigation cannot substitute for direct emissions reductions that can be achieved on site. In the event that a project is inconsistent with or will interfere with the CLCPA GHG limits, Section 7(2) requires "greenhouse gas mitigation measures . . . *where such project is located*." Financing separate projects that are designed to achieve GHG reductions raises

[43] Draft CP-49 at 7.

significant concerns about the reality, additionality, permanence, transparency, verification, and ownership of the claimed emission reductions. Moreover, financial mitigation is, functionally, simply an emissions offset, which as noted above is expressly prohibited in the electric generation sector under E.C.L. § 75-0109(4)(f). Rather, all proposed mitigation measures must be clearly defined and adequately demonstrated in practice, and must occur at the project location, as mandated by Section 7(2).

Fourth, DEC should clarify that carbon capture is not an appropriate mitigation strategy for electric generating units. Carbon capture is not a zero emissions technology, as mandated by the CLCPA. *See* N.Y. Public Service Law § 66-p(2)(a). Carbon capture technology does not target conventional pollutants and, consequently, does not zero out emissions of pollutants such as NOx from fossil fuel-fired power plants and does nothing to further the CLCPA's goals of addressing the excessive pollution burdens experienced by disadvantaged communities. Indeed, a recent study found that implementation of carbon capture and storage ("CCS") technology likely *increases* total air pollution.[44] In addition, CCS is not a zero GHG emissions strategy either. CCS technology is not capable of eliminating direct GHG emissions and does nothing to eliminate upstream emissions from gas extraction and transportation.[45]

Fifth, DEC should issue monitoring and reporting requirements for mitigation plans approved under Section 7(2) to ensure that any mitigation measures truly achieve the requisite greenhouse gas reductions.

Sixth and finally, given the pitfalls detailed above associated with financial mitigation measures, offsets, and carbon capture discussed above, Commenters urge DEC to include additional potential mitigation measures that will "result in at least a reduction in GHG emissions equivalent to the GHG emission increases from the project, or must ensure that the project is reducing GHG emissions over time consistent with the requirements of the CLCPA" in the final version of DAR-21.[46] Additionally, DEC should update DAR-21 periodically to incorporate new potential mitigation measures as technology develops and new options become available.

VIII. DEC Must Provide Detailed Guidance on Implementation of Section 7(3) as Both 7(2) and 7(3) Must Be Considered Together when Determining Compliance with the CLCPA.

DAR-21 states "[a]lthough not covered by this policy, decisions impacting disadvantaged communities should also comply with Section 7(3) of the CLCPA."[47] Commenters agree that any

[44] Mark Z. Jacobson, *The Health and Climate Impacts of Carbon Capture and Direct Air Capture*, 12 Energy & Env't. Sci. 3567 (2019), https://web.stanford.edu/group/efmh/jacobson/Articles/Others/19-CCS-DAC.pdf.
[45] Hisham Eldardiry & Emad Habib, *Carbon Capture and Sequestration in Power Generation: Review of Impacts and Opportunities for Water Sustainability*, 8 Energy, Sustainability & Soc'y 6 (2019), https://energsustainsoc.biomedcentral.com/articles/10.1186/s13705-018-0146-3; Leigh Collins, *Upstream Emissions Risk 'Killing the Concept of Blue Hydrogen,' says Equinor Vice President*, Recharge (July 15, 2021), https://www.rechargenews.com/energy-transition/upstream-emissions-risk-killing-the-concept-of-blue-hydrogen-says-equinor-vice-president/2-1-1040583 (acknowledging it is "more or less impossible when it comes to the laws of nature" to eliminate carbon dioxide emissions via CCS).
[46] Draft CP-49 at 7.
[47] Draft DAR-21 at 2.

air permit must comply with both Section 7(2) and Section 7(3). As DEC recognized in denying a Title V permit for the proposed Astoria gas plant, Section 7(3), if not satisfied, is an independent basis for denying a permit.[48]

The CLCPA was enacted in large part to prioritize the reduction of emissions and associated environmental burdens in Disadvantaged Communities ("DACs"). Issuing detailed guidance for 7(2) without the same treatment for 7(3) sends a message of deprioritizing the impact on DACS, potentially undermining a core principle and the overall intent of the CLCPA. DEC must therefore act urgently to propose guidance on its application of Section 7(3).

The CLCPA established the Climate Justice Working Group ("CJWG") to guide equitable implementation of the statute. Specifically, the CJWG works with DEC and other state agencies to "establish criteria to identify DACs for the purposes of co-pollutant reductions, greenhouse gas emissions reductions, regulatory impact statements, and the allocation of investments." E.C.L. § 75-0111(b). On December 13, 2021 the CJWG voted to release draft criteria for identifying disadvantaged communities, defined in the CLCPA as, "communities that bear burdens of negative public health effects, environmental pollution, impacts of climate change, and possess certain socioeconomic criteria, or comprise high-concentrations of low- and moderate-income households."[49]

Draft CP-49 states that detailed guidance on implementation of Section 7(3) will be provided through a forthcoming revision to CP-29.[50] In that revision, DEC must coordinate with the CJWG to ensure consistency with its determination of DACs. Moreover, DEC must propose for public comment, in consultation with CJWG, detailed guidelines on what it means to "disproportionately burden" a DAC. DEC and other state agencies tasked with applying Section 7(3)—and project developers that must comply with Section 7(3)—urgently need guidance on how to do so.

In the meantime, before detailed guidance on Section 7(3) is issued, DAR-21 must make clear that DEC holds the authority to deny permit applications when a proposed project would disproportionately burden a DAC; and should clarify that even where a decision complies with all prongs of 7(2), DEC must nevertheless deny a permit if the action proposed would disproportionately burden a DAC.

IX. Conclusion

In sum, we urge DEC to strengthen DAR-21 so that the state can meet its climate obligations while increasing consideration and protection of DACs and other environmental justice communities. Doing so is critical for purposes of DEC's actions, and because other state agencies—which are equally obligated to consider whether their actions are consistent with Section 7—will likely look to DEC for guidance. In order to ensure that Section 7(2) is fully

[48] Notice of Denial of Title V Permit to Astoria Gas Turbine Power, LLC, *supra* note 1, at 15, 17 .
[49] N.Y. State Department of Environmental Protection, *Climate Action Council Releases Draft Scoping Plan for Public Comment* (Dec. 30, 2021), https://www.dec.ny.gov/press/124494.html.
[50] Draft CP-49 at 8.

implemented and that the state complies with its CLCPA mandates, DAR-21 must clarify that DEC has the authority and the obligation to deny permits applications for projects that would be inconsistent with the CLCPA's greenhouse gas reduction targets unless the application can identify both 1) a justification and 2) either alternatives or mitigation measures. Moreover, DAR-21 must provide that Section 7(2) applies equally to permit renewals as to new permit applications. Additionally, in the final version of DAR-21 DEC must flesh out the required justifications, alternatives, and mitigation analyses as detailed above. And, finally, DEC must expedite its revisions of CP-29 to provide clear guidance on the implementation of Section 7(3), and make clear in no uncertain terms that any project that does not comply with this section will be denied. Any failure to make these changes before finalizing DAR-21 would undermine New York's efforts to achieve its greenhouse gas reduction mandates and to be a national leader on climate change policy.

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