Message

From: Carbonell, Tomas [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=15EC2A6AD2934C669F6A675E7CF4961B-CARBONELL,]
Sent: 3/25/2022 2:13:21 PM
To: Hooper, Daniel [hooper.daniel@epa.gov]
Subject: FW: Cheniere compliance issue
Attachments: Cheniere Energy Inc. Request to EPA (3-8-22).pdf

Here you go

From: Goffman, Joseph <Goffman.Joseph@epa.gov>
Sent: Tuesday, March 8, 2022 9:33 PM
To: Carbonell, Tomas <Carbonell.Tomas@epa.gov>; Utech, Dan <Utech.Dan@epa.gov>
Subject: RE: Cheniere compliance issue

And here's a letter from outside counsel (Bracewell) requesting that we stay or withdraw the rule lifting the stay.

Joseph Goffman
Principal Deputy Assistant Administrator
Office of Air and Radiation
U.S. Environmental Protection Agency

From: Carbonell, Tomas <Carbonell.Tomas@epa.gov>
Sent: Tuesday, March 8, 2022 9:18 PM
To: Utech, Dan <Utech.Dan@epa.gov>
Cc: Goffman, Joseph <Goffman.Joseph@epa.gov>
Subject: Cheniere compliance issue

Hi Dan,

Ex. 5 Deliberative Process (DP)

Thanks,

Tomás

BRACEWELL

March 8, 2022

Via Electronic and First-Class Mail
Return Receipt No. 7019 2970 0001 3110 0359

Hon. Michael S. Regan, Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Mail Code 1101A
Washington, D.C. 20460
regan.michael@epa.gov

Re: *Request to Withdraw Final Rule and Request for Stay Pending Judicial Review*

Dear Administrator Regan,

We submit this letter on behalf of Cheniere Energy, Inc. (Cheniere), which hereby requests the Environmental Protection Agency (EPA) withdraw or stay pending judicial review the rule finalized on February 28, 2022 titled "National Emission Standards for Hazardous Air Pollutants: Stationary Combustion Turbines; Amendments."[1] For the reasons discussed below, Cheniere asks EPA to withdraw the rule *before* it takes effect or, alternatively, stay the rule pending judicial review.

Cheniere is an international energy company headquartered in Houston, Texas, and is the leading producer of liquefied natural gas (LNG) in the United States. Cheniere provides clean, secure, and affordable energy to the world, while responsibly delivering a reliable, competitive, and integrated source of LNG, in a safe and rewarding work environment.

The rule lifts a 2004 regulatory stay of the effectiveness of emission standards for certain stationary combustion turbines and would take effect the day the rule is published in the Federal Register.[2] If this happens, turbines that were permitted, authorized, built, installed, and operated in reliance on applicable requirements in effect at the time will need to demonstrate compliance with emission standards within 180 days—a timeline that is insufficient to address complex technical and engineering concerns. Not only did Cheniere rely on applicable requirements in effect at the time, but so did the Federal Energy Regulatory Commission, state air permitting authorities operating under EPA-approved programs, and

[1] National Emission Standards for Hazardous Air Pollutants: Stationary Combustion Turbines; Amendments, https://www.epa.gov/system/files/documents/2022-03/5909.1_turbineneshapamendments_final_20220225.admin-wdisclaimer.pdf (prepublication version).
[2] Prepublication Final Rule at 1.

Ms. Brittany M. Pemberton T: +1.202.828.1708 F: +1.800.404.3970
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EPA itself, through both its ability to comment on Cheniere's PSD permits (which include applicable federal requirements) and through its role as a cooperating agency in the FERC permitting process.

EPA relies on "recent caselaw concerning stays issued under the authority of the Clean Air Act and the Administrative Procedure Act" to justify lifting the stay. Although EPA's position is without citation, the cases that we presume EPA is referencing actually support EPA authority to withdraw a not yet effective rule at any time and to issue a stay pending judicial review of a published final rule where "justice so requires."[3] That standard is met here.

The rule would have implications across the domestic energy sector and particularly in the LNG industry at a time when Russia's invasion of Ukraine has shaken global energy markets and threatens to disrupt energy supply to Europe, where U.S. LNG has a significant role to play in providing reliable supplies of natural gas. Cheniere operates two LNG facilities on the U.S. Gulf Coast where it uses 62 of the combustion turbines that will become subject to the rule. The vast majority of these turbines are necessary to drive compressors integral to the refrigeration process to liquefy natural gas. The design of Cheniere's LNG terminals is complex, and the subject turbines are located on elevated pedestals with limited space for installing control equipment. Accordingly, significant case-by-case design and engineering work may be required to determine feasibility of control installation and options. Potentially imposing significant costs and operational disruption on the U.S. LNG industry at the same time the Administration is focused on Europe's strategic need to break its reliance on Russian gas is counterproductive. It is also unnecessary considering that the risks from combustion turbine HAPs are minimal and that EPA is actively considering a petition to delist these very turbines.

With respect to this last point, it is not clear why EPA now wishes to lift the 2004 stay when the Agency is considering further action that might result in delisting all stationary combustion turbines. This is contrary to the Agency's position on two other occasions. Specifically, when EPA first issued the stay in 2004, industry raised serious questions regarding the need to regulate emissions from the subcategories at issue. As a result, EPA issued this stay "to avoid wasteful and unwarranted expenditures on installation of emission controls which will not be required if the subcategories are delisted."[4][5] More recently, in March 2020, EPA again concluded it was appropriate to delay taking action to remove the stay until it makes a

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[3] 5 U.S.C. § 705; *see, e.g., Becerra v. U.S. Dep't of Interior*, 276 F.Supp.3d 953, 963–64 (N.D. Cal. 2017) (plain language of 5 U.S.C. § 705 allows an agency to suspend a rule after its effective date pending judicial review but does not authorize a stay of the rule's compliance date); *California v. U.S. Bureau of Land Management*, 277 F.Supp.3d 1106, 1118–19 (N.D. Cal. 2017) (rejecting arguments under 5 U.S.C. § 705 that an agency could stay the compliance date of a postponed rule because the compliance date functioned as a second effective date); *Air Alliance Houston v. EPA*, 906 F.3d 1049, 1060–61 (D.C. Cir. 2018) (plain language of 42 U.S.C. §7607(d)(7)(B) limits a stay of a final EPA action to 90 days even if that time is insufficient to conduct mandatory reconsideration of the action); *Clean Air Council v. Pruitt*, 862 F.3d 1, 10 (D.C. Cir. 2017) (a stay of a final EPA action under 42 U.S.C. § 7606(d)(7)(B) is lawful only if the agency's reconsideration of the rule meets the statutory test for mandatory reconsideration).

[4] Prepublication Final Rule at 6.

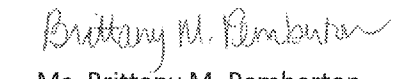
[5] "Inhalation Human Health Risk Assessment for U.S. Stationary Combustion Turbines 2014 Base Year Evaluation," Final Report, EPRI Product No. 3002016528 (May 2019).

determination regarding the pending delisting petition "so that turbine owners and operators do not make expenditures on emission controls and performance testing that will not be required if the source category is delisted."[6] Withdrawing this rule that removes the stay or staying it pending judicial review would provide time for EPA to fully consider the delisting petition, while also avoiding the imposition of "wasteful and unwarranted expenditures" that may ultimately be unnecessary if the category is delisted.

While the underlying rule was finalized in 2004, multiple EPA administrations since that time have kept the stay in place to avoid unwarranted expenditures while the Agency assesses delisting petitions and the very validity of the underlying Subpart YYYY compliance requirements for these combustion turbines. However, it is not just the removal of the stay that is troubling. It is also troubling that despite numerous comments from operators of combustion turbines that complex retrofits could take years to design, engineer, and install, the Agency still put forth a far too short 180 day compliance timeline.

For all of these reasons, Cheniere respectfully requests that EPA withdraw the rule before it takes effect or, alternatively, stay the rule pending judicial review.

Best regards,



Ms. Brittany M. Pemberton
Partner

cc (via email):

Joe Goffman
Acting Assistant Administrator, Office of Air and Radiation
U.S. Environmental Protection Agency
goffman.joseph@epa.gov

Jeffrey Prieto
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michael.weller@cheniere.com

Matthew Paulson, Bracewell LLP
matthew.paulson@bracewell.com

[6] 85 Fed. Reg. 13,524 at 13,527 (Mar. 9, 2020).

Message

From: Moeller, Njeri [Moeller.Njeri@epa.gov]
Sent: 3/29/2022 8:50:24 PM
To: OAR Briefings [OAR_Briefings@epa.gov]
CC: Koerber, Mike [Koerber.Mike@epa.gov]; Mozingo, Kristal [Mozingo.Kristal@epa.gov]
Subject: Briefing Materials: DA McCabe Briefing - Video-call: Subpart YYYY NESHAP Compliance and Uncertainty for LNG Delivery, OAR
Attachments: OAR Briefing Memo_Turbine NESHAP - Cheniere Energy Letter.03.31.22.docx; Turbine NESHAP.Cheniere Energy.DepAdmin.03.31.22.docx

Please see the attached materials for the following briefing:

Thursday, March 31, 4:05pm - Video-call: Subpart YYYY NESHAP Compliance and Uncertainty for LNG Delivery, OAR

Njeri Moeller (she/her/hers)
U.S. Environmental Protection Agency
OAR/OAQPS IO Special Assistant – Detail
109 TW Alexander Drive
Research Triangle Park, NC 27711
Phone: 919-541-1380 |Email: Moeller.njeri@epa.gov

BRIEFING MEMO

March 29, 2022

MEMORANDUM FOR THE DEPUTY ADMINISTRATOR

FROM: Joe Goffman, OAR, Ex. 6 Personal Privacy (PP) *goffman.joseph@epa.gov*

SUBJECT: Cheniere Energy Request to Withdraw or Stay Turbine NESHAP Final Rule

DATE: March 31, 2022

TIME: 4:05PM – 4:50PM ET

I. REQUESTING OFFICE: OAR

II. TIMING

On March 9, 2022, a final rule removing the 2004 stay of standards for new gas-fired turbines in the Stationary Combustion Turbine NESHAP was published in the Federal Register. A letter from Cheniere Energy requesting that the final rule be withdrawn or stayed pending judicial review was received on March 8, 2022.

III. PURPOSE

To provide senior management with a summary timeline regarding the final rule and Cheniere's engagement throughout the rulemaking process.

IV. BACKGROUND AND HISTORY (BULLETS ARE FINE)

March 4, 2004: Original Stationary Combustion Turbine NESHAP final rule promulgated. Regulation only applies to turbines at major sources of hazardous air pollutants (HAP).

August 2004: EPA received a petition to delist gas-fired turbines during the rulemaking and finalized an administrative stay of standards for new gas-fired turbines until the outcome of the proposed delisting was determined.

April 12, 2019: Proposed removal of stay and Risk and Technology Review (RTR) of the Turbine NESHAP.

March 9, 2020: Final RTR promulgated. Stay removal was not finalized to allow for additional time to review comments and a new petition to delist the entire source category filed in August 2019.

March 9, 2022: Final rule removing the stay of the standards.

V. KEY ISSUES

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

VI. REGULATORY SUMMARY (IF APPROPRIATE)

Ex. 5 Deliberative Process (DP)

VII. ADDITIONAL POLICY OR TECHNICAL INFORMATION (IF APPROPRIATE)

VIII. ANTICIPATED STAKEHOLDER REACTION

Any action to withdraw or stay the final rule removing the stay would likely be opposed by Sierra Club.

IX. STAKEHOLDER INVOLVEMENT

Ex. 5 Deliberative Process (DP)

X. ROLL-OUT AND COMMUNICATIONS PLAN

Not relevant for this meeting

XI. NEXT STEPS/UPCOMING DEADLINES

None

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

[Docket No. PL21-3-000]

Consideration of Greenhouse Gas Emissions in Natural Gas Infrastructure Project Reviews

(Issued February 18, 2022)

AGENCY: Federal Energy Regulatory Commission.

ACTION: Interim policy statement.

SUMMARY: This interim policy statement describes Commission procedures for evaluating climate impacts under NEPA and describes how the Commission will integrate climate considerations into its public interest determinations under the NGA.

DATES: Comments that pertain to the Paperwork Reduction Act are due 60 days after issuance in the Federal Register.

ADDRESSES: Comments, identified by docket number, may be filed electronically at http://www.ferc.gov in acceptable native applications and print-to-PDF, but not in Scanned or picture format. For those unable to file electronically, comments may be filed by mail or hand-delivery to: Federal Energy Regulatory Commission, Secretary of the Commission, 888 First Street, NE, Washington, DC 20426. The Comment Procedures section of this document contains more detailed filing procedures.

FOR FURTHER INFORMATION CONTACT:

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SUPPLEMENTARY INFORMATION:

178 FERC ¶ 61,108
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Richard Glick, Chairman;
James P. Danly, Allison Clements,
Mark C. Christie, and Willie L. Phillips.

Consideration of Greenhouse Gas Emissions in Natural Gas Infrastructure Project Reviews — Docket No. PL21-3-000

INTERIM POLICY STATEMENT

(Issued February 18, 2022)

1. The Commission is issuing this interim policy statement to explain how the Commission will assess the impacts of natural gas infrastructure projects on climate change in its reviews under the National Environmental Policy Act (NEPA) and the Natural Gas Act (NGA). We seek comment on all aspects of the interim policy statement, including, in particular, on the approach to assessing the significance of the proposed project's contribution to climate change. Although the guidance contained herein is subject to revision based on the record developed in this proceeding, we will begin applying the framework established in this policy statement in the interim. Doing so will allow the Commission to evaluate and act on pending applications under sections 3 and 7 of the NGA without undue delay and with an eye toward greater certainty and predictability for all stakeholders.

I. Introduction

2. Climate change poses a severe threat to the nation's security, economy, environment, and to the health of individual citizens. Human-made greenhouse gas

(GHG) emissions, including carbon dioxide and methane, are the primary cause of climate change.[1] GHG emissions are released in large quantities through the production, transportation, and consumption of natural gas. Accordingly, to fulfill its statutory responsibilities, it is critical that the Commission consider and document how its authorization of infrastructure projects under the NGA, particularly natural gas transportation facilities, will affect emissions of GHGs.[2]

3. This policy statement describes Commission procedures for evaluating climate impacts under NEPA, both those caused by a project's contribution to climate change and the impacts of climate change on the project, and describes how the Commission will integrate climate considerations into its public interest determinations under the NGA. For purposes of assessing the appropriate level of NEPA review, Commission staff will apply the 100% utilization or "full burn" rate for the proposed project's emissions to determine whether to prepare an Environmental Impact Statement (EIS) or an environmental assessment (EA). Commission staff will proceed with the preparation of an EIS, if the proposed project may result in 100,000 metric tons per year of CO_2e or

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[1] INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, UNITED NATIONS, *Summary for Policymakers* of CLIMATE CHANGE 2021: THE PHYSICAL SCIENCE BASIS SPM-5 (Valerie Masson-Delmotte et al. eds.) (2021), https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM.pdf (IPCC Report).

[2] *See Sierra Club v. FERC*, 867 F.3d 1357, 1374 (D.C. Cir. 2017) (*Sabal Trail*) (requiring the Commission to consider the reasonably foreseeable GHG emissions resulting from natural gas projects).

more.[3] As further described below, the Commission believes this estimate is appropriate because it captures Commission projects that may result in incremental GHG emissions that may have a significant effect upon the human environment.[4] This approach is consistent with the overall goal of NEPA to require a "hard look" at adverse environmental impacts and assess whether those can be minimized or avoided.[5] To appropriately assess possible mitigation, as further explained below, the Commission will determine a project's reasonably foreseeable GHG emissions based on a projection of the amount of capacity that will be actually used (projected utilization rate), as opposed to assuming 100% utilization, and any other factors impacting the quantification of project emissions. The Commission's NEPA analysis will examine any proposed measures to reduce reasonably foreseeable emissions.

4. When considering under the NGA whether a project is in the public interest, the Commission considers a project's impacts on climate change, and, accordingly, will

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[3] Carbon dioxide equivalent is the combination of the emissions that contribute to climate change adjusted using each pollutant's global warming potential. This allows the Commission to aggregate all GHG emissions into a single value that accounts for each chemical's specific potential to trap heat in the atmosphere.

[4] *See, e.g.*, *Grand Canyon Trust v. FAA*, 290 F.3d 339, 340 (D.C. Cir. 2002) ("If *any* 'significant' environmental impacts might result from the proposed agency action[,] then an EIS must be prepared *before* agency action is taken." (quoting *Sierra Club v. Peterson*, 717 F.2d 1409, 1415 (D.C. Cir. 1983))); *Found. for N. Am. Wild Sheep v. U.S. Dep't of Agr.*, 681 F.2d 1172, 1178 (9th Cir. 1982) ("If substantial questions are raised whether a project may have a significant effect upon the human environment, an EIS must be prepared.").

[5] *See* 42 U.S.C. 4331(a); 4332(c).

consider proposals by the project sponsor to mitigate all or a portion of the project's climate change impacts, and the Commission may condition its authorization on the project sponsor further mitigating those impacts.

5. This policy statement does not establish binding rules and is intended to explain how the Commission will consider these issues when they arise.[6]

II. Background

A. GHG Emissions and Climate Change

6. Climate change is the variation in the Earth's climate (including temperature, precipitation, humidity, wind, and other meteorological variables) over time. Climate change is driven by accumulation of GHGs in the atmosphere due to the increased consumption of fossil fuels (e.g., coal, petroleum, and natural gas) since the early

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[6] Commissioner Danly's dissent claims that today's interim policy statement is "a substantive, binding rule that is subject to judicial review." Danly Dissent at P 46. This interim document is intended to provide all interested entities with guidance as to how the Commission will approach application under NGA sections 3 and 7. It does not "impose[] an obligation, den[y] a right, or fix[] some legal relationship." *Reliable Automatic Sprinkler Co. v. Consumer Prod. Safety Comm'n*, 324 F.3d 726, 731 (D.C. Cir. 2003). Parties that disagree with the approach outlined in the statement retain their full rights to litigate their concerns in any individual proceeding. *Cf. id.* ("Final agency action 'marks the consummation of the agency's decisionmaking process' and is 'one by which rights or obligations have been determined, or from which legal consequences will flow.') (quoting *Bennett v. Spear,* 520 U.S. 154, 178 (1997)). In addition, Commissioner Danly speculates that "no project sponsor will believe that mitigation is optional or that submitting an application exceeding the Interim Policy Statement's 100,000 tpy threshold without a mitigation proposal would be anything other than a waste of time and money." Danly Dissent PP 46-47. In response, we note only that the Commission will consider mitigation on a case-by-case basis and that we have not suggested that GHG emissions must be mitigated to insignificant levels in order for us to conclude that a proposed project is required by the public convenience and necessity or consistent with the public interest.

beginnings of the industrial age and accelerating in the mid- to late-20th century.[7] The GHGs produced by fossil-fuel combustion are carbon dioxide, methane, and nitrous oxide.

7. In 2017 and 2018, the U.S. Global Change Research Program[8] issued its Climate Science Special Report: Fourth National Climate Assessment, Volumes I and II.[9] This report and the recently released report by the Intergovernmental Panel on Climate Change, Climate Change 2021: The Physical Science Basis, state that climate change has resulted in a wide range of impacts across every region of the country and the globe. Those impacts extend beyond atmospheric climate change and include changes to water resources, agriculture, ecosystems, human health, and ocean systems.[10] According to the

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[7] IPCC Report at SPM-5. Other forces contribute to climate change, such as agriculture, forest clearing, and other anthropogenically driven sources.

[8] The U.S. Global Change Research Program is the leading U.S. scientific body on climate change. It comprises representatives from 13 federal departments and agencies and issues reports every 4 years that describe the state of the science relating to climate change and the effects of climate change on different regions of the United States and on various societal and environmental sectors, such as water resources, agriculture, energy use, and human health.

[9] U.S. GLOBAL CHANGE RESEARCH PROGRAM, CLIMATE SCIENCE SPECIAL REPORT, FOURTH NATIONAL CLIMATE ASSESSMENT | VOLUME I (Donald J. Wuebbles et al. eds) (2017), https://science2017.globalchange.gov/downloads/CSSR2017_FullReport.pdf; U.S. GLOBAL CHANGE RESEARCH PROGRAM, FOURTH NATIONAL CLIMATE ASSESSMENT, VOLUME II IMPACTS, RISKS, AND ADAPTATION IN THE UNITED STATES (David Reidmiller et al. eds.) (2018), https://nca2018.globalchange.gov/downloads/NCA4_2018_FullReport.pdf (USGCRP Report Volume II).

[10] IPCC Report at SPM-5 to SPM-10.

Fourth Assessment Report, the United States and the world are warming, global sea level is rising and oceans are acidifying, and certain weather events are becoming more frequent and more severe.[11] These impacts have accelerated throughout the end of the 20th century and into the 21st century.[12]

B. Council on Environmental Quality Guidance on Climate Change

8. In 2010, the Council on Environmental Quality (CEQ) issued its first draft guidance on how federal agencies can consider the effects of GHG emissions and climate change under NEPA.[13] CEQ revised the draft guidance in 2014,[14] and issued final guidance in 2016.[15] Throughout the guidance's evolution, CEQ advised agencies to quantify GHG emissions and to consider both the extent to which a proposed project's GHG emissions would contribute to climate change and how a changing climate may impact the proposed project. The 2016 guidance, however, explicitly declined to

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[11] USGCRP Report Volume II at 73-75.

[12] *See, e.g.*, USGCRP Report Volume II at 99 (describing accelerating flooding rates in Atlantic and Gulf Coast cities).

[13] CEQ, *Draft NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions* (Feb. 18, 2010), https://ceq.doe.gov/docs/ceq-regulations-and-guidance/20100218-nepa-consideration-effects-ghg-draft-guidance.pdf.

[14] Revised Draft Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in NEPA Reviews, 79 FR 77802 (Dec. 24, 2014).

[15] CEQ, *Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews* (Aug. 1, 2016), https://ceq.doe.gov/docs/ceq-regulations-and-guidance/nepa_final_ghg_guidance.pdf (2016 CEQ Guidance).

establish a quantity or threshold of GHGs for determining whether a proposed project will have a significant impact on climate.[16]

9. CEQ rescinded the 2016 guidance in April 2017, as directed by Executive Order 13783 *Promoting Energy Independence and Economic Growth*,[17] and issued revised draft guidance in June 2019.[18] In January 2021, Executive Order 13990 *Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis* revoked Executive Order 13783 and directed CEQ to rescind the 2019 draft guidance and to review, revise, and update the 2016 guidance.[19] CEQ has not yet issued an update to the 2016 guidance, but, in the interim, has directed agencies to consider all available tools and resources, including the 2016 guidance, in assessing GHG emissions and the climate change effects of proposed actions.[20]

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[16] 2016 CEQ Guidance at 9-10 ("This guidance does not establish any particular quantity of GHG emissions as 'significantly' affecting the quality of the human environment or give greater consideration to the effects of GHG emissions and climate change over other effects on the human environment.").

[17] Exec. Order No. 13783, 82 FR 16576 (Apr. 5, 2017).

[18] Draft National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions, 84 FR 30097 (June 26, 2019).

[19] Exec. Order No. 13990, 86 FR 7037 (Jan. 20, 2021).

[20] Notice of Rescission of Draft Guidance, 86 FR 10252 (Feb. 19, 2021).

C. Previous Commission Policy on Consideration of Climate Change Under NEPA

10. Commission staff has addressed climate change in some fashion in its NEPA documents for at least a decade.[21] Commission staff's NEPA documents have included direct GHG emission estimates from project construction (e.g., tailpipe emissions from construction equipment) and/or operation (e.g., fuel combustion at compressor stations and gas venting and leaks).[22] Starting in late 2016, the Commission began to conservatively estimate indirect downstream GHG emissions by assuming full combustion of the maximum annual volume of gas that could be transported by the project.[23] For indirect upstream, production-related GHG emissions, Commission orders during that time period relied on Department of Energy studies to calculate broad estimates.[24] For upstream impacts, the Commission generally indicated that these analyses were not required by NEPA because the Commission lacked detailed

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[21] For details on GHG analysis in the Commission's NEPA documents through April 2018, see *Certification of New Interstate Natural Gas Facilities*, 83 FR 18020, 163 FERC ¶ 61,042, at PP 44-50 (2018) (2018 NOI).

[22] *See, e.g.*, Environmental Assessment for the Philadelphia Lateral Expansion Project, Docket No. CP11-508-000, at 24 (Jan. 18, 2012) (construction emissions); Environmental Assessment for the Minisink Compressor Project, Docket No. CP11-515-000, at 29 (Feb. 29, 2012) (operation emissions).

[23] *See, e.g.*, *Columbia Gas Transmission, LLC*, 158 FERC ¶ 61,046, at P 120 (2017); *Tex. E. Transmission, LP*, 157 FERC ¶ 61,223, at P 41 (2016), *reh'g granted*, 161 FERC ¶ 61,226 (2017).

[24] *See, e.g.*, *Columbia Gas Transmission, LLC*, 158 FERC ¶ 61,046 at PP 116-119.

information about the precise source of the gas to be transported, but provided estimates for informational purposes.[25]

11. In 2017, the United States Court of Appeals for the District of Columbia Circuit (D.C. Circuit) in *Sierra Club v. FERC* (*Sabal Trail*)[26] found that downstream GHG emissions were an indirect effect of the Sabal Trail pipeline project and required the Commission to give a quantitative estimate of the downstream GHG emissions resulting from the burning of the natural gas to be transported by the pipeline or explain why the Commission could not do so, and to discuss the significance of these emissions.[27] On remand, the Commission compared the estimated downstream GHG emissions from the project to state and national GHG emission inventories.[28] However, the Commission concluded that it could not determine whether those downstream GHG emissions were significant and rejected the use of the Social Cost of Carbon (SCC) tool to inform the Commission's analysis.[29]

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[25] With respect to upstream emissions, the D.C. Circuit subsequently noted that the Commission does not violate NEPA in not considering upstream GHG emissions where there is no evidence to predict the number and location of additional wells that would be drilled as a result of a project. *Birckhead v. FERC*, 925 F.3d 510, 518 (D.C. Cir. 2019) (*Birckhead*).

[26] 867 F.3d 1357.

[27] *Id.* at 1374.

[28] *Fla. Se. Connection, LLC*, 164 FERC ¶ 61,099, at P 5 (2018).

[29] *Id.* No party petitioned for judicial review of the Commission's determination on remand.

12. In 2018, the Commission stated in *Dominion Transmission, Inc.*[30] that end use consumption of gas and upstream production of gas were generally not reasonably foreseeable or causally related to the project (no party had identified the specific end use of the gas) and thus the Commission was not required to consider upstream or downstream emissions as indirect impacts under NEPA.[31] The Commission stated it would continue to "analyze upstream and downstream environmental effects when those effects are sufficiently causally connected to and are reasonably foreseeable effects of the proposed action."[32] The Commission reiterated that without an accepted methodology it could not find whether a particular quantity of GHG emissions was significant.[33]

13. However, in *Birckhead*, the D.C. Circuit rejected the Commission's position that *Sabal Trail* is limited to the narrow facts of that case. While the court in *Birckhead* acknowledged that downstream emissions may not always be a foreseeable effect of natural gas projects, it rejected the notion that downstream GHG emissions are a reasonably foreseeable indirect effect of a natural gas project only if a specific end destination is identified.[34] The court further noted that the Commission should attempt to

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[30] 163 FERC ¶ 61,128 (2018), *pet. dismissed*, *Otsego 2000 v. FERC*, 767 F.App'x 19 (D.C. Cir. 2019) (unpublished opinion).

[31] *Id.* PP 41-44, 61-62.

[32] *Id.* P 44; *see also Tenn. Gas Pipeline Co., LLC*, 163 FERC ¶ 61,190, at PP 61-62 (2018).

[33] *Dominion Transmission, Inc.*, 163 FERC ¶ 61,128 at PP 67-70.

[34] *Birckhead*, 925 F.3d at 518-19.

obtain information on downstream uses to determine whether downstream GHG emissions are a reasonably foreseeable effect of the project.[35]

14. In 2021, in *Northern Natural Gas Co.*, the Commission explained that it had reconsidered its position that it was unable to assess the significance of a project's GHG emissions or those emissions' contribution to climate change.[36] The Commission found that that project's reasonably foreseeable GHG emissions—construction and operation emissions only, as the project proposed no new capacity—would not significantly contribute to climate change.[37] Later in 2021, the D.C. Circuit further criticized the Commission's stance prior to *Northern Natural Gas Co.* that it was unable to assess the significance of a project's GHG emissions or those emissions' contribution to climate change, holding that the Commission failed to appropriately analyze the significance of three natural gas projects' contribution to climate change using "theoretical approaches or research methods generally accepted in the scientific community," such as the SCC tool.[38]

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[35] *Id.* at 520.

[36] 174 FERC ¶ 61,189, at P 29 (2021).

[37] *Id.* PP 29-36.

[38] *Vecinos para el Bienestar de la Comunidad Costera v. FERC*, 6 F.4th 1321, 1328 (D.C. Cir. 2021) (*Vecinos)* (citing 40 CFR 1502.21(c), which requires an EIS to include an evaluation of impacts based upon theoretical approaches or research methods generally accepted in the scientific community where the information relevant to the reasonably foreseeable significant adverse impacts cannot be obtained because the means to obtain it are not known). The case is pending on remand with the Commission.

D. Certificate Policy Statement Notices of Inquiry

15. On April 19, 2018, the Commission issued a Notice of Inquiry (2018 NOI)[39] seeking information and stakeholder perspectives to help the Commission explore whether, and if so how, it should revise its approach for determining whether proposed projects are consistent with the public convenience and necessity under the currently effective policy statement on the certification of new interstate natural gas transportation facilities (Certificate Policy Statement).[40] The 2018 NOI included a background section discussing how the legal standards and historical context informed the creation of the Certificate Policy Statement in 1999, how the Commission's evaluations under the Certificate Policy Statement and under NEPA have evolved, and how changed circumstances since 1999 have required the present review.[41] Notably, the Commission sought input on whether, and if so how, the Commission should adjust its evaluation of the environmental impacts of a proposed project.

16. In response to the 2018 NOI, the Commission received more than 3,000 comments from stakeholders including landowners; tribal, federal, state, and local government officials; non-governmental organizations; consultants, academic institutions, and think

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[39] 2018 NOI, 163 FERC ¶ 61,042.

[40] *Certification of New Interstate Natural Gas Pipeline Facilities*, 88 FERC ¶ 61,227 (1999), *clarified*, 90 FERC ¶ 61,128, *further clarified*, 92 FERC ¶ 61,094 (2000). The Commission must determine whether a proposed natural gas project is or will be required by the present or future public convenience and necessity, as that standard is established in NGA section 7. 15 U.S.C. 717f.

[41] 2018 NOI, 163 FERC ¶ 61,042 at PP 5-50.

tanks; natural gas producers, Commission-regulated companies, local distribution companies, and industry trade organizations; electricity generators and utilities; and others. Many comments addressed GHG emissions.

17. On February 18, 2021, the Commission issued a new, refreshed Notice of Inquiry (2021 NOI),[42] seeking comments to build upon the existing record established by the 2018 NOI. The Commission posed several updated questions relating to GHG emissions, including asking: how the Commission could consider upstream impacts from natural gas production and downstream end-use impacts; how the Commission should determine the significance of a project's GHG emissions' contribution to climate change; whether the NGA, NEPA, or another federal statute authorize or mandate the use of the SCC analysis by the Commission; how the Commission could determine whether a proposed project's GHG emissions could be offset by reduced GHG emissions resulting from the project's operations; and how the Commission could impose GHG emission limits or mitigation to reduce the significance of impacts from a proposed project on climate change.[43]

18. With respect to determining significance, the 2021 NOI sought comment on (1) what type of metrics and models the Commission should consider in determining

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[42] *Certification of New Interstate Natural Gas Facilities*, 174 FERC ¶ 61,125 (2021).

[43] *Id.* P 17.

significance, (2) whether any level of emissions should be considered *de minimis*, and (3) how the SCC tool or other tools could factor into determining significance.[44]

19. The public comment period for the 2021 NOI closed on May 26, 2021.[45] The Commission received over 35,000 comments and approximately 150 unique comment letters from a wide range of stakeholders, as noted above.

20. Comments relevant to this policy statement are addressed in Section III below.

III. Statutory Authority/Obligations

A. NGA

21. Section 7 of the NGA authorizes the Commission to issue certificates of public convenience and necessity for the construction and operation of facilities transporting natural gas in interstate commerce.[46] The Commission does not have authority to regulate intrastate transportation facilities or other facilities that affect interstate transportation, such as those used for the production, gathering, or local distribution of natural gas. Congress did not displace state authority over such subjects.[47]

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[44] *Id.* (citations omitted).

[45] *See* Notice Extending Time for Comments, Docket No. PL18-1-000 (Mar. 31, 2021) (extending the original comment deadline from April 26, 2021, to May 26, 2021).

[46] 15 U.S.C. 717f.

[47] NGA section 1(b) states that Commission authority applies to interstate transportation of natural gas and sales for resale, "but shall not apply to any other transportation or sale of natural gas or to the local distribution of natural gas or to the facilities used for such distribution or to the production or gathering of natural gas." *Id.* 717(b).

22. Section 3(a) of the NGA provides for federal jurisdiction over the siting, construction, and operation of facilities used to import or export gas.[48] To date, the Commission has exercised section 3 authority to authorize: (1) LNG terminals located at the site of import or export and (2) the site and facilities at the place of import/export where a pipeline crosses an international border.[49] Additionally, NGA section 3(e) states that "[t]he Commission shall have the exclusive authority to approve or deny an application for the siting, construction, expansion, or operation of an LNG terminal."[50]

23. Both NGA sections 7 and 3 authorize the Commission to attach terms and conditions to its authorization.[51] Courts have interpreted these provisions broadly and

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[48] The 1977 Department of Energy Organization Act (42 U.S.C. 7151(b)) placed all section 3 jurisdiction under the Department of Energy. The Secretary of Energy subsequently delegated authority to the Commission to "[a]pprove or disapprove the construction and operation of particular facilities, the site at which such facilities shall be located, and with respect to natural gas that involves the construction of new domestic facilities, the place of entry for imports or exit for exports." Department of Energy Delegation Order No. 00-004.00A, section 1.21A (May 16, 2006).

[49] In addition to pipelines that cross the international border with Canada and Mexico, the Commission has also asserted authority over the portions of subsea pipelines planned to cross the "border" of the Exclusive Economic Zone between the U.S. and the Bahamas. *See, e.g.*, *Tractebel Calypso Pipeline, LLC*, 106 FERC ¶ 61,273 (2004), *vacated*, *Calypso U.S. Pipeline, LLC*,137 FERC ¶ 61,098 (2011).

[50] 15 U.S.C. 717b(e)(1).

[51] *Id.* 717f(e) ("The Commission shall have the power to attach to the issuance of the certificate and to the exercise of the rights granted thereunder such reasonable terms and conditions as the public convenience and necessity may require."); *see also id.* 717b(a) (stating that the Commission may "grant such application, in whole or in part, with such modification and upon such terms and conditions as the Commission may find necessary or appropriate"); *id.* 717b(e)(3)(A) (providing the authority to approve an

given the Commission latitude in deciding what types of mitigation to require.[52] In issuing authorizations, the Commission has required project sponsors to comply with conditions to prevent or mitigate project impacts on environmental resources.[53]

B. NEPA

24. NEPA and its implementing regulations require agencies, before taking or authorizing a major federal action that may significantly affect the quality of the human environment, to take a "hard look" at the environmental consequences of the proposed action and disclose their analyses to the public by preparing an EIS.[54] Alternatively, agencies can first prepare an Environmental Assessment (EA) for a proposed action that is not likely to have significant effects or when the significance is unknown, to determine whether an EIS is necessary for a particular action.[55] Depending on the outcome of the EA, agencies can either prepare an EIS or issue a finding of no significant impact.[56]

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application for an LNG Terminal, "in whole or part, with such modifications and upon such terms and conditions as the Commission find[s] necessary or appropriate").

[52] *See Twp. of Bordentown v. FERC*, 903 F.3d 234, 261 n.15 (3d Cir. 2018) (concluding that the Commission's authority to enforce any required remediation is amply supported by provisions of the NGA); *Sabal Trail*, 867 F.3d at 1374 (holding that the Commission has legal authority to mitigate reasonably foreseeable indirect effects).

[53] *See, e.g.*, *Atl. Coast Pipeline, LLC*, 161 FERC ¶ 61,042, at app. A (2017), *on reh'g*, 164 FERC ¶ 61,100 (2018).

[54] 42 U.S.C. 4332(2)(C); 40 CFR 1502.3; *see Balt. Gas & Elec. Co. v. Nat. Res. Def. Council, Inc.*, 462 U.S. 87, 97 (1983) (discussing the twin aims of NEPA).

[55] 40 CFR 1501.5, 1508.1(h).

[56] 40 CFR 1508.1(*l*) (defining a finding of no significant impact as a document that briefly presents the reasons why an action that is not otherwise categorically

25. Previous CEQ regulations and court cases have examined a proposed project's "context" and "intensity" or the severity of the impact as factors for determining what constitutes a significant effect.[57] In assessing significance, Commission staff considers, for each resource, the duration of the impact as well as the geographic, biological, or social context in which the effects would occur, and the intensity (e.g. severity) of the impact.[58] This analysis may draw on both qualitative and quantitative information.[59] Using both types of data, the Commission routinely makes significance determinations for impacts to various resources from natural gas projects.[60]

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excluded under § 1501.4 will not have a significant effect on the human environment and for which an EIS will therefore not be prepared).

[57] *Vieux Carre Prop. Owners, Residents & Assocs., Inc. v. Pierce*, 719 F.2d 1272, 1279 (5th Cir. 1983) (stating there is "no hard and fast definition of 'significant'" but considering the proposed project's context in assessing whether a finding of no significance impact was reasonable). The regulations implementing NEPA previously addressed the term "significantly," but that provision was removed by amendments effective September 14, 2020 and replaced with 40 CFR 1501.3(b). "Whether a project has significant environmental impacts, thus triggering the need to produce an EIS, depends on its 'context' (region, locality) and 'intensity' ('severity of impact')." *Nat'l Parks Conservation Ass'n v. Semonite,* 916 F.3d 1075, 1082 (D.C. Cir.) (quoting 40 CFR 1508.27 (2018)), *amended in part by* 925 F.3d 500 (D.C. Cir. 2019). The new 40 CFR 1501.3(b) calls for agencies to consider the "potentially affected environment and degree of the effects of the action" and to consider the short-term, long-term, beneficial, and adverse effects, and effects on public safety and those that would violate laws.

[58] *See, e.g.* Final EIS for the Alaska LNG Project, Docket No. CP17-178-000, at 4-1.

[59] *See Sabal Trail*, 867 F.3d at 1371 ("The EIS also gave the public and agency decisionmakers the qualitative and quantitative tools they needed to make an informed choice for themselves. NEPA requires nothing more.").

[60] *See, e.g.*, *Transcon. Gas Pipe Line Co., LLC*, 158 FERC ¶ 61,125, at P 79 (describing how the final EIS for the Atlantic Sunrise Project concluded that the project

26. In evaluating whether an impact is significant, the Commission determines whether "it would result in a substantial adverse change in the physical environment."[61] In making that determination, the Commission considers available evidence, giving that evidence such weight as it deems appropriate using its experience, judgment, and expertise.[62] Notably, NEPA does not require that the studies, metrics, and models on which an agency relies be universally accepted or otherwise uncontested.[63] Instead,

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would result in adverse impacts that would be mitigated to less than significant levels), *order on reh'g*, 161 FERC ¶ 61,250 (2017), *petition denied sub nom.*, *Allegheny Def. Project v. FERC*, 964 F.3d 1 (D.C. Cir. 2020); *see also infra* note 61; *see also Magnum Gas Storage, LLC*, 134 FERC ¶ 61,197, at P 115 (2011) (explaining that "'significantly,' as used in NEPA, requires considerations of both context and intensity, which varies with the setting of each proposed action.").

[61] *N. Nat. Gas Co.*, 174 FERC ¶ 61,189, at P 32 (citing *Magnum Gas Storage, LLC*, 134 FERC ¶ 61,197 at P 114 ("[A]n impact was considered to be significant if it would result in a substantial adverse change in the physical environment or natural condition and could not be mitigated to less-than-significant level.")).

[62] *See, e.g.*, *Tex. LNG Brownsville LLC*, 169 FERC ¶ 61,130, at P 56 (2019) ("Due to the relatively undeveloped nature of the project area, the visual sensitivity of nearby recreation areas, and the lack of feasible visual screening measures, the Final EIS concluded that the project would result in a significant impact on visual resources when viewed from the adjacent Laguna Atascosa National Wildlife Refuge."), *order on reh'g*, 170 FERC ¶ 61,139, at P 32 (2020), *remanded on other grounds*, *Vecinos*, 6 F.4th 1321; Final EIS for the Alaska LNG Project, Docket No. CP17-178-000, at ES-4 (Mar. 2020) (explaining the significant, long-term to permanent project impacts from the loss of thousands of acres of permafrost from construction that would permanently alter hydrology and vegetation within and past the project footprint).

[63] *Sierra Club v. U.S. Dep't of Transp.*, 753 F.2d 120, 128 (D.C. Cir. 1985) ("It is clearly within the expertise and discretion of the agency to determine proper testing methods."); *see also Hughes River Watershed Conservancy v. Johnson*, 165 F.3d 283, 289 (4th Cir. 1999) ("Agencies are entitled to select their own methodology as long as that methodology is reasonable. The reviewing court must give deference to an agency's decision.").

NEPA permits agencies to rely on the best available evidence, quantitative and qualitative, even where that evidence has certain limitations when assessing the significance of their actions,[64] and an agency's determination is entitled to deference.[65]

27. In addition to determining whether its actions may significantly affect the quality of the human environment, NEPA requires the Commission to consider whether there are steps that could be taken to mitigate any adverse environmental consequences.[66] While NEPA is a procedural statute and does not require a federal agency to reject a proposed project with significant adverse effects or take action to mitigate adverse effects,[67] an

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[64] *See Spiller v. White*, 352 F.3d 235, 244 n.5 (5th Cir. 2003) (rejecting petitioner's contention that the significance determination must be objective, factual, and quantitative and should not involve any qualitative judgment calls).

[65] See *La. Crawfish Producers Ass'n-W. v. Rowan*, 463 F.3d 352, 355 (5th Cir. 2006) (NEPA-related decisions are accorded a considerable degree of deference); *Spiller v. White*, 352 F.3d at 244 n.5 ("We should note that our deference to the [l]ead [a]gencies['] fact-finding and conclusions includes deference to their judgment as to whether any particular environmental impact of the proposed pipeline rises to the level of significance"); *Powder River Basin Res. Council v. U.S. Bureau of Land Mgmt.*, 37 F.Supp. 3d 59, 74 (D.D.C. 2014) (agencies are afforded discretion to use their expertise to determine the best method to evaluate the significance of an impact to a particular resource, so long as that method is reasonable).

[66] *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 351 (1989) ("To be sure, one important ingredient of an EIS is the discussion of steps that can be taken to mitigate adverse environmental consequences.").

[67] *Id.* at 352 ("There is a fundamental distinction, however, between a requirement that mitigation be discussed in sufficient detail to ensure that environmental consequences have been fairly evaluated, on the one hand, and a substantive requirement that a complete mitigation plan be actually formulated and adopted, on the other.").

agency may require mitigation of impacts as a condition of its permitting or approval,[68] and the Commission routinely does so.[69]

IV. Discussion

A. Quantifying GHG Emissions and Determining Significance

28. Consistent with CEQ regulations,[70] the Commission will quantify a project's GHG emissions that are reasonably foreseeable and have a reasonably close causal relationship to the proposed action, including those effects that occur at the same time and place as the proposed action and effects that are later in time or farther removed in distance from the proposed action. This will include GHG emissions resulting from construction and

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[68] *Final Guidance for Federal Departments and Agencies on the Appropriate Use of Mitigation and Monitoring and Clarifying the Appropriate use of Mitigated Findings of No Significant Impact*, 76 FR 3843, 3848 (Jan. 21, 2011).

[69] *See, e.g.*, *Columbia Gas Transmission, LLC*, 170 FERC ¶ 61,045, at P 66, app. (2020) (conditioning certificate authority on site-specific mitigation measures when crossing abandoned mine lands, including the management and disposal of contaminated groundwater, and mitigation measures for acid mine drainage); *PennEast Pipeline Co., LLC*, 170 FERC ¶ 61,198, at PP 29-30, app. A (2020) (conditioning certificate authority on mitigation of construction impacts on karst features); *Atl. Coast Pipeline, LLC*, 161 FERC ¶ 61,042 at app. A (conditioning certificate authority on the mitigation of construction impacts on karst features and on a nearby inn and mitigation of impacts from the discovery of invasive aquatic species during construction); *Port Arthur LNG, LP*, 115 FERC ¶ 61,344, at PP 68-71, app. A (conditioning sections 3 and 7 authority on the mitigation of construction impacts on aquatic resources and wetlands), *order on reh'g*, 117 FERC ¶ 61,213 (2006), *vacated*, 136 FERC ¶ 61,196 (2011).

[70] 40 CFR 1508.1(g) (defining the effects or impacts that must be considered when conducting a review under NEPA).

operation of the project[71] as well as, in most cases, GHG emissions resulting from the downstream combustion of transported gas.[72]

29. The Commission will consider all evidence in the record relating to a project's estimated GHG emissions,[73] utilization rate, or offsets: estimates presented by project sponsors, as well as opposing evidence from other parties. Going forward, in determining the level of GHG emissions attributed to a project, the Commission will estimate a project's GHG emissions based on a projection of what amount of project capacity will be actually used (projected utilization rate), as opposed to assuming 100% utilization.[74] The Commission will also consider evidence of factors expected to reduce or offset the estimated direct or reasonably foreseeable downstream emissions of the project.

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[71] Emissions quantification also includes loss of carbon storage/sinks through land use conversions, forest clearing, wetland conversions, etc.

[72] As discussed below, the vast majority of all natural gas consumed in the United States is combusted. *See infra* note 101.

[73] Additionally, the Commission will consider evidence regarding whether certain emissions associated with a proposed project, such as upstream and downstream emissions, are reasonably foreseeable.

[74] *See Certification of New Interstate Natural Gas Pipeline Facilities*, 168 FERC ¶ 61,107, at P 55 (2022) (explaining that project sponsors are encouraged to provide the Commission with information on estimated utilization rates and the intended end use of gas to demonstrate project need).

1. Categories of Emissions

30. CEQ regulations implementing NEPA require agencies to consider effects or impacts that "are reasonably foreseeable and have a reasonably close causal relationship to the proposed action . . . including those effects that occur at the same time and place as the proposed action . . . and may include effects that are later in time or farther removed in distance for the proposed action . . . ."[75] A "but for" causal relationship is insufficient to make an agency responsible for a particular effect,[76] and effects should not be considered if they are the "product of a lengthy causal chain."[77] Further, effects to be considered do not include those that the agency has no ability to prevent due to its limited statutory authority or would occur regardless of the proposed action.[78] Regarding reasonable foreseeability, courts have found that an impact is reasonably foreseeable if it is "sufficiently likely to occur that a person of ordinary prudence would take it into

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[75] 40 CFR 1508.1(g).

[76] *Id.* § 1508.1(g)(2); *see also U.S. Dep't of Transp. v. Pub. Citizen*, 541 U.S. 752, 767 (2004) (*Pub. Citizen*) (finding that "NEPA requires 'a reasonably close causal relationship' between the environmental effect and the alleged cause" in order "to make an agency responsible for a particular effect under NEPA" (quoting *Metro. Edison Co. v. People Against Nuclear Energy*, 460 U.S. 766, 774 (1983) (*Metro. Edison Co.*))).

[77] 40 CFR 1508.1(g)(2); *see also Metro. Edison Co.*, 460 U.S. at 774 (finding that "[s]ome effects that are 'caused by' a change in the physical environment in the sense of 'but for' causation," will not fall within NEPA if "the causal chain is too attenuated").

[78] 40 CFR 1508.1(g)(2); *see also Pub. Citizen*, 541 U.S. at 770 ("[W]here an agency has no ability to prevent a certain effect due to its limited statutory authority over the relevant actions, the agency cannot be considered a legally relevant 'cause' of the effect.").

account in reaching a decision."[79] Although courts have held that NEPA requires "reasonable forecasting,"[80] an agency "is not required to engage in speculative analysis"[81] or "to do the impractical, if not enough information is available to permit meaningful consideration."[82]

31. As discussed below, the Commission proposes to:

- Consider direct emissions of a project a reasonably foreseeable effect;
- Find that an NGA section 3 export facility project is not the legally relevant cause of upstream and downstream emissions;[83]
- Consider on a case-by-case basis whether downstream emissions are a reasonably foreseeable effect of an NGA section 7 interstate project; and
- Consider on a case-by-case basis whether upstream emissions are a reasonably foreseeable effect of an NGA 7 project.

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[79] *EarthReports, Inc. v. FERC*, 828 F.3d 949, 955 (D.C. Cir. 2016) (citations omitted); *see also Sierra Club v. Marsh*, 976 F.2d 763, 767 (1st Cir. 1992).

[80] *N. Plains Res. Council, Inc. v. Surface Transp. Bd.*, 668 F.3d 1067, 1079 (9th Cir. 2011) (quoting *Selkirk Conservation All. v. Forsgren*, 336 F.3d 944, 962 (9th Cir. 2003)).

[81] *Id.* at 1078.

[82] *Id.* (quoting *Envtl. Prot. Info. Ctr. v. U.S. Forest Serv.*, 451 F.3d 1005, 1014 (9th Cir. 2006)).

[83] *EarthReports, Inc. v. FERC*, 828 F.3d at 955 (citing *Sierra Club v. FERC*, 827 F.3d 36, 47, 59, 68 (D.C. Cir. 2016) (*Freeport*).

a. Direct Emissions

32. Several commenters assert that the Commission must consider fugitive emissions from the transportation of gas.[84] New Jersey Conservation Foundation, Sabin Center for Climate Change Law (Sabin Center), The Watershed Institute, Clean Air Council, PennFuture, and New Jersey League of Conservation Voters (collectively, New Jersey Conservation Foundation) argue that natural gas leakage from both pipeline operation and natural gas production is worse than combustion because methane has a higher global warming potential than carbon dioxide.[85]

33. As the Commission has long held, direct GHG emissions from the project's short-term construction[86] and long-term operational activities[87] are an effect of the proposed project. Under current Commission regulations, the project sponsor provides an estimate of construction emissions and an estimate of the project's potential operational emissions, including fugitive emissions from both pipeline and aboveground facilities, in its application for Commission authorization.[88]

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[84] *See, e.g.*, Egan Millard 2021 Comments at 3; New Jersey Conservation Foundation 2021 Comments at 21; Shayna Gleason 2021 Comments at 2.

[85] New Jersey Conservation Foundation 2021 Comments at 21.

[86] Construction emissions include emissions from gasoline- and diesel-powered construction equipment.

[87] Operational emissions include emissions from combustion units at compressor stations and fugitive leaks from compressor stations, meter/valve stations, and the pipeline.

[88] The project sponsor provides emissions information in Resource Report No. 9. 18 CFR 380.12(k). Operational emissions are also estimated in the project's air permit

b. Downstream Emissions

34. Some commenters argue that the Commission must consider the downstream emissions of natural gas projects,[89] including fugitive emissions.[90] In contrast, other commenters generally assert that the Commission should not consider downstream emissions, or at most, should only do a qualitative assessment of downstream emissions, because they are not reasonably foreseeable impacts or do not have a close causal relationship under NEPA to gas transportation.[91]

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application, which is typically submitted to the state agency with delegated Clean Air Act authority. Further, the Commission's guidance manual for NGA certificate applications instructs project sponsors to provide the GHGs in tons per year for the construction and operation of the proposed project. *See* Guidance Manual for Environmental Report Preparation for Applications Filed under the NGA, Volume I, at 4-123, 4-125 to 4-127 (Guidance Manual).

[89] *See, e.g.*, Food and Water Watch 2021 Comments at 1; New Jersey Conservation Foundation 2021 Comments at 19; Attorneys General of Massachusetts, Illinois, Maryland, New Jersey, Rhode Island, Washington, and the District of Columbia (Attorneys General of Massachusetts et al.) 2018 Comments at 12-17.

[90] For example, the Massachusetts PipeLine Awareness Network states that the Commission should consider fugitive emissions from the distribution and burning of transported gas. Massachusetts PipeLine Awareness Network 2021 Comments at 2; *see also, e.g.*, Egan Millard 2021 Comments at 3; Shayna Gleason 2021 Comments at 2.

[91] *See, e.g.*, American Petroleum Institute (API) Technical Conference Comments at 3-5 (stating the Commission and developers cannot accurately forecast downstream emissions due to lack of knowledge of the end use of the gas, variability in utilization rates and regulatory requirements, and unpredictable changes in supply and demand, among other factors); Boardwalk Pipeline Partners LP (Boardwalk) Technical Conference Comments at 21; Enbridge Gas Pipelines (Enbridge) Technical Conference Comments at 11, 25-26; Interstate Natural Gas Association of America (INGAA) 2021 Comments at 58-60; The Williams Companies, Inc. (Williams) 2021 Comments at 37-38; Natural Gas Supply Association (NGSA) 2018 Comments at 15-16.

35. As discussed above, in August 2017, the D.C. Circuit issued *Sabal Trail*, which involved a greenfield pipeline project that would deliver all gas transported by the project to specific gas-fired generating plants. The D.C. Circuit found that downstream emissions from the use of the transported natural gas were an indirect, reasonably foreseeable effect of the proposed pipeline and that in the circumstances of that case—where the vast majority of throughput on the proposed project was destined for a limited number of specifically identified electric generation facilities—the downstream GHG emissions could be reasonably quantified by the Commission.[92]

36. The D.C. Circuit reiterated this determination in two subsequent cases. First, in *Birckhead*, the court rejected the claim that downstream emissions are only a foreseeable effect in factual circumstances akin to *Sabal Trail*, i.e., where all transported gas will be burned at specifically identified destinations, but also rejected the argument that downstream emissions are always a foreseeable effect of a natural gas certificate project.[93] Then, in *Allegheny Defense Project v. FERC*,[94] the court stated that the

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[92] The court concluded "that the EIS for the Southeast Market Project should have either given a quantitative estimate of the downstream greenhouse emissions that will result from burning the natural gas that the pipelines will transport or explained more specifically why it could not have done so." *Sabal Trail*, 867 F.3d at 1374.

[93] *Birckhead*, 925 F.3d at 518-20 (criticizing the Commission for not attempting to obtain data on downstream uses).

[94] 932 F.3d 940 (D.C. Cir. 2019).

downstream emissions of a project designed to deliver gas into large interstate pipeline systems, which in turn deliver gas to 16 states, are an indirect effect of the project.[95]

37. INGAA and others read the Supreme Court's *Public Citizen* decision as requiring an agency to consider an environmental effect only when the agency has the authority to control the outcome and note that the Commission has no authority to regulate the end use (or production) of natural gas.[96] INGAA states that attempting to regulate downstream (or upstream) activities would invade the jurisdiction of other regulators, that most projects will not result in reasonably foreseeable downstream GHG emissions like those in *Sabal Trail,* and thus, downstream emissions should only be considered on a case-by-case basis.[97] INGAA suggests the Commission look for guidance to *Center for Biological Diversity v. U.S. Army Corps of Engineers*,[98] which criticizes *Sabal Trail* as "breezing past . . . statutory limits and precedents . . . clarifying what effects are cognizable under NEPA."[99]

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[95] *Id.* at 945-46.

[96] *See, e.g.*, INGAA 2021 Comments at 50-51.

[97] INGAA 2021 Comments at 49-51, 57; *see also* INGAA Technical Conference Comments at 14 (adding that NEPA's requirements would exclude downstream emissions occurring after a "long and attenuated chain of intermediate causal factors, as when natural gas is transported to an interconnect for further shipment on the interstate grid, eventually reaching end-use consumers only through a long intermediate path").

[98] 941 F.3d 1288 (11th Cir. 2019) (*Center for Biological Diversity*).

[99] *Id.* at 1300 (citing *Pub. Citizen*, 541 U.S. 752 and *Metro. Edison Co.*, 460 U.S. 766).

38. Given that data show that the vast majority of consumed gas is ultimately combusted,[100] there appears to be a substantial likelihood of GHG emissions from the end-use combustion of transported gas as a result of a natural gas project proposed under NGA section 7.[101] However, as contemplated by the court in *Birckhead*, there may be circumstances where downstream emissions are not a foreseeable effect of an authorized project, and the court stated that each project must be analyzed on a case-by-case basis.[102] Accordingly, project sponsors may submit any evidence they believe indicates that downstream emissions are not a reasonably foreseeable effect of a proposed project.

39. We disagree with commenters' assertions that *Public Citizen* prohibits the Commission from considering downstream GHG emissions. The question is not whether the Commission has regulatory authority over downstream emissions. Rather, as the *Sabal Trail* court reasoned in applying *Public Citizen*, the Commission "has no obligation to gather or consider environmental information [only] if it has no statutory authority *to*

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[100] U.S. Energy Info. Admin., *December 2021 Monthly Energy Review* 24, 101 (2021) (reporting that, in 2020, 1,036 Bcf of natural gas had a non-combustion use compared to 30,476 Bcf of total consumption), https://www.eia.gov/totalenergy/data/monthly/pdf/mer.pdf; *see also* Jayni Hein et al., Institute for Policy Integrity, *Pipeline Approvals and Greenhouse Gas Emissions* 25 (2019) (explaining that, in 2017, 97% of all natural gas consumed was combusted).

[101] *See Birckhead*, 925 F.3d at 518; *Sabal Trail*, 867 F.3d at 1371-72.

[102] *Birckhead*, 925 F.3d at 518-19 (rejecting, in *dicta*, that downstream emissions are always a foreseeable effect of a proposed certificate project).

act on that information."[103] Because the Commission can reject a section 7 certificate based on the project's environmental impacts, including GHG emissions, the court held that the Commission was required to consider downstream emissions resulting from the Sabal Trail project's construction.[104] For section 7 projects—unlike section 3 projects, described below—there is no independent decision, such as the DOE authorization critical in *Freeport*, to "break the NEPA causal" chain.[105] Accordingly, the Commission's authorization for section 7 projects is a "legally relevant cause" of the emissions, meeting *Public Citizen*'s direction that "NEPA requires 'a reasonably close causal relationship' between the environmental effect and the alleged cause," analogous to the "familiar doctrine of proximate cause from tort law."[106]

40. The Commission finds this and subsequent direction from the D.C. Circuit more instructive than *Center for Biological Diversity*, which determined that a specific effect was too tenuous to be considered in analysis of a U.S. Army Corps of Engineers discharge permit for mining activities under the Clean Water Act.[107]

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[103] *Sabal Trail*, 867 F.3d at 1372-73 (emphasis in original) (explaining *Pub. Citizen*, 541 U.S. 752).

[104] *See id.* at 1373 ("Because FERC could deny a pipeline certificate on the ground that the pipeline would be too harmful to the environment, the agency is a 'legally relevant cause' of the direct and indirect environmental effects of pipelines it approves." (quoting *Freeport*, 827 F.3d at 47).

[105] *Freeport*, 827 F.3d at 47.

[106] *Pub. Citizen*, 541 U.S. at 767 (quoting *Metro. Edison Co.*, 460 U.S. at 774).

[107] *See Center for Biological Diversity*, 941 F.3d at 1292 (describing whether the U.S. Army Corps of Engineers legally declined to address, in issuing discharge permits

41. However, for proposed export projects under NGA section 3, the Commission will not consider downstream GHG emissions an effect requiring analysis under NEPA regulations. The Department of Energy, not the Commission, has sole authority to license and consider the environmental impacts of the export of any natural gas.[108] As courts have explained, the Commission need not consider the effects of downstream transportation, consumption, or combustion of exported gas because the Department of Energy's "independent decision to allow exports . . . breaks the NEPA causal chain and absolves the Commission of responsibility to include [these considerations] in its NEPA analysis."[109]

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for phosphate mining, the effects of a radioactive byproduct of fertilizer production (phosphogypsum), where the phosphogypsum is neither a byproduct of dredging and filling or phosphate mining or beneficiation). The court criticized the reasoning in *Sabal Trail* but also observed that the "causal relationship between the agency action and the putative downstream effect was much closer [in *Sabal Trail*] than it is here" and that the Commission's scope of statutory authority is "much broader" than that of the U.S. Army Corps of Engineers. *Id.* at 1299-1300.

[108] *Freeport*, 827 F.3d at 47 (holding that the Commission does not have to address the indirect effects of the anticipated export of natural gas because the Department of Energy, not the Commission, has sole authority to license and consider the environmental impacts of the export of any natural gas going through LNG facilities); *Freeport*, 827 F.3d at 62-63 (same); *EarthReports, Inc. v. FERC*, 828 F.3d at 956 (same); *Sabal Trail*, 867 F.3d at 1372 (explaining *Freeport*).

[109] *Freeport*, 827 F.3d at 48.

c. Upstream Emissions

42. Some commenters state that the Commission must consider the upstream GHG emissions of natural gas projects, including fugitive emissions from production,[110] to assess the project's total impact on climate change.[111] Other commenters argue that upstream emissions are not a reasonably foreseeable effect of a natural gas transportation project, and therefore should not be considered by the Commission.[112] Some commenters focus on how to obtain sufficient information to account for upstream GHG emissions. For example, EPA recommends that the Commission require project sponsors to provide available information on reasonably foreseeable induced production demand. EPA states that environmental documents under NEPA should disclose this information as well as items such as the proposal's regionally known hydrocarbon accumulations and a decline curve analysis to allow for appropriate regional and local impact analysis.[113]

43. In various NGA section 7 proceedings, the Commission has considered upstream emissions on a case-by-case basis—sometimes acknowledging it is difficult to quantify

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[110] *See, e.g.*, Egan Millard 2021 Comments at 3; Shayna Gleason 2021 Comments at 2.

[111] *See, e.g.*, Institute for Policy Integrity at New York University School of Law (Policy Integrity) Technical Conference Comments at 17; Food and Water Watch 2021 Comments at 1; New Jersey Conservation Foundation 2021 Comments at 19.

[112] *See, e.g.*, Boardwalk Technical Conference Comments at 21; Enbridge Technical Conference Comments at 11, 25-26; TC Energy Corporation (TC Energy) Technical Conference Comments at 5; Williams Technical Conference Comments at 4; INGAA 2021 Comments at 56-57; Williams 2021 Comments at 37-38.

[113] EPA 2021 Comments at 5.

upstream emissions due to several unknown factors, including the location of the supply source and whether transported gas will come from new or existing production.[114] The Commission will continue to consider on a case-by-case basis whether the environmental effects resulting from natural gas production are either likely caused by a proposed NGA section 7 project or reasonably foreseeable consequences of our approval of such projects. To the extent known, project sponsors are encouraged to submit information on the reasonably foreseeable upstream impacts caused by the project or an explanation as to why there are none for Commission consideration.

2. Calculating GHG Emissions

44. To calculate operational emissions, project sponsors should continue to follow the existing guidance outlined in section 4.9.1.3 of the Commission's Guidance Manual for Environmental Report Preparation for Applications Filed under the NGA.[115] However, under this policy statement, for purposes of assessing the impact of a project's GHG

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[114] *See Birckhead*, 925 F.3d at 516-18. *See, e.g.*, *Double E Pipeline, LLC*, 173 FERC ¶ 61,074, at P 97 (2020); *Cent. N.Y. Oil & Gas Co., LLC*, 137 FERC ¶ 61,121, at PP 81-101 (2011), *order on reh'g*, 138 FERC ¶ 61,104, at PP 33-49 (2012), *petition for review dismissed sub nom.*, *Coal. for Responsible Growth v. FERC*, 485 F.App'x 472, 474-75 (2d Cir. 2012) (unpublished opinion); *see also Adelphia Gateway, LLC*, 169 FERC ¶ 61,220, at P 243 (2019), *order on reh'g*, 171 FERC ¶ 61,049, at P 89 (2020).

[115] We note that thresholds for Clean Air Act and state air permits are typically based on the regulated source's potential to emit, or the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design, rather than its actual emissions, and that air permits themselves are expressed in potential to emit. *See* 40 CFR 70.2. This policy statement does not apply to any other air pollutants than GHGs. For all other air pollutants, we will continue to evaluate a project's air quality impacts based on its potential to emit.

emissions on climate change, the Commission will consider operational GHG emissions calculated based on a projected utilization rate for the project, as described below.[116]

45. Additionally, the Commission recognizes that there may be other factors that might serve to reduce a proposed project's climate impacts. For example, the installation of emission-reduction technology or purchase of offsets by downstream users would reduce the impacts. Thus, to enable the Commission's use of the best estimate of a project's GHG emissions, project sponsors are encouraged to calculate project GHG emissions using a projected utilization rate and submit evidence of any other factors that might impact a project's net emissions such as the factors identified by commenters below.

46. Commenters recommend that the Commission consider factors that might impact a project's net emissions, such as (1) whether the transported gas will phase out use of a more carbon-intensive energy source, like coal or fuel oil, and will prevent the use of more carbon-intensive energy sources in the future; (2) whether the pipeline will transport gas that would otherwise be transported by vehicles, thereby reducing the emissions from transporting the gas; (3) whether the proposed project will transport gas volumes that would have otherwise been delivered to the same consumers through a different pipeline or may ultimately end up transporting fuel blends including renewable natural gas or hydrogen; (4) whether the project sponsor will purchase offsets to counter project emissions; or (5) whether the project may be backed by a local distribution

[116] *See infra* section III.A.2.a.

company serving customer demand in states with established emissions caps.[117] INGAA states that in the absence of reliable and verifiable predictive models to the contrary, the requirement of reasonable foreseeability arguably dictates that the Commission cannot adopt any default assumption that a natural gas infrastructure project will increase (rather than decrease, or leave unchanged) net global GHG emissions, and that at minimum, the Commission would have to provide a rational justification for any such assumption.[118] By contrast, New Jersey Conservation Foundation and others contend that the

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[117] *See, e.g.*, American Gas Association (AGA) Technical Conference Comments at 28, 40; API Technical Conference Comments at 3; Boardwalk Technical Conference Comments at 23 (stating that the Commission should rely on local distribution companies' air permits to determine GHG emissions); Enbridge Technical Conference Comments at 31-34; Hon. Joseph T. Kelliher Technical Conference Comments at 5-6 (Commissioner Kelliher, Principal at Three Acorns, was a panelist at the GHG Technical Conference on Panel 1.); INGAA Technical Conference Comments at 17-18 (suggesting the net emissions analysis must be undertaken on a global level); Kinder Morgan Entities (Kinder Morgan) Technical Conference Comments at 12-15; National Grid Gas Companies Technical Conference Comments at 3-7 (describing the Distributed Infrastructure Solution that it has developed in coordination with the State of New York); Williams Technical Conference Comments at 7-8; Charles River Associates 2021 Comments at 4-5; Ohio Environmental Council 2021 Comments at 3. *See* Environmental Assessment for the Iroquois Gas Transmission System, L.P. (Iroquois) Enhancement by Compression Project, Docket No. CP20-48-000, at B-110 (Sept. 30, 2020) (citing Iroquois' end-use GHG analysis that projected greater GHG emissions if the project was not built under scenarios where the energy needs of all new buildings are met by fuel oil as opposed to gas supplied by the project). One industrial end user expresses concern about the potential of integrating renewable natural gas due to concerns about pipeline integrity or increased costs. American Forest and Paper Association and Process Gas Consumers Group (collectively, American Forest) Technical Conference Comments at 13-14.

[118] INGAA Technical Conference Comments at 19.

Commission should consider whether the project may be displacing renewable energy sources, thereby increasing GHG emissions.[119]

47. INGAA and other commenters strongly urge the Commission to calculate a project's downstream emissions, if at all, based on the likely utilization rate of the proposed project, instead of relying on a full-burn estimate.[120]

48. Conversely, New Jersey Conservation Foundation and others argue the Commission must calculate direct, downstream, and upstream GHG emissions by assuming the maximum authorized operating conditions, unless, some add, the project sponsor can demonstrate otherwise.[121] Further, other commenters propose their own

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[119] *See, e.g.*, New Jersey Conservation Foundation 2021 Comments at 23.

[120] *See, e.g.*, Enbridge Technical Conference Comments at 12, 29-30; Hon. Joseph T. Kelliher Technical Conference Comments at 5-6; INGAA Technical Conference Comments at 15-16 (describing an analysis it commissioned concluding that in 2020, the maximum utilization on an average annual basis for any of the pipeline "corridors" between different regions is not higher than 65% and it is over 50% only for 7 of the 30 regional corridors); TC Energy Technical Conference Comments at 18; Charles River Associates 2021 Comments at 6; INGAA 2021 Comments at 58; *see also* Boardwalk Technical Conference Comments at 3, 23; Williams Technical Conference Comments at 7. API, on the other hand, asserts that use of utilization estimates or emissions data forces the Commission to pick winners among competing pipeline projects and asserts that such decisions are best made by market forces after the Commission authorizes a project. API Technical Conference Comments at 3-4.

[121] *See, e.g.*, New Jersey Conservation Foundation 2021 Comments at 21-22; Public Interest Organizations 2018 Comments at 91; Washington State Department of Commerce and Washington State Department of Ecology 2018 Comments at 6. Public Interest Organizations' 2018 comments represent 63 entities including Natural Resources Defense Council.

methods of how to calculate the downstream emissions of a proposed project.[122] New Jersey Conservation Foundation urges the Commission to recommend or require the use of specified emissions factors to calculate project emissions.[123] Some commenters argue that the Commission must, beyond asking project sponsors, require certain information to be provided, conduct independent research, or otherwise compile missing information.[124] Dr. Susan F. Tierney states that the Commission should articulate a default methodology, set of assumptions, and sources of data (suggesting multiple sources including data from the U.S. Department of Energy's National Energy Technology Laboratory's 2019 life-cycle estimates of GHG emissions for the natural gas supply chain) to establish a default maximum emissions rate, which could then be supplemented by an applicant's own estimate or an intervenor's alternative estimate.[125]

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[122] *See, e.g.*, Charles River Associates 2021 Comments at 6-8 (proposing a regional analysis to estimate downstream emissions of a gas project).

[123] New Jersey Conservation Foundation 2021 Comments at 22.

[124] *See, e.g.*, Berkshire Environmental Action Team 2021 Comments at 3; North Carolina Department of Environmental Quality 2018 Comments at 5-8.

[125] Dr. Susan F. Tierney, Senior Advisor with the Analysis Group, Inc., was a panelist at the GHG Technical Conference on Panel 1. Dr. Susan F. Tierney Technical Conference Statement at 4-10. The applicant could supplement its estimate with an alternative estimate, and intervenors could also submit estimates.

a. Projected Utilization Rate

49. In previous environmental documents and certificate orders, the Commission has disclosed a project's operational emissions[126] and estimates of downstream emissions[127] by assuming a 100% utilization rate estimate of the project (e.g., the maximum capacity is transported 365 days per year, 24 hours a day and fully combusted downstream). This represents the maximum potential downstream GHG emissions. However, most projects do not operate at 100% utilization at all times. In fact, many projects are designed to address peak demand. For example, traditionally, in the Northeast, demand for gas is highest in the winter months, resulting in high utilization rates during those months due to heating needs, but lower in the summer, resulting in low annual utilization rates.[128]

50. Because in most instances a 100% utilization rate estimate does not accurately capture the project's climate impacts, estimated emissions that reflect a projected utilization rate will provide more useful information. The project's projected utilization rate may be calculated using, for example:

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[126] *See* Environmental Assessment for the Lake City 1st Branch Line Abandonment and Capacity Replacement Project, Docket No. CP20-504-000, at 51-53 (Feb. 2021); *see also* Environmental Assessment for the Philadelphia Lateral Expansion Project, Docket No. CP11-508-000, at 24 (Jan. 18, 2012) (construction emissions); Environmental Assessment for the Minisink Compressor Project, Docket No. CP11-515-000, at 29 (Feb. 29, 2012) (operation emissions).

[127] *See Atl. Coast Pipeline, LLC*, 161 FERC ¶ 61,042 at P 305.

[128] Some commenters point out that daily pipeline load factors vary significantly based on seasonal trends. *See, e.g.*, Charles River Associates 2021 Comments at 3; Williams 2021 Comments at 46.

- Expected utilization data from project shippers;
- Historical usage data;[129]
- Demand projections;
- An estimate of how much capacity will be used on an interruptible basis.

51. The project sponsor is encouraged to file its projected utilization rate, as well as its justification for the rate and any supporting evidence, in its application for authorization under NGA section 3 or 7. The Commission will also consider evidence submitted by commenters and protesters in support of or opposition to the projected utilization rate.

b. Other Evidence Considered

52. Further, the Commission will consider any other evidence in the record that impacts the quantification of the project's reasonably foreseeable emissions. For example, the Commission will consider: evidence of a net-reduction in GHG emissions where the use of transported gas displaces the use of a higher emitting alternative fuel;[130] evidence of anticipated changes in downstream usage rates over time; evidence of any real, verifiable, and measurable reduction efforts taken by the pipeline or downstream

[129] We note that for a greenfield pipeline project, historic data will not be available. In those cases, the project sponsor could use data from other similar projects or regional data.

[130] For instance, in a downstream end-use analysis, Iroquois projected that its Enhancement by Compression project could result in net GHG reductions when considering the alternative fuel that may be used (e.g., fuel oil for heating) by the end use customer in the event that gas is not available. Iroquois Gas Transmission, LP, Downstream GHG Report, Docket No. CP20-48-000 (filed May 19, 2020).

users to reduce their GHG emissions or offset their impacts;[131] and evidence that a project would displace zero-emissions electric generation. Further, other agencies, notably the EPA, have proposed regulations that may impact the emission of methane from Commission-regulated facilities.[132] If such regulations are adopted, the Commission will consider them when examining project GHG emissions. Similarly, the Commission will consider evidence from commenters and protestors supporting or challenging such estimates and assumptions.

B. Level of Review and Significance

53. Under NEPA, an agency must prepare an EIS for every "major [f]ederal action[ ] significantly affecting the quality of the human environment."[133] To determine whether an EIS is necessary for a particular action, the agency may prepare an EA,[134] described as

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[131] For example, the Commission may consider evidence that a downstream user purchases credits to offset its GHG emissions from the consumption of transported gas. The Commission will consider downstream user's mitigation measures according to the criteria outlined in *infra* section III.C.3 for applicant-proposed mitigation measures. With regards to construction and operational emissions, project sponsors should continue to provide evidence of measures that minimize emissions, such as using low-sulfur diesel fuel and limiting equipment idling during construction, as outlined in the Guidance Manual. Guidance Manual at 4-124. However, as described *supra* section III.A.2.a, operational emissions should now be calculated based on the project's projected utilization rate.

[132] *See, e.g.*, Standards of Performance for New, Reconstructed, and Modified Sources and Emissions Guidelines for Existing Sources: Oil and Natural Gas Sector Climate Review, 86 FR 63,110 (Nov. 15, 2020).

[133] 42 U.S.C. 4332(C); 40 CFR 1502.3.

[134] 40 CFR 1501.5, 1508.1(h).

a "concise public document" providing "sufficient evidence and analysis," to determine whether to prepare an EIS or issue a finding of no significant impact.[135]

54. To assess significance, the Commission determines whether the impact "would result in a substantial adverse change in the physical environment,"[136] which, as discussed, is based on considerations of the severity of adverse environmental impacts. In making that determination, the Commission uses its experience, judgment, and expertise to give record evidence appropriate weight.[137] The Commission found that

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[135] *See* 40 CFR 1501.3, 1501.5, 1501.6, 1508.1(h), (l).

[136] *See Magnum Gas Storage, LLC*, 134 FERC ¶ 61,197 at P 114 ("[A]n impact was considered to be significant if it would result in a substantial adverse change in the physical environment or natural condition and could not be mitigated to less-than-significant level.").

[137] For example, for an impact where there are no established federal standards, the Commission makes qualitative assessments to determine whether a proposed project would have a significant impact on a particular resource. *See, e.g.*, *Tex. LNG Brownsville LLC*, 169 FERC ¶ 61,130 at P 56 ("Due to the relatively undeveloped nature of the project area, the visual sensitivity of nearby recreation areas, and the lack of feasible visual screening measures, the Final EIS concluded that the project would result in a significant impact on visual resources when viewed from the adjacent Laguna Atascosa National Wildlife Refuge."); *Alaska Gasline Dev. Corp.*, 171 FERC ¶ 61,134, at PP 25, 89 (describing how the final EIS for the Alaska LNG Project found that construction and operation of the project would have significant impacts on resources such as permafrost, wetlands, forests, and caribou, but less than significant impacts on resources such as scrub and herbaceous plant communities), *order on reh'g*, 172 FERC ¶ 61,214 (2020); *Transcon. Gas Pipe Line Co., LLC*, 158 FERC ¶ 61,125 at P 79 (describing how the final EIS for the Atlantic Sunrise Project concluded that the project would result in adverse impacts that would be mitigated to less than significant levels).

"there is nothing about GHG emissions or their resulting contribution to climate change that prevents us from making that same type of significance determination."[138]

55. Specifically, in *Northern Natural Gas Co.*, the Commission explained that:

> The U.S. Court of Appeals for the District of Columbia Circuit has explained that a proposed interstate natural gas pipeline's reasonably foreseeable GHG emissions are relevant to whether the pipeline is required by the public convenience and necessity. A rigorous review of a project's reasonably foreseeable GHG emissions is also an essential part of the Commission's responsibility under NEPA to take a "hard look" at a project's environmental impacts. Determining the significance of the impacts from a proposed project's GHG emissions informs the Commission's review in a number of important respects, including its decision whether to prepare an environmental impact statement.[139]

56. To date, no federal agency, including the Commission, has established a threshold for determining what level of project-induced GHG emissions is significant. The Commission received a number of comments, discussed below, offering perspectives on whether and at what level it should assess the significance of a proposed project's GHG emissions.

1. Comments

57. The Commission received relevant comments in response to both the 2018 and 2021 NOIs on whether the Commission should: determine significance at all; set a specific significance threshold and at what level; and/or use various inventories, goals, and tools to set the threshold.

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[138] *N. Nat. Gas Co.*, 174 FERC ¶ 61,189 at P 32.

[139] 174 FERC ¶ 61,189 at P 30 (citations omitted).

a. Whether the Commission Should Determine Significance

58. Numerous commenters (Delaware Riverkeeper, Food and Water Watch, North Carolina Department of Environmental Quality, Sabin Center, and others) argue that the Commission should make a significant impact determination based on a project's GHG emissions, which they argue would include the project's associated upstream and downstream emissions. Some commenters, for example the Sabin Center in 2018, direct the Commission to the NEPA regulation at 40 CFR 1508.27 (that was removed by amendments effective September 14, 2020), which provides that "significantly" as used in NEPA requires considerations of both the context of the action and the intensity of the impacts associated with any proposal.[140]

59. In contrast, some regulated entities and other commenters express concern about the Commission determining the significance of a project's impacts on the basis of GHG emissions, especially upstream and downstream emissions. For example, INGAA and others (Energy Infrastructure Council, Williams, etc.) argue that the Commission should, at most, engage in a qualitative discussion of downstream GHG emissions because net GHG emissions are not reasonably foreseeable, and that the Commission should not assess the significance of upstream or downstream emissions.[141] Commenters such as

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[140] *See, e.g.*, Sabin Center 2018 Comments at 8-9.

[141] *See, e.g.*, INGAA 2021 Comments at 58-64. INGAA's 2021 comments update its 2018 position that the Commission should not presume that all GHG emissions are significant and should instead make a reasoned judgment whether: (1) a meaningful assessment can be made with reasonable effort based upon available information and (2) if so, whether a meaningful judgment can be formed regarding if the contribution of

Boardwalk state that the Commission cannot reject a project because of downstream GHG emissions or consider upstream GHG emissions, may only include a general disclosure of downstream emissions in limited circumstances (such as where all end use is known), and should generally decline to assess significance and only engage in a qualitative discussion.[142]

60. Commenters argue that the Commission lacks the ability to make a significance determination and has no objective basis upon which to evaluate the impacts of GHG emissions associated with any specific proposed project.[143] Other commenters state that setting any significance threshold would be arbitrary[144] and potentially outside of the Commission's authority or jurisdiction.[145]

61. Finally, commenters state that the Commission should defer to other agencies, such as CEQ or EPA, in setting a significance threshold, citing: the lack of a national energy policy or federal GHG limits; the EPA's existing authority to regulate GHG emissions under the Clean Air Act; the direction of Executive Orders 13990 and 14008,

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GHGs is likely to have a significant impact on the resource as a whole. INGAA 2018 Comments at 81-84.

[142] Boardwalk 2021 Comments at 77-78, 86-90, 92-93. These comments are generally echoed by the Energy Infrastructure Council. Energy Infrastructure Council 2021 Comments at 15-16, 22-27.

[143] *See, e.g.*, Enbridge 2021 Comments at 103.

[144] *See, e.g.*, U.S. Chamber of Commerce 2021 Comments at 9.

[145] *See, e.g.*, API 2021 Comments at 29-32; NGSA 2021 Comments at 21-22; TC Energy 2021 Comments at 52-56; U.S. Chamber of Commerce 2021 Comments at 9.

which commenters say direct EPA to examine its own GHG emissions standards; and the ongoing Interagency Work Group efforts on the SCC.[146] A few industry commenters also caution against creating uncertainty or a moving target for industry while waiting for a significance threshold to be established.[147]

b. <u>What the Threshold Should Be</u>

62. Some commenters argue that the Commission should consider any net increase in GHG emissions as significant.[148] Attorneys General of Massachusetts, Connecticut, Maryland, Minnesota, New Jersey, New York, Oregon, Rhode Island, and the District of Columbia (Attorneys General of Massachusetts et al.) argues that any investment in pipeline infrastructure is inconsistent with new national emissions reductions targets and thus, project emissions can be significant on that basis alone, even if they represent a

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[146] *See, e.g.*, Cheniere Energy Inc. 2021 Comments at 14-16; Enbridge 2021 Comments at 104; Williams 2021 Comments at 35-38. Energy Transfer LP and the NGSA also cite CEQ's recent NEPA regulatory update and direction to agencies to propose revisions to their NEPA procedures by September 14, 2023. Energy Transfer LP 2021 Comments at 14; NGSA 2021 Comments at 19-20. The Commission's current regulations provide that the Commission will comply with CEQ's regulations except where those regulations are inconsistent with the statutory requirements of the Commission. 18 CFR 380.1. Therefore, any action taken by the Commission in a future rulemaking pursuant to CEQ's regulatory update does not prevent the Commission from issuing this policy statement.

[147] *See, e.g.*, BHE Pipeline Group 2021 Comments at 8-10; Cheniere Energy Inc. 2021 Comments at 17-18.

[148] Ohio Environmental Council 2021 Comments at 3.

small share of national emissions, or that emissions are significant if they impede the ability of a state to meet its clean energy goals.[149]

63. A few commenters suggest specific numerical thresholds. The Sabin Center recommends that the Commission assess the magnitude of GHG emissions impacts using EPA's quantification threshold of 25,000 tons per year of CO_2e to identify major emitters under the Clean Air Act, social cost of GHG tools to assign a dollar value to the potential impacts of the emissions, and EPA's GHG Equivalencies Calculator as a comparison tool.[150] One commenter cites to EIS examples where the Commission stated that monetized benefits of $8 million and $28 million would be "significant" for local economies and suggests that gross climate damages between roughly $8 and $20 million should be considered significant.[151]

64. Conversely, a few commenters state that emissions from all individual projects could be considered *de minimis* and individually too small to impact climate change.[152] Others urge the Commission away from taking a bright line approach to determining

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[149] Attorneys General of Massachusetts et al. 2021 Comments at 6-11. The 2021 commenters are made up of a slightly different group of state attorneys general than those filing comments in 2018.

[150] Sabin Center 2018 Comments at 8-9.

[151] Environmental Defense Fund, Food & Water Watch, Policy Integrity, Montana Environmental Information Center, Natural Resources Defense Council, Sierra Club, Union of Concerned Scientists, and Western Environmental Law Center (EDF) 2021 Comments at 14-15.

[152] *See, e.g.*, Competitive Enterprise Institute 2021 Comments at 4, 6.

significance,[153] while Driftwood Pipeline LLC urges that significance, if appropriate, requires the Commission to disclose a clear threshold.[154]

65. CEQ points the Commission to its 2016 guidance as an existing resource to help agencies assess GHG emissions and the effects of climate change in NEPA reviews.[155]

c. Use of Inventories, Climate Goals, Programmatic Analyses, Etc. in Determining Significance

66. Some commenters recommend that the Commission use state, regional, and global GHG reduction goals to provide context and/or define significance of GHG emissions.[156] For example, Attorneys General of Massachusetts et al. comments that the Commission already analyzes whether a proposed pipeline project is consistent with various energy and climate policies and goals and that this can be used as a metric for evaluating significance.[157] Others argue that the Commission's analysis of a proposed project's public benefits should weigh the effect of project GHG emissions on states' and the nation's abilities to comply with climate and clean energy laws and policies, such as

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[153] *See, e.g.*, Enbridge 2021 Comments at 108; Russo on Energy 2021 Comments at 17-18.

[154] Driftwood Pipeline LLC 2021 Comments at 3.

[155] CEQ 2021 Comments at 1.

[156] *See, e.g.*, Delaware Riverkeeper Network & Berks Gas Truth 2021 Comments at 62; Ron Schaaf and Deb Evans 2021 Comments at 8; California Public Utilities Commission 2018 Comments at 11-12.

[157] Attorneys General of Massachusetts et al. 2018 Comments at 17-20.

specific energy and climate change action plans and policies.[158] The Ohio Environmental Council recommends that the Commission consider the total proposed upstream and downstream GHG emissions of all gas projects pending in any given year, giving weight to the total possible GHG emissions that could be locked in by those projects and comparing this total with international goals.[159]

67. Other commenters suggest alternative means or tools for assessing significance. For example, commenters suggest that the Commission should use a "Climate Test."[160] Patricia Weber comments that the Commission should use such a test to determine if a project is viable in a scenario where the climate goals of the Paris agreement are met using climate and global energy market models. One commenter urges the Commission to examine acres of wetlands that will be lost due to climate impacts of proposed projects

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[158] *See, e.g.*, Attorneys General of Massachusetts et al. 2018 Comments at 17-20; Franklin Governments 2018 Comments at 2.

[159] Ohio Environment Council 2018 Comments at 12-13.

[160] Natural Resources Defense Council (NRDC) also suggests the Commission use its forthcoming "Climate Test," which is a tool being developed by NRDC to quantify the consistency of individual infrastructure projects with climate goals. NRDC 2021 Comments at 6. However, NRDC has not filed additional information on its "Climate Test."

as a proxy for significance.[161] Some commenters suggest the Commission consider a programmatic or regional analysis of pipelines.[162]

68. EDF comments that a comparison of a project's emissions to international, state, or regional carbon budgets, or assessing geophysical impacts such as increases in carbon dioxide levels, global temperatures, or sea levels can be misleading and trivialize the project's impacts.[163]

69. Some industry commenters state that any comparison of direct or indirect emissions should be made to global GHG inventories, not national or state inventories.[164] However, Williams states that, while the Commission should consider only direct construction and operation emissions, the Commission should compare those emissions against national GHG inventories and not against international agreements or regional targets.[165] Others oppose use of a regional analysis of GHG emissions from pipeline projects.[166]

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[161] Healthy Gulf 2021 Comments at 14.

[162] *E.g.*, Attorneys General of Massachusetts et al. 2021 Comments at 8-11; EPA 2021 Comments at 1; Attorneys General of Massachusetts et al. 2018 Comments at 12-17.

[163] EDF 2021 Comments at 9-12, 16.

[164] *See, e.g.*, Boardwalk 2021 Comments at 82-83; NGSA 2021 Comments at 15. Enbridge states that comparison to these inventories would be arbitrary, but that such an approach could help contextualize the GHG emissions for the Commission and the public. Enbridge 2021 Comments at 105, 108-109.

[165] Williams 2021 Comments at 38.

[166] *See, e.g.*, Competitive Enterprise Institute 2021 Comments at 3-4.

d. Use of the Social Cost of Greenhouse Gases

70. Several commenters generally argue for a monetization of climate damages using the Social Cost of Greenhouse Gas (SC-GHG) tools[167] to determine significance.[168] EDF recommends that the approach should be consistent with the Commission's practices for determining the significance of other monetized effects, such as economic impacts.[169] Public Interest Organizations comment that an established numerical significance threshold is not necessary, but if one is established, it should be used in tandem with the SCC tool and should not be based solely on one metric, especially not on a comparison to global emissions. Rather, they urge a holistic review of how a proposed project's impacts weigh against any benefits.[170] EDF states that if the climate damages exceeded monetized project benefits, the Commission could reject the project.[171]

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[167] The SC-GHG collectively includes the values for the SCC, the social cost of methane (SCM), and social cost of nitrous oxide (SCN).

[168] *See, e.g.*, Policy Integrity Technical Conference Comments at 22-26; EPA 2021 Comments at 6; Ohio Environmental Council 2021 Comments at 2; Public Interest Organizations 2021 Comments at 43-45; Attorneys General of Massachusetts et al. 2018 Comments at 17-22; EDF 2018 Comments at 8-11. The 2018 EDF comments were filed by a slightly different set of entities than in 2021. Public Interest Organizations' 2021 comments represent 53 entities including Natural Resources Defense Council.

[169] EDF 2021 Comments at 14-16.

[170] Public Interest Organizations 2021 Comments at 43-45, 50-53, 60.

[171] EDF 2021 Comments at 9.

71. Conversely, other commenters oppose use of the SCC tool in determining significance[172] or of using the SCC tool at all.[173] The Attorneys General of Missouri, Alabama, Alaska, Arizona, Arkansas, Georgia, Indiana, Kansas, Kentucky, Louisiana, Mississippi, Montana, Nebraska, Ohio, Oklahoma, South Carolina, South Dakota, Tennessee, Texas, Utah, and West Virginia (Attorneys General of Missouri et al.) contends that the NGA does not allow use of the SCC tool to calculate speculative damages and that its use is contrary to the Commission's public interest responsibilities. Further, they argue that NEPA does not permit the use of the SCC because NEPA does not allow agencies to rely on conclusions that are speculative or reflect substandard or outdated science.[174]

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[172] *See, e.g.*, Kinder Morgan 2021 Comments at 32-40 (stating the Commission should use the SCC tool only as a qualitative comparison tool).

[173] *See, e.g.*, American Forest Technical Conference Comments at 9; Competitive Enterprise Institute Technical Conference Comments at 1-2, 7-35; Enbridge 2021 Comments at 111; Energy Infrastructure Council 2021 Comments at 24-25; Williams 2021 Comments 41-43.

[174] Attorneys General of Missouri et al. 2021 Comments at 2-7. A similar group, consisting of the Attorneys General of Missouri, Alabama, Alaska, Arizona, Arkansas, Georgia, Indiana, Kansas, Kentucky, Mississippi, Montana, Nebraska, Ohio, Oklahoma, South Carolina, Texas, Utah, West Virginia, and Wyoming (Attorneys General of Missouri et al.), also submitted comments in response to the Commission's technical conference, *see infra* section III.C.1, extensively critiquing potential use of the SCC. Attorneys General of Missouri et al. Technical Conference Comments at 3-15. Mr. Kirk Frost also provided comments on use of the SCC, urging the Commission to use the tool to assess GHG emissions impacts. Kirk Frost December 23, 2021 Technical Conference Comments at 4.

72. Public Interest Organizations state that, while neither the NGA nor NEPA explicitly reference the SCC tool, there is nothing in these or other federal statutes that would prohibit its use.[175] New Jersey Conservation Foundation notes that President Biden's Executive Order 13990 supports the use of the SC-GHG tools by agencies to capture the full costs of GHG emissions as accurately as possible.[176] New Jersey Conservation Foundation states that following issuance of Executive Order 13990, the Interagency Working Group on the Social Cost of Greenhouse Gases (GHG IWG) published interim SC-GHG values, which the Commission should use.[177]

73. CEQ notes that it was working with representatives on the GHG IWG to develop additional guidance regarding the application of the SC-GHG tools in decision-making processes, including NEPA analysis.[178] NGSA and API urge the Commission to wait for this review to be completed.[179] NGSA further states that it would be inappropriate for the Commission to develop a likely conflicting approach for utilizing the SCC tool.[180] API states that it would violate principles of consistency for the Commission to apply the

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[175] Public Interest Organizations 2021 Comments at 58.

[176] New Jersey Conservation Foundation 2021 Comments at 23-24 (citing Exec. Order No. 13990, 86 FR 7037, 7040 (Jan. 25, 2021)).

[177] New Jersey Conservation Foundation 2021 Comments at 24.

[178] CEQ 2021 Comments at 2. *C.f. Louisiana v. Biden*, No. 21-cv-1074-JDC-KK (W.D. La.) Order Granting Preliminary Injunction (Feb. 11, 2022).

[179] API 2021 Comment at 24-25; NGSA 2021 Comments at 20-21.

[180] NGSA 2021 Comments at 20-21.

interim SC-GHG values to current proposals (i.e., for the remainder of this year), knowing that these values may change and lead to different treatment for future proposals.[181] EPA states that in cases where the Commission determines that a monetary comparison between benefits and costs is appropriate, the Commission should take into account established practices for benefit-cost analyses (e.g., the Office of Management and Budget's Circular A-4 and references therein). If the Commission chooses to use the SC-GHG tools, EPA states that it should disclose all assumptions and levels of uncertainty associated with the analysis.[182]

74. The Public Interest Organizations state that monetizing impacts using the SCC tool provides the public and decisionmakers with accessible figures useful in determining whether a project is in the public interest and allows the Commission to easily compare project harms and economic benefits, whereas other metrics can misleadingly minimize climate impacts due to inadequate contextualization.[183]

75. Kinder Morgan asserts that the SCC tool relies on inputs or assumptions that introduce too much uncertainty.[184] Similarly, Attorneys General of Missouri et al. contends that the SCC tool is too speculative and arbitrary to hold up to the hard-look

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[181] API 2021 Comment at 25, 27-28.

[182] EPA 2021 Comments at 2-3.

[183] Public Interest Organizations 2021 Comments at 58.

[184] Kinder Morgan 2021 Comments at 34-35.

requirement under NEPA.[185] Rebutting this, EDF emphasizes that the GHG IWG's methodology is rigorous and based on the best available data and economic practices, such as utilizing a 300-year time horizon.[186] INGAA states that the significant variation in output among GHG IWG's interim values shows that discount rates reflect a high level of uncertainty in the models and that an agency's chosen discount rate wields an outsized influence on the end result.[187] INGAA states that the Commission should: (1) only use the SCC tool within the NEPA evaluation, not the NGA evaluation; (2) use the SCC tool as a relative, but not absolute, measure; (3) use the SCC tool only as a threshold indicator; and (4) place any SCC estimates in the proper context.[188]

76. New Jersey Conservation Foundation recommends that the Commission use all of the GHG IWG's interim values provided for the SC-GHG tools (GHG IWG recommends using a discount rate of 3%, but also provides values associated with discount rates of 2.5% and 5%).[189]

77. Boardwalk and Kinder Morgan argue that the Commission should only use the SCC tool as a qualitative tool.[190] Boardwalk further asserts that there should not be any

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[185] Attorneys General of Missouri et al. 2021 Comments at 9.

[186] EDF 2021 Comments at 21.

[187] INGAA 2021 Comments at 67.

[188] INGAA 2021 Comments at 70-73.

[189] New Jersey Conservation Foundation 2021 Comments at 24; *see also* EDF 2021 Comments at 6-7.

[190] Boardwalk 2021 Comments at 103; Kinder Morgan 2021 Comments at 32-33.

triggering levels that would result in adverse action by the Commission or a significance determination. Boardwalk contends that the use of trigger levels would create substantial regulatory uncertainty. Kinder Morgan and Williams also express concern that the SCC tool yields inherently one-sided GHG data if it is applied to a project in a manner that monetizes only the project's GHG costs and not the corresponding project benefits.[191] Energy Infrastructure Council asserts that the SCC tool is meaningless without a standard or threshold for significance and its use requires a monetized cost-benefit analysis of an entire project.[192]

78. Kinder Morgan states that the SCC tool was not designed for project-specific analysis but could be used as a screening tool in a qualitative analysis. If the Commission uses the SCC tool, Kinder Morgan recommends that it should explain why and how it was used.[193] This explanation should include information about the SCC's function, its mechanism, its embedded limitations and assumptions, and the specific reason for its application in a given circumstance. Kinder Morgan states that this type of explanation is vital to avoid misleading the public about the purpose of the SCC calculation and the meaning of its results.[194] Spectra Energy Partners, LP and Seneca Resources Corporation contend that the Commission has no basis to designate a

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[191] Kinder Morgan 2021 Comments at 32-33; Williams 2021 Comments at 44-45.

[192] Energy Infrastructure Council 2021 Comments at 26-27.

[193] Kinder Morgan 2021 Comments at 42.

[194] *Id.*

particular SCC dollar amount as significant, and any such designation would be arbitrary and could not meaningfully inform the Commission's decision making or the public.[195] Additionally, Kinder Morgan states that the Commission should not use the SCC tool to determine mitigation measures or conditions because no statute requires that the Commission implement mitigation based on calculations from such a tool.[196]

2. Appropriate Level of NEPA Review and Significance Determination

79. To determine the appropriate level of NEPA review, the Commission is establishing a significance threshold of 100,000 metric tons or more per year of CO_2e. In calculating this emissions estimate, Commission staff will apply the 100% utilization or "full burn" rate for natural gas supplies delivered by the proposed project and will prepare an EIS if the estimated emissions from the proposed project may exceed the 100,000 metric tons per year threshold.

80. An emissions threshold of 100,000 metric tons per year of CO_2e captures the majority of annual emissions generated by Commission authorized projects, including those that may result in incremental GHG emissions over a long duration that may have a significant effect upon the human environment. Establishing a threshold for NEPA purposes also provides Commission staff, industry, and other stakeholders clarity

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[195] Seneca Resources Corp. 2018 Comments at 9; Spectra Energy Partners, LP 2018 Comments at 87.

[196] Kinder Morgan 2021 Comments at 42.

regarding whether a particular project will result in the preparation of either an EA or an EIS. We believe that such clarity ultimately benefits both the regulated community and public by ensuring certainty regarding the Commission's process for reviewing applications for natural gas infrastructure.

81. In its NEPA document, staff will estimate the proposed project's GHG emissions based on all relevant evidence submitted in the record—including the project's utilization rate, offsets, and mitigation. A project with estimated emissions of 100,000 metric tons per year of CO_2e or greater will be presumed to have a significant effect, unless record evidence refutes that presumption.[197] While the 100,000 metric ton presumption will serve as a guidepost, facilitating transparent, predictable analysis of a proposed project's contribution to climate change, our analysis will continue to consider all evidence in the record on a case-by-case basis. As part of that analysis, the Commission will continue to consider any emerging tools as well as any forthcoming frameworks or analysis issued by CEQ or other agencies on this issue. Finally, as noted at the outset, we encourage commenters to address this approach to assessing significance—including the 100,000 metric ton CO_2e threshold.

[197] When examining a project's GHG emissions, the Commission will consider record evidence of the construction, operational, and, where determined to be reasonably foreseeable, downstream and upstream GHG emissions that reoccur annually over the life of the project.

a. Commission Authority to Establish a Threshold

82. Section 3 of the NGA requires the Commission to approve an application for the exportation or importation of natural gas unless the proposal "will not be consistent with the public interest."[198] Similarly, under section 7, the Commission must find a proposed project is or will be required by the present or future public convenience and necessity.[199] The Commission has long regarded section 3's "public interest" standard and section 7's "public convenience and necessity" standard as substantially equivalent.[200] In considering applications under section 3 or section 7, the Commission must "evaluate all factors bearing on the public interest."[201] The Commission has recognized from its earliest decisions that it may consider the end use of gas as a factor in assessing the

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[198] 15 U.S.C. 717b(a).

[199] *Id.* 717f(c), (e).

[200] *Distrigas Corp. v. FPC*, 495 F.2d 1057, 1065 (D.C. Cir.).

[201] *Atl. Ref. Co. v. Pub. Serv. Comm'n of State of N.Y.*, 360 U.S. 378, 391 (1959).

public interest[202] and has long considered the impact of natural gas combustion on air pollution.[203]

83. As discussed above, the courts have interpreted the Commission's obligations under NEPA to require analysis of downstream GHG emissions for NGA section 7 certificate projects, but do not require an analysis of either downstream or upstream GHG emissions for section 3 export projects.[204] As also discussed above, the Commission has previously acknowledged that upstream emissions for NGA section 7 certificate projects may be difficult to quantify. However, as noted, the Commission will continue to consider on a case-by-case basis whether GHG emissions from upstream production

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[202] *See, e.g.*, *Hope Nat. Gas Co.*, 4 FPC 59, 59, 66-67 (1944) (stating that "considerations of conservation are material to the issuance of certificates of public convenience and necessity under section 7" and authorizing a project in large part because of the particular end use of the gas); *see N. Nat. Gas Co.*, 15 FPC 1634, 1641 (1956) (Connole, Comm'r, dissenting) (contending that the Commission has "long held that considerations of conservation, inferior and superior uses, and related matters are relevant to determining whether the public convenience and necessity require the issuance of a certificate").

[203] *Transwestern Pipeline Co.*, 36 FPC 176, 185-186, 189-191 (1966) (citing *FPC v. Transcon. Gas Pipe Line Corp.*, 365 U.S. 1 (1961) (*Transco*), for the proposition that the "end use of gas was properly of concern to [the Commission], and made it clear that air pollution was a relevant consideration"). *Cf. Am. La. Pipe Line Co.*, 16 FPC 897, 899-900 (1956) ("[T]here is a public need for and will be a public benefit from [the proposed] natural-gas service . . . . This need and benefit arise from the facts, among others, . . . that natural gas is a clean, convenient and efficient fuel.").

[204] *See supra* PP 34-37.

activities are a reasonably foreseeable and causally connected result of a proposed project.[205]

84. Contrary to the suggestion of some commenters, the Commission would not intrude into another agency's domain by establishing a significance threshold. The Commission does not propose to set an emissions standard that projects will be expected to meet; rather, the threshold would be an indication of potential significance for purposes of the Commission's review of a project's environmental impacts under NEPA and trigger the preparation of an EIS.[206]

85. As discussed above, NEPA requires the Commission to take a "hard look" at the environmental consequences of a proposed action and to prepare an EIS disclosing its analysis to the public where its action may significantly affect the quality of the human environment, or to prepare an EA for a proposed action that is not likely to have significant effects or when the significance is unknown to determine if an EIS is necessary. We note that neither EPA nor CEQ raise objections to the Commission determining the significance of GHG emissions; in fact, EPA points to Executive Order 14008, which directs the federal government to prioritize assessment, disclosure,

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[205] *See supra* P 42.

[206] The Commission notes that CEQ and EPA are undertaking initiatives that may culminate in the establishment of a significance threshold for GHG emissions or that may further impact the Commission's determination of GHG significance in its NEPA analysis. If CEQ or EPA issues any future guidance regarding the evaluation of GHG emissions, the Commission may adjust its methods for determining the significance of GHG emissions consistent with that guidance.

and mitigation of climate pollution and climate-related risks, in response to the Commission's query on how it could determine the significance of a project's GHG emissions.[207]

86. As discussed above, NEPA requires the Commission to determine whether a project would have any significant effects on the environment, including the effects of GHG emissions on the climate.[208] Moreover, courts have rejected the claim that under the NEPA framework, the determination of whether an impact is significant must not involve any subjective judgment calls.[209]

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[207] EPA 2021 Comments at 6.

[208] *See supra* PP 23-25.

[209] *Spiller v. White*, 352 F.3d at 244 n.5.

87. We are establishing a uniform GHG emissions threshold because GHG emissions affect climate to the same degree, regardless of the location or specifics of a particular project. Establishing such a threshold will provide the Commission a workable and consistent path forward to analyze proposed projects. Further, a numerical threshold is a clear, consistent standard that can be easily understood and applied by the regulated community and interested stakeholders.

b. Rationale for an Emissions Threshold of 100,000 Metric Tons Per Year

88. Human impact on the warming of the global climate system is unequivocal.[210] Even if deep reductions in GHG emissions are achieved, the planet is projected to warm by at least 1.5 degrees Celsius (°C) by 2050.[211] This level of warming will present major global consequences. For example, extreme temperature events that may have occurred once in 10 years on average in a climate without human influence will occur 4.1 times as frequently and be 1.9°C hotter.[212] Agricultural and ecological drought events that may have occurred once in 10 years on average across drying regions in a climate without human influence will occur twice as frequently.[213] Warming beyond 1.5°C presents even more severe consequences. The Intergovernmental Panel on Climate Change states that

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[210] IPCC Report at SPM-5.

[211] *See* IPCC Report at SPM-17.

[212] IPCC Report at SPM-23.

[213] IPCC Report at SPM-23.

"[w]ith every additional increment of global warming, changes in extremes continue to become larger."[214] For example, every subsequent 0.5°C of warming "causes clearly discernible increases in the intensity and frequency of hot extremes, including heatwaves (*very likely*), and heavy precipitation (*high confidence*), as well as agricultural and ecological droughts in some regions (*high confidence*)."[215] Because of the dire effects at stake, even relatively minor GHG emissions pose a significant threat, 100,000 metric tons per year of project GHG emissions will capture all natural gas projects that have what we believe to be the potential for causing significant impacts on climate, given the typical lifespans of authorized projects. For a single natural gas project with a lifespan of 30 years, this threshold represents a total of three million metric tons of GHG emissions.

89. Based on an internal review of natural gas projects from 2008 to 2021, a 100,000 metric tons per year threshold will cover the vast majority of potential GHG emissions from natural gas projects authorized by the Commission. For context, projects that likely have 100,000 metric tons per year or more of GHG emissions include projects transporting an average of 5,200 dekatherms per day and projects involving the operation of one or more compressor stations or LNG facilities.

90. Outside the NEPA context, other federal and state agencies that have established thresholds to evaluate or regulate GHG emissions from an analysis of the emissions from regulated sources. Most notably, in 2012, EPA issued the Tailoring Rule to regulate

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[214] IPCC Report at SPM-19.

[215] IPCC Report at SPM-19 (emphasis in original).

GHG emissions from stationary sources of air pollution under the Prevention of Significant Deterioration (PSD)[216] and Title V[217] permitting programs[218] and proposed to phase in the regulation of GHG emissions in two steps. Under Step 1, sources already subject to the PSD permitting program for at least one non-GHG pollutant ("anyway" sources) were required to utilize best available control technology (BACT) for GHG emissions[219] if they increased net GHG emissions by at least 75,000 tons per year of CO_2e.

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[216] The PSD permitting program is part of the New Source Review program, which requires new stationary sources and major modifications to existing major sources to obtain preconstruction permits. PSD is designed to prevent air quality deterioration in regions that are attaining the National Ambient Air Quality Standards by requiring major sources or major modifications to install the Best Available Control Technology (BACT). Major sources under the PSD program are defined as facilities that emit or have the potential to emit 250 tons per year of any criteria air pollutant or 100 tons per year of any criteria air pollutant for specific types of facilities listed in the statute. 42 U.S.C. 7479(1). The six criteria pollutants are carbon monoxide, ground-level ozone, lead, nitrogen dioxide, particulate matter, and sulfur dioxide. 40 CFR pt. 50.

[217] The Title V program requires major stationary sources to obtain a single operating permit that consolidates all of the permitting requirements in the Clean Air Act into a single permit, including PSD, New Source Performance Standards, and National Emission Standards for Hazardous Air Pollutants. Major sources under the Title V program are defined as any stationary facility that emits or has the potential to emit 100 tons per year of any hazardous air pollutant, except GHGs. 42 U.S.C. 7602(j). The Clean Air Act Amendments of 1990 originally designated over 180 chemicals as hazardous air pollutants, and EPA has the authority to modify the list through rulemaking. 42 U.S.C. 7412(b)-(c).

[218] Prevention of Significant Deterioration and the Title V Greenhouse Gas Tailoring Rule, 75 FR 31514 (June 3, 2010) (Tailoring Rule).

[219] BACT is used to minimize emissions based on the maximum degree of control that the facility can achieve as determined by the permitting authority on a case-by-case basis. BACT may be a design, equipment, work practice, or operational standard, such as add-on control equipment, fuel cleaning or treatment, or innovative fuel combustion

91. Under Step 2, EPA expanded the Tailoring Rule by requiring a new source or a major modification to an existing source to obtain PSD and/or Title V permits based on GHG emissions alone. Sources that had the potential to emit at least 100,000 tons per year of CO_2e would become newly subject to the PSD and/or Title V requirements, even if they did not exceed the statutory threshold for any other pollutant. Additionally, modifications to an existing source already subject to PSD and/or Title V that increased net GHG emissions by at least 75,000 tons per year of CO_2e would be subject to PSD requirements regardless of whether there was an increase in the emissions of any other pollutant.[220]

92. In setting the 75,000 tons and 100,000 tons per year of GHGs thresholds, EPA considered the administrative burden of permitting the estimated number of additional facilities under each threshold and the percentage of total national stationary source GHG emissions that would be covered under the threshold.[221] For example, under Step 1, EPA estimated a 5% increase in the total annual cost to run the permitting programs and that approximately 65% of GHG emissions would be covered. Under Step 2, EPA estimated that approximately 550 new sources would become subject to the PSD and Title V

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techniques. Note that BACT for minimizing GHG emissions at natural gas facilities is limited.

[220] EPA also planned a Step 3 to further reduce the threshold, although not below 50,000 tons per year of CO_2e. The Supreme Court struck down relevant portions of the Tailoring Rule before EPA finalized Step 3.

[221] Tailoring Rule, 75 FR at 31533-80.

programs, increasing total annual costs to run the programs by 42% and covering 67% of GHG emissions. EPA further found that lowering the threshold to 50,000 or 25,000 tons per year of CO_2e would drastically increase both the number of new facilities requiring permits and the cost of administering the programs but would only marginally increase the percentage of GHG emissions covered to 70% and 75%, respectively.

93. In 2014, the Supreme Court invalidated portions of the Tailoring Rule, holding that EPA may not use GHG emissions as the sole basis for determining whether a source is subject to a PSD or Title V permitting requirements.[222] While the Supreme Court's ruling struck down Step 2 of the Tailoring Rule, it upheld Step 1 and allowed EPA to continue to regulate GHG emissions from "anyway" sources. Notably, the decision did not discuss EPA's methodology for establishing the thresholds; it only ruled that deviating from the 100 and 250 tons per year statutory thresholds in the Clean Air Act when requiring sources to newly obtain PSD or Title V permits based solely on GHG emissions under Step 2 was impermissible.

94. Further, at least two agencies in California that are directed to determine the significance of GHG emissions and climate impacts of proposed projects under the California Environmental Quality Act have also proposed or established thresholds of significance based on an analysis of regulated sources. First, in 2008, the California Air Resources Board (California ARB) proposed finding a less than significant impact for a proposed industrial project that, with mitigation, emits no more than 7,000 metric tons

[222] *Util. Air Regul. Grp. v. EPA*, 573 U.S. 302, 320 (2014).

per year of CO_2e from non-transportation sources, including combustion and fugitive emissions.[223] Second, the South Coast Air Quality Management District (South Coast AQMD) adopted an interim GHG significance threshold of 10,000 metric tons of CO_2e per year for stationary sources of air pollution in 2008.[224] Both California ARB and South Coast AQMD found that their thresholds would capture approximately 90% of emissions from their respective regulated sources.[225]

95. Like EPA and the California agencies, we are basing our threshold on an analysis of regulated sources. Although we are adopting a conceptually similar methodology in establishing our threshold, we note that our approach will cover a larger number of emissions than the threshold established by EPA in the Tailoring Rule. EPA's thresholds of 75,000 and 100,000 tons per year accounted for only 65% and 67% of emissions from EPA-regulated sources, respectively, whereas our proposed threshold of 100,000 metric tons per year would deem nearly three-quarters of Commission-regulated natural gas project, which collectively account for roughly 99% of GHG emissions from

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[223] California ARB, Preliminary Draft Staff Proposal, Recommended Approaches for Setting Interim Thresholds for Greenhouse Gases under the California Environmental Quality Act (Oct. 24, 2008) (CEQA Proposed Interim Thresholds). In addition, California ARB proposed to require these projects to meet performance standards for construction-related emissions and transportation to support a finding of less than significant impacts. CEQA Proposed Interim Thresholds at attach. A.

[224] South Coast AQMD, Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans (Dec. 5, 2008), http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgboardsynopsis.pdf?sfvrsn=2.

[225] *Id.* at 4; CEQA Proposed Interim Thresholds at attach. A.

Commission-regulated natural gas projects, to have a significant impact on climate change.

3. Other Metrics

96. As noted above, commenters argue for and against the use of various existing GHG inventories or goals as a comparison tool to determine significance. Comparison to an existing GHG inventory or goal presents substantially different percentages based on the chosen goal (international, state, regional, or local). Because different projects may have different potential purposes and the purpose of a project may be characterized to support or oppose a particular viewpoint, we do not believe that tying the Commission's significance determination for a proposed project's GHG emissions to a particular inventory or goal is appropriate. However, we recognize that this type of comparison can be helpful to inform the Commission's analysis and the public, especially when presented using a consistent metric across proposed projects under consideration by the Commission. We note that many commenters reference the SC-GHG as one tool. To the extent permitted by law,[226] the Commission could consider the SC-GHG in the future.

[226] Currently, two pending court cases challenge use of the IWG's interim values by federal agencies. *Mo. v. Biden*, --- F. Supp. 3d ----, 2021 WL 3885590 (E.D. Mo. Aug. 31, 2021), appeal filed, No. 21-3013 (8th Cir.); *La. v. Biden*, No. 21-cv-1074-JDC-KK (W.D. La).

C. Mitigation

97. Federal agencies can use mitigation to minimize the potential adverse environmental effects of their actions,[227] and mitigation is used by the Commission in reviewing NGA sections 3 and 7 proposals.[228]

98. The NGA grants the Commission broad authority to attach reasonable terms and conditions to NGA section 7 certificates of public convenience and necessity and NGA section 3 authorizations.[229] The Commission has consistently exercised this authority to attach environmental conditions that mitigate the adverse environmental impacts of a proposed project, and the Commission is not precluded from utilizing this authority to

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[227] Mitigation is measures that avoid, minimize, or counterbalance effects caused by a proposed action by: (1) avoiding the impact altogether by not taking a certain action or parts of an action; (2) minimizing impacts by limiting the degree or magnitude of the action and its implementation; (3) rectifying the impact by repairing, rehabilitating, or restoring the affected environment; (4) reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and/or (5) compensating for the impact by replacing or providing substitute resources or environments. 40 CFR 1508.1.

[228] As discussed *supra* P 26, NEPA contains no substantive requirement that environmental impacts be mitigated or avoided, however, the environmental document must include a mitigation discussion that provides "sufficient detail" to indicate that environmental impacts have been fairly evaluated. *S. Fork Band Couns. of W. Shoshone of Nev. v. U.S. Dep't of Interior*, 588 F.3d 718, 727 (9th Cir. 2009); *see also Nat'l Parks & Conservation Ass'n v. U.S. Dep't of Transp.*, 222 F.3d 677, 681 n.5 (9th Cir. 2000) (stating that mitigation measures proposed in an EIS "need not be legally enforceable, funded, or even in final form to comply with NEPA's procedural requirements").

[229] *See supra* P 22; *see also* 15 U.S.C. 717b(e)(3)(A) (providing the authority to approve an application for an LNG Terminal, "in whole or part, with such modifications and upon such terms and conditions as the Commission find[s] necessary or appropriate").

require a project sponsor to mitigate all, or a portion of, the impacts related to a proposed project's GHG emissions. Therefore, consistent with the discussion provided herein, going forward project proponents are encouraged to propose mitigation that will minimize climate impacts. The Commission will consider any mitigation measures proposed by the project sponsor on a case-by-case basis when balancing the need for a project against its adverse environmental impacts and may require additional mitigation as a condition of an NGA section 3 authorization or section 7 certificate.

1. Technical Conference on GHG Mitigation

99. On November 19, 2021, the Commission held a Commission staff-led technical conference to discuss methods project sponsors may use to mitigate the effects of direct and indirect greenhouse gas emissions resulting from Natural Gas Act sections 3 and 7 authorizations.[230] Representatives from industry, academia, non-governmental organizations, and state regulatory commissions participated as panelists, with discussion topics including: how the Commission could determine the quantity of reasonably foreseeable GHG emissions resulting from a project proposed under section 3 or 7 of the NGA and the appropriate level of mitigation for such emissions; types of mitigation measures a project sponsor could employ to reduce the amount of GHG emissions associated with a proposed project; and methods for the continued verification and

[230] *See* Transcript of Greenhouse Gas Mitigation: Natural Gas Act Sections 3 and 7 Authorizations, Docket No. PL21-3-000 (issued Dec. 22, 2021) (Technical Conference Transcript).

accounting of GHG mitigation during project operation, as well as cost impacts to the industry from implementing GHG mitigation measures and how project sponsors might recover those costs.

100. In addition to the panelists' written statements, the Commission received over 20 comments in response to the technical conference. The Commission considered these statements and comments in developing the mitigation policy described below.

2. Authority to Require Mitigation

101. Some commenters state that the Commission has broad authority under the NGA to place conditions in certificate authorizations requiring pipeline companies to mitigate GHG impacts,[231] while others argue that the Commission does not have authority under the NGA or NEPA to impose mitigation measures,[232] especially measures to mitigate

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[231] *See, e.g.*, Policy Integrity Technical Conference Comments at 2; Policy Integrity 2021 Comments at 14-15, 21; Public Interest Organizations 2021 Comments at 71-72; *see also* American Forest Technical Conference Comments at 4-5, 7-10 (stating that to the extent the courts have clarified the Commission's duty to consider GHG emissions and require mitigation for such impacts, that it supports the Commission considering mitigation on a case-by-case basis to avoid the uncertainty posed by the threat of litigation and the possibility of a court vacating the project's certificate).

[232] *See, e.g.*, Boardwalk Technical Conference Comments at 7; Dr. Jason Scott Johnston Technical Conference Comments at 1; TC Energy Technical Conference Comments at 4; API 2021 Comments at 29-30; *see also* Williams Technical Conference Comments at 17 (claiming that there is no reasonable basis for the Commission to require project sponsors to submit mitigation proposals with their applications because the technical conference demonstrated a lack of evidentiary support for any specific mitigation methods, offered no specific proposals regarding the levels of fees, offsets, or caps, and proposed no concrete and cost-effective means to mitigate emissions).

upstream or downstream GHG emissions.[233] Specifically, commenters argue that the Commission's authority under NGA section 7(e) to place conditions on a certificate is limited by the statutory purpose to regulate interstate transportation to ensure reliable access to plentiful natural gas at reasonable prices.[234] Commenters further assert that the Commission has no authority to establish environmental policy and that the Commission cannot use its conditioning authority to indirectly mitigate an effect that it has no authority to directly mitigate.[235]

102. Commenters also claim that any attempt to mitigate indirect GHG emissions would infringe on the regulatory authority of other federal and state agencies and result in back-door regulation of energy policy.[236] Specifically, commenters state that any attempt

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[233] API Technical Conference Comments at 5; Boardwalk Technical Conference Comments at 10; Consolidated Edison Company of New York, Inc. and Orange and Rockland Utilities, Inc. (collectively, Con Edison) Technical Conference Comments at 5; Hon. Joseph T. Kelliher Technical Conference Comments at 1; INGAA Technical Conference Comments at 6-7; TC Energy Technical Conference Comments at 8; API 2021 Comments at 31; INGAA 2021 Comments at 74-83; TC Energy 2021 Comments at 56-58.

[234] *See, e.g.*, Hon. Joseph T. Kelliher Technical Conference Comments at 1 (citing *NAACP v. FPC*, 425 U.S. 662, 669-70 (1976)); *id.* at 8-9 (asserting that the proper place to consider GHG emissions (direct only) is under the Commission's balancing test, where a project sponsor may choose to voluntarily offset emissions); TC Energy Technical Conference Comments at 8; INGAA 2021 Comments at 74-76.

[235] *See, e.g.*, Boardwalk Technical Conference Comments at 11-13 (arguing that *Transco* does not authorize the Commission to indirectly regulate upstream and downstream emissions); Enbridge Technical Conference Comments at 5, 16, 21; Hon. Joseph T. Kelliher Technical Conference Comments at 4; INGAA 2021 Comments at 76-77.

[236] *See, e.g.*, API Technical Conference Comments at 2, 4; Edison Electric Institute (EEI) Technical Conference Comments at 9-10; Enbridge Technical Conference

by the Commission to mitigate upstream or downstream GHG emissions would interfere with state resource decisions and usurp issues of national energy and environmental policy that Congress vested in other federal authorities.[237] For example, commenters argue that Congress has delegated authority to the EPA and state agencies to regulate GHGs under the CAA.[238] Even if the Commission had the authority to impose mitigation measures for upstream or downstream GHG emissions, commenters argue that the Commission must first establish that those GHG emissions are reasonably foreseeable and have a sufficiently close causal connection (akin to proximate causation under tort law)[239] to the authorization of a project under NEPA, and if not, should not be considered

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Comments at 18-19, 23-24; Hon. Joseph T. Kelliher Technical Conference Comments at 5; Attorneys General of Missouri et al. Technical Conference Comments at 3 (citing *S. Coast Air Quality Mgmt. Dist. v. FERC*, 621 F.3d 1085, 1092 (9th Cir, 2010)); TC Energy Technical Conference Comments at 6-7; Boardwalk 2021 Comments at 10. Commenters further argue that the NGA was not enacted to comprehensively regulate the natural gas industry, but instead to fill a regulatory gap over interstate gas transportation and sales; therefore, Congress left the regulation of upstream production and downstream consumption to the states. Enbridge Technical Conference Comments at 16-17; Hon. Joseph T. Kelliher Technical Conference Comments at 2 (citing *NAACP v. FPC*, 425 U.S. at 669-70; *State of Cal. v. Southland Royalty Co.*, 436 U.S. 519, 523 (1989); *ONEOK, Inc. v. Learjet, Inc.*, 575 U.S. 373, 378, 384-85 (2015); *ANR Pipeline Co. v. FERC*, 876 F.2d 124, 132-33 (D.C. Cir. 1989)).

[237] INGAA Technical Conference Comments at 8; Boardwalk 2021 Comments at 107; Con Edison Technical Conference Comments at 6-7 (stating that the state regulators are the best positioned to determine and impose mitigation measures for upstream and downstream GHG emissions); INGAA 2021 Comments at 77-79.

[238] American Public Gas Association (APGA) Technical Conference Comments at 5-6; EEI Technical Conference Comments at 9-10; Enbridge Technical Conference Comments at 23-24; TC Energy Technical Conference Comments at 9-10.

[239] Specifically, commenters argue that the Commission should rely on *Center for Biological Diversity*, which states that "the legal analysis in *Sabal Trail* is questionable at

for mitigation purposes.[240] Lastly, commenters question reliance on *Sabal Trail* to support the Commission's authority to impose mitigation.[241]

103. We disagree with contentions that the Commission does not have the authority under the NGA or NEPA to require mitigation of GHG emissions by a project sponsor. The D.C. Circuit stated in *Sabal Trail*, that "the [Commission] has legal authority to mitigate" greenhouse-gas emissions that are an indirect effect of authorizing a pipeline project.[242] And, as early as 1961, the Supreme Court recognized that the Commission's predecessor, the Federal Power Commission, had the authority to consider downstream uses, and specifically, the impact of end-users combusting transported gas on air quality,

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best" and that "[i]t fails to take seriously the rule of reason announced in *Public Citizen* or to account for the untenable consequences of its decision." *Center for Biological Diversity*, 941 F.3d at 1300; *see also* AGA Technical Conference Comments at 13-14; Boardwalk Technical Conference Comments at 16-17; Hon. Joseph T. Kelliher Technical Conference Comments at 3; INGAA Technical Conference Comments at 12-13; TC Energy Technical Conference Comments at 13-14.

[240] API Technical Conference Comments at 4; EEI Technical Conference Comments at 6; INGAA Technical Conference Comments at 14; Williams Technical Conference Comments at 5.

[241] *See* AGA Technical Conference Comments at 12-13 (arguing that the Commission should not rely on this statement of dicta because the issue of mandatory mitigation was not at issue in this case; rather, the court only addressed whether the Commission is, in some circumstances, required by NEPA to include a discussion of downstream GHG emissions when conducting its environmental review); Boardwalk Technical Conference Comments at 16 (same); Enbridge Technical Conference Comments at 20 (same); Hon. Joseph T. Kelliher Technical Conference Comments at 3-4 (same); TC Energy Technical Conference Comments at 12 (same).

[242] *Sabal Trail*, 867 F.3d at 1374.

as part of its public convenience and necessity determination under the NGA.[243] Both NGA sections 3 and 7 authorize the Commission to attach "such reasonable terms and conditions as the public convenience and necessity may require."[244] Pursuant to this authority, the Commission has conditioned NGA section 7 certificates and section 3 authorizations on mitigation of impacts of the proposed project.[245] Moreover, courts have interpreted this provision broadly and given the Commission latitude in deciding what types of mitigation to require.[246]

104. Regarding claims that the Commission cannot mandate mitigation of downstream emissions because those emissions are outside the Commission's jurisdiction, we recognize, as many commenters assert, that the Commission does not have the statutory authority to impose conditions on downstream users or other entities outside the Commission's jurisdiction, such as production, gathering, and local distribution

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[243] *Transco*, 365 U.S. at 17; *see also NAACP v. FPC*, 425 U.S. at n.6 (stating that the Commission has the authority to consider conservation and environmental issues under the NGA's public interest determination). *See Certification of New Interstate Natural Gas Pipeline Facilities*, 178 FERC ¶ 61,107 at PP 71-72.

[244] 15 U.S.C. 717f(e); *see also id.* 717b(e)(3)(A) (providing the authority to approve an application for an LNG Terminal, "in whole or part, with such modifications and upon such terms and conditions as the Commission find[s] necessary or appropriate.").

[245] For examples where the Commission has conditioned approval of natural gas projects on mitigation of adverse impacts, *see supra* note 69.

[246] *See Twp. of Bordentown v. FERC*, 903 F.3d at 261 n.15 (concluding that the Commission's authority to enforce any required remediation is amply supported by provisions of the NGA); *Sabal Trail*, 867 F.3d at 1374 (holding that the Commission has legal authority to mitigate reasonably foreseeable indirect effects).

entities.[247] Rather, the Commission encourages each *project sponsor* to propose measures to mitigate the impacts of reasonably foreseeable GHG emissions associated with its proposed project, and will consider such mitigation proposals in assessing the extent of a project's adverse impacts.[248]

105. We note that the Supreme Court's ruling in *Public Citizen* does not preclude the Commission from requiring project sponsors to mitigate reasonably foreseeable upstream or downstream emissions. As discussed previously,[249] the Commission may consider downstream GHG emissions under *Public Citizen*, which states that "NEPA requires 'a reasonably close causal relationship' between [an] environmental effect and the alleged cause," analogous to the "familiar doctrine of proximate cause from tort law" and does not require an agency to gather or consider information regarding environmental harms if it lacks authority to act on that information.[250] As directed by *Public Citizen*, decisionmakers should "look to the underlying policies or legislative intent in order to

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[247] *See generally Tex. Pipeline Ass'n v. FERC*, 661 F.3d 258, 260 (5th Cir. 2011) (holding that the Commission lacked authority to require "major non-interstate pipelines" to post certain flow information).

[248] As described *supra* in section III.A.2.b, the Commission will consider GHG emission mitigation and reduction efforts taken by non-jurisdictional entities, including downstream users, when quantifying the reasonably foreseeable project GHG emissions. However, the project sponsor's GHG mitigation plan should only include its own proposed mitigation efforts.

[249] *See supra* section III.A.1.b.

[250] *Pub. Citizen*, 541 U.S. at 767, 770 (quoting *Metro. Edison Co.*, 460 U.S. at 774); *see Sabal Trail*, 867 F.3d at 1372.

draw a manageable line between those causal changes that may make an actor responsible for an effect and those that do not."[251] Here, the NGA "broadly instruct[s]" the Commission to consider "the public convenience and necessity" when evaluating proposed interstate pipeline applications, balancing public benefits against adverse effects, including adverse environmental effects,[252] and we have noted that the Commission has consistently exercised its broad conditioning authority under the NGA to attach environmental conditions that mitigate the adverse environmental impacts of a proposed project.[253] NEPA requires an agency to consider the environmental impacts of its actions, including steps that could be taken to mitigate adverse environmental consequences,[254] although it does not require a federal agency to take action to mitigate those adverse effects.[255] As CEQ recognizes, an agency may, however, require

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[251] *Pub. Citizen*, 541 U.S. at 767 (quoting *Metro. Edison Co.*, 460 U.S. at 774 n.7).

[252] *Sabal Trail*, 867 F.3d at 1373 (citing *Minisink Residents for Envtl. Pres. & Safety v. FERC*, 762 F.3d 97, 101–02 (D.C. Cir. 2014); *Myersville Citizens for a Rural Cmty. v. FERC*, 783 F.3d 1301, 1309 (D.C. Cir. 2015)).

[253] *See supra* P 97.

[254] *Robertson v. Methow Valley Citizens Council*, 490 U.S. at 351 ("To be sure, one important ingredient of an EIS is the discussion of steps that can be taken to mitigate adverse environmental consequences.").

[255] *Id.* at 352 ("There is a fundamental distinction, however, between a requirement that mitigation be discussed in sufficient detail to ensure that environmental consequences have been fairly evaluated, on the one hand, and a substantive requirement that a complete mitigation plan be actually formulated and adopted, on the other."); *S. Fork Band Couns. of W. Shoshone of Nev. v. U.S. Dep't of Interior*, 588 F.3d at 727 (NEPA does not require that agencies mitigate significant environmental harms).

mitigation of impacts under its authority as a condition of its permitting or approval.[256] Thus, as the D.C. Circuit held in *Sabal Trail*, the Commission can deny a pipeline certificate on the ground that the pipeline would be too harmful to the environment, because the agency is the "legally relevant cause" of the direct and reasonably foreseeable environmental effects of the pipelines it approves.[257] Accordingly, the Commission may consider the end use of gas and the impact of natural gas combustion on air pollution as a factor in assessing the public interest.[258] However, as detailed below, the Commission's priority is for project sponsors to mitigate, to the greatest extent possible, a project's direct GHG emissions. The Commission also encourages project sponsors to propose mitigation of reasonably foreseeable indirect emissions, and will take such proposals into account in assessing the extent of a project's adverse impacts.

3. Mitigation Measures

106. The Commission encourages the project sponsor to propose measures to mitigate the direct GHG emissions of its proposed project to the extent these emissions have a significant adverse environmental impact.[259] INGAA describes three possible levels of

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[256] *Final Guidance for Federal Departments and Agencies on the Appropriate Use of Mitigation and Monitoring and Clarifying the Appropriate use of Mitigated Findings of No Significant Impact*, 76 FR 3843, 3848.

[257] *Sabal Trail*, 867 F.3d at 1373 (distinguishing *Public Citizen*).

[258] *See supra* P 80.

[259] The Attorneys General of Massachusetts, Delaware, Maryland, Michigan, Minnesota, New Jersey, Rhode Island, and the District of Columbia (Attorneys General of Massachusetts et al.) recommends that the Commission include reasonable, binding mitigation measures that incorporate any applicable state or federal regulations or permit

mitigation—to zero, to a level of below significance, and to an amount to be determined by use of the SCC—but dismisses each as unworkable, improperly adopting broad policy judgements, and reliant on a one-sided and imprecise methodology, respectively.[260] The Commission plans to evaluate proposed mitigation plans on a case-by-case basis and is not mandating a standard level of mitigation. We also encourage project sponsors to proposed measures to mitigate the reasonably foreseeable upstream or downstream emissions associated with their projects.

107. The Commission will consider the project's impact on climate change, including the project sponsor's mitigation proposal, as part of its public interest determination under NGA section 3 or 7.[261] When making the public interest determination, the Commission will assess the adequacy of the project sponsor's proposed mitigation on a case-by-case basis and will consider the project's impact on climate change as one of

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conditions. Attorneys General of Massachusetts et al. Technical Conference Comments at 6. The technical conference commenters are made up of a slightly different group of state attorneys general than those filing comments in 2018 or 2021. As explained below, the Commission is only considering mitigation measures that reduce emissions beyond those associated with regulatory requirements in this policy statement.

[260] INGAA Technical Conference Comments at 21-27; *see also* Enbridge Technical Conference Comments at 12-13, 35-38 (recommending the Commission await direction from Congress in choosing a mitigation level, especially if requiring project sponsors to mitigate to less than significant levels and noting that mitigation to zero is not practicable if downstream or upstream emissions are included).

[261] Attorneys General of Massachusetts et al. urges the Commission to consider the impacts of any mitigation measures on environmental justice communities. Attorneys General of Massachusetts et al. Technical Conference Comments at 5-6.

many factors.[262] Further, the Commission may require additional mitigation of a project's direct GHG emissions as a condition of the authorization, should the Commission deem a project sponsor's proposed mitigation inadequate to support the public interest determination.

108. Also we note that NEPA does not preclude the Commission from approving a project with significant adverse impacts.[263] If a project's emissions equal or exceed the 100,000 metric tons per year significance threshold and the project sponsor's proposed mitigation will reduce the project's GHG emissions below that threshold, the Commission will consider that mitigation in determining whether it can make a finding of no significant impact.

109. While the Commission has broad authority to require mitigation of GHG emissions by a project sponsor, we are not mandating here any particular form of mitigation.[264] A project sponsor is free to propose any mechanism to mitigate the

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[262] Jennifer Danis, Senior Fellow with the Sabin Center for Climate Change Law and a panelist at the GHG Technical Conference on Panel 1, recommends that the Commission should not consider the effect of any mitigation measures in its public interest determination but should only consider mitigation measures once the Commission has determined that public convenience and necessity absolutely requires the project. Jennifer Danis Technical Conference Statement at 8-11. As explained in the Certificate Policy Statement, the Commission considers all factors, including the extent to which adverse impacts are mitigated, to determine whether a project is in the public convenience and necessity. *Certification of New Interstate Natural Gas Pipeline Facilities*, 178 FERC ¶ 61,107 at PP 70, 93-95.

[263] *See supra* section II.B.

[264] Commenters emphasize the need for flexibility in assessing mitigation measures. *See, e.g.*, Enbridge Pre-Conference Comments at 9; Enbridge Technical Conference Comments at 46-47 (suggesting that, depending on a variety of factors, the

project's GHG emissions.[265] However, in order to ensure that any GHG emissions reduction mechanisms achieve real, verifiable, and measurable reductions, any proposed mechanisms should:

a. be both real and additional – the emissions reductions would not have otherwise happened unless the proposed reduction mechanism was

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applicant may or may not be able to propose appropriate mitigation at the time of the project application); Hon. Joseph T. Kelliher Technical Conference Comments at 11 (recommending alternatives to imposing mitigation requirements such as revising the Commission's 2015 Modernization Policy Statement, issuing a new GHG policy statement that either allows limited section 4 rate filings to recover costs or clarifies the level of shipper support required to support establishment of a tracker surcharge and recommending that such a policy address lost and unaccounted-for fuel, or implementing a fast track certificate process for project sponsors that voluntarily commit to mitigate direct GHG emissions); INGAA Technical Conference Comments at 30; Magnolia LNG LLC Technical Conference Comments at 2; TC Energy Technical Conference Comments at 5, 21 (arguing against the Commission requiring marked-based mitigation measures). A few commenters either oppose use of the SCC in determining a required level of mitigation for project emissions, Enbridge Technical Conference Comments at 6, 38-39, or urge the Commission to use the SCC to monetize the impacts of any GHGs that are not able to be mitigated, Attorneys General of Massachusetts et al. Technical Conference Comments at 7. As described above, the Commission does not propose to mandate any particular level or type of mitigation.

[265] For example, Mountain Valley Pipeline, LLC, proposed to offset the operational emissions of the Mountain Valley Pipeline Project by purchasing carbon offset credits equivalent to 90% of GHG emissions associated with the project's operations in its first 10 years of service from a new methane abatement project located at a mine in southwest Virginia. Mountain Valley Pipeline, LLC, Carbon Offset Commitment for Mountain Valley Pipeline Project Operations, Docket No. CP21-57-000 (filed July 12, 2021).

implemented, and the associated reductions occur beyond regulatory requirements;[266]

b. be quantifiable – any emissions reductions must be calculated using a transparent and replicable methodology;

c. be unencumbered – seller has clear ownership of or exclusive rights to the benefits of the GHG reduction; and

d. be trackable – the project sponsor must also propose means for the Commission to monitor and track compliance with the proposed mitigation measures for the life of the project.

110. Commenters express concerns with how the Commission will determine whether mitigation measures are verifiable or how the Commission will monitor or track compliance with mitigation measures in a way that avoids double counting emissions reductions.[267] Commenters point out that other federal agencies and states are already monitoring GHG emissions from certificated projects, such as EPA's GHG Reporting Rule, so a Commission-designed monitoring scheme would be duplicative and

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[266] Regulatory requirements include those imposed by the Commission and other federal and state regulatory agencies. However, project sponsors may include participation in voluntary regulatory programs that reduce GHG emissions.

[267] *See, e.g.*, INGAA Technical Conference Comments at 38-39. Dr. Carl Pechman, Director of the National Regulatory Research Institute and a panelist at the GHG Technical Conference on Panel 3, provides extensive comments on how the Commission could establish accounting protocols and offset tracking. Dr. Carl Pechman Technical Conference Statement at 1-15.

unnecessary.[268] EEI recommends that the Commission explore interagency agreements or memorandums of understanding (MOU) with agencies like EPA and PHMSA to avoid redundancies and clarify mitigation responsibilities,[269] while INGAA states that such agreements or MOUs would be insufficient.[270]

111. We believe it best not to mandate mitigation based on a specific volume or proportion of emissions. Encouraging project sponsors to submit proposed mitigation measures as opposed to mandating a certain level of mitigation for all projects allows the Commission to consider a project sponsor's proposed mitigation plan in comparison to the project's benefits, such as fuel switching or providing reliable gas service, when making a public interest determination and allows project sponsors the flexibility to

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[268] APGA Technical Conference Comments at 8-9; Enbridge Technical Conference Comments at 48-49; INGAA Technical Conference Comments at 40-41; TC Energy Technical Conference Comments at 5-6, 22-23. Similarly, commenters state that the Commission should defer to other agencies, such as the EPA and state environmental agencies, that are already taking regulatory action regarding emissions, express concern over the potential for inconsistent mitigation requirements between agencies, and/or point to EPA's methane regulation proposal to reduce GHG emissions from new, reconstructed, modified, and existing facilities in the oil and gas source category under section 111 of the Clean Air Act. APGA Technical Conference Comments at 5; EEI Technical Conference Comments at 10-11; INGAA Technical Conference Comments at 30-32; NGSA Technical Conference Comments at 6-7. Conversely, one commenter encourages the Commission to use resources from the EPA's pending rulemaking. Attorneys General of Massachusetts et al. Technical Conference Comments at 6-7 (referencing Standards of Performance for New, Reconstructed, and Modified Sources and Emissions Guidelines for Existing Sources: Oil and Natural Gas Sector Climate Review, 86 FR 63,110 (Nov. 15, 2021)).

[269] EEI Technical Conference Comments at 12-14.

[270] INGAA Technical Conference Comments at 40-41.

choose what mitigation measures work best for their individual project. Moreover, we recognize that determining an appropriate amount of mitigation, particularly for downstream uses, depends on a variety of complex factors, some of which may not be known at the time of an application, such as state and local climate change policies, the interconnected nature of the natural gas pipeline system, long-term changes in natural gas supply sources, changes in demand for natural gas over time, individual companies' long-term goals to reduce GHG emissions, the availability of renewable energy credits or other carbon offsets, and the potential for future action by other federal agencies.[271]

112. Similarly, we believe it best to allow project sponsors to demonstrate that their proposed mitigation measures are verifiable and propose means for the Commission to monitor or track the proposed measures through the life of the project. This approach allows project sponsors to take advantage of existing monitoring programs and tailor verification and tracking to their chosen mitigation proposals and prevents the Commission from needing to establish a new monitoring program.

4. Opportunities for Mitigation

113. While project sponsors are free to propose any type of mitigation mechanism, the following are examples of mitigation mechanisms project sponsors may consider.

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[271] *See, e.g.*, Standards of Performance for New, Reconstructed, and Modified Sources and Emissions Guidelines for Existing Sources: Oil and Natural Gas Sector Climate Review, 86 FR 63,110 (Nov. 15, 2020).

a. Market-Based Mitigation

114. Project sponsors may mitigate the GHG emissions of a proposed project through participation in one (or more) of the various types of carbon offset markets. Sponsors could, for example, purchase renewable energy credits, participate in a mandatory compliance market (if located in a state that requires participation in such a market), or participate in a voluntary carbon market.

i. Renewable Energy Credits

115. Renewable energy credits (REC) are tradeable, market-based commodities that provide proof that one megawatt hour of electricity was generated from a renewable source and delivered to the grid. RECs legally convey the attributes of renewable electricity generation to their owner. While state or regional RECs may be traded on financial exchanges that typically meet state or regional guidelines, they are not limited by geographic boundaries—RECs can be purchased independently from electricity and can be matched with energy consumption.[272]

116. Commenters argue that the Commission may not require RECs because unlike offsets, RECs pertain only to the use of electric power and are therefore not appropriate for upstream or downstream mitigation, do not mitigate or compensate for GHG emissions, and are not denominated in carbon dioxide (CO_2) or CO_2e, thus, they cannot

[272] For more information, see EPA Green Power Partnership, *Offsets and RECs: What's the Difference* (Feb. 2018), https://www.epa.gov/sites/default/files/2018-03/documents/gpp_guide_recs_offsets.pdf.

represent any specific amount of avoided or reduced emissions.[273] Enbridge also states that in most instances, project sponsors will not qualify to purchase RECs under existing state programs.[274] While RECs may not represent a 100% offset per unit of GHG emitted, RECs do represent a decrease in GHG emissions from overall energy use and production, and we will consider them.

ii. Mandatory Compliance Market Participation

117. The compliance market is a mandatory offset program regulated by national, regional, or provincial law and mandates CO_2 and GHG emission reduction requirements. Under this framework an allowance, which is an authorization for an entity to emit GHG emissions, is created. Allowances are generated and traded for regulatory compliance and are priced as a commodity based on supply and demand, regardless of project type.

118. A prime example of an existing, domestic compliance market is the Regional Greenhouse Gas Initiative (RGGI). RGGI is a cooperative effort by eleven Northeast and Mid-Atlantic states[275] to limit CO_2 emissions at certain electric power generators. Each region involved in RGGI has an established emissions budget (cap) and each electric

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[273] Enbridge Pre-Conference Comments at 6-7; Enbridge Technical Conference Comments at 42-46; Enbridge 2021 Comments at 145-148; INGAA Technical Conference Comments at 33.

[274] Enbridge 2021 Comments at 23, 148 n. 406 (stating that the lack of a federal REC program coupled with the patchwork of state and regional, as well as voluntary and mandatory, REC programs brings into question whether project sponsors could participate in these existing programs).

[275] RGGI includes: Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, Vermont, and Virginia.

power generator holds allowances covering their GHG emissions. If a generator is below its established cap, it may trade an allowance to other entities[276] that exceed their cap. RGGI has an established emissions-based auction and trading system where allowances are bought, sold, and traded.[277] In addition to allowances, offsets may be used for compliance purposes, which requires a third-party certification of that offset for use. RGGI strictly regulates the quantity and types of offsets. There are five pre-determined types of RGGI offsets:

a. landfill gas (methane) capture/burning;

b. sulfur hexafluoride capture/recycling;

c. afforestation (the establishment of a forest in an area where there was no previous tree cover);

d. energy efficiency (end use); and

e. agricultural manure management operations (avoided emissions).

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[276] Any entity is eligible to participate in CO_2 allowance auctions including, but not limited, to corporations, individuals, non-profit corporations, environmental organizations, brokers, and other interested parties. The Regional Greenhouse Gas Initiative, *CO_2 Allowance Auctions, Frequently Asked Questions* 1 (Apr. 6, 2021), https://www.rggi.org/sites/default/files/Uploads/Auction-Materials/54/FAQS_Apr_6_2021.pdf.

[277] 23.5 million CO_2 allowances (short tons) sold at RGGI auction in March 2021 at clearing price of $7.60/allowance.

119. In addition to RGGI, California participates in the Western Climate Initiative with Quebec and Nova Scotia,[278] covering industrial production, electricity generation, residential, commercial, and small industrial combustion, and transportation fuel combustion.

120. If an applicant proposes any method of market-based mitigation of GHG emissions, such as those described in this section, we encourage the applicant to inform the Commission of any state or regional compliance goals or initiatives that may be relevant to our consideration of such mitigation proposal.

iii. Voluntary Carbon Market Participation

121. If a project sponsor is not located in a state that participates in a mandatory compliance market, the voluntary carbon market offers an opportunity to mitigate project emissions. The voluntary carbon market transacts with offsets, which are the instrument representing the reduction, avoidance, or sequestration of one metric ton of GHG.[279] The voluntary market funds additional, external projects that avoid or reduce GHG emissions.[280] The voluntary carbon market is open to project sponsors regardless of

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[278] 54.7 million CO_2 allowances (metric tons) sold at settlement price of $17.8/allowance during a February 2021 auction.

[279] EPA Green Power Partnership, *supra* note 272.

[280] In 2019, 104 million metric tons of CO_2e offsets were sold and the price per metric ton CO_2e was $1.40 to $4.30, depending on type of project (renewable energy and forestry/land use, respectively). S&P Global Platts, *Voluntary Carbon Market Grows 6% on Year in 2019: Ecosystem Marketplace* (Sep. 22, 2020), https://www.spglobal.com/platts/en/market-insights/latest-news/coal/092220-voluntary-carbon-market-grows-6-on-year-in-2019-ecosystem-marketplace.

location and is more flexible than compliance markets, although each market has its own standards, registries, and project types. Offset allowances are issued to project sponsors of qualifying CO_2 emissions offset projects.

122. Typically, an independent third party qualifies offset projects and establishes standards to verify offsets; however, not all offsets available in the voluntary market are certified by a third party. In order to ensure the additionality and permanence of offsets, the use of unverified offsets is discouraged. If a project sponsor proposes to mitigate project emissions through participation in a voluntary carbon market, the sponsor is encouraged to seek Commission approval of the third party that would verify the offsets prior to participation. Examples of existing, acceptable third-party certifiers include:

a. Climate Action Reserve;[281]

b. Verified Carbon Standard; [282] and

c. American Carbon Registry.[283]

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[281] Typical offset projects include ozone depleting substances destruction, landfill gas capture/combustion, livestock gas capture/combustion, improved forest management, avoided grassland conversion, and improved forest management, among others. For more information, see generally https://www.climateactionreserve.org/.

[282] Typical offset projects include renewable energy, forest and wetland conservation and restoration, transport efficiency improvement, nitrous oxide abatement, clean cookstoves, methane capture and use/combustion, and waste heat recovery. For more information, see generally https://verra.org/.

[283] Typical offset projects include ozone depleting substances destruction, industrial process emissions, fuel switching, livestock waste management, transport fleet efficiency, landfill gas capture and combustion, wetland restoration, forest management, and coal mine methane capture. For more information, see generally https://americancarbonregistry.org/.

123. Some commenters support allowing project sponsors to purchase emissions offsets while others oppose it as a mitigation method. For example, Policy Integrity recommends that the Commission require certificate holders to purchase emission offsets from a third party.[284] Policy Integrity states that carbon offsets are: (1) consistent with compensatory mitigation requirements employed by other federal agencies, such as the Bureau of Land Management, U.S. Fish and Wildlife Service, and EPA; and (2) included and supported in CEQ's NEPA regulations and guidance.[285] Policy Integrity also recommends that the Commission develop a carbon offset program as opposed to relying on third-party programs;[286] however, the Commission lacks statutory authority to create such a program and believes that the existing programs and certifiers mentioned above are sufficient.

124. Conversely, some commenters oppose the Commission requiring project sponsors to purchase offsets from third parties because it is difficult to ensure that carbon offsets have the necessary traits of additionality (the reduction would not have happened but for the purchased offset), permanence (the reduction persists for the entire certification period of the offset), absence of leakage (the offset does not trigger some other activity elsewhere that adds GHG emissions), and rigorous third-party verification.[287] INGAA

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[284] Policy Integrity 2021 Comments at 14-15, 19.

[285] Policy Integrity 2021 Comments at 23-26 (citing 40 CFR 1508.1(s)(5)).

[286] Policy Integrity 2021 Comments at 20.

[287] Enbridge Pre-Conference Comments at 7-8; INGAA 2021 Comments at 79-82.

further comments that it would be difficult or impossible for the Commission to choose an appropriate level of offsetting because of the variability in emissions over the life of a project and the risk of over-counting for a given quantity of gas that might move over multiple jurisdictional transportation projects, and that not enough high-qualify offsets are available.[288] Commissioner Kelliher cautions that the Commission would have to verify offsets given concerns about fraud and environmental and accounting integrity.[289] As previously stated, the Commission is not requiring project sponsors to purchase offsets or mandating a certain level of offsetting, and while the Commission acknowledges the challenges with third-party offsets, we believe the certifiers mentioned above will sufficiently account for them.

b. Physical Mitigation

125. In addition to purchasing RECs or emissions offsets, project sponsors could also propose to mitigate and/or offset GHG emissions through the use of physical, on- or off-site mitigation measures. Physical mitigation measures could include smaller-scale efforts including reducing a project's fugitive methane emissions or incorporating renewable energy or other energy efficient technologies to reduce a project's GHG emissions from compressor stations, or larger-scale undertakings such as carbon capture

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[288] INGAA Technical Conference Comments at 34-36; INGAA 2021 Comments at 79-82; *see also* Enbridge Pre-Conference Comments at 8-9; Enbridge Technical Conference Comments at 46-47.

[289] Hon. Joseph T. Kelliher Technical Conference Comments at 7; *see also id.* (asserting that this process would be complicated because credits could originate outside the U.S. and the Commission has no verification expertise).

and storage, or direct air CO_2 capture. Project sponsors could also propose environmentally based measures, such as planting trees along the right-of-way or in other locations to offset carbon emissions or restoring wetlands to provide additional carbon storage; however, the scale needed for such measures to meaningfully mitigate GHG emissions may render them impractical. In addition, project sponsors could propose to reduce GHG emissions from their existing facilities, including those with no direct connection to the proposed project, as mitigation for project-related emissions.

126. Commenters detail a host of mitigation measures they are currently undertaking or propose to implement to reduce direct project emissions, such as: installing vent gas recovery systems and optimizing operations to reduce venting and blowdowns, replacing cast iron/unprotected steel pipes with polyethylene or protected steel pipes to minimize leaks, employing a variety of technologies and methods to identify and reduce leaks, and replacing natural gas-fired horsepower at compressor stations.[290] Other commenters echo

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[290] *E.g.*, AGA Technical Conference Comments at 28-30; API Technical Conference Comments at 6-8; Boardwalk Technical Conference Comments at 5-6; Con Edison Technical Conference Comments at 7-10 (detailing other efforts reduce emissions using renewable natural gas, certified natural gas, and hydrogen); Enbridge Pre-Conference Comments at 5; Enbridge Technical Conference Comments at 13-14, 39-41; INGAA Technical Conference Comments at 28-30 (citing its 2021 Climate Report); Magnolia LNG LLC Technical Conference Comments at 2 (describing its proprietary technology to reduce emissions during the liquefaction process); Scott A. Hallam Technical Conference Statement at 2 (Scott A. Hallam, Senior Vice President of Transmission and Gulf of Mexico at Williams, was a panelist at the GHG Technical Conference on Panel 1.); Stephen Mayfield Technical Conference Statement at 1-2 (Stephen Mayfield, AGM of Gas Operations at City of Tallahassee, was a panelist at the GHG Technical Conference on Panel 3.); Texas LNG Brownsville LLC Technical Conference Comments at 6; William F. Donahue Technical Conference Statement at 3 (William F. Donahue, Manager of Natural Gas Resources at Puget Sound Energy, was a panelist at the GHG Technical Conference on Panel 2.); INGAA 2021 Comments at 79-

some of those suggestions[291] and recommend operational limits on construction equipment, such as limited idle time when engines are not in use.[292] Other commenters criticize any mitigation measures, especially carbon capture and sequestration and offsets, and recommend that the Commission achieve "real zero" emissions that accounts for air and water pollution and focuses on environmental justice communities and workers impacted by the negative externalities associated with project operation and jobs that are being phased out.[293] Some commenters assert that direct emissions are already substantially mitigated pursuant to the regulatory authority exercised by other agencies.[294] With regard to methane leaks, Dr. Anna Scott explains that its independent certification and measurement program verifies that a company's operations meet regulatory standards and incentivize companies to go beyond the standards by using an

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82. Some commenters note, however, that use of electric compressors may increase indirect emissions depending on the generation mix and existing infrastructure or cite concerns about the impact to the reliability of gas service during power outages. *E.g.*, American Forest Technical Conference Comments at 13; Enbridge Pre-Conference Comments at 5-6; Enbridge Technical Conference Comments at 41; Kinder Morgan Technical Conference Comments at 22-23.

[291] Delaware Riverkeeper 2021 Comments at 66; Kirk Frost 2021 Comments at 11

[292] Delaware Riverkeeper 2021 Comments at 66.

[293] Rachel Dawn Davis, the Public Policy and Justice Organizer at Waterspirit, was a panelist at the GHG Technical Conference on Panel 3. Rachel Dawn Davis Technical Conference Statement at 1; Waterspirit Technical Conference Comments at 1-2; *see also* Technical Conference Transcript at 106-107 (transcribing remarks made by Dr. Nicky Sheats, Director of the Center for Urban Environment at the John S. Watson Institute for Public Policy and panelist on Panel 2).

[294] *E.g.*, TC Energy Technical Conference Comments at 20.

engineering-based review process that assesses development through to operations, as well as continuous monitoring of emissions along the supply chain.[295] On a policy level, Gary Choquette of Pipeline Research Council International (PRCI) argues for a centralized funding mechanism for pipeline research to establish gas quality requirements with the aim of maximizing supply and reducing emissions and notes that PRCI has developed a tool that provides a method for prioritizing alternatives to reduce emissions based on effectiveness and associated capital and operating costs.[296]

127. Commenters also recommend that the Commission consider a project sponsor's participation in programs that help shippers voluntarily reduce emissions and other voluntary emissions reductions programs when evaluating mitigation measures, such as the ONE Future Coalition, Oil and Gas Climate Initiative, Climate and Clean Air Coalition Oil and Gas Methane Partnership, EPA Natural Gas STAR Program and

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[295] Dr. Anna Scott, Co-Founder and Chief Science Officer of Project Canary, was a panelist at the GHG Technical Conference on Panel 2. Dr. Anna Scott Technical Conference Statement at 1-2, 5 (mentioning key engineering components such as operational venting or flaring, electrification of facilities and equipment, low bleed and/or zero bleed process controls, leak detection and repair programs, produced water treatment and reuse, and infrastructure and facility efficiency investments and describing how the company uses on-site sensors and algorithm technology to provide continuous monitoring). Along with pursuing carbon capture and storage solutions, Ivan Van der Walt, Chief Operating Officer at NextDecade Corporation and a panelist at the GHG Technical Conference on Panel 2, describes the joint pilot project NextDecade has formed with Project Canary for measuring and certifying the GHG intensity of LNG sold from the Rio Grande LNG Project export facility. Ivan Van der Walt Technical Conference Statement at 2-3.

[296] Gary Choquette, Executive Director of Research and IT at PRCI, was a panelist at the GHG Technical Conference on Panel 2. Gary Choquette Technical Conference Statement at 3-4.

Natural Gas STAR Methane Challenge Program, Methane Guiding Principles, the Natural Gas Sustainability Initiative, and The Environmental Partnership.[297] The Commission encourages project sponsors to detail their participation in such programs and any other voluntary measures as part of their mitigation plan for the Commission to consider as part of its public interest determination.

c. **Cost Recovery**

128. Commenters request that the Commission allow full cost recovery for any GHG mitigation measures through either the section 7 process or a general section 4 rate case for capitalized mitigation costs but caution the Commission to ensure that mitigation efforts are verified and the consumer's interest in low prices are balanced with a project sponsor's right to recover costs and earn a fair rate of return under the NGA.[298] Alternatively, for periodic purchases of market-based mitigation measures specifically, commenters state that pipelines could propose a tracker through a limited section 4 filing.[299] Conversely, other commenters oppose passing mitigation costs along to

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[297] *See, e.g.*, AGA Technical Conference Comments at 17-20; API Technical Conference Comments at 7-8; Boardwalk Technical Conference Comments at 5-6; NGSA Technical Conference Comments at 5; Scott A. Hallam Technical Conference Statement at 2-3; Stephen Mayfield Technical Conference Statement at 1; William F. Donahue Technical Conference Statement at 3-4; BHE Pipeline Group 2021 Comments at 12-14; Cheniere Energy Inc. 2021 Comments at 17.

[298] Boardwalk Technical Conference Comments at 3; Enbridge Technical Conference Comments at 15, 49; INGAA Technical Conference Comments at 42-45; TC Energy Technical Conference Comments at 6.

[299] Enbridge Technical Conference Comments at 15, 49; INGAA Technical Conference Comments at 45 (noting that the Commission should be clear that "recovery of costs related to an ongoing obligation to purchase market-based mitigation is akin to a

shippers, especially if it would increase rates for end-users, particularly low-income communities, who may not directly reap any local environmental benefits.[300] In the event mitigation costs are passed to shippers, American Forest supports establishing a baseline from which to judge emissions reductions and supports having an independent entity monitor and measure those reductions.[301] The Commission has previously considered and approved a proposal by a pipeline proponent to recover the costs of purchasing carbon offsets. In 2010, Ruby Pipeline, L.L.C., proposed to voluntarily purchase GHG offsets for the direct emissions associated with its compressor units (approximately 523,000 metric tons of GHG per year).[302] Going forward, project sponsors wishing to purchase offsets or proposing other measures to mitigate their project's GHG emissions may propose to recover the costs of these measures through their proposed rates.

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fuel tracker and would not be subject to the modernization cost recovery tracker policy or the Commission's policy against cost recovery trackers for regulatory compliance costs," and incremental operating costs to reduce GHG emissions should also be recoverable through a tracker); *see also* Hon. Joseph T. Kelliher Technical Conference Comments at 7 (suggesting that, while burdensome to stakeholders, the Commission could adopt a true-up mechanism requiring project sponsors to deposit offsets, which would later be compared to actual emissions).

[300] American Forest Technical Conference Comments at 15-16; APGA Technical Conference Comments at 6-8 (urging the Commission to consider the effects of cost-recovery on end-users, particularly low-income communities, who may not directly reap any local environmental benefits); American Forest and Paper Association et al. 2021 Comments at 26.

[301] American Forest Technical Conference Comments at 14 (asserting that there is little transparency for customers with respect to Lost and Unaccounted for Fuel Charges, which are recoverable by shippers).

[302] *Ruby Pipeline, LLC*, 131 FERC ¶ 61,007, at P 34 (2010).

Applicants are encouraged to submit detailed cost estimates of GHG mitigation in their application and to clearly state how they propose to recover those costs. Pipelines may seek to recover GHG emissions mitigation costs through their rates, similarly to how they seek to recover other costs associated with constructing and operating a project, such as the cost of other construction mitigation requirements or the cost of fuel. Additionally, the Commission's process for section 7 and section 4 rate cases is designed to protect shippers from unjust or unreasonable rates and will continue to do so with respect to the recovery of costs for mitigation measures.

D. Application of Policy Statement

129. We will apply this interim policy statement to both pending and new NGA section 3 and 7 applications.[303] As noted above, doing so will allow the Commission to evaluate and act on such applications without undue delay. Applicants with pending applications will be given the opportunity to supplement the record and explain how their proposals are consistent with this policy statement, and stakeholders will have an opportunity to respond to any such filings. A project sponsor for any new natural gas infrastructure project is encouraged to include the following in its NGA section 3 or 7 application:

- the project's projected utilization rate and supporting information;
- an estimate of reasonably foreseeable project GHG emissions;

[303] Unless required by law or regulation, the Commission will not apply a presumptive significance threshold below 100,000 metric tons of CO2e to applications filed prior to issuance of a final policy statement. If the Commission adopts a new lower threshold in a final policy statement, that threshold will only apply to applications filed after issuance of that statement.

- if upstream and downstream emissions are not quantified, evidence to support why those emissions are not reasonably foreseeable project emissions;
- evidence, if any, that impacts the quantification of the project's reasonably foreseeable GHG emissions;
- a description of its proposed GHG mitigation measures, including the percent of the project's direct and indirect GHG emissions that will be mitigated and, if applicable, a tracking mechanism for tracking mitigation of GHG emissions; and
- a detailed cost estimate of its proposed GHG mitigation and a proposal for recovering those costs.

130. As explained above, the Commission will then consider the project's impact on climate change, including the project sponsor's mitigation proposal to reduce direct GHG emissions and, to the extent practicable, to reduce any reasonably foreseeable project emissions, as part of its determination under NEPA and its public interest determination under NGA section 3 or 7.[304]

V. Information Collection Statement

131. The collection of information discussed in the Policy Statement is being submitted to the Office of Management and Budget (OMB) for review under section 3507(d) of the

[304] *Certification of New Interstate Natural Gas Pipeline Facilities*, 178 FERC ¶ 61,107 at PP 70-72, 93-95.

Paperwork Reduction Act of 1995[305] and OMB's implementing regulations.[306] OMB must approve information collection requirements imposed by agency rules.[307] Respondents will not be subject to any penalty for failing to comply with a collection of information if the collection does not display a valid OMB control number.

132. The Commission solicits comments from the public on the Commission's need for this information, whether the information will have practical utility, the accuracy of the burden estimates, recommendations to enhance the quality, utility, and clarity of the information to be collected, and any suggested methods for minimizing respondents' burden, including the use of automated information techniques. **PUBLIC COMMENTS ARE DUE [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].** The burden estimates are focused on implementing the voluntary information collection pursuant to this Policy Statement. The Commission asks that any revised burden estimates submitted by commenters include the details and assumptions used to generate the estimates.

133. The following estimate of reporting burden is related only to this Policy Statement.

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[305] 44 U.S.C. 3507(d).

[306] 5 CFR 1320.

[307] This policy statement does not require the collection of any information, but rather discusses information that entities may elect to provide. The Commission is following Paperwork Reduction Act procedures to ensure compliance with that act.

134. **Public Reporting Burden**: The collection of information related to this Policy Statement falls under FERC-577 and impacts the burden estimates associated with the "Gas Pipeline Certificates" component of FERC-577. The Policy Statement will not impact the burden estimates related to any other component of FERC-577. The estimated annual burden[308] and cost[309] follow.

FERC-577 (Natural Gas Facilities: Environmental Review and Compliance) as a result of PL21-3-000						
	Number of Respondents (1)	**Annual Number of Responses per Respondent (2)**	**Total Number of Responses (1)*(2)=(3)**	**Average Burden & Cost ($) Per Response (4)**	**Total Annual Burden Hours & Total Annual Cost ($) (3)*(4)=(5)**	**Cost per Respondent ($) (5)÷(1)**
Gas Pipeline Certificates	40	1	40	1,520 hrs; $132,240 Increase	60,800 hrs; $5,289,600 Increase	$132,240 Increase

135. **Title**: FERC-577, Natural Gas Facilities: Environmental Review and Compliance

136. **Action**: Proposed revisions to an existing information collection.

137. **OMB Control No.**: 1902-0128

138. **Respondents**: Entities proposing natural gas projects.

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[308] Burden is defined as the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a federal agency. *See* 5 CFR 1320 for additional information on the definition of information collection burden.

[309] Commission staff estimates that the industry's average hourly cost for this information collection is approximated by the Commission's average hourly cost (for wages and benefits) for 2021, or $87.00/hour.

139. **Frequency of Information Collection**: On occasion.

140. **Necessity of Voluntary Information Collection**: The Commission's existing FERC-577 information collection pertains to regulations implementing NEPA and reporting requirements for landowner notifications. The information collected pursuant to this Policy Statement should help the Commission in assessing natural gas infrastructure projects.

141. **Internal Review**: The opportunity to file the information conforms to the Commission's plan for efficient information collection, communication, and management within the natural gas pipeline industry. The Commission has assured itself, by means of its internal review, that there is specific, objective support for the burden estimates associated with the opportunity to file the information.

142. Interested persons may provide comments on this information-collection by one of the following methods:

- Electronic Filing (preferred): Documents must be filed in acceptable native applications and print-to-PDF, but not in scanned or picture format.
- USPS: Federal Energy Regulatory Commission, Office of the Secretary, 888 First Street, NE, Washington, DC 20426
- Hard copy other than USPS: Federal Energy Regulatory Commission, Office of the Secretary, 12225 Wilkins Avenue, Rockville, Maryland 20852.

VI. Comment Procedures

143. The Commission invites comments on the interim policy statement by April 4, 2022. Comments must refer to Docket No. PL21-3-000 and must include the commenter's name, the organization they represent, if applicable, and their address in their comments.

144. The Commission encourages comments to be filed electronically via the eFiling link on the Commission's web site at http://www.ferc.gov. The Commission accepts most standard word processing formats. Documents created electronically using word processing software should be filed in native applications or print-to-PDF format and not in a scanned format. Commenters filing electronically do not need to make a paper filing.

145. Commenters that are not able to file comments electronically must send an original of their comments to: Federal Energy Regulatory Commission, Secretary of the Commission, 888 First Street NE, Washington, DC 20426.

146. All comments will be placed in the Commission's public files and may be viewed, printed, or downloaded remotely as described in the Document Availability section below. Commenters on this proposal are not required to serve copies of their comments on other commenters.

VII. Document Availability

147. In addition to publishing the full text of this document in the *Federal Register*, the Commission provides all interested persons an opportunity to view and/or print the contents of this document via the Internet through the Commission's Home Page

(http://www.ferc.gov). At this time, the Commission has suspended access to the Commission's Public Reference Room due to the President's March 13, 2020 proclamation declaring a National Emergency concerning the Novel Coronavirus Disease (COVID-19).

148. From the Commission's Home Page on the Internet, this information is available on eLibrary. The full text of this document is available on eLibrary in PDF and Microsoft Word format for viewing, printing, and/or downloading. To access this document in eLibrary, type the docket number excluding the last three digits of this document in the docket number field.

149. User assistance is available for eLibrary and the Commission's website during normal business hours from the Commission's Online Support at 202-502-6652 (toll free at 1-866-208-3676) or email at ferconlinesupport@ferc.gov, or the Public Reference Room at (202) 502-8371, TTY (202) 502-8659. E-mail the Public Reference Room at public.referenceroom@ferc.gov.

By the Commission. Commissioner Danly is dissenting with a separate statement attached.
Commissioner Christie is dissenting with a separate statement attached.

(S E A L)

Debbie-Anne A. Reese,
Deputy Secretary.

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Consideration of Greenhouse Gas Emissions in Natural Gas Infrastructure Project Reviews	Docket No. PL21-3-000

(Issued February 18, 2022)

DANLY, Commissioner, *dissenting*:

1. I dissent in full from today's Interim Greenhouse Gas (GHG) Policy Statement which purports to set forth the Commission's procedures to evaluate the climate change impacts of proposed natural gas projects under the National Environmental Policy Act (NEPA) and to incorporate climate change considerations into the Commission's determinations under sections 3 and 7 of the Natural Gas Act (NGA).[1]

2. This policy statement is irredeemably flawed. It is practically unworkable because it establishes a standardless standard. Its universal application to all projects, both new and pending (some for over two years), is an affront to basic fairness and is unjustifiable, especially in light of the many unnecessary delays already suffered by applicants. It is unlawful because it is illogical, it arrogates to the Commission power it does not have, and it violates the NGA, NEPA and the Commission's and the Council on Environmental Quality's (CEQ) regulations. It is also deliberately drafted so as to evade judicial review. Lastly, it will sow confusion throughout an industry that already suffers profound uncertainty. This issuance does not know what it is and neither will affected entities: it is immediately applicable, but also seeks comments, and it is allegedly not a draft policy statement, but an "interim" one. How can stakeholders have any confidence in its contents at all?[2]

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[1] *Consideration of Greenhouse Gas Emissions in Natural Gas Infrastructure Project Reviews*, 178 FERC ¶ 61,108 (2022) (Interim Policy Statement).

[2] *But see* Chairman Glick September 24, 2021 Response to Senator Barrasso September 15, 2021 Letter, Docket Nos. CP17-40-000, et al., at 1 ("When courts find flaws in the Commission's analysis, it can lead to lengthy delays and cost developers substantially more than they originally forecasted.") (Accession No. 20210927-4003); *id.* at 9 ("Ultimately, I believe that performing thorough permitting reviews and providing developers with legally durable certificates on which they can rely will do more than just about anything else to satisfy the purposes of the Natural Gas Act."); Chairman Glick May 21, 2021 Response to Senator Hoeven April 29, 2021 Letter, Docket No. PL18-1-000, at 1 ("I believe we can make changes to the Certificate Process that enhance our

3. When reading this policy statement, it is nearly impossible to credit the majority with actually believing that "minimiz[ing] our litigation risk," making Commission decisions "legally durable," and "increas[ing], not reduc[ing], customer and investor confidence," are truly the goals of this proceeding.[3] Rather, the purpose of this Interim Policy Statement, like several of the Commission's other recent Natural Gas Act issuances, appears to be to actively discourage the submission of section 3 or section 7 applications by intentionally making the process more expensive, more time-consuming, and riskier.[4]

I. Overview of the Interim Policy Statement's Contents

4. The Interim Policy Statement begins by explaining it will apply upon issuance while at the same time being subject to comment and revision.[5] The majority explains this is necessary to "act on pending applications under sections 3 and 7 of the NGA

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efficiency in processing applications and better address various directives we have received from the appellate courts.") (Accession No. 20210524-4014).

[3] Chairman Glick February 2, 2022 Response to Senator Barrasso December 15, 2021 Letter at 4 (Accession No. 20220202-4003); *see also* Commissioner Clements February 2, 2022 Response to Senator Barrasso December 15, 2021 Letter at 2 (Accession No. 20220202-4000) ("I will do my part to assure that the updated policy will be a legally durable framework for fairly and efficiently considering certificate applications – one that serves the public interest and increases regulatory certainty for all stakeholders.").

[4] *See, e.g.*, *Algonquin Gas Transmission, LLC*, 174 FERC ¶ 61,126 (2021) (Danly and Christie, Comm'rs, dissenting) (Briefing Order), *terminated*, 178 FERC ¶ 61,029 (2022) (Danly and Christie, Comm'rs, concurring in part and dissenting in part); *see also* Commission Staff May 27, 2021 Notice in Tenn. Gas Pipeline Co., L.L.C., Docket No. CP20-493-000 (Accession No. 20210527-3054) (announcing schedule for Environmental Impact Statement (EIS) for project with previously prepared Environmental Assessment (EA)); Commission Staff May 27, 2021 Notice in North Baja Pipeline, LLC, Docket No. CP20-27-000 (Accession No. 20210527-3052) (same); Commission Staff May 27, 2021 Notice in Columbia Gulf Transmission, LLC, Docket No. CP20-527-000 (Accession No. 20210527-3049) (same); Commission Staff May 27, 2021 Notice in Iroquois Gas Transmission System, L.P., Docket No. CP20-48-000 (Accession No. 20210527-3047) (same).

[5] Interim Policy Statement, 178 FERC ¶ 61,108 at P 1.

without undue delay and with an eye toward greater certainty and predictability for all stakeholders."[6]

5. Next, it provides a historical background on past court, Commission, and CEQ issuances. For the sake of brevity, I will not describe this background discussion other than to note it is frequently misleading.[7]

6. Then the Interim Policy Statement announces that "the Commission will quantify a project's GHG emissions that are reasonably foreseeable and have a reasonably close causal relationship to the proposed action."[8] This, it seems, will be fairly broad: the majority goes on to say that "[t]his *will* include GHG emissions resulting from construction and operation of the project as well as, in most cases, GHG emissions resulting from the downstream combustion of transported natural gas."[9]

7. The majority also states that it will continue to consider whether upstream emissions are a reasonably foreseeable effect for NGA section 7 projects on a case-by-case basis.[10] Notably missing, though, is any discussion of how upstream emissions could have a reasonably close causal relationship to an NGA section 7 project.[11]

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[6] *Id.*

[7] For example, the D.C. Circuit in *Vecinos para Bienestar de la Comunidad Costera v. FERC* (*Vecinos*) found that the Commission failed to "respond to significant opposing viewpoints" regarding its analysis of GHG emissions. *Vecinos*, 6 F.4th 1321, 1329 (D.C. Cir. 2021). It did not find "that the Commission failed to appropriately analyze the significance of three natural gas projects' contribution to climate change . . . ." Interim Policy Statement, 178 FERC ¶ 61,108 at P 14.

[8] Interim Policy Statement, 178 FERC ¶ 61,108 at P 28.

[9] *Id.* (emphasis added) (footnotes omitted). I interpret "in most cases" as meaning the Commission will quantify and consider downstream emissions for NGA section 7 projects unless it is shown that the gas will not be burned. *See id.* P 28 n.72.

[10] *See id.* P 43.

[11] It should be noted that the majority cites *Sierra Club v. FERC* (*Sabal Trail*) to argue downstream emissions have a reasonably close causal relationship to NGA section 7 projects. *Id.* P 39 & n.103 (citing 867 F.3d 1357, 1372-73 (D.C. Cir. 2017) (Brown, J., concurring in part and dissenting in part)). Below I explain how *Sabal Trail* must not be given too much weight.

8. The Interim Policy Statement then describes how the quantity of project's emissions will be determined: by using a projected utilization rate for the project and considering "other factors that might impact a project's net emissions."[12] This raises more questions than it answers. Do these other factors include consideration of whether the natural gas being transported will actually reduce overall emissions or simply replace existing emissions; for example by powering natural gas generation that permits the retirement of higher-emitting generation or by serving an end use need that will turn to a different—and perhaps higher emitting—energy source if the pipeline is not constructed?[13] What does this mean for projects where the end use is unknown? Does the Commission have the expertise to evaluate a project sponsor's evidence and resolve any factual disputes? Will the majority send these issues to an Administrative Law Judge as it recently did to resolve a dispute over what constituted appropriate post-construction right-of-way restoration (a subject matter with which the Commission presumably has *some* expertise)?[14]

9. I would suspect most attentive readers would have been interested to then learn how, having determined the means by which to arrive at these numbers, the Commission plans to weigh emissions among all of the other factors to be considered in its NGA determination. But the majority does not say.

10. Next, the Interim Policy Statement explains "the Commission is establishing a significance threshold of 100,000 metric tons or more per year [(tpy)] of CO_2e"[15] and *will presume* that the impact of a proposed project exceeding that threshold is significant unless refuted by record evidence.[16] According to Commission staff, of the 214 projects with direct[17] and downstream emissions authorized from January 2017 through June

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[12] *Id.* P 45.

[13] *See id.* P 52.

[14] *See Midship Pipeline Co., LLC* (*Midship*), 177 FERC ¶ 61,186 (2021) (Danly, Comm'r, dissenting at P 5) ("I, for one, am willing to consider the parties' arguments and make a decision.").

[15] Interim Policy Statement, 178 FERC ¶ 61,108 at P 79.

[16] *See id.* P 81.

[17] Despite the fact that CEQ's regulations no longer distinguish between "direct" and "indirect" effects, in order to reduce confusion I use the term "direct" to be consistent with the Interim Policy Statement. *See* Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act, 85 Fed. Reg. 43,304, 43,343 (Jul. 16, 2020).

2021, this policy would have applied to 72% of them. This means that, as of the issuance of this Interim Policy Statement, the EIS is now our default environmental document.[18]

11. The Interim Policy Statement says the Commission has authority to impose GHG mitigation for both direct emissions and downstream emissions.[19] This is a sweeping claim of jurisdiction and one that drastically departs from the Commission's historic employment of its conditioning authority. But right on the heels of that jurisdictional declaration, instead of ordering mitigation, the majority "encourages" project sponsors to "propose measures to mitigate the direct GHG emissions of its proposed project to the extent these emissions have a significant adverse environmental impact" and "to mitigate the reasonably foreseeable upstream or downstream emissions associated with their projects."[20] The majority states the Commission will consider these mitigation measures in its public interest determinations.[21] This whole maneuver is odd—how often does one declare hitherto unasserted jurisdiction and then not employ it? Be warned: this is not restraint, it is foreshadowing.[22]

12. The majority tells project sponsors they are "free to propose any mechanism to mitigate the project's GHG emissions"[23] and offers some suggestions. Plant trees.[24] Incorporate renewable energy or other energy efficiency technologies.[25] And, with the

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[18] *But see* 18 C.F.R. §§ 380.5-380.6 (setting forth when the Commission will prepare an EIS).

[19] *See* Interim Policy Statement, 178 FERC ¶ 61,108 at PP 104-06.

[20] *Id.* P 107; *see also id.* ("The Commission plans to evaluate proposed mitigation plans on a case-by-case basis . . . .").

[21] *See id.* P 108.

[22] *See id.* P 106 ("However, as detailed below, the Commission's priority is for project sponsors to mitigate, to the greatest extent possible, a project's direct GHG emissions.").

[23] *Id.* P 110.

[24] *See id.* P 126.

[25] *See id.*

faint echo of Johann Tetzel, the majority also suggests purchasing[26] renewable energy offsets.[27]

13. The majority's guidance ends there, leaving the project sponsor to figure out how *much* they should mitigate by these measures,[28] some of which, it ought be pointed out, do not appear to have a discernable connection to the reduction of carbon emissions.[29] Nor does the majority explain how the Commission can verify and track any such mitigation throughout the life of the project.[30] The majority offers no general framework but says only that it wants project sponsors to mitigate "to the greatest extent possible."[31] One wonders why no mechanism is set forth. Could it be that we learned nothing of value from soliciting comments on GHG mitigation,[32] holding a technical conference on

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[26] *See id.* PP 115-26; *see also id.* P 129 ("project sponsors *wishing* to purchase offsets") (emphasis added).

[27] "As soon as the coin in the coffer rings, the soul from purgatory springs." *See* Robert King, *Only in America: Tax Patents and the New Sale of Indulgences*, 60 TAX LAW 761, 761 (2007) (citing RONALD H. BAINTON, HERE I STAND: A LIFE OF MARTIN LUTHER 60 (1950)).

[28] *See* Interim Policy Statement, 178 FERC ¶ 61,108 at P 107 ("The Commission plans to evaluate proposed mitigation plans on a case-by-case basis and is not mandating a standard level of mitigation.").

[29] For example, the Commission does not explain how the construction of a renewable energy or energy efficiency project reduces carbon emissions unless it could be shown that such construction will cause the retirement of, or prevent the construction of, a specific carbon emitting generation facility. Nor does the Commission describe how, in the absence of the identification of a specific facility to be displaced, it would be possible to determine the amount of mitigation provided by renewable energy or energy efficiency projects.

[30] *See* Interim Policy Statement, 178 FERC ¶ 61,108 at P 113 ("[W]e believe it best to allow project sponsors to demonstrate that their proposed mitigation measures are verifiable and propose means for the Commission to monitor or track the proposed measures through the life of the project.").

[31] *Id.* P 106.

[32] *See Certification of New Interstate Nat. Gas Facilities*, 174 FERC ¶ 61,125, at P 17 (2021) ("C10. How could the Commission impose GHG emission limits or mitigation to reduce the significance of impacts from a proposed project on climate

the subject,[33] and soliciting a second round of comments following that technical conference?[34] And think of where this leaves project sponsors. Often, they seek guidance from Commission staff. But for the 30 applications that are currently pending, such communication is potentially barred by the Commission's *ex parte* rules.[35] And even for those who are not so disadvantaged, absent direction from the Commission, staff can offer no more than this: you must roll the dice and cross your fingers that the Commission will act on, and maybe even grant, the requested authorization.[36]

14. But the mitigation requirements may not end there. The majority states it "may require additional mitigation as a condition of an NGA section 3 authorization or section 7 certificate."[37] Using what standard? Not stated. Perhaps, it will become a good-behavior approach akin to how the Commission has considered landowner impacts, stating: "We are satisfied that [project sponsor] has taken appropriate steps to minimize [GHG emissions]."[38] And this encumbrance is perpetual: mitigation, the majority says, will span "the life of the project."[39] That is long time. Ample opportunity for invasive

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change? . . . If the Commission decides to impose GHG emission limits, how would the Commission determine what limit, if any, is appropriate?").

[33] *See* Greenhouse Gas Mitigation, Technical Conference Transcript, Docket No. PL21-3-000 (Nov. 19, 2021).

[34] *See* Commission Staff November 16, 2021 Notice Inviting Technical Conference Comments, Docket No. PL21-3-000.

[35] 18 C.F.R. § 385.2201.

[36] I have anticipated a couple possible questions and will hazard answers that may be of interest: *Will an EIS assess the adequacy of GHG mitigation or recommend GHG mitigation measures?* My understanding is no. The Commission will determine the adequacy of mitigation on a case-by-case basis in its orders. *Will mitigation that was not considered in an environmental document require the Commission to supplement its environmental review?* A clear answer was not provided. It is worth noting that section 1502.9(d)(1)(i) of CEQ's regulations state "Agencies . . . [s]hall prepare supplements to either draft or final environmental impact statements if a major Federal action remains to occur, and . . . [t]he agency makes substantial changes to the proposed action that are relevant to environmental concerns . . . ." 40 C.F.R. § 1502.9(d)(1)(i).

[37] Interim Policy Statement, 178 FERC ¶ 61,108 at P 99.

[38] *Double E Pipeline, LLC*, 173 FERC ¶ 61,074, at P 32 (2020).

[39] Interim Policy Statement, 178 FERC ¶ 61,108 at P 110.

oversight, enforcement actions, and novel, as yet unpredictable, employments of the Commission's authority.[40]

15. Next, we reach the majority's guidance on cost recovery. The majority states "[p]ipelines *may* seek to recover mitigation costs through their rates," and are "encouraged to submit detailed cost estimates of GHG mitigation in their application and to clearly state how they propose to recover those costs."[41] Pipelines *may* recover costs? On what possible basis could the Commission *deny* recovery? The majority declines to say. Then, presumably in response to comments about increasing rates for low-income communities and requests to balance the cost of mitigation with its environmental benefit, the majority states that "the Commission's process for section 7 and section 4 rate cases is designed to protect shippers from unjust or unreasonable rates and will continue to do so with respect to the recovery of costs for mitigation measures."[42] How can that be true when the Commission will issue a certificate only when it determines that proposed mitigation measures are required for a pipeline project to be deemed in the public convenience and necessity? Is the Commission really suggesting that it will deny the recovery of costs that it determines are necessary to satisfy the public interest?

16. The Interim Policy Statement concludes by informing project sponsors with pending applications that they "will be given the opportunity to supplement the record and explain how their proposals are consistent with this policy statement" and that those filings will be subject to a reply comment period.[43] Future applicants are also "encouraged" to include a list of information in their filings.[44] What happens if a project sponsor supplements its record and the Commission revises the Interim Policy Statement once again before acting on that project sponsor's application? I can imagine that occurring as the comment deadline is six weeks away. And how can future applicants

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[40] *See, e.g.*, *Algonquin Gas Transmission, LLC*, 174 FERC ¶ 61,126 (2021) (Danly and Christie, Comm'rs, dissenting) (order establishing briefing to reopen final, non-appealable certificate order); *Algonquin Gas Transmission, LLC*, 178 FERC ¶ 61,029 (2022) (Danly and Christie, Comm'rs, concurring in part and dissenting in part) (order terminating briefing order but suggesting can reopen certificates to impose new terms).

[41] *Id.* P 129.

[42] *Id.*

[43] *Id.* P 130.

[44] *Id.*

reasonably rely on interim guidance that may or may not change? What "certainty and predictability"[45] does this policy provide?

17. In sum, the Commission will weigh direct GHG emissions and, in most cases, downstream emissions in its NGA determinations. It will not tell you how these emissions will be assessed other than to say that project sponsors are encouraged to mitigate them. It will not tell you how project shippers will be protected from imprudently incurred costs. This is the tyranny of vagueness. It is also a threat. Imagine the fear that will animate the mitigation "voluntarily" proposed by those project sponsors with pending applications who are facing millions of dollars in sunk costs and with shippers that have relied on projects being placed into service and now only have higher cost and less reliable options available. This policy statement cannot rightly be described as "encouraging" anything.[46]

II. Interim Policy Statement Proposes, and Takes, Unlawful Actions

A. The Interim Policy Statement, in its Entirety, is Based on the Wrong Premise

18. It is worth pausing to consider the underlying premise of the majority's policy for considering GHG emissions, establishing a GHG emission threshold for preparing EISs, and requiring GHG emission mitigation. All are based on the presumption that GHG emissions are an "effect" of the proposed action.

19. In order to constitute an "effect," three elements must be met: (1) there is a "change[] in the human environment," that change (2) is "reasonably foreseeable," and (3) it "has a reasonably close causal relationship to the proposed action or alternatives."[47] The majority, however, does not allege that the change in the human environment at issue is the release of GHG emissions themselves. That makes sense, given that it would be like the Commission saying, in the hydropower context, that the flow of water from the powerhouse is a change in the human environment. While this would be *an* effect, it is not the kind of effect that is at issue in an environmental review. Instead, the effect we would care about would be the change to the quality or quantity of the body of water through which the water flows and any resultant further changes caused to species, vegetation, etc.

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[45] *Id.* P 1.

[46] *But see* Voltaire, Candide 125 (J.H. Brumfitt ed., Oxford Univ. Press 1968) (1759) (". . . pour encourager les autres.").

[47] 40 C.F.R. § 1508.1(g).

20. No, the majority is concerned about the changes in the human environment caused, not by the existence of GHG emissions themselves, but by climate change. The Interim Policy Statement is absolutely clear that this is its animating purpose: "The Commission is issuing this interim policy statement to explain how the Commission will assess the impacts of natural gas infrastructure projects on climate change";[48] "Climate change is the variation in the Earth's climate (including temperature, humidity, wind, and other meteorological variables) over time";[49] "[C]limate change has resulted in a wide range of impacts across every region of the country and the globe. Those impacts extend beyond atmospheric climate change and include changes to water resources, agriculture, ecosystems, human health, and ocean systems."[50]

21. The question therefore is not whether GHG emissions are reasonably foreseeable but whether *climate change and its resulting effects* are reasonably foreseeable and have a reasonably close causal relationship to the proposed action. And if so, whether those effects are significant and can be mitigated by the Commission.

22. While determining the environmental impacts of a project is done on a case-by-case basis, the construction of a natural gas pipeline and transportation of natural gas in that pipeline are unlikely, on a project-by-project basis, to have a reasonably foreseeable (which is to say traceable and calculable) effect on climate change "in most cases."[51] Were climate change a reasonably foreseeable effect (as this term is used in environmental reviews) of a particular project, we would be able to examine the cause (here, the construction and the transportation of gas) and then determine some articulable and quantifiable effect (here, the amount of additional climate change) for which the project itself is causally responsible. We have never been able to do that. And while it is not acknowledged at all in the Interim Policy Statement's procedural history, the Commission has repeatedly stated that "it cannot determine a project's incremental

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[48] Interim Policy Statement, 178 FERC ¶ 61,108 at P 1.

[49] *Id.* P 6.

[50] *Id.* P 7 (citation omitted).

[51] *Id.* P 28. It is worth recalling that the Court has likened NEPA's "reasonably close causal relationship" requirement to the "familiar doctrine of proximate cause from tort law," *Dep't of Transp. v. Pub. Citizen*, 541 U.S. 752, 767 (2004) (*Public Citizen*), and that a federal district court has found effects of climate change too attenuated for tort liability under state law. *See Comer v. Murphy Oil USA, Inc.*, 839 F. Supp. 2d 849, 868 (S.D. Miss. 2012) ("The assertion that the defendants' emissions combined over a period of decades or centuries with other natural and man-made gases to cause or strengthen a hurricane and damage personal property is precisely the type of remote, improbable, and extraordinary occurrence that is excluded from liability.").

physical impacts on the environment caused by GHG emissions,"[52] and CEQ has made similar statements.[53] Nothing in the Interim Policy Statement suggests this has changed nor has any new reasoning been offered to explain how we can better determine a quantifiable connection between the two.

23. The chain of causation is too attenuated for the cause and effect in this case to be considered to have a "reasonably close causal relationship." The reasoning goes as follows: "changes to water resources, agriculture, ecosystems, human health, and ocean systems" occurring throughout the world result from global atmospheric changes that themselves result from the warming that itself results from increases in the world-wide concentration of GHGs that enter the atmosphere as the emissions released by using natural gas, that in the case of end uses (that is, not pipeline operational uses), results from the transportation of natural gas. The logical sequence is clear, but the causation is quite attenuated. And this attenuation cannot be shortened through the ploy of employing GHG emissions as a proxy for climate change.

B. Consideration of Effects on Climate Change from Non-jurisdictional Entities Violates the NGA and CEQ Regulations

24. The consideration of effects resulting from the upstream production or downstream use of natural gas violates the NGA and CEQ's regulations.

25. The NGA authorizes the Commission to consider only those factors bearing on the "public convenience and necessity."[54] The phrase "public convenience and necessity" is not "a broad license to promote the general public welfare."[55] It does not permit the majority to conjure up its own meanings. As a "'creature of statute,'"[56] the Commission

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[52] *See, e.g.*, *Trans-Foreland Pipeline Co. LLC*, 173 FERC ¶ 61,253, at P 31 (2020).

[53] *See* CEQ, *Draft NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions*, at P 3 (2010), https://obamawhitehouse.archives.gov/sites/default/files/microsites/ceq/20100218-nepa-consideration-effects-ghg-draft-guidance.pdf.

[54] 15 U.S.C. § 717f(e).

[55] *NAACP v. FPC*, 425 U.S. 662, 669 (1976).

[56] *Atl. City Elec. Co. v. FERC*, 295 F.3d 1, 8 (D.C. Cir. 2002) (quoting *Michigan v. EPA*, 268 F.3d 1075, 1081 (D.C. Cir. 2001)).

must "look to the purposes for which the [Natural Gas Act] was adopted" to give it content and meaning.[57]

26. As the Court explained in *NAACP v. FPC*, "public convenience and necessity" means "a charge to *promote the orderly production of plentiful supplies* of electric energy and natural gas at just and reasonable rates."[58] Simply put, the production and use of natural gas were not only presumed but were presumed to be in the public interest. Congress put its thumb on the scale in favor of gas and charged the Commission with ensuring that there would be adequate infrastructure in place to provide an abundant supply of natural gas available at reasonable prices for all Americans to use. The purpose of the NGA is narrow and clear. And it is a mousehole through which the elephant of addressing the climate change impacts of the entire natural-gas industry cannot pass.[59]

27. And while there were "subsidiary purposes" for the passage of the Natural Gas Act,[60] addressing the effects of climate change caused by using natural gas could not have been one of them. And even if it were, it is obvious that something that is "subsidiary" cannot, definitionally, override that which is primary. The majority cannot flip the NGA's presumptions and consider the use of natural gas as intrinsically harmful, thus requiring mitigation. And it certainly cannot abandon our charge under the NGA to "*promote* the orderly production of plentiful supplies of . . . natural gas at just and reasonable rates"[61] by then weighing their determination that natural gas is harmful against the public interest when adjudicating section 3 and section 7 applications. This is directly contrary to the purpose Congress established the Commission to serve and supplants the judgment of Congress with that of the Commission. If that were not reason

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[57] *NAACP v. FPC*, 425 U.S. at 669; *see also FPC v. Transcon. Gas Pipe Line Corp.*, 365 U.S. 1, 17 (1961) (*Transco*) ("[I[t must be realized that the Commission's powers under § 7 are, by definition, limited.") (citing H.T. Koplin, *Conservation and Regulation: The Natural Gas Allocation Policy of the Federal Power Commission*, 64 YALE L.J. 840, 862 (1955)).

[58] *NAACP v. FPC*, 425 U.S. at 670 (emphasis added) (footnote omitted). As noted by Former Commissioner Bernard L. McNamee, this purpose was affirmed by later acts of Congress. *See Adelphia Gateway, LLC*, 169 FERC ¶ 61,220 (2019) (McNamee, Comm'r, concurring at PP 32-40).

[59] *See Whitman v. Am. Trucking Ass'ns, Inc.*, 531 U.S. 457, 468 (2001).

[60] *NAACP v. FPC*, 425 U.S. at 670 ("While there are undoubtedly other subsidiary purposes contained in these Acts . . . .") (footnote omitted); *see also id.* at 670 n.6.

[61] *NAACP v. FPC*, 425 U.S. at 670 (emphasis added).

enough, it also invades jurisdictional territory that the courts have repeatedly held that Congress has reserved to the States.[62]

28. The majority cannot turn to the Supreme Court's holding in *Transco* as authority.[63] In that case, the Court held that the Federal Power Commission lawfully denied a certificate based on two factors: first, that using natural gas to alleviate air pollution from burning coal was an inferior use, and second, the proposal would increase future prices.[64] It does not stand for the proposition that the Commission can consider adverse effects of air pollution, and thus climate change impacts, of using natural gas as the majority implies.[65]

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[62] *See Transco*, 365 U.S. at 8 ("However, respondents correctly point out that Congress, in enacting the Natural Gas Act, did not give the Commission comprehensive powers over every incident of gas production, transportation, and sale. Rather, Congress was 'meticulous' only to invest the Commission with authority over certain aspects of this field leaving the residue for state regulation. Therefore, it is necessary to consider with care whether, despite the accepted meaning of the term 'public convenience and necessity,' the Commission has trod on forbidden ground in making its decision.") (citation omitted); *FPC v. Panhandle E. Pipe Line Co.*, 337 U.S. 498, 503 (1949) ("Congress . . . not only prescribed the intended reach of the Commission's power, but also specified the areas into which this power was *not* to extend."), *accord ExxonMobil Gas Mktg. Co. v. FERC*, 297 F.3d 1071, 1076 (D.C. Cir. 2002); *S. Coast Air Quality Mgmt. Dist. v. FERC*, 621 F.3d 1085, 1092 (9th Cir. 2010) ("In sum, the history and judicial construction of the Natural Gas Act suggest that all aspects related to the direct consumption of gas—such as passing tariffs that set the quality of gas to be burned by direct end-users—remain within the exclusive purview of the states."); *Pub. Utils. Comm'n. of Cal. v. FERC*, 900 F.2d 269, 277 (D.C. Cir. 1990) ("[T]he state . . . has authority over the gas once it moves beyond the high-pressure mains into the hands of an end user.").

[63] *See* Interim Policy Statement, 178 FERC ¶ 61,108 at P 104 n.243 (discussing *Transco*, 365 U.S. at 17).

[64] *Transco*, 365 U.S. at 4-7. In discussing whether consideration of end use was proper in the context of conservation, the Court also noted, "[t]he Commission said that it had not been given 'comprehensive' authority to deal with 'the end uses for which natural gas is consumed' and that it would not deny certification on that ground alone." *Id.* at 15-16 (discussing F.P.C., The First Five Years Under the Natural Gas Act).

[65] Interim Policy Statement, 178 FERC ¶ 61,108 at P 104. Nor does the Federal Power Commission precedent, which the majority cites, support this proposition. *See*

29. Nor is the D.C. Circuit's outlier opinion, *Sabal Trail*, as instructive as the majority seems to believe. It is very much in tension with prevailing Supreme Court precedent in *Public Citizen*, which held that agencies are only obligated to consider environmental effects to which their actions are the proximate cause.[66] *Public Citizen* explained that courts must look to the "underlying policies or legislative intent" of an agency's organic statute to determine whether an agency is obligated to consider environmental effects.[67] The D.C. Circuit has also characterized *Public Citizen* as "explicit" that an agency is "not obligated to consider those effects . . . that could only occur after intervening action" by some other actor "and that only [that] actor[] . . . had the authority to prevent."[68] In other words, when any potential effects are the result of the actions of third parties such as retail consumers, upstream production companies, and power generators, who may be several degrees of separation removed from the jurisdictional pipeline, those effects are outside the scope of what the agency must consider.

30. Thus, we should not rest too much weight upon *Sabal Trail*. Not only is the holding narrower than the majority seems to believe and was roundly criticized by the accompanying dissent,[69] its reasoning has since been called into question by another appellate court and I expect it will soon be challenged in the Supreme Court.[70]

31. In sum, environmental effects resulting from the upstream production and downstream use of gas are not factors bearing on the public convenience and necessity under the Natural Gas Act. Further, the CEQ's regulations affirmatively prohibit those effects from being considered in an agency's compliance with NEPA.[71]

Adelphia Gateway, LLC, 169 FERC ¶ 61,220 (McNamee, Comm'r, concurring at P 29 n.64).

[66] 541 U.S. 752, 767-69.

[67] *Id.* at 767.

[68] *Sierra Club v. FERC*, 827 F.3d 36, 49 (D.C. Cir. 2016).

[69] *See* 867 F.3d at 1380 (Brown, J., concurring in part and dissenting in part) ("More significantly, today's opinion completely omits any discussion of the role Florida's state agencies play in the construction and expansion of power plans within the state—a question that should be dispositive.").

[70] *See Ctr. for Biological Diversity v. U.S. Army Corps of Eng's*, 941 F.3d 1288, 1299-1300 (11th Cir. 2019).

[71] 40 C.F.R. § 1508.1(g)(3) ("An agency's analysis of effects shall be consistent with this paragraph (g)."); *id.* § 1508.1(g)(2) ("A 'but for' causal relationship is

C. The Significance Threshold is Illogical and Violates Regulations

32. In addition, the majority's presumption that project emissions exceeding 100,000 tpy of CO_2e will have a significant effect on the human environment is illogical and inconsistent with CEQ and Commission regulations.

33. The majority offers three irrelevant rationales for this presumption[72]: *first*, the threshold is administratively workable;[73] *second*, other agencies have established thresholds under different statutory schemes that are not based on a project's effect on the climate; [74] and *third,* the threshold will "capture"[75] "99% of GHG emissions from Commission-regulated natural gas projects."[76] It is worth noting that according to Commission staff, a 1 million tpy threshold would have covered 98.909% of emissions from natural gas projects authorized from 2017 through 2021, making the unsupported selection of the lower threshold both arbitrary and capricious.

34. The majority also states "even relatively minor GHG emissions pose a significant threat" "[b]ecause of the dire effects at stake."[77] This rationale, however, is not supported by the evidence offered. The Commission does not explain how minor GHG emissions could lead to "dire effects." We cannot just assume—this is administrative

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insufficient to make an agency responsible for a particular effect under NEPA. Effects should generally not be considered if they are remote in time, geographically remote, or the product of a lengthy causal chain. Effects do not include those effects that the agency has no ability to prevent due to its limited statutory authority or would occur regardless of the proposed action.").

[72] The relevant question on whether the Commission should prepare an EIS is whether the proposed action "[i]s *likely* to have significant effects." 40 C.F.R. § 1501.3(a)(3).

[73] Interim Policy Statement, 178 FERC ¶ 61,108 at P 87 ("Establishing such a threshold will provide the Commission a workable and consistent path forward to analyze proposed projects. Further, a numerical threshold is a clear, consistent standard that can be easily understood and applied by the regulated community and interested stakeholders.").

[74] *Id.* PP 90-95.

[75] *Id.* P 80.

[76] *Id.* P 95.

[77] *Id.* P 88.

law—we must show evidence. More importantly, the rationale does not link a proposed project to effects on climate change. And for good reason. As CEQ declared: "it is not currently useful for the NEPA analysis to attempt to link specific climatological changes, or the environmental impacts thereof, to the particular project or emissions, as such direct linkage is difficult to isolate and to understand."[78] The Commission has repeatedly agreed.[79]

35. On top of being illogical, the Interim Policy Statement effectively amends the Commission's NEPA regulations without undergoing notice-and-comment procedures as required by the Administrative Procedure Act.[80] The Interim Policy Statement provides that an EIS will be prepared when the threshold is exceeded at full burn.[81] The Commission's NEPA regulations, however, set forth specific categories of projects where an EA and EIS "will normally be prepared,"[82] with no mention of GHG emissions. And in a case where an EA is normally prepared, the Commission "may in *specific* circumstances"—meaning a case-by-case determination—decide whether to prepare an EIS "depending on the location or scope of the proposed action, or resources affected."[83]

36. Given these fatal flaws, it is no wonder the majority seeks comment "in particular, on the approach to assessing the significance of the proposed project's contribution to climate change."[84]

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[78] CEQ, *Draft NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions*, at P 3 (2010), https://obamawhitehouse.archives.gov/sites/default/files/microsites/ceq/20100218-nepa-consideration-effects-ghg-draft-guidance.pdf.

[79] *See supra* P 22 n.52.

[80] 5 U.S.C. § 553; *see also Shell Offshore Inc. v. Babbitt*, 238 F.3d 622, 629 (5th Cir. 2001) ("[T]he APA requires an agency to provide an opportunity for notice and comment before substantially altering a well established regulatory interpretation.").

[81] Interim Policy Statement, 178 FERC ¶ 61,108 at P 3.

[82] 18 C.F.R §§ 380.5-380.6; *see also* Commissioner Danly November 29, 2021 Response to Senator Barrasso September 15, 2021 Letter, Docket Nos. CP20-27-000, et al., at 12, Fig. 2 (Accession No. 20211214-4001).

[83] 18 C.F.R. § 380.5(a) (emphasis added).

[84] Interim Policy Statement, 178 FERC ¶ 61,108 at P 1; *see also id.* P 81.

D. GHG Mitigation

1. Claims of Authority to Mitigate

37. Next, the majority states that the Commission's conditioning power gives it authority to require a pipeline to mitigate GHGs emitted by its operations and reasonably foreseeable indirect effects.[85] The majority is incorrect.

38. As commenters explain,[86] without any response from the majority, the Supreme Court has held that "Congress *delegated to EPA the decision whether and how* to regulate carbon-dioxide emissions" from stationary sources.[87] By claiming the authority to mitigate these same emissions as part of the Natural Gas Act certification process, the majority are attempting to usurp the statutory authority the Court found Congress has delegated to EPA and which cannot be reassigned absent Congressional action.[88] If the EPA were to regulate GHG emissions from pipeline facilities, which it is contemplating doing,[89] the Commission could possibly require project sponsors to comply with those requirements. But one would not say that the Commission could on its own require project sponsors to mitigate, for example, sulfur dioxide because the EPA had chosen not to do so, or the Commission believed its regulations to be inadequate.

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[85] *Id.* P 106.

[86] *Id.* P 103 ("For example, commenters argue that Congress has delegated authority to the EPA and state agencies to regulate GHGs under the [Clean Air Act].") (citation omitted); *see also id.* P 103 n.238 (citing American Public Gas Association Technical Conference Comments at 5-6; EEI Technical Conference Comments at 9-10; Enbridge Technical Conference Comments at 23-24; TC Energy Technical Conference Comments at 9-10).

[87] *Am. Elec. Power Co., Inc. v. Connecticut*, 564 U.S. 410, 426 (2011) (emphasis added) (discussing in the context of power plants but would apply equally here); *see also Adelphia Gateway, LLC*, 169 FERC ¶ 61,220 (2019) (McNamee, Comm'r, concurring at PP 52-61).

[88] Whether EPA or CEQ have raised "objections" is not relevant. *See* Interim Policy Statement, 178 FERC ¶ 61,108 at P 85.

[89] Standards of Performance for New, Reconstructed, and Modified Sources and Emissions Guidelines for Existing Sources: Oil and Natural Gas Sector Climate Review, 86 Fed. Reg. 63,110 (Nov. 15, 2021). Commenters make the point, to which the majority does not respond, that the Commission should defer to EPA's rulemaking. *See, e.g.*, EEI Technical Conference Comments at 11 n.29.

39. The Commission's conditioning authority also does not allow the Commission to mitigate GHG emissions from upstream or downstream users. The commenters make the point,[90] also sidestepped by the majority,[91] that the Commission's conditioning authority cannot be used to indirectly do what the Commission cannot do directly. That is, the Commission may not indirectly rely on the Natural Gas Act to impose conditions on non-jurisdictional entities.[92]

40. Further, the Commission's conditioning authority cannot be used in ways that would be directly contrary to the purpose of the NGA—to promote the production of plentiful supplies of natural gas at reasonable rates. The majority may not rewrite the purpose of the NGA to instead charge the Commission with the mission of discouraging the production and use of natural gas.

2. Encouraging Project Sponsors to Mitigate GHG Emissions

41. The Interim Policy Statement's encouragement that project sponsors mitigate GHG emissions is in practical effect a requirement,[93] and is not in accordance with the NGA. The NGA only empowers the Commission to impose terms and conditions in two

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[90] *See id.* P 102.

[91] *See id.* P 105 ("we recognize, as many commenters assert, that the Commission does not have the statutory authority to impose conditions on downstream users or other entities outside the Commission's jurisdiction . . . rather, the Commission encourages each *project sponsor* to propose measures . . . .") (emphasis in original).

[92] *See Altamont Gas Transmission, Co. v. FERC*, 92 F.3d 1239, 1248 (D.C. Cir. 1996) ("Although the Commission ordinarily has the authority to consider a matter beyond its jurisdiction if the matter affects jurisdictional sales—at least if there would otherwise be a regulatory gap—here there is no such gap but, on the contrary, an express congressional reservation of jurisdiction to another body."); *Am. Gas Ass'n v. FERC*, 912 F.2d 1496, 1510 ("[T]he Commission may not use its § 7 conditioning power to do indirectly . . . things that it cannot do at all."); *see also Calpine Corp.*, 171 FERC ¶ 61,035 (2020) (Glick, Comm'r, dissenting at P 7) ("In recent years, the Supreme Court has repeatedly admonished both the Commission and the states that the FPA prohibits actions that 'aim at' or 'target' the other sovereign's exclusive jurisdiction.").

[93] *See* Interim Policy Statement, 178 FERC ¶ 61,108 at P 107 ("[T]he Commission plans to *evaluate* proposed mitigation plans on a case-by-case basis . . . .") (emphasis added); *id.* P 131 ("the Commission will then consider the project's impact on climate change, including the project sponsor's mitigation proposal to reduce direct GHG emissions and, to the extent practicable, to reduce any reasonably foreseeable project emissions . . . .").

contexts: (1) pursuant to NGA section 3 when it finds such terms "necessary or appropriate"[94] to ensure a proposed export or import facility is not inconsistent with the public interest, and (2) pursuant to NGA section 7, when it finds such terms are "reasonable" and "require[d]" by the "public convenience and necessity."[95] Only after making these findings, can the Commission require mitigation.

42. The majority does not attempt to make either of these required findings. It simply leaps from stating that the Commission has the discretion to mitigate GHG emissions to "expecting" applicants to mitigate their emissions. This amounts to no more than "because I said so." More is required.[96]

III. Intent of the Interim Policy Statement

43. One cannot help but notice the lengths to which the majority goes in order to make this policy statement "non-binding," using words like "propose," "wish," "opportunity," and even insisting, in response to this dissent, that it does not "impose[] an obligation, deny[y] a right, or fix[] some legal relationship,"[97] for what appears to have no purpose other than to avoid notice-and-comment procedures (that is, public participation) and judicial review. For without judicial review as a check, there is no need to engage in reasoned decision-making or be limited by the purposes of the statute.

44. In this way, the majority appears to believe it can do whatever it wants. Arrogate to the Commission authority it does not have. Disregard regulations that are currently in force. Flout prevailing Supreme Court precedent. Make threats to manipulate project sponsors into "voluntarily" subjecting themselves to unnecessary processes and proposing mitigation of the "harm" resulting from the proposed use or transportation of natural gas to provide a service that Congress declared to be in the public interest.

45. If an entity requests rehearing of today's policy statement, the majority can simply reject it—either by notice or order (without any discussion of the merits)—stating that

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[94] 15 U.S.C. § 717b(a).

[95] *Id.* § 717f(e).

[96] *See also Michigan v. EPA*, 576 U.S. 743, 752 (2015) (explaining that the phrase "appropriate and necessary" in the Clean Air Act "requires at least some attention to cost"); *id.* ("One would not say that it is even rational, never mind 'appropriate,' to impose billions of dollars in economic costs in return for a few dollars in health or environmental benefits."); *id.* 752-53 ("Agencies have long treated cost as a centrally relevant factor when deciding to regulate.").

[97] *See* Interim Policy Statement, 178 FERC ¶ 61,108 at P 5, n.6.

rehearing does not lie for policy statements. And if a petition for review follows, the Commission can argue that the Interim Policy Statement is not subject to review because it is not a substantive rule. And if some project sponsor suggests it is proposing mitigation under duress and it reserves the right to challenge the mitigation requirement in court, the Commission can argue the project sponsor cannot be aggrieved because it voluntarily proposed the mitigation and accepted the certificate and its terms.[98]

46. This is not good governance. Nor do I think it likely the majority will be successful. In my view, the Interim Policy Statement is a substantive, binding rule that is subject to judicial review. Despite the Interim Policy Statement's hortatory verbiage, "there are sinews of command beneath the velvet words."[99] Perhaps the best illustration of this is the list of six items project sponsors are "encouraged" to include in their applications in light of the new policy statement.[100] This list includes estimates of the proposal's cumulative direct and indirect emissions and what mitigation measures the project sponsors propose, as well as a "detailed cost estimate" of the proposed mitigation and a "proposal for recovering those costs."[101]

47. This is not encouragement. This is command. The project sponsors will know that if they want to win approval for their projects this is what they must do[102] even if they must guess at what will ultimately satisfy the Commission's new policies. Certainly, no project sponsor will believe that mitigation is optional or that submitting an application exceeding the Interim Policy Statement's 100,000 tpy threshold without a mitigation proposal would be anything other than a waste of time and money. And what

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[98] I recognize that project sponsors have previously reserved their right to appeal when accepting a certificate, which the Commission has not opposed. However, in the context of hydropower cases, the Commission has taken a different approach. *See Rivers Elec. Co., Inc.*, 178 FERC ¶ 61,027, P 9 n.25 (2022) (Danly, Comm'r, concurring in part and dissenting in part) ("If the transferee accepts this order, it is thereby agreeing to the new condition. It may decline to do so if it does not wish to accept the condition.").

[99] *Am. Trucking Ass'n, Inc. v. I. C. C.*, 659 F.2d 452, 463 (5th Cir. 1981), *opinion clarified on other grounds*, 666 F.2d 167 (5th Cir. 1982) (*Am. Trucking*).

[100] Interim Policy Statement, 178 FERC ¶ 61,108 at P 130.

[101] *Id.*

[102] *Cf. Am. Trucking*, 659 F.2d at 463-464 ("The manner of dealing with applicants who do not follow what is declared to be the 'normal' course demonstrates graphically that the carrier who does not conform will incur both delay and potentially vast litigation expense").

other reason could the majority have for delaying action on those projects that have effectively twice completed the NEPA process?[103]

48. There is, however, no ambiguity in this: the Commission has changed the requirements for obtaining project approvals and applicants need to come before the Commission acknowledging that it is so.[104] The effect of this change is immediate. Even applicants whose projects have been pending with the Commission for upwards of two years will be subjected to the Commission's new rules.

49. The interim policy statement also determines that emissions over 100,000 tpy of CO_2e are significant (and emissions which fall below, not significant), a determination from which legal consequences flow under NEPA.[105] And it binds Commission staff.[106]

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[103] For example, on August 24, 2020, Commission staff issued an EA for Tennessee Gas Pipeline Company, LLC et al.'s Evangeline Pass Expansion Project which concluded, "[w]e recommend that the Commission Order contain a finding of no significant impact." Commission Staff, Environmental Assessment for Tenn. Gas Pipeline Co., LLC et al.'s Evangeline Pass Expansion Project, Docket Nos. CP20-50-000 et al., at 168 (Aug. 24, 2020). Despite this recommendation, which would have normally been adopted by the Commission, Commission staff, at the direction of the Chairman, issued supplemental Draft and Final Environmental Impact Statements. *See* Commission Staff, Final Environmental Impact Statement for Tenn. Gas Pipeline Co., LLC et al.'s Evangeline Pass Expansion Project, Docket Nos. CP20-50-000 et al. (Oct. 8, 2021); Commission Staff, Draft Environmental Impact Statement for Tenn. Gas Pipeline Co., LLC et al.'s Evangeline Pass Expansion Project, Docket Nos. CP20-50-000 et al. (July 16, 2021).

[104] *See Brown Exp., Inc. v. United States*, 607 F.2d 695, 701 (5th Cir. 1979) ("An announcement stating a change in the method by which an agency will grant substantive rights is not a 'general statement of policy.'").

[105] *See Nat. Res. Def. Council, Inc. v. NRC*, 539 F.2d 824 (2d Cir. 1976) ("Further, it is clear that NEPA legal consequences flow from that decision since the order below sets forth rules concerning how the agency will comply with the environmental laws."), *cert. granted,* 430 U.S. 944 (1977), *judgment vacated and case remanded for consideration of mootness,* 434 U.S. 1030 (1978).

[106] Interim Policy Statement, 178 FERC ¶ 61,108 at P 3 ("For purposes of assessing the appropriate level of NEPA review, Commission staff *will apply* the 100% utilization or 'full burn' rate for the proposed project's emissions to determine whether to prepare an Environmental Impact Statement (EIS) or an environmental assessment (EA). Commission staff *will proceed* with the preparation of an EIS, if the proposed project may result in 100,000 metric tons per year of CO_2e or more.") (emphasis added); *see also Tex. v. Equal Emp't Opportunity Comm'n*, 933 F.3d 433, 441-44 (5th Cir. 2019); *id.* at

While I acknowledge the courts have given the Commission's characterization of issuances deference in the past, [107] whether a court will do so in in this instance is far from certain.

For these reasons, I respectfully dissent.

James P. Danly
Commissioner

442 ("That the agency's action binds its staff . . . demonstrates that legal consequences flow from it . . . .").

[107] *See, e.g.*, *Interstate Nat. Gas Ass'n of Am. v. FERC*, 285 F.3d 18, 59 (D.C. Cir. 2002).

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Consideration of Greenhouse Gas Emissions in Natural Gas Infrastructure Project Reviews	Docket No. PL21-3-000

(Issued February 18, 2022)

CHRISTIE, Commissioner, *dissenting*:

1. Last year I voted to re-issue this Notice of Inquiry (NOI) for another round of comment[1] because I believed – and still do – that there are reasonable updates to the 1999 policy statement that would be worthwhile.[2] For example, I agree that precedent agreements between corporate affiliates, because of the obvious potential for self-dealing, should not, in and of themselves and without additional evidence, prove need.[3] I also believe that the Commission's procedures for guaranteeing due process to affected property owners, which, as Justice Frankfurter taught, consists of the two core elements of notice and opportunity to be heard,[4] could be strengthened.

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[1] *Certification of New Interstate Natural Gas Facilities*, 174 FERC ¶ 61,125 (2021).

[2] I also voted for the 2021 changes to the procedures for imposing a stay on the certificate and use of eminent domain during periods when petitions for reconsideration and appeals were pending. *Limiting Authorizations to Proceed with Construction Activities Pending Rehearing*, Order No. 871-B, 175 FERC ¶ 61,098 (2021). These changes were largely opposed by the pipeline industry, but in my opinion represented a reasonable approach to bring more certainty and fairness to our procedures for handling petitions for reconsideration and the use of eminent domain during the pending period.

[3] *See Certification of New Interstate Natural Gas Facilities*, 178 FERC ¶ 61,107 (2022) (Certificate Policy Statement) at PP 53-57. The need for enhanced scrutiny of contracts among corporate affiliates is recognized in state utility regulation. *See, e.g.*, Va. Code § 56-76 *et seq.*, known as the "Virginia Affiliates Act."

[4] *See Joint Anti-Fascist Refugee Comm. v. McGrath*, 341 U.S. 123 (1951) (Frankfurter, J., concurring).

2. Unfortunately, the new certificate policy the majority approves today[5] does not represent a reasonable update to the 1999 statement. On the contrary, what the majority does today is arrogate to itself the power to rewrite both the Natural Gas Act (NGA)[6] and the National Environmental Policy Act (NEPA),[7] a power that *only* the elected legislators in Congress can exercise. Today's action represents a truly radical departure from decades of Commission practice and precedent implementing the NGA.

3. The fundamental changes the majority imposes today to the Commission's procedures governing certificate applications are wrong as both law *and* policy. They clearly exceed the Commission's legal authority under the NGA and NEPA and, in so doing, violate the United States Supreme Court's major questions doctrine.[8]

4. The new policy also threatens to do fundamental damage to the nation's energy security by making it even more costly and difficult to build the infrastructure that will be critically needed to maintain reliable power service to consumers as the generation mix changes to incorporate lower carbon-emitting resources such as wind and solar. And as recent events in Europe and Ukraine graphically illustrate, America's energy security is an inextricable part of our national security.[9] The majority's proposal on GHG impacts

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[5] *Certificate Policy Statement*; *Consideration of Greenhouse Gas Emissions in Natural Gas Infrastructure Project Reviews*, 178 FERC ¶ 61,108 (2022) (GHG Policy Statement). Although styled as an "interim" policy statement, it goes into effect immediately and will inflict major new costs and uncertainties on certificate applications that have been pending with the Commission for months or years. *Id.* at PP 1, 130. I consider both policy statements to be indivisible parts of a new policy governing certificates. Thus, my statement applies to both, and I am entering this dissent in both dockets.

[6] 15 U.S.C. § 717 *et seq.* *See, e.g.*, Certificate Policy Statement at P 62.

[7] 42 U.S.C. § 4321 *et seq.*

[8] *Nat'l Fed'n of Indep. Bus. v. Dep't of Labor, OSHA*, 142 S. Ct. 661 (2022) (*NFIB*); *Alabama Ass'n. of Realtors v. Dep't of Health and Human Services,* 141 S. Ct. 2485 (2021) (*Ala. Ass'n.*); *Util. Air Regulatory Grp. v. EPA*, 573 U.S. 302 (2014) (*UARG*); *FDA v. Brown & Williamson Tobacco Corp.*, 529 U.S. 120 (2000) (*Brown & Williamson*). I discuss this doctrine in Section I.B., *infra*.

[9] *See, e.g.*, Natasha Bertrand, *US putting together 'global' strategy to increase gas production if Russia invades Ukraine, officials say*, CNN (Jan. 24, 2022), available at https://www.cnn.com/2022/01/23/politics/us-gas-production-strategy-russia-ukraine-invasion/index.htmlhttps://www.cnn.com/2022/01/23/politics/us-gas-production-strategy-russia-ukraine-invasion/index.html; *and,* Stephen Stapczynski and Sergio Chapa, *U.S. Became World's Top LNG Exporter, Spurred by Europe Crisis*, BLOOMBERG (Jan 4,

is obviously motivated by a desire to address climate change, but will actually make it *more* difficult to expand the deployment of low or no-carbon resources, because it will make it more difficult to build or maintain the gas infrastructure essential to keep the lights on as more intermittent resources are deployed.[10] In addition to the essential need for natural gas to keep our power supply reliable, a dependable and adequate natural gas supply is critically needed for our manufacturing industries and the millions of jobs for American workers in those industries.[11]

5. And while I agree that reducing carbon emissions that impact the climate is a compelling policy goal,[12] this Commission – an administrative agency that only has the

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2022), available at https://www.bloomberg.com/news/articles/2022-01-04/u-s-lng-exports-top-rivals-for-first-time-on-shale-revolution.

[10] *See NERC December 2021 Long-Term Reliability Assessment*, at 5 (Dec. 2021) ("Natural gas is the reliability 'fuel that keeps the lights on,' and *natural gas policy must reflect this reality*.") (emphasis added) (available at https://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/NERC_LTRA_2021.pdf); *id.* at 6 ("Sufficient flexible [dispatchable] resources are needed to support increasing levels of variable [intermittent] generation *uncertainty*. Until storage technology is fully developed and deployed at scale, (which cannot be presumed to occur within the time horizon of this LTRA), natural gas-fired generation will remain a necessary balancing resource to provide increasing flexibility needs.") (emphasis added); *NERC 2020 Long-Term Reliability Assessment, December 2020*, at 7 (Dec. 2020) ("As *more solar and wind* generation is added, *additional* flexible resources are needed to offset their resources' variability. This is placing *more* operating pressure on those (*typically natural gas*) resources and makes them *the key to* securing [Bulk Power System] reliability." (emphases added) (available at https://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/NERC_LTRA_2020.pdf).

[11] Letter from Industrial Energy Consumers of America to Sen. Joe Manchin III, Sen. John Barrasso, Sen. Frank Pallone, Jr., Sen. Cathy McMorris Rodgers, *Lack of Interstate Natural Gas Pipeline Capacity Threatens Manufacturing Operations, Investments, Jobs, and Supply Chain* (Feb. 9, 2022).

[12] Since we are regulators with an advisory role, not Article III judges, my personal view is that the most politically realistic and sustainable way to reduce carbon emissions significantly without threatening the reliability of our grid and punishing tens of millions of American workers and consumers with lost jobs and skyrocketing energy prices (*see, e.g.*, Europe) is by massive *public* investment in the research, development and deployment of the technologies that can achieve that goal economically and effectively. *See, e.g.*, Press Release, Bipartisan Policy Center, *New AEIC Report*

powers Congress has explicitly delegated to it – has no open-ended license under the U.S. Constitution or the NGA to address climate change or any other problem the majority may wish to address.

I. Legal Questions

6. The long-running controversy over the role and use of GHG analyses in natural-gas facility certificate cases raises two central questions of law and a third that flows from the first two:

7. *First*, whether the Commission can use a GHG analysis to *reject* a certificate – or attach conditions (including the use of coercive deficiency letters) amounting to a *de facto* rejection by rendering the project unfeasible – based on the NGA's "public convenience and necessity"[13] provision, even when the evidence otherwise supports a finding under the NGA that the facility is both "convenient and necessary" to provide the public with essential gas supply? Today's orders assume that the answer is yes.[14]

8. *Second*, whether the Commission can, or is required to, *reject* a certificate – or attach conditions (including the use of coercive deficiency letters) amounting to a *de facto* rejection by rendering the project unfeasible – based on a GHG analysis conducted as part of an environmental review under NEPA,[15] when the certificate application would

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Recommends DOE Combine Loan and Demonstration Offices, Jumpstart American Clean Energy Deployment (Jan. 21, 2022), available at https://bipartisanpolicy.org/press-release/new-aeic-report-recommends-doe-combine-loan-and-demonstration-offices-jumpstart-american-clean-energy-deployment/ (citing to AMERICAN ENERGY INNOVATION COUNCIL, SCALING INNOVATION: A PROPOSED FRAMEWORK FOR SCALING ENERGY DEMONSTRATIONS AND EARLY DEPLOYMENT (Jan. 2022)). Once developed to commercial scale, marketable technologies will roll out globally on their own, without the market-distorting mandates and subsidies that only enrich rent-seekers and impoverish consumers. More specifically with regard to natural gas facilities, there is also the potential with available technology to reduce direct methane emissions from the existing oil and gas system within existing legal authority. And such initiatives do not obviate the need for near-term mitigation measures, such as preparing the electric grid to maintain power during extreme weather events.

[13] 15 U.S.C. § 717f.

[14] Certificate Policy Statement at P 62; GHG Policy Statement at PP 4, 99.

[15] *See* Certificate Policy Statement at P 6, GHG Policy Statement at P 27.

otherwise be approved as both "convenient and necessary" under the NGA? Again, today's orders assume the answer is yes.[16]

9. *Third*, which, if any, conditions related to a GHG analysis may be attached to a certificate under NGA § 7(e),[17] or demanded through the use of deficiency letters? Today's orders seem to assume that there is essentially no limit to the conditions the Commission can impose.[18]

10. As discussed below, today's orders get each of these questions wrong.

A. The "Public Interest" in the Natural Gas Act

11. The starting point for answering all of these questions must be what "public interest" analysis the NGA empowers the Commission to make. Can the Commission's statutory responsibility to determine the "public convenience and necessity" be used to *reject* a project otherwise needed by the public based *solely* on adverse impacts to "environmental interests"[19] (a term today's orders leave undefined but which could be reduced to an unspecified level of GHG emissions) as the Commission today asserts?[20] Or can the Commission reject a project *solely* due to "the interests of landowners and environmental justice communities" as the majority also asserts?[21] The short answer is

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[16] Certificate Policy Statement at P 62; GHG Policy Statement at PP 27, 99.

[17] 15 U.S.C. § 717f(e).

[18] *See* Certificate Policy Statement at P 74; GHG Policy Statement at P 99.

[19] Certificate Policy Statement at P 62.

[20] *Id.*

[21] *Id.* The notion that a certificate could be rejected based solely on the interests of "landowners" or "environmental justice communities" (a term the majority leaves largely undefined) illustrates the radical divergence from both law and long Commission practice of what the Commission purports to do today. While a regulatory commission should always be mindful of and sensitive to the impacts on affected property owners and communities in every case involving the potential use of eminent domain – particularly on the question of the project's route or siting – and should generally seek wherever possible to reduce or minimize such impacts, specific measures to reduce or minimize such impacts are governed by the statutes applicable to each proceeding. Under both the Constitution and the NGA, if a project is needed for a public purpose, then landowners are made whole through just compensation. U.S. Const. amend. V. Questions of compensation are adjudicated in state or federal court – not by this Commission. NGA § 7(h), 15 U.S.C. § 717f(h). Bringing such extra-jurisdictional considerations into the

no. There is nothing in the text or history of the NGA to support such a claim about, or application of, the Commission's public interest responsibilities under the NGA.

12. As discussed herein, any claim that a "public interest" analysis under the NGA gives FERC the authority to reject a project based solely on GHG emissions is specious and ahistorical. The history of the NGA indicates that Congress intended the statute to *promote* the development of pipelines and other natural-gas facilities. As one federal judge has observed, "nothing in the text of [the NGA] . . . empowers the Commission to entirely deny the construction of an export terminal or the issuance of a certificate based solely on an adverse indirect environmental effect regulated by another agency." [22]

13. I recognize that the Commission and the courts have construed "public convenience and necessity" to require the Commission to consider "all factors bearing on the public interest,"[23] but the Supreme Court has been very clear that any public interest analysis undertaken in the course of determining "public necessity and convenience" is constrained by the purposes and limitations of the statute.[24] It is not an open-ended

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Commission's public convenience and necessity analyses under NGA § 7 is just another expansion of Commission power far beyond anything justified in law.

[22] *Sabal Trail*, 867 F.3d 1357, 1382 (D.C. Cir. 2017) (*Sabal Trail*) (Brown, J., dissenting in part and concurring in part).

[23] *Atl. Refining Co. v. Pub. Serv. Comm'n of State of N.Y.,* 360 U.S. 378, 391 (1959) ("This is not to say that rates are the only factor bearing on the public convenience and necessity, for § 7(e) requires the Commission to evaluate all factors bearing on the public interest."); *N.C. Gas Corp.*, 10 FPC 469, 476 (1950) ("Public convenience and necessity comprehends a question of the public interest. Or, stated another way: Is the proposal conducive to the public welfare? Is it reasonably required to promote the accommodation of the public? The public interest we referred to has many facets. *To the limit of our authority under the law* our responsibility encompasses them all") (emphasis added) (quoting *Commonwealth Nat. Gas Corp.*, 9 FPC 70 (1950)).

[24] *NAACP v. FPC*, 425 U.S. 662, 669 (1976) ("This Court's cases have consistently held that the use of the words 'public interest' in a regulatory statute is not a broad license to promote the general public welfare. Rather, the words take meaning from the purposes of the regulatory legislation."). Where the Supreme Court has permitted the Commission to consider end use, those considerations have related directly to its core statutory responsibilities under the NGA, namely, ensuring adequate supply at reasonable rates. *See FPC v. Transcontinental Pipe Line Co.*, 365 U.S. 1 (1961) (permitting the Commission to consider whether the end use was "wasteful" of limited gas resources).

license to use this Commission's certificating authority to promote whatever a majority of Commissioners from time to time may happen to view as the "public interest."

14. With regard to GHG emissions that may be associated with upstream production activities or downstream distribution to, or consumption by, retail consumers, the Commission simply has *no* authority over such activities. That authority was left to the states.[25] Congress intended for the NGA to fill "a regulatory gap" over the "*interstate* shipment and sale of gas."[26]

15. Even if the Commission were to undertake some estimate of the indirect GHG impacts of third-party activities that it has no authority to regulate, it does not follow that the Commission can then reject a certificate based on those impacts.[27] To do so would be to ignore the undeniable purpose of the NGA, which was enacted to facilitate the development and bringing to market of natural gas resources. The Commission's role under the NGA is to *promote* the development of the nation's natural gas resources and to

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[25] NGA § 1(b), 15 U.S.C. § 717(b).

[26] *ONEOK, Inc. v. Learjet, Inc.*, 575 U.S. 373, 378 (2015) (emphasis added); *see also*, *FPC v. Panhandle E. Pipe Line Co.,* 337 U.S. 498, 502-503 (1949) ("suffice it to say that the Natural Gas Act did not envisage federal regulation of the entire natural-gas field to the limit of constitutional power. Rather it contemplated the exercise of federal power as specified in the Act, particularly in that interstate segment which states were powerless to regulate because of the Commerce Clause of the Federal Constitution. The jurisdiction of the Federal Power Commission was to *complement* that of the state regulatory bodies.") (emphasis added) (footnotes omitted); *Myersville Citizens for a Rural Cmty., Inc. v. FERC*, 783 F.3d 1301, 1315 (D.C. Cir. 2015) ("the Commission's power to preempt state and local law is circumscribed by the Natural Gas Act's savings clause, which saves from preemption the 'rights of States' under the Clean Air Act and two other statutes.") (citations omitted).

[27] *Ofc. of Consumers' Counsel v. FERC*, 655 F.2d 1132, 1142 (D.C. Cir. 1980) ("We bear in mind the caveat that an agency may not bootstrap itself into an area in which it has no jurisdiction by violating its statutory mandate.") (citations, quotation marks, ellipsis omitted).

safeguard the interests of ratepayers.[28] Any consideration of environmental impacts, while important, is necessarily subsidiary to that role.[29]

16. It is a truism that FERC is an economic regulator, *not* an environmental regulator. This Commission was not given certification authority in order to advance environmental goals;[30] it was given certification authority to *ensure the development* of natural gas resources and their availability – this includes pipeline infrastructure – at just and reasonable rates. To construe the Commission's analysis of the public convenience and necessity as a license to *prohibit* the development of *needed* natural gas resources using

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[28] *City of Clarksville, Tenn. v. FERC*, 888 F.3d 477, 479 (D.C. Cir. 2018) (*City of Clarksville*) ("Congress enacted the Natural Gas Act with the principal aim of 'encouraging the orderly development of plentiful supplies of natural gas at reasonable prices,' and 'protect[ing] consumers against exploitation at the hands of natural gas companies,") (citations omitted); *see also* Alexandra B. Klass & Danielle Meinhardt, *Transporting Oil and Gas: U.S. Infrastructure Challenges*, 100 IOWA L. REV. 947, 990-99 (Mar. 2015).

[29] *City of Clarksville*, 888 F.3d. at 479. ("Along with those main objectives, there are also several 'subsidiary purposes including conservation, environmental, and antitrust issues.'") (quoting *Pub. Utils. Comm'n of Cal. v. FERC*, 900 F.2d 269, 281 (D.C. Cir. 1990)) (cleaned up). This does not mean that the Commission cannot properly impose conditions or mitigation to address environmental impacts *directly* related to the jurisdictional project; it merely recognizes that the Commission's main objective is to facilitate the expansion and preservation of natural gas service at just and reasonable rates and that doing so will inevitably entail some measure of environmental costs. These can sometimes be reduced or minimized, but never completely eliminated. Every project ever built has some degree of environmental impacts. The standard under the NGA cannot be zero impacts.

[30] Congress could easily have conferred that authority if it had wanted to. There is no indication that Congress intended or expected FERC to perform any environmental regulation when it created the agency. *See generally*, Clark Byse, *The Department of Energy Organization Act: Structure and Procedure*, 30 ADMIN. L. REV. 193 (1978). This Commission's predecessor, the Federal Power Commission, existed for decades before EPA was created in 1970. And Congress began enacting legislation bearing on emissions decades before then as well. *See* Christopher D. Ahlers, *Origins of the Clean Air Act: A New Interpretation*, 45 ENVTL. L. 75 (2015). Nor were the effects of GHG emissions unknown at that time. *See* Danny Lewis, *Scientists Have Been Talking About Greenhouse Gases for 191 Years*, SMITHSONIAN MAGAZINE (Aug. 3, 2015) (citing to Nobel Laureate Svante Arrhenius' 1896 paper "On the Influence of Carbonic Acid in the Air upon the Temperature of the Ground").

the public interest language in the NGA would be to negate the very legislative purpose of the statute.[31] Put another way, the premise of the NGA is that the production and transportation of natural gas for ultimate consumption by end users is socially valuable and should be promoted, not that the use of natural gas (which inevitably results in some discharge of GHGs) is inherently destructive and must be curbed, mitigated, or discouraged.

17. To those who say "well, times have changed and Congress was not thinking about climate change when it passed the NGA," here's an inconvenient truth: *If Congress wants to change the Commission's mission under the NGA it has that power; FERC does not.*

18. Any authority to perform a public interest analysis under the NGA must be construed with reference to the animating purposes of the Act. It is not a free pass to pursue any policy objective – however important or compelling it may be – that is related in some way to jurisdictional facilities.[32] As the Court of Appeals for the D.C. Circuit has explained:

> Any such authority to consider all factors bearing on "the public interest" must take into account what "the public interest" means *in the context of the Natural Gas Act*. FERC's authority to consider all factors bearing on

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[31] *See United States v. Pub. Utils. Comm'n of Cal.*, 345 U.S. 295, 315 (1953) (explaining that recourse to legislative history is appropriate where "the literal words would bring about an end completely at variance with the purpose of the statute.") (citations omitted). The present circumstance is very nearly the opposite: we are urged to pursue "an end completely at variance with the purpose of the statute" and for which there is *no* support in the "literal words." *Id.*; *see also Ctr. for Biological Diversity v. U.S. Army Corps of Eng'rs*, 941 F.3d 1288, 1299 (11th Cir. 2019) (*Ctr. for Biological Diversity*) ("Regulations cannot contradict their animating statutes or manufacture additional agency power.") (citing *Brown & Williamson*, 529 U.S. at 125-26).

[32] *NAACP v. FPC,* 425 U.S. at 665-670 (noting that, although "the eradication of discrimination in our society is an important national goal," the Supreme Court has "consistently held that the use of the words 'public interest' in a regulatory statute is not a broad license to promote the general welfare. Rather, the words take meaning from the purposes of the regulatory legislation" which, for the [Federal Power Act] and [Natural Gas Act], are "to encourage the orderly development of plentiful supplies of electricity and natural gas at reasonable prices."); *see also Brown & Williamson*, 529 U.S. at 161 ("no matter how important, conspicuous, and controversial the issue, and regardless of how likely the public is to hold the Executive Branch politically accountable, . . . an administrative agency's power to regulate in the public interest must always be grounded in a valid grant of authority from Congress.") (quotation marks, citation omitted).

> the public interest when issuing certificates means authority to look into those factors which reasonably relate to the purposes for which FERC was given certification authority. *It does not imply authority to issue orders regarding any circumstance in which FERC's regulatory tools might be useful.*[33]

19. Whereas the Commission's role in certificating facilities under the NGA is explicit,[34] any purported authority for the Commission to regulate GHGs is conspicuously absent. The claim that the Commission can reject a needed facility due to GHG emissions using the public interest component in the NGA seems to be based on the following logic: to ascertain whether a facility serves the public convenience and necessity, the Commission must first determine whether the facility is in "the public interest," which in turn entails considering factors such as "environmental" impacts from construction and operation of the proposed facility, as well as estimating and quantifying greenhouse gas emissions from the proposed facility, including both upstream emissions associated with gathering the gas and downstream emissions associated with its use, which the Commission is somehow empowered to deem to be too excessive to grant the certificate.[35] Suffice it to say, this tortured logic breaks apart in multiple places.[36]

20. Surely if Congress had any intention that GHG analyses should (or could) be the basis for rejecting certification of natural-gas facilities, it would have given the Commission clear statutory guidance as to when to reject on that basis. Instead, those who want the Commission to conjure up a standard on GHG emissions for deciding how much is *too* much are advocating for a standard resembling Justice Stewart's famous

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[33] *Office of Consumers' Counsel v. FERC*, 655 F.2d at 1147 (emphases added).

[34] *See, e.g.*, NGA §§ 7(e), 15 U.S.C. § 717f(e) (apart from statutory exceptions, "a certificate *shall* be issued to any qualified applicant . . . if it is found that the applicant is able and willing properly to do the acts and to perform the service proposed," and, among other things, to comply with "the requirements, rules and regulations of the Commission . . .") (emphasis added).

[35] Certificate Policy Statement at PP 4-6; GHG Policy Statement at P 39 (citing *Sabal Trail*, 867 F.3d at 1372-73).

[36] I won't belabor the point, but just to reiterate: a "public convenience and necessity" analysis is not a generalized "public interest" analysis, as courts have recognized. *See*, *supra*, P 13 & n.24 and *infra*, P 27. The "environmental" impacts appropriately considered in a certification proceeding must surely be limited in some way to the proposed facility itself since both upstream gathering and downstream use are beyond the Commission's statutory jurisdiction. *See City of Clarksville*, 888 F.3d at 479 (identifying "environmental" concerns as a "subsidiary" purpose of the NGA).

method for identifying obscenity, to wit, that he could not describe it, but "I know it when I see it."[37] And the Supreme Court eventually had the good sense to abandon that ocular standard.[38]

21. Using GHG analysis to reject a certificate implicates an important judicial doctrine used in evaluating just how far an administrative agency can go in essentially *creating* public policy without clear textual support in statutory law. Now let's turn to that doctrine in this context.

B. The Major Questions Doctrine and the NGA

22. The Commission's actions today implicate the "major questions doctrine," which Justice Gorsuch has recently explained as follows:

> The federal government's powers . . . are not general, but limited and divided. Not only must the federal government properly invoke a constitutionally enumerated source of authority to regulate in this area or any other, it must also act consistently with the Constitution's separation of powers. And when it comes to that obligation, this Court has established at least one firm rule: "We expect Congress to speak clearly" if it wishes to assign to an executive agency decisions "of vast economic and political significance." We sometimes call this the major questions doctrine.[39]

In short, the major questions doctrine presumes that Congress reserves major issues to itself, so unless a grant of authority to address a major issue is explicit in a statute administered by an agency, it cannot be inferred to have been granted.

23. Whether this Commission can reject a certificate based on a GHG analysis – a certificate that otherwise would be approved under the NGA – is undeniably a major question of public policy. It will have enormous implications for the lives of everyone in

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[37] *Jacobellis v. Ohio*, 378 U.S. 184, 197 (1964) (Stewart, J., concurring); *see also* Catherine Morehouse, *Glick, Danly spar over gas pipeline reviews as FERC considers project's climate impacts for first time,* UTILITY DIVE (Mar. 19, 2021) (quoting Chairman Glick regarding use of GHG emissions analysis in *N. Natural Gas Co.*, 174 FERC ¶ 61,189 (2021): "We essentially used the eyeball test. . . ."). Shorn of its irrelevant disquisition on EPA's stationary source regulations, today's GHG policy statement enshrines an eyeball test as the trigger for subjecting virtually all certificate applicants to the time-consuming and costly EIS process. GHG Statement at PP 88-95.

[38] *Miller v. California*, 413 U.S. 15 (1973).

[39] *NFIB*, 142 S. Ct. at 667 (Gorsuch, J., concurring) (citations omitted).

this country, given the inseparability of energy security from economic security. Yet the Supreme Court has made it clear that broad deference to administrative agencies on major questions of public policy is *not* in order when statutes are lacking in any explicit statutory grant of authority.[40] "*When much is sought from a statute, much must be shown. . . .* [B]road assertions of administrative power demand *unmistakable legislative* support."[41]

24. There is no "unmistakable legislative support" for the powers the Commission asserts today. A broad power to regulate upstream and downstream GHG emissions and their global impacts has simply *not* been delegated to this Commission.[42] To the extent the federal government has such power, it has been delegated elsewhere. "Of necessity, Congress selects different regulatory regimes to address different problems."[43] The U.S. Environmental Protection Agency (EPA) is charged with regulating greenhouse gas

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[40] *UARG*, 573 U.S. 302, 324 (2014) ("When an agency claims to discover in a long-extant statute an unheralded power to regulate 'a significant portion of the American economy,' *Brown & Williamson*, 529 U.S. at 159 . . ., we typically greet its announcement with a measure of skepticism. We expect Congress to speak clearly if it wishes to assign to an agency decisions of vast 'economic and political significance.' *Id.* at 160."); *Gundy v. United States*, 139 S. Ct. 2116, 2141-42 (2019) (*Gundy*) (Gorsuch, J., dissenting) ("Under our precedents, an agency can fill in statutory gaps where 'statutory circumstances' indicate that Congress meant to grant it such powers. But we don't follow that rule when the 'statutory gap' concerns 'a question of deep economic and political significance' that is central to the statutory scheme. So we've rejected agency demands that we defer to their attempts to rewrite rules for billions of dollars in healthcare tax credits, to assume control over millions of small greenhouse gas sources, and to ban cigarettes.) (citations omitted).

[41] *In re MCP No. 165,* 20 F.4th 264, 267-268 (6th Cir. 2021) (Sutton, C.J., dissenting from denial of initial hearing en banc) (emphases added).

[42] *Panhandle E. Pipe Line Co. v. Pub. Serv. Comm'n of Ind.*, 332 U.S. 507, 516 (1947) ("three things, and three things only Congress drew within its own regulatory power, delegated by the [Natural Gas] Act to its agent, the Federal Power Commission. These were: (1) the transportation of natural gas in interstate commerce; (2) its sale in interstate commerce for resale; and (3) natural gas companies engaged in such transportation or sale."); *cf. Ala. Assn.*, 141 S. Ct. at 2488 (invalidating the CDC's eviction moratorium because the "downstream connection between eviction and the interstate spread of disease is markedly different from the direct targeting of disease that characterizes the measures identified in the statute").

[43] *Am. Elec. Power Co. v. Conn.*, 564 U.S. 410, 426 (2011).

emissions under the Clean Air Act.[44] By contrast, Congress established in the NGA a regulatory regime to address entirely different problems, namely, the need to develop the nation's natural gas resources and to protect ratepayers from unjust and unreasonable rates for gas shipped in the flow of interstate commerce. If it chose, Congress could enact legislation that would invest the Commission with authority to constrain the development and bringing to market of natural gas resources, but the fact is that Congress has chosen *not* to do so. On the contrary, every time Congress has enacted natural gas legislation, it has been to *promote* the development of natural gas resources, not throw up barriers to them.[45]

25. The fact that the NGA requires the Commission to make some form of public interest determination in the course of a certificate proceeding does not furnish a basis for the Commission to arrogate to itself the authority to constrain the development of natural gas resources on the grounds of their potential greenhouse gas emissions. As now-Justice Kavanaugh has explained: "If an agency wants to exercise expansive regulatory authority over some major social or economic activity . . . *regulating greenhouse gas emitters, for example* – an ambiguous grant of statutory authority is not enough. Congress must *clearly authorize* an agency to take such a major regulatory action."[46] Congress has *not* "clearly authorize[d]" this Commission to regulate greenhouse gas emitters, nor to deny certificates to facilities whose construction and operation would be in the public convenience and necessity, simply because the construction and operation of

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[44] *Id.* ("*Congress delegated to EPA the decision whether and how to regulate carbon-dioxide emissions from powerplants*") (emphasis added); *Am. Lung Ass'n. v. EPA*, 985 F.3d at 959-60 (D.C. Cir. 2021) ("there is no question that the regulation of greenhouse gas emissions by power plants across the Nation falls squarely within the EPA's wheelhouse."). Consider for a moment how strange it would be for Congress to delegate regulation of GHG emissions from electric power plants to EPA, while somehow delegating regulation of GHG emissions from natural gas fired power plants to FERC. Yet that is what today's orders presuppose.

[45] *See Mountain Valley Pipeline, LLC*, 171 FERC ¶ 61,232 (2020) (McNamee, Comm'r, concurring at PP 32-40) (discussing decades' worth of legislative enactments, all of which "indicates that the Commission's authority over upstream production and downstream use of natural gas has been further limited by Congress.").

[46] *U.S. Telecom Ass'n v. FCC*, 855 F.3d 381, 422 (Kavanaugh, J. dissenting) (emphases added); *see also NFIB*, 142 S. Ct. at 665 ("the question . . . is whether the Act plainly authorizes the Secretary's mandate. It does not.").

such infrastructure may result in some amount of greenhouse gas emissions.[47] "Even if the text were ambiguous, the sheer scope of the . . . claimed authority . . . would counsel against" such an expansive interpretation.[48]

26. The fact that the Commission has absolutely no standard against which to measure the impact of natural gas production upstream or use downstream of the facilities it certificates is also important. In order for Congress to delegate any authority to an executive agency, it must legislatively set forth an intelligible principle for the agency to follow.[49] There is no such "intelligible principle" for the Commission to follow when it comes to greenhouse gas emissions.

27. Although the NGA requires the Commission to determine whether a proposed facility is in the "public convenience and necessity," the term "has always been understood to mean 'need' for the service. To the extent the environment is considered, such consideration is limited to the effects stemming from the construction and operation of the proposed facilities."[50] The term "public convenience and necessity" has long been understood to refer most essentially to the public's need for service on terms that are just and reasonable, i.e., that are low enough for the public to pay the rates and high enough for the provider to maintain a profitable business.[51] That understanding was reflected in

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[47] We cannot assume a Congressional intent to regulate *every* incidence of greenhouse gas emissions. As Justice Ginsberg observed, "we each emit carbon dioxide merely by breathing." *Am. Elec. Power Co. v. Conn.*, 564 U.S. at 426.

[48] *Ala. Ass'n.*, 141 S. Ct. at 2489.

[49] Congress may "delegate power under broad general directives" so long as it sets forth "an intelligible principle" to guide the delegee. *Mistretta v. United States*, 488 U.S. 361, 372 (1989). *See Gundy*, 139 S. Ct. at 2129 ("a delegation is constitutional so long as Congress has set out an 'intelligible principle' to guide the delegee's exercise of authority. Or in a related formulation, the Court has stated that a delegation is permissible if Congress has made clear to the delegee the general policy he must pursue and the boundaries of his authority.") (citations, internal quotations omitted).

[50] *Mountain Valley*, 171 FERC ¶ 61,232 (McNamee, Comm'r, concurring at P 41); *see also id.* PP 15-47.

[51] *See generally*, Ford P. Hall, *Certificates of Public Convenience and Necessity*, 28 MICH. L. REV. 276 (1930) (analyzing the meaning of "public convenience and necessity" in state laws antedating passage of the NGA, and concluding that it is the need of the consuming public, without which it will be inconvenienced, that is the critical question to be answered).

various statutes employing the term, including the Natural Gas Act.[52] And it was further reflected in the earliest "public convenience and necessity" analyses under the NGA.[53]

28. To summarize: whether and how to regulate GHG emissions is a major question of vast economic and political significance. Congress has not explicitly authorized the Commission to regulate in this area as required under the major questions doctrine, nor has it laid down an intelligible principle for the Commission to follow as required by the non-delegation doctrine. Moreover, EPA, in coordination with the states, already has authority to regulate in this area as specified in federal statutes, which is far removed from this Commission's core expertise and traditional responsibilities.

29. Let's now turn to the second major question.

C. GHG Analysis under NEPA

30. Is this Commission required or allowed by NEPA[54] to *reject* a certificate for a natural gas facility – *one that would otherwise be approved under the NGA* – based on a

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[52] The first such statute appears to have been the Interstate Commerce Act (ICA). The Supreme Court explicitly held that the use of the term "public convenience and necessity" was chosen in the knowledge that it would be understood against the background of its historical usage. *ICC v. Parker*, 326 U.S. 60, 65 (1945) (construing "public convenience and necessity" under the ICA and recognizing that Congress' decision to use a term with such a long history indicated Congress intended "a continuation of the administrative and judicial interpretation of the language.") When it passed the NGA, Congress was similarly cognizant of having employed the same concept as in the ICA. *See*, Robert Christin et al., *Considering the Public Convenience and Necessity in Pipeline Certificate Cases under the Natural Gas Act*, 38 Energy L.J. 115, 120 (2017) (citing Comm. on Interstate Commerce, Interstate Transportation and Sale of Natural Gas, S. Rep. No. 75-1162, at 5 (Aug. 9, 1937) and noting that "the concept of a regulatory agency determining whether a private entity's proposal was in the public convenience and necessity was an established practice when the NGA was enacted.").

[53] *See In re Kan. Pipe Line & Gas Co.*, 2 FPC 29, 56 (1939) ("We view the term [public convenience and necessity] as meaning a public need or benefit without which the public is inconvenienced to the extent of being handicapped in pursuit of business or comfort or both without which the public generally in the area involved is denied to its detriment that which is enjoyed by the public of other areas similarly situated.")

[54] NEPA, 42 U.S.C. § 4321 *et seq.*, requires all federal agencies to undertake an "environmental assessment" of their actions, typically including the preparation of an "environmental impact statement" of proposed "major federal actions." As discussed below, the purpose of the EA and EIS is for the agency to be fully informed of the impact of its decisions. NEPA does not mandate any specific action by the agency in response to

GHG analysis conducted as part of the NEPA environmental review? And rejection includes attaching mitigation conditions so onerous (or coercing through deficiency letters) that they render the project unfeasible.[55]

31. Again, the short answer is no. NEPA does not contain a shred of specific textual authority requiring or allowing the Commission to *reject* based on a NEPA review of estimated GHG impacts (indirect or direct) a certificate application for a facility that otherwise would be found necessary to serve the public under the NGA. Nor would it: as an information-forcing statute, NEPA imposes no substantive obligations.[56]

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an EA or EIS, other than to make an informed decision. *See, e.g.*, Steven M. Siros, et al., *Pipeline Projects – The Evolving Role of Greenhouse Gas Emissions Analyses under NEPA*, 41 ENERGY L.J. 47 (May 2020); *see also Sabal Trail*, 867 F.3d at 1367-68 (describing NEPA as "primarily information-forcing" and noting that courts "should not '"flyspeck" an agency's environmental analysis, looking for any deficiency no matter how minor.'") (quoting *Nevada v. Dep't of Energy*, 457 F.3d 78, 93 (D.C. Cir. 2006)).

[55] NGA § 7(e), 15 U.S.C. § 717f(e), authorizes the Commission to attach to a certificate "such reasonable terms and conditions as the public convenience and necessity may require." There is no analytical difference between the Commission's authority to reject a certificate application and its authority to mitigate it. *See Nat'l Fuel Gas Supply Corp. v. FERC*, 909 F.2d 1519, 1522 (D.C. Cir. 1990) ("The Commission may not, . . . when it lacks the power to promote the public interest directly, do so indirectly by attaching a condition to a certificate that is, in its unconditional form, already in the public convenience and necessity.") (citations omitted). That the Commission may be tempted to abuse its conditioning authority has long been recognized. *See* Carl I. Wheat, *Administration by the Federal Power Commission of the Certificate Provisions of the Natural Gas Act*, 14 GEO. WASH. L. REV. 194, 214-215 (1945) ("It is particularly important that the Commission . . . steel itself against the somewhat natural temptation to attempt to use such 'conditions' as substitutes or 'shortcuts' for other (and more appropriate) methods of regulation prescribed in the statute. . . . . [W]hatever may be said with respect to conditions concerning rates and other matters over which the Commission has specific authority under other provisions of the Act, it would appear clear that the power to prescribe 'reasonable conditions' in certificates cannot be greater in scope than the statutory authority of the Commission.")

[56] "[*I*]*t is now well settled that NEPA itself does not mandate particular results, but simply prescribes the necessary process*. If the adverse environmental effects of the proposed action are adequately identified and evaluated, *the agency is not constrained by NEPA from deciding that other values outweigh the environmental costs*. . . . Other statutes may impose substantive environmental obligations on federal agencies, . . . *but NEPA merely prohibits uninformed – rather than unwise – agency action.*" *Robertson v.*

32. Even conducting an analysis of indirect GHG effects under NEPA goes too far. The Supreme Court has explicitly rejected the idea that an "an agency's action is considered a cause of an environmental effect [under NEPA] even when the agency has no statutory authority to prevent that effect."[57] Rather, NEPA "requires a reasonably close causal relationship between the environmental effect and the alleged cause," that is analogous to "the familiar doctrine of proximate cause from tort law."[58] While this might leave some difficult judgments at the margins, estimates of the potential global impacts of possible non-jurisdictional upstream or downstream activity – as today's orders purport to require[59] – is not a close call.

33. First off, in determining how far an agency's NEPA responsibilities run, one "must look to the underlying policies or legislative intent in order to draw a manageable line between those causal changes that may make an actor responsible for an effect and those that do not."[60] As discussed at length above, there is no way of drawing a plausible line, much less a manageable one, from the Commission's certificating responsibilities under the NGA and the possible consequences of global climate change – consequences which, however potentially grave, are remote from this agency's limited statutory mission under the NGA.

34. Second, speculating about the possible future impact on global climate change of a facility's potential GHG emissions does not assist the Commission in its decision-making and therefore violates the "rule of reason": where an agency lacks the power to do anything about the possible environmental impacts, it is not obligated to analyze them under NEPA.[61] Again, the Supreme Court has explained, "inherent in NEPA and its

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Methow Valley Citizens Council, 490 U.S. 332, 350-51 (1989) (citations omitted; emphases added). *See also, e.g., Minisink Residents for Envtl. Preserv. & Safety v. FERC*, 762 F.3d 97, 112 (D.C. Cir. 2014) (same).

[57] *Dep't. of Transp. v. Pub. Citizen*, 541 U.S. 752, 767 (2004) (*Pub. Citizen*). This principle has been incorporated into the implementing regulations of the Council of Environmental Quality (CEQ), an executive branch agency. *See* 40 C.F.R. § 1508.1(g)(2) (2021) ("Effects do not include those effects that the agency has no ability to prevent due to its limited statutory authority or would occur regardless of the proposed action").

[58] *Pub. Citizen*, 541 U.S. at 767 (citations omitted).

[59] Certificate Policy Statement at PP 73-76; GHG Policy Statement at PP 28-31.

[60] *Pub. Citizen*, 541 U.S. at 767 (citations omitted).

[61] *See, e.g., Sabal Trail*, 867 F.3d at 1372 (citing *Pub. Citizen*, 541 U.S. at 770) ("when the agency has no *legal* power to prevent a certain environmental effect, there is

implementing regulations is a 'rule of reason,' which ensures that agencies determine whether and to what extent to prepare an EIS based on the usefulness of any new potential information to the decision-making process. Where the preparation of an EIS would serve 'no purpose' in light of NEPA's regulatory scheme as a whole, no rule of reason worthy of the title would require an agency to prepare an EIS."[62]

35. This conclusion becomes even more obvious when considered alongside the undeniable fact that neither NEPA nor any other statute contains a scintilla of guidance as to which specific metrics are to be used to determine when the Commission can or must reject a project based on a GHG analysis. The Commission today establishes a threshold of 100,000 metric tons of CO_2e of annual project emissions for purposes of its analysis of natural gas projects under NEPA[63] The rationale for establishing this threshold has literally *nothing* to do with the Commission's NGA obligations, or even with its NEPA obligations. It consists of little more than piggybacking on EPA's approach to regulating stationary sources.[64] Today's order boasts that this new threshold will capture projects "transporting an average of 5,200 dekatherms per day and projects involving the operation of *one* or more compressor stations or LNG facilities"[65] and that this threshold

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no decision to inform, and the agency need not analyze the effect in its NEPA review.") (emphasis in original); *Citizens Against Burlington, Inc. v. Busey*, 938 F.2d 190, 195 (D.C. Cir. 1991) ("an agency need follow only a 'rule of reason' in preparing an EIS . . . and . . . this rule of reason governs both *which* alternatives the agency must discuss, and the *extent* to which it must discuss them.") (internal citations and quotations omitted, emphasis in original). To state the obvious: we have absolutely no way of knowing how much an individual project may or may not contribute to global climate change for any number of reasons, including because there is no way for us to meaningfully evaluate the release of GHG emissions if the facility in question were not to be certificated. Notwithstanding, today, the majority boasts of forcing virtually every certificate applicant into the EIS process. GHG Policy Statement at PP 80, 88.

[62] *Pub. Citizen*, 541 U.S. at 767 (citations omitted).

[63] GHG Policy Statement at P 80, 88. For purposes of determining what emissions count toward the 100,000 metric tons per year threshold, the majority states that this number is measured based on "the construction, operational, downstream, and, where determined to be reasonably foreseeable, upstream GHG emissions that reoccur annually over the life of the project." *Id.* P 80 & n.197.

[64] *Id.* PP 88 - 93 (acknowledging that the Supreme Court has partially invalidated EPA's regulatory regime).

[65] *Id.* P 89 (emphasis added).

"will capture over 99% of GHG emissions from Commission-regulated natural gas projects."[66]

36. These are just arbitrarily chosen numbers. A proliferation of quantification does not constitute reasoned decision-making. All of the important questions about the creation and application of this threshold remain unanswered: is there anything in either the NGA or NEPA to indicate how much is too much and should be rejected? Or how little is low enough to get under the red line? No. If the Commission is attempting to quantify *indirect* global GHG impacts, as EPA now suggests we do,[67] how much global impact is too much and requires rejection of the certificate? How much impact is *not* too much? Should rejection only be based on impacts on the United States? North America? The Western Hemisphere? The planet? Where is the line? Again, there is absolutely no statutory provision that answers these questions as to the application of GHG metrics in a certificate proceeding brought under the NGA. The complete absence of any statutory guidance on the seminal question of "how much is too much?" would render any action by the Commission to reject a certificate based on any metric as "arbitrary and capricious" in the fullest sense.[68]

37. I recognize that the 100,000 metric tons marker adopted in today's orders is not a threshold for rejecting a proposed project but only for subjecting it to further scrutiny in the form of an EIS. But this is no small matter – completion of an EIS is extremely cost-intensive and time-consuming and, in addition, creates a plethora of opportunities for opponents of the project who otherwise lack meritorious objections to it, to run up the costs, to cause delays, and to create new grounds for the inevitable appeals challenging the certificate even if the applicant does manage to obtain it.[69]

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[66] *Id.* P 95. It appears that the majority's intent is to force all applicants into the EIS process. This will undeniably cause each application to become far more costly and time-consuming, both obvious disincentives to even trying.

[67] EPA Comments, *Iroquois Gas Transmission Sys., L.P.*, Docket No. CP20-48-000 at 1-2 (filed Dec. 20, 2021) (EPA Dec. 20, 2021 Letter).

[68] And yet, as a practical matter, applicants must spend years of work and possibly millions of dollars (or more) in preparatory tasks like lining up financing, securing local political support, obtaining permits, etc. All this extensive legwork is needed just to put an application in to the Commission. Today's orders effectively tell applicants that their application could be rejected for any reason or no reason at all. Nor does the majority even do the courtesy of providing a target for the applicant to aim at.

[69] *See* Bradley C. Karkkainen, *Whither NEPA?*, N.Y.U. ENVTL. L.J. 333, 339 & n.31 (2004) (noting that "Department of Energy EISs produced prior to 1994 had a mean cost of $6.3 million and a median cost of $1.2 million; following an aggressive effort to

38. NEPA provides no statutory authority to reject a gas project that would otherwise be approved under the NGA. How could it? As is well-known, the duties NEPA imposes are essentially procedural and informational.[70] The Commission's regulations implementing NEPA reflect its limits by noting that, "[t]he Commission will comply with the regulations of the Council on Environmental Quality *except where those regulations are inconsistent with the statutory requirements of the Commission*."[71]

39. It's not actually very difficult to see how the approach the majority adopts today is "inconsistent with the statutory requirements of the Commission."[72] I will repeat that the purpose of the NGA is to *promote* the development, transportation, and sale at reasonable rates of natural gas. I will repeat that the NGA conveys only *limited* jurisdictional authority; that NEPA conveys *no* jurisdictional authority; that a *different* agency is responsible for regulating GHGs; and that such regulation is a *major issue* that Congress would have to speak to *unambiguously*, which it clearly has *not* done. And yet under the analysis embraced by the majority today, this Commission purports to impose onerous – possibly fatal – regulatory requirements on certificate applicants in order to generate

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reduce costs, after 1994 the mean cost fell to $5.1 million, but the median cost rose to $2.7 million.")

[70] *See, Nat. Res. Def. Council, Inc. v. EPA*, 822 F.2d 104, 129 (D.C. Cir. 1987) ("NEPA, as a procedural device, *does not work a broadening of the agency's substantive powers*. Whatever action the agency chooses to take must, of course, be within its province in the first instance.") (citations omitted, emphasis added); *Balt. Gas & Elec. Co. v. Natural Res. Defense Council, Inc.*, 462 U.S. 87, 97 (1983) (acknowledging NEPA's "twin aims" as obligating an agency "to consider every significant aspect of the environmental impact of a proposed action" and ensuring "that the agency will inform the public that it has indeed considered environmental concerns in its decision-making process," but noting that "Congress in enacting NEPA, however, did not require agencies to elevate environmental concerns over other appropriate considerations.") (citations, alterations omitted).

[71] 18 C.F.R. § 380.1 (2021) (emphasis added); *see also* 40 C.F.R. § 1500.3(a) (2021) (compliance with the CEQ regulations "is applicable to and binding on all Federal agencies . . . except where compliance would be inconsistent with other statutory requirements").

[72] 18 C.F.R. § 380.1 (2021). *See* The Hon. Joseph T. Kelliher Jan. 7, 2022 Comments, *Technical Conference on Greenhouse Gas Mitigation: Natural Gas Act Sections 3 and 7 Authorizations*, Docket No. PL21-3-000 at 2 (The Hon. Joseph T. Kelliher Jan. 7, 2022 Comments) ("if imposing mitigation for direct and indirect emissions discourages or forestalls pipeline development, the mitigation policy is directly contrary to the principal purpose of the Natural Gas Act and must be set aside.").

reams of highly speculative data that have no meaningful role to play in the execution of this agency's statutory duties.[73] In fact, it contravenes the purposes of the NGA in at least two obvious ways: First, by bringing extrinsic considerations to bear on the Commission's decision-making, and second, by causing needless delay in the process.[74]

40. There is no meaningful way of evaluating any of the critical issues, and no statutory authority to actually do anything about upstream or downstream emissions,[75] but unlimited ways to find fault with any analysis. Even though they aren't supposed to "flyspeck" an agency's NEPA analysis, judges who wish to impose their own policy preferences will be tempted to do exactly that. And once the agency undertakes to address an issue in its NEPA analysis, it is subject to the APA's "reasoned decision-making" standard of review.[76] Thus the effect is to ramp up dramatically the legal uncertainties and costs facing any certificate applicant.

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[73] Bradley C. Karkkainen, *Whither NEPA?*, N.Y.U. ENVTL. L.J. at 345-346 (noting that fear of NEPA challenges has led agencies to "'kitchen sink' EISs" to reduce the risk of reversal, but that almost nobody actually reads them "and those who attempt to do so may find it difficult to separate the good information from the junk. Contrary to conventional wisdom, more information is not always better."); *see also*, *Pub. Citizen,* 541 U.S. at 768-769 ("NEPA's purpose is not to generate paperwork – even excellent paperwork – but to foster excellent action.") (quoting then-in effect 40 C.F.R. § 1500.1(c) (2003)).

[74] The delay is clearly part of the point. Why else funnel virtually every certificate applicant into the EIS process? *See e.g.,* Bradley C. Karkkainen, *Whither NEPA?*, N.Y.U. ENVTL. L.J. at 339-40 (observing that NEPA has become "a highly effective tool that environmental NGOs and others can use to raise the financial and political costs of projects they oppose and stretch out decisions over an extended time frame, giving time to rally political opposition."). *See also* P 47, *infra.*

[75] In fact, even if the Commission had the authority to impose upstream or downstream GHG emissions mitigation, or to deny certificates of public convenience and necessity on that basis, the majority admits that it is by no means obvious that doing so would actually prevent or even meaningfully reduce global climate change or the problems associated with it. *See* GHG Policy Statement at P 88 (noting that "[e]ven if deep reductions in GHG emissions are achieved, the planet is projected to warm by at least 1.5 degrees Celsius (°C) by 2050;" and that "even relatively minor GHG emissions pose a significant threat").

[76] *Vecinos Para El Bienestar de la Comunidad Costera v. FERC*, 6 F.4th 1321, 1329 (D.C. Cir. 2021) (*Vecinos*) ("Because the Commission failed to respond to

D. The Policy Statements Rest on Inadequate Legal Authority

41. Today's orders rely to a remarkable degree on a smattering of statements from a handful of recent orders. Simply put, these authorities are simply "too slender a reed"[77] to support the great weight today's orders place on them.

42. Neither *Sabal Trail*[78] nor *Birckhead*,[79] nor the more recent *Vecinos*[80] opinion from the D.C. Circuit changes any of the analysis above. Indeed, to the extent language from those cases is interpreted as requiring the Commission to exercise authority *not* found in statutes – and these opinions are more confusing than clear, as well as inconsistent with the D. C. Circuit's own precedent – then such an interpretation would be contrary to the Supreme Court's major question doctrine. Be that as it may, while I recognize that *Sabal Trail* and *Vecinos* are presently applicable to this Commission, neither of those cases individually nor both of them together provide a lawful basis for *rejecting* a certificate for a facility that is otherwise found to be needed under the NGA solely because of its estimated potential impacts on global climate change.[81]

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significant opposing viewpoints concerning the adequacy of its analyses of the projects' greenhouse gas emissions, we find its analyses deficient under NEPA and the APA.").

[77] *Cf.* The Hon. Joseph T. Kelliher Jan. 7, 2022 Comments at 3.

[78] *Sabal Trail*, 867 F.3d 1357. In support of its assertion of broad discretion in attaching conditions to a certificate, the majority also cites to *ANR Pipeline Co. v. FERC*, 876 F.2d 124, 129 (D.C. Cir. 1989) (*ANR Pipeline*). Certificate Policy Statement at P 74 & n. 190. Since the Commission's conditioning authority is limited in the same way as its certificating authority, there is little reason to discuss it separately. I will only note in passing that, although the court described the Commission's conditioning authority as "extremely broad," the only issue actually before the court in *ANR Pipeline* was the validity of certificate terms imposed in furtherance of the Commission's core duty to ensure that rates are non-discriminatory. *Id.*

[79] *Birckhead v. FERC*, 925 F.3d 510 (D.C. Cir. 2019) (rejecting, for failure to raise the issue before the Commission, a claim that NEPA requires FERC to analyze downstream GHG emissions). Since *Birckhead* was decided on jurisdictional grounds, any substantive commentary in that order is mere dicta and I will not discuss it further.

[80] *Vecinos*, 6 F.4th 1321.

[81] Both orders suffer from a number of infirmities that don't bear belaboring in this context. In brief, however, *Sabal Trail* reads the Commission's duty to "balance 'the public benefits against the adverse effects of the project, including adverse environmental effects,'" *Sabal Trail*, 867 F.3d at 1373 (quoting *Minisink Residents for Envtl. Pres. &*

43. Virtually the entire structure of the majority's fundamental policy changes rests on a single line from *Sabal Trail*.[82] That statement is itself predicated on an idiosyncratic reading of *Public Citizen* and the D. C. Circuit's own precedents.[83] *Sabal Trail* rather facilely distinguished existing D.C. Circuit precedent on the grounds that, in contrast to those cases, the same agency that was performing the EIS was also authorized to approve or deny the certificate.[84] It reasoned that because the Commission could take "environmental" issues into account in its public interest analysis, and GHG emissions raise "environmental" issues, it must therefore follow that the Commission could deny a certificate based on projected GHG emissions estimates.

44. *Sabal Trail* acknowledged that "*Freeport* and its companion cases rested on the premise that FERC had no legal authority to prevent the adverse environmental effects of natural gas exports."[85] Specifically, "FERC was forbidden to rely on the effects of gas

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Safety v. FERC, 762 F.3d 97 at 101-02 and citing *Myersville Citizens for a Rural Cmty. v. FERC*, 783 F.3d at 1309), far too expansively, and *Vecinos* compounds that error. Both orders are discussed below.

[82] Namely, "[b]ecause FERC could deny a pipeline certificate on the ground that the pipeline would be too harmful for the environment, the agency is a 'legally relevant cause' of the direct and indirect environmental effects of pipelines that it approves." *Sabal Trail*, 867 F.3d at 1373. The other orders the majority relies on depend vitally on this statement. *See, e.g.*, Certificate Policy Statement at PP 75 & n. 192 (citing *Birckhead*); 86 & n. 207 (citing *Vecinos*); GHG Policy Statement at PP 13, 36-38 (citing *Birckhead*) and P 14 & n. 38 (citing *Vecinos*).

[83] *See Ctr. for Biological Diversity*, 941 F.3d at 1300 ("the legal analysis in *Sabal Trail* is questionable at best. It fails to take seriously the rule of reason announced in *Public Citizen* or to account for the untenable consequences of its decision. The *Sabal Trail* court narrowly focused on the reasonable foreseeability of the downstream effects, as understood colloquially, while breezing past other statutory limits and precedents – such as *Metropolitan* [*Edison Co. v. People Against Nuclear Energy*, 460 U.S. 776 (1983)] and *Public Citizen* – clarifying what effects are cognizable under NEPA.").

[84] *Sabal Trail*, 867 F.3d at 1372-1373. In each of the D.C. Circuit orders *Sabal Trail* purported to distinguish, the court had found that FERC did not have to analyze, because it could not regulate, downstream emissions.

[85] *Id.* at 1373 (citing *Sierra Club v. FERC* (*Freeport*), 827 F.3d 36, 47 (D.C. Cir. 2016). The "companion cases" are *Sierra Club v. FERC* (*Sabine Pass*), 827 F.3d 59 (D.C. Cir. 2016) and *EarthReports, Inc. v. FERC*, 828 F.3d 949 (D.C. Cir. 2016).

exports *as a justification for* denying an upgrade license."[86] In contrast with those cases – all of which addressed certification of LNG facilities under NGA § 3 as opposed to interstate transportation facilities under NGA § 7 – the court in *Sabal Trail* concluded that, under NGA § 7, by contrast, "FERC is not so limited. Congress broadly instructed the agency to consider 'the public convenience and necessity' when evaluating applications to construct and operate interstate pipelines."[87] It thus concluded that, "[b]ecause FERC could deny a pipeline certificate on the ground that the pipeline would be too harmful for the environment, the agency is a 'legally relevant cause' of the direct and indirect environmental effects of pipelines that it approves. *See Freeport*, 827 F.3d at 47. *Public Citizen* thus did not excuse FERC from considering these indirect effects."[88]

45. But the *Sabal Trail* court never considered with reference to the Commission's statutory authority the proper scope of that public interest analysis or the extent to which "environmental" issues could be considered in that context. It simply assumed the Commission's authority to be unlimited. But as discussed above, Congress drafted the NGA for the purpose of filling a specific gap in regulatory authority. The only way *Sabal Trail* would be correct is if Congress had "clearly authorized" the Commission to evaluate geographically and temporally remote impacts of non-jurisdictional activity in its "public convenience and necessity" determinations. As discussed above, that conclusion is clearly, irredeemably, wrong.[89]

46. As for *Vecinos*, there, the court compounds that error both by relying uncritically on *Sabal Trail* and by finding fault with the Commission for failing to connect its decision not to use the Social Cost of Carbon to Petitioners' argument that it was required to do so under 40 C.F.R. § 1502.21(c).[90] That regulation sets forth an agency's obligations when "information relevant to reasonably foreseeable significant adverse

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[86] *Sabal Trail*, 867 F.3d at 1373 (emphasis in original).

[87] *Id.* (citations omitted).

[88] *Id.*

[89] *Supra*, Section I.B. *Cf. ICC v. Parker*, 326 U.S. 60, 65 (1945) (construing "public convenience and necessity" under the Interstate Commerce Act and recognizing that Congress' decision to use a term with such a long history indicated Congress intended "a continuation of the administrative and judicial interpretation of the language."). Far from being "a continuation of the administrative and judicial interpretation of the language," construing it to extend to an analysis of global GHG emissions is novel and unprecedented.

[90] *Vecinos*, 6 F.4th at 1328-30.

impacts cannot be obtained."[91] But global climate change is only a "foreseeable significant adverse impact" of the Commission's action *if* the Commission's authority extends as far as the *Sabal Trail* court said it does. For the reasons set out in this statement, I respectfully disagree. Nor am I alone in my disagreement.[92]

47. Finally, as to the contention that the Commission is bound to follow *Sabal Trail* notwithstanding its errors, I would simply point out that intervening Supreme Court precedents – such as *NFIB*[93] and *Ala. Ass'n.*[94] – have not just significantly weakened, but utterly eviscerated the conceptual underpinnings of *Sabal Trail*'s limitless construction of the Commission's public interest inquiry under the NGA's "public convenience and necessity" analysis.[95] It is folly for this Commission to proceed heedless of the Supreme Court's recent rulings that agencies may not use ambiguous or limited grants of statutory authority in unprecedented ways to make policy on major questions that Congress has reserved for itself. But that's exactly what the Commission does today.[96]

48. We are indeed bound to follow judicial precedent, but we don't get to "cherry pick" one precedent such as *Sabal Trail* because we like that particular opinion, while ignoring the many other conflicting precedents, especially those more recent rulings from

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[91] 40 C.F.R. § 1502.21(c).

[92] *See supra,* n. 83.

[93] *NFIB*, 142 S. Ct. 661.

[94] *Ala. Ass'n.*, 141 S. Ct. 2485 at 2489.

[95] *See generally*, *Allegheny Def. Project v. FERC*, 964 F.3d 1, 18 (D.C. Cir. 2020) (noting that circuit court precedent may be departed from "when intervening developments in the law – such as Supreme Court decisions – have removed or weakened the conceptual underpinnings of the prior decision.") (cleaned up, citation omitted).

[96] In his *NFIB* concurrence, Justice Gorsuch states: "Sometimes Congress passes broadly worded statutes seeking to resolve important policy questions in a field while leaving an agency to work out the details of implementation. Later, the agency may seek to exploit some gap, ambiguity, or doubtful expression in Congress's statutes to assume responsibilities far beyond its initial assignment. The major questions doctrine guards against this possibility by recognizing that Congress does not usually hide elephants in mouseholes." 142 S. Ct. at 669 (Gorsuch, J., concurring) (citations, alterations omitted). It would be hard to find a better description of the path the Commission has taken to arrive at today's orders.

the Supreme Court itself applying the major question doctrine. These more recent opinions light up *Sabal Trail* as a clear outlier.

II. The Real Debate Is about Public Policy not Law.

49. Preventing the construction of each and every natural gas project is the overt public-policy goal of many well-funded interest groups working to reduce or eliminate natural gas usage.[97] Today's orders, whatever the intent, will have the undeniable effect of advancing that *policy* goal, and we should not deny the obvious. Rather than bringing legal certainty to the Commission's certificate orders,[98] today's orders will greatly

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[97] *See, e.g.*, BLOOMBERG PHILANTHROPIES, https://www.bloomberg.org/environment/moving-beyond-carbon/ ("Launched in 2019 with a $500 million investment from Mike Bloomberg and Bloomberg Philanthropies, Beyond Carbon . . . . works . . . to . . . *stop the construction of proposed gas plants*.") (last visited Feb. 8, 2022) (emphasis added); SIERRA CLUB, https://www.sierraclub.org/policy/energy/fracking, ("There are no 'clean' fossil fuels. The Sierra Club is committed to *eliminating the use of fossil fuels*, including coal, *natural gas* and oil, as soon as possible") (emphases added) (last visited Feb. 8, 2022); NATURAL RESOURCES DEFENSE COUNCIL, https://www.nrdc.org/issues/reduce-fossil-fuels ("Oil, *gas*, and other fossil fuels come with grave consequences for our health and our future. . . . *NRDC is pushing America to move beyond these dirty fuels. We fight dangerous energy development on all fronts*") (emphases added) (last visited Feb. 8, 2022); Press Release, *NRDC Receives $100 million from Bezos Earth Fund to Accelerate Climate Action* (Nov. 16, 2020), available at https://www.nrdc.org/media/2020/201116 ("The Bezos Earth Fund grant will be used to help NRDC advance climate solutions and legislation at the state level, move the needle on policies and programs focused on *reducing oil and gas production*") (emphasis added) (last visited Feb. 8, 2022); Sebastian Herrera, *Jeff Bezos Pledges $10 Billion to Tackle Climate Change*, WALL STREET JOURNAL (Feb. 17, 2020) ("Mr. Bezos . . . said the *Bezos Earth Fund* would help back scientists, *activists, [non-governmental organizations]*") (emphasis added); *see also*, Ellie Potter, *Environmentalists launch campaign to ban gas from US clean energy program*, S&P GLOBAL PLATTS (Sep. 2, 2021) (quoting Collin Rees, U.S. Campaign Manager for Oil Change International, "Clean energy means *no gas* and no other fossil fuels, period.") (emphases added); Sean Sullivan, *FERC sets sights on gas infrastructure policy in 2022*, S&P CAPITAL IQ (Dec. 31, 2021) (quoting Maya van Rossum, head of Delaware Riverkeeper Network, "we are not changing course at all: We continue to take on *every* pipeline, LNG, and fracked gas project as urgently as we did before, knowing we will have to *invest heavily to stop it* . . .") (emphases added).

[98] *See* Letter of Chairman Richard Glick to Sen. John Barasso, M.D. (Feb. 1, 2022) ("Preparing an EIS to consider the reasonably foreseeable GHG emissions that may be attributed to a project proposed under section 7 of the NGA allows the Commission to

increase the costs and uncertainty associated with this Commission's own handling of certificate applications. In fact, by purporting to apply today's new policy retroactively on applications that have already been submitted (and in many instances pending for years), today's action is deeply unfair: it judges by an entirely new set of standards applications that were prepared and submitted to meet the old standards and essentially opens all of them to be relitigated.[99] The undoubted effect of these orders will be to interpose additional months or years of delay on project applicants and to increase exponentially the vulnerability on appeal of any Commission orders that do approve a project.

50. Recently I said the Commission's new rule on unlimited late interventions in certificate cases was "not a legal standard, but a legal weapon."[100] The new certificate policy approved today is the mother of all legal weapons. There is no question that it will be wielded against each and every natural gas facility both at the Commission and in the inevitable appeals, making the costs of even pursuing a natural gas project insuperable.

51. Let me emphasize that every person or organization pursuing the policy goal of ending the use of natural gas by opposing every natural gas facility has an absolute right under the First Amendment to engage in such advocacy. However, whether to end the use of natural gas by banning the construction of all new natural gas projects is a public policy question of immense importance, one that affects the lives and livelihoods of tens of millions of Americans and their communities, as well as the country's national

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issue more legally durable orders on which all stakeholders can depend, including project developers."); Letter of Commissioner Allison Clements to Sen. John Barasso, M.D. (Feb. 1, 2022) ("I will do my part to assure that the updated policy will be a legally durable framework for fairly and efficiently considering certificate applications – one that serves the public interest and increases regulatory certainty for all stakeholders."); *see also*, Corey Paul, *FERC Dems argue legal benefits from climate reviews outweigh gas project delays*, S&P CAPITAL IQ PRO (Feb. 3, 2022).

[99] Certificate Policy Statement at P 100 ("the Commission will apply the Updated Policy Statement to any currently pending applications for new certificates. Applicants will be given the opportunity to supplement the record and explain how their proposals are consistent with this Updated Policy Statement, and stakeholders will have an opportunity to respond to any such filings.")

[100] *Adelphia Gateway, LLC*, 178 FERC ¶ 61,030 (2022) (Christie, Comm'r concurring at P 4) (available at: https://www.ferc.gov/news-events/news/item-c-3-commissioner-christies-partial-concurrence-and-partial-dissent-adelphia).

security. In a democracy, such a huge policy question should *only* be decided by legislators elected by the people, not by unelected judges or administrative agencies.[101]

52. This public-policy context is absolutely relevant to these orders because it illustrates that the long-running controversy at this Commission over the use of GHG analyses in natural-gas certificate cases, whether it's a demand to quantify indirect impacts from upstream production and downstream use,[102] or a demand to apply an administratively-constructed metric such as the Social Cost of Carbon[103] – and then use GHG analyses to *reject* (or mitigate to death, or impose costly delays on) a gas project – has far less to do with the law itself and far more to do with promoting preferred *public policy* goals.

53. EPA admits as much in a remarkably (perhaps unwittingly) revealing passage in a letter to this Commission:

> EPA reaffirms the suggestion that the Commission avoid expressing project-level emissions as a percentage of national or state emissions. Conveying the information in this way *inappropriately diminishes* the significance of project-level GHG emissions. Instead, EPA continues to recommend disclosing *the increasing conflict between GHG emissions and national, state, and local GHG reduction policies and goals . . .*[104]

54. So according to EPA, this Commission – which is supposed to be *independent* of the current (or any) presidential administration, by the way – should literally manipulate how it presents GHG data in order to avoid "inappropriately" diminishing the impact. As EPA reveals, this is really not about data or any specific GHG metric at all, but is really

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[101] *See Am. Lung Ass'n v. EPA*, 985 F.3d at 1003 (Walker, J., concurring in part and dissenting in part) ("whatever multi-billion-dollar regulatory power the federal government might enjoy, it's found on the open floor of an accountable Congress, not in the impenetrable halls of an administrative agency – even if that agency is an overflowing font of good sense.") (citing U.S. Const. art I, § 1).

[102] GHG Policy Statement at PP 27-28, 31, & n.97. *See also*, EPA Dec. 20, 2021 Letter.

[103] GHG Policy Statement at P 96. *See also, e.g., Vecinos,* 6 F.4th at 1328-1329.

[104] EPA Dec. 20, 2021 Letter at 4 (emphases added).

about pursuing *public policy* goals, especially those of the current presidential administration that runs EPA.[105]

55. The EPA's purported guidance to this Commission illustrates that the real debate here is not over the minutiae of one methodology versus another, or whether one methodology is "generally accepted in the scientific community" and another is not,[106] or whether one particular esoteric formula is purportedly required by a regulation issued by the CEQ[107] and another does not meet the CEQ's directives.

56. The real debate over the use of GHG analyses in certificate proceedings is about public policy, not law, and ultimately comes down to these questions: *Who makes major decisions of public policy in our constitutional system?* Legislators elected by the people or unelected administrative agencies or judges? *Who decides?*[108]

III. Conclusions

57. Based on the analysis above the following legal conclusions can be drawn:

58. *First*, the Commission may not reject a certificate based solely on an estimate of the impacts of GHG emissions, indirect or direct. Nor, on the basis of such GHG estimates, may the Commission attach to a certificate (or coerce through deficiency

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[105] This Commission's independence reflects a conscious choice on Congress' part to insulate certain of its functions from the vicissitudes of political pressure. *See generally*, Sharon B. Jacobs, *The Statutory Separation of Powers*, 129 YALE L.J. 378 (2019) (explaining that some but not all of the Federal Power Commission's authorities were transferred to FERC, which was intended at least in part to counterbalance presidential influence). Succumbing to the pressure of EPA and others would sacrifice that crucial independence in meaningful ways.

[106] *Cf. Vecinos*, 6 F.4th at 1329.

[107] It has been observed that the values associated with the imputed social costs of GHG emissions have fluctuated dramatically from one administration to the next. *See, e.g.*, Garrett S. Kral, *What's In a Number: The Social Cost of Carbon*, GEO. ENVTL. L. REV. ONLINE 1 (Aug. 19, 2021) (comparing the social cost of GHG emissions under the Trump administration with the interim social cost under the Biden administration and noting "the value of SC-GHGs have fluctuated. A lot."). This degree of abrupt fluctuation – e.g., the social cost of carbon increasing from $7 per ton to $51 per ton – can only be explained by politics, not science.

[108] *NFIB*, 142 S. Ct. at 667 (Gorsuch, J. Concurring). ("The central question we face today is: *Who decides?*") (emphasis added).

letters) conditions that represent a *de facto* rejection by rendering the project financially or technically unfeasible.

59. *Second*, the Commission can consider the direct GHG impacts of the specific facility for which a certificate is sought, just as it analyzes other direct environmental impacts of a project, and can attach reasonable and feasible conditions to the certificate designed to reduce or minimize the direct GHG impacts caused by the facility, just as it does with other environmental impacts.

60. *Third*, the conditions the Commission can impose are, like its other powers, limited to the authorities granted to it by Congress and the purposes for which they are given. So, no, the Commission may not impose conditions on a certificate to mitigate upstream or downstream GHG emissions arising from non-jurisdictional activity.

61. These legal conclusions do not mean that responding to climate change is not a compelling policy necessity for the nation. In my view it is, as I stated above.[109]

62. However, neither my policy views – nor those of any other member of this Commission – can confer additional legal authority on FERC.[110] For in our democracy, it is the *elected* legislators who have the exclusive power to determine the major policies that respond to a global challenge such as climate change. Further, the argument that administrative agencies must enact policies to address major problems whenever Congress is too slow, too polarized, or too prone to unsatisfying compromises, must be utterly rejected.[111] That is not how it is supposed to work in a democracy.

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[109] *See* P 5 and n.12, *supra*.

[110] *Office of Consumers Counsel*, 655 F.2d at 1142 ("an agency may not bootstrap itself into an area in which it has no jurisdiction by violating its statutory mandate") (quoting *FMC v. Seatrain Lines, Inc.*, 411 U.S. 726, 745 (1973)) (ellipsis omitted); *see also In re MCP No. 165,* 20 F.4th 264, 269 (6th Cir. 2021) (Sutton, C.J., dissenting) ("As the Supreme Court recently explained in invalidating an eviction moratorium promulgated by the Center for Disease Control, 'our system does not permit agencies to act unlawfully even in pursuit of desirable ends.' *Ala. Ass'n of Realtors*, 141 S. Ct. at 2490. Shortcuts in furthering preferred policies, even urgent policies, rarely end well, and *they always undermine, sometimes permanently, American vertical and horizontal separation of powers, the true mettle of the U.S. Constitution, the true long-term guardian of liberty*.") (emphasis added).

[111] This argument is often put forth by the legal, academic, and corporate elites who assume that an administrative agency will enact the public policies they prefer when Congress will not. Such an expectation is perfectly rational since these elites disproportionately have the resources that are most effective in achieving desired

63. For if democracy means anything at all, it means that the people have an inherent right to choose the legislators to whom the people grant the power to decide the major questions of public policy that impact how the people live their daily lives. Unelected federal judges and executive-branch administrators, no matter how enlightened they and other elites may regard themselves to be, do not have the power to decide such questions; they only have the power to carry out the duly-enacted laws of the United States, including the most important law of all, the Constitution. That is the basic constitutional framework of the United States and it is the same for any liberal democracy worth the name.

For these reasons, I respectfully dissent.

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Mark C. Christie
Commissioner

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outcomes in the administrative process, which is largely an insiders' game. The body of work on the economic theory of regulatory capture over the past half-century is relevant to this topic. *See generally*, Susan E. Dudley, *Let's Not Forget George Stigler's Lessons about Regulatory Capture*, Regulatory Studies Center (May 20, 2021) (available at https://regulatorystudies.columbian.gwu.edu/let%E2%80%99s-not-forget-george-stigler%E2%80%99s-lessons-about-regulatory-capture). And it is not just for-profit corporate elites at work here, so are other special interests who seek desired policy outcomes from administrative action rather than from the often messy and hard democratic processes of seeking to persuade voters to elect members of Congress who agree with you. *See, e.g.*, n. 97, *supra*.

Message

From: Hooper, Daniel [hooper.daniel@epa.gov]
Sent: 3/30/2022 8:58:51 PM
To: Carbonell, Tomas [Carbonell.Tomas@epa.gov]
CC: Campbell, Ann [Campbell.Ann@epa.gov]; Kim, Eunjung [Kim.Eun@epa.gov]
Subject: READING: Materials for Thursday, March 31
Attachments: RE: ACTION: Request for EtO Call Sheets; OAR Briefing Memo_Turbine NESHAP - Cheniere Energy Letter.03.31.22.docx; 111d Natural Gas Cofiring Briefing OAR.03.31.2022.pptx; Title V ARR (NSR Lookback) Briefing 03-28-22.docx; Title V ARR (NSR Lookback) Appendices 3-28-22.docx

Additional Materials:

- For review: EtO call sheets for Janet McCabe (review by 9 am tomorrow) – 1 email

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Carbonell, Tomas Calendar
Carbonell.Tomas@epa.gov
On Thursday, March 31, 2022
Time zone: (UTC-05:00) Eastern Time (US & Canada)
(Adjusted for Daylight Saving Time)

March 2022

Su	Mo	Tu	We	Th	Fr	Sa
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	**31**		

Busy | Tentative | Free
Out of Office | Working Elsewhere | Outside of Working Hours

March 2022

Thu, Mar 31

	Before 8:00 AM	**Free**
	8:00 AM – 8:45 AM	HOLD - Personal
	8:45 AM – 9:00 AM	**Free**
	9:00 AM – 9:25 AM	Management Roundtable
	9:25 AM – 9:30 AM	**Free**
	9:30 AM – 9:55 AM	Comms weekly
	9:55 AM – 10:00 AM	**Free**
	10:00 AM – 10:50 AM	Power Sector 111 Update – Natural Gas Cofiring (1 ppt)
	10:50 AM – 11:00 AM	**Free**

■	11:00 AM – 12:00 PM	Management Time
■	12:00 PM – 1:00 PM	Lunch/Management Time
▨	1:00 PM – 1:50 PM	Title V Applicable Requirements Rule (NSR Lookback) (2 word docs)
□	**1:50 PM – 2:00 PM**	**Free**
▨	2:00 PM – 2:45 PM	AAPCA Member Call: EPA's Power Sector Approach Listening Session
▨	2:00 PM – 3:00 PM	AAPCA - Power Sector
□	**3:00 PM – 4:00 PM**	**Free**
▨	4:00 PM – 5:30 PM	Goal 2 Strategic Plan
▨	4:05 PM – 4:50 PM	Video-call: Subpart YYYY NESHAP Compliance and Uncertainty for LNG Delivery, OAR (1 word doc)
□	**After 5:30 PM**	**Free**

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Pronouns: He/Him/His

BRIEFING MEMO

March 29, 2022

MEMORANDUM FOR THE DEPUTY ADMINISTRATOR

FROM: Joe Goffman, OAR, Ex. 6 Personal Privacy (PP) *goffman.joseph@epa.gov*

SUBJECT: Cheniere Energy Request to Withdraw or Stay Turbine NESHAP Final Rule

DATE: March 31, 2022

TIME: 4:05PM – 4:50PM ET

I. REQUESTING OFFICE: OAR

II. TIMING

On March 9, 2022, a final rule removing the 2004 stay of standards for new gas-fired turbines in the Stationary Combustion Turbine NESHAP was published in the Federal Register. A letter from Cheniere Energy requesting that the final rule be withdrawn or stayed pending judicial review was received on March 8, 2022.

III. PURPOSE

To provide senior management with a summary timeline regarding the final rule and Cheniere's engagement throughout the rulemaking process.

IV. BACKGROUND AND HISTORY (BULLETS ARE FINE)

March 4, 2004: Original Stationary Combustion Turbine NESHAP final rule promulgated. Regulation only applies to turbines at major sources of hazardous air pollutants (HAP).

August 2004: EPA received a petition to delist gas-fired turbines during the rulemaking and finalized an administrative stay of standards for new gas-fired turbines until the outcome of the proposed delisting was determined.

April 12, 2019: Proposed removal of stay and Risk and Technology Review (RTR) of the Turbine NESHAP.

March 9, 2020: Final RTR promulgated. Stay removal was not finalized to allow for additional time to review comments and a new petition to delist the entire source category filed in August 2019.

March 9, 2022: Final rule removing the stay of the standards.

V. KEY ISSUES

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

VI. REGULATORY SUMMARY (IF APPROPRIATE)

Ex. 5 Deliberative Process (DP)

VII. ADDITIONAL POLICY OR TECHNICAL INFORMATION (IF APPROPRIATE)

VIII. ANTICIPATED STAKEHOLDER REACTION

Any action to withdraw or stay the final rule removing the stay would likely be opposed by Sierra Club.

IX. STAKEHOLDER INVOLVEMENT

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

X. ROLL-OUT AND COMMUNICATIONS PLAN

Not relevant for this meeting

XI. NEXT STEPS/UPCOMING DEADLINES

None

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Submitted via www.regulations.gov

May 28, 2019

Ms. Melanie King
U.S. Environmental Protection Agency
EPA Docket Center (Mail Code 28221T)
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460

Re: Docket ID No. EPA-HQ-OAR-2017-0688 – Proposed Rule: National Emission Standards for Hazardous Air Pollutants: Stationary Combustion Turbines Residual Risk and Technology Review, 84 Fed. Reg. 15,046 (Apr. 12, 2019)

Dear Ms. King,

Cheniere Energy, Inc. ("Cheniere") appreciates the opportunity to submit the following comments in response to the U.S. Environmental Protection Agency's ("EPA's") proposed rule, National Emission Standards for Hazardous Air Pollutants: Stationary Combustion Turbines Residual Risk and Technology Review ("Proposed Amendments"), published in the Federal Register on April 12, 2019 (84 Fed. Reg. 15,046). While Cheniere supports the comments filed by the Interstate Natural Gas Association of America ("INGAA") and the American Petroleum Institute ("API"), Cheniere would like to emphasize the unique and significant impacts the Proposed Amendments could have on our operations.

I. Overview of Cheniere Energy, Inc.

Cheniere Energy, Inc. is an international energy company headquartered in Houston, Texas, and is the leading producer of liquefied natural gas ("LNG") in the United States. We provide clean, secure, and affordable energy to the world, while responsibly delivering a reliable, competitive, and integrated source of LNG, in a safe and rewarding work environment. Cheniere's operations, construction and development also support energy and economic development across the United States. By 2020, Cheniere is expected to be a top-5 global provider of LNG.

In February 2016, Cheniere became the first company to ship LNG from a commercial facility in the contiguous United States. Since startup, more than 650 cumulative cargoes of LNG originating from Cheniere have been delivered to 32 countries and regions worldwide. In support of that global reach, Cheniere has additional offices in London, Singapore, Washington, Beijing, and Tokyo.

LNG is natural gas in liquid form. It is produced through a refrigeration process that drops the temperature of natural gas down to -260 degrees Fahrenheit, at which point it converts to liquid, and its volume shrinks by 600 times, enabling global transport in LNG carriers. LNG is non-toxic and non-flammable. When burned, natural gas emits less carbon than coal and oil, with

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significantly less traditional air pollutants. Additionally, all mercury is removed during the LNG process.

Cheniere is operating, constructing, and developing two LNG facilities on the U.S. Gulf Coast. Cheniere's Sabine Pass liquefaction project ("SPL Project") is located in Cameron Parish in southwest Louisiana, and currently has five fully-operational liquefaction units, or "trains" as they are known in the LNG industry. Early works have begun for a sixth train with limited notices to proceed ahead of an anticipated positive Final Investment Decision. When all six trains are completed, the aggregate nominal production capacity of the SPL Project is expected to be approximately 27 million tonnes per annum ("mtpa") of LNG.

Cheniere's Corpus Christi liquefaction facility ("CCL Project") began operations in 2018. Train 1 is in operation and Train 2 is expected to be fully operational in 2019. Train 3 is more than 50% complete as of May 2019 and is expected to be fully operational in 2021. When all three trains are completed, the aggregate nominal production capacity of the CCL Project is expected to be approximately 13.5 mtpa of LNG.

Currently, the SPL Project and CCL Project utilize 50 gas-fired turbines that will be affected by the Proposed Amendments, representing approximately 30% of the total number of affected units that EPA estimated would become newly subject to the NESHAP YYYY emission standards under the Proposed Amendments.[1]

II. Cheniere Supports EPA's Conclusions on Risk Acceptability, Ample Margin of Safety, And the Lack of Any New, Cost-Effective Controls.

Cheniere supports EPA's residual risk and technology review ("RTR") conclusions that risk analysis results for the source category are acceptable and provide an ample margin of safety; and new emission controls or operational practices are not available to achieve further emissions reductions. As EPA concludes and as noted in the comments submitted by INGAA and API on the Proposed Amendments, no turbine design or substantive operational practice changes have occurred, and no new add-on controls have become available.[2]

III. Cheniere Encourages EPA to Defer Further Action on the Proposed Amendments Until New Information Supporting Delisting of the Entire Source Category Can be Evaluated.

Although Cheniere supports the residual risk review conclusion that modeled risks are acceptable for the RTR, Cheniere shares the concerns of INGAA and API regarding data quality and recommends that EPA review the Electric Power Research Institute's ("EPRI's") May 15, 2019

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[1] EPA-HQ-OAR-2017-0688. Memo from Research Triangle Institute to EPA, "Projected Number of Turbine Units and Facilities Subject to the Stationary Combustion Turbine National Emission Standards for Hazardous Air (NESHAP)," (Jan. 29, 2019).

[2] *See* Memorandum from RTI International to U.S. EPA, entitled *"Technology Review for Stationary Combustion Turbines Risk and Technology Review."* Section 4.2 (December 11, 2018).

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report[3] ("EPRI Report") and conduct additional risk analysis to assess whether the entire source category can be delisted. The EPRI Report found that none of the inhalation risks from combustion turbine HAP emissions is expected to cause lifetime cancer risk in humans of greater than 1 in 1 million to the individual in the population projected to be most exposed to emissions of those pollutants. In the case of HAPs that have the potential to cause adverse health effects in humans other than cancer, the study found that the chronic hazard index and acute hazard quotient from the combustion turbine category were well below 1.[4] These results demonstrate that the inhalation health risks from combustion turbines for each chemical individually, and all emitted chemicals combined, were well within EPA's risk thresholds, supporting delisting of the entire source category.

IV. If Further Action on the Proposed Amendments is Not Deferred, EPA Should Retain the 2004 Stay.

As noted in INGAA's comments, a review of the documents in the administrative record and the preamble to the Proposed Amendments suggests that EPA intended to propose a separate rule to remove the stay at a later date. In light of the EPRI Report's release, leaving the existing stay in place pending an evaluation of this significant new study and a response to any associated delisting petition is even more reasonable and appropriate. The stay was originally put in place after a delisting petition lead to a proposal to delist the subcategory. If EPA removes that stay now, but later proposes to delist the entire source category, sources covered by the stay would become subject to the rule in the interim, incurring significant costs to come into compliance for what would be only a relatively short period of time.

V. If the Stay is Lifted, Sufficient Time Will be Needed to Address the Unique Challenges Faced by Cheniere in Bringing all 50 Affected Units into Compliance.

If EPA proceeds with removing the stay, Cheniere will need sufficient time to assess, design, procure, and install control equipment on 50 operating turbines at its two LNG terminals. The Proposed Amendments provide that turbines subject to the stay would be required to comply with all applicable requirements of Subpart YYYY immediately upon a final action to remove the stay and conduct initial performance tests within 180 days from such final action. For the reasons set forth below, retrofitting all 50 turbines with control equipment, installing parameter monitoring systems, and scheduling and conducting initial performance tests on such a compressed schedule would be extremely challenging.

- First, the vast majority of the affected turbines are used to drive compressors which are integral to the refrigeration process to liquefy natural gas. Significant case-by-case design and engineering work would be required prior to procurement and installation. The installation could require major infrastructure improvements, including structural

[3] "Inhalation Human Health Risk Assessment for U.S. Stationary Combustion Turbines 2014 Base Year Evaluation," EPRI, Palo Alto, CA: 2019. 3002016528
[4] ibid

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Cheniere Energy, Inc.
700 Milam Street, Suite 1900
Houston, Texas 77002
phone: 713.375.5000
fax: 713.375.6000

modifications to existing turbine pedestals, installation of additional pedestals for the control equipment and rerouting of turbine exhaust. Additionally, installation of supplementary equipment necessary to ensure effective operation of the selected control equipment, such as gas-fired heaters or boilers may be required to ensure proper turbine exhaust temperature as it enters the selected control equipment. The operation of this supplementary gas-fired equipment will result in increases in criteria pollutants such as NOx, CO, and VOC, which will trigger additional air permitting requirements and analysis of impacts on air quality.

- Second, availability of control equipment for the 50 currently operating turbines and the time needed for design and procurement is currently unknown and would be further affected by the fact that Cheniere would be competing with many other companies subject to the new requirements. This situation will be exacerbated given a limited availability of control units, companies to perform engineering, third-party consultants, suppliers and construction contractors.

- Third, budgets are set annually, and are integrated with our long-range planning. A retrofit project of this magnitude, affecting multiple facilities will require adjustments and approvals at many levels that may take many months.

- Fourth, air permit amendments would be required prior to any construction activities to address all actions that would change emission rates and their locations. The permit approval time alone would easily exceed the compliance period in the Proposed Amendments.

- Finally, the installation of so many retrofits would require significant changes to current maintenance planning schedules, which are developed multiple years in advance in order to efficiently coordinate downtime for maintenance and new project construction. Such necessary changes cannot be developed and integrated into plant schedules until engineering is complete and control equipment availability is known.

Although Cheniere generally supports the requests of INGAA and API for additional time for affected units to achieve compliance after the stay is lifted, the unique situation confronting Cheniere based on the significant number of affected units and the likely need for substantial infrastructure improvements make it difficult to gauge whether a three year extension would be sufficient. Accordingly, any extension should take these significant challenges into consideration.

VI. Cheniere Supports the Proposed Operational Standard During Startup, But Recommends That EPA Provide Additional Time for Extenuating Circumstances.

The proposed operational standard in Subpart YYYY, Table 1 would require operators of simple cycle turbines to minimize the time spent at idle or low load, *not to exceed one hour*, after which

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time the formaldehyde emission standard applies.[5] Pre-startup commissioning activities at LNG terminals are complex and take several months. The transition from commissioning to initial startup is similarly complex and may take in excess of the one-hour requirement included in the Proposed Amendments. Accordingly, Cheniere recommends that EPA include a provision that allows additional time for initial startup in extenuating circumstances. As suggested in INGAA's comments, EPA could require operators to document the extenuating circumstance in the periodic compliance report to ensure there was a reasonable basis for the additional startup time.

Cheniere appreciates the opportunity to submit comments on the record. Should you or your staff have any questions or need any additional information please contact me at 713/375-5527 or via email at Doug.Shanda@cheniere.com. Additionally, representatives of Cheniere are available to meet with you or your staff to discuss our comments in greater detail.

Sincerely,
Cheniere Energy, Inc.

Douglas D. Shanda
Senior Vice President, Operations

[5] 84 Fed. Reg. at 15074

Message

From: Hooper, Daniel [hooper.daniel@epa.gov]
Sent: 3/29/2022 8:57:35 PM
To: Carbonell, Tomas [Carbonell.Tomas@epa.gov]
CC: Campbell, Ann [Campbell.Ann@epa.gov]; Kim, Eunjung [Kim.Eun@epa.gov]
Subject: READING: Materials for Wednesday, March 30
Attachments: DRAFT IPM Summer 2022 Reference Case Overview.pptx; FW: EJ in Air Permitting - OAR Presentation materials, clean draft documents; Title V ARR (NSR Lookback) Briefing 03-28-22.docx; Title V ARR (NSR Lookback) Appendices 3-28-22.docx; Copy of Copy of 2017-2020 Guidances - OAQPS1+slm REV.xlsx; For Review -- O3 Determinations draft press release; Briefing Materials: DA McCabe Briefing - Video-call: Subpart YYYY NESHAP Compliance and Uncertainty for LNG Delivery, OAR

Additional materials:

- For review – draft materials for DA meeting on Subpart YYYY NESHAP Compliance and Uncertainty for LNG Delivery (review by 9 am tomorrow) – 1 email
- For review: O3 Determinations draft press release (review by 9 am tomorrow) – 1 email

---

Carbonell, Tomas Calendar
Carbonell.Tomas@epa.gov
On Wednesday, March 30, 2022
Time zone: (UTC-05:00) Eastern Time (US & Canada)
(Adjusted for Daylight Saving Time)

March 2022

Su	Mo	Tu	We	Th	Fr	Sa
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	**30**	31		

Busy | Tentative | Free
Out of Office | Working Elsewhere | Outside of Working Hours

March 2022

Wed, Mar 30

	Before 8:00 AM	**Free**
	8:00 AM – 9:00 AM	**Free**
	9:00 AM – 9:25 AM	Management Roundtable
	9:25 AM – 9:30 AM	**Free**

▨	9:30 AM – 9:55 AM	Air Issues Meeting
☐	**9:55 AM – 10:00 AM**	**Free**
■	10:00 AM – 10:45 AM	Review of CAA Guidance Documents (1 Excel file)
▨	10:45 AM – 11:00 AM	Pre-brief Title V Applicable Requirements Rule (NSR Lookback) (2 word docs)
▨	11:00 AM – 11:20 AM	Weekly Check-in with Tomas
☐	**11:20 AM – 12:00 PM**	**Free**
▨	12:00 PM – 12:50 PM	IPM draft 2022 Reference Case (1 ppt)
☐	**12:50 PM – 1:00 PM**	**Free**
▨	1:00 PM – 1:45 PM	Update on Environmental Justice in Air Permitting Workgroup Deliverables (1 email)
▨	1:45 PM – 2:00 PM	OAR/OECA Discussion
☐	**2:00 PM – 3:15 PM**	**Free**
▨	3:15 PM – 3:35 PM	Presenter Invite - Regional Administrators Meeting
▨	3:30 PM – 3:50 PM	Weekly Check-in with Tomas
☐	**3:50 PM – 4:00 PM**	**Free**
▨	4:00 PM – 4:25 PM	One-on-One with Chris Grundler
☐	**4:25 PM – 4:30 PM**	**Free**
☐	**After 4:30 PM**	**Free**

Daniel Hooper
Assistant Chief of Staff
Office of Air and Radiation, US EPA
hooper.daniel@epa.gov
202.343.9167 office

Pronouns: He/Him/His

Message

From: Tsirigotis, Peter [Tsirigotis.Peter@epa.gov]
Sent: 5/9/2022 2:31:52 PM
To: Hoffer, Melissa [Hoffer.Melissa@epa.gov]
CC: Goffman, Joseph [Goffman.Joseph@epa.gov]; Carbonell, Tomas [Carbonell.Tomas@epa.gov]; Culligan, Kevin [Culligan.Kevin@epa.gov]; Srinivasan, Gautam [Srinivasan.Gautam@epa.gov]; Marks, Matthew [Marks.Matthew@epa.gov]
Subject: FW: Cheniere Energy
Attachments: Cheniere_0116.pdf; Cheniere Energy Inc. Request to EPA (3-8-22).pdf

Fyi, attached is what we have in writing from Cheniere.

From: Hutson, Nick <Hutson.Nick@epa.gov>
Sent: Monday, May 9, 2022 10:18 AM
To: Tsirigotis, Peter <Tsirigotis.Peter@epa.gov>
Subject: Cheniere Energy

Cheniere Energy's request to "stay the lifting of the stay" attached.

FYI … Cheniere Energy's comments on the RTR/lift the stay proposal … also attached.

Nick

Nick Hutson, PhD
Group Leader
Energy Strategies Group
Office of Air Quality Planning & Standards
U.S. Environmental Protection Agency
Research Triangle Park, NC 27711
Office: 919 541 2968
Mobile: 919 864-1853
email: hutson.nick@epa.gov

Appointment

To: Tsirigotis, Peter [Tsirigotis.Peter@epa.gov]

Subject: Meeting Materials (3)
Attachments: OAR Briefing Memo_Turbine NESHAP - Cheniere Energy Letter.03.31.22.docx; Turbine NESHAP.Cheniere Energy.DepAdmin.03.31.22.docx; 111d Natural Gas Cofiring Briefing OAR.03.31.2022.pptx

Start: 3/31/2022 11:00:00 AM
End: 3/31/2022 11:30:00 AM
Show Time As: Busy

Recurrence: (none)

Thursday, March 31, 10:00am - Power Sector 111 Update – Natural Gas Cofiring

Thursday, March 31, 4:05pm - Video-call: Subpart YYYY NESHAP Compliance and Uncertainty for LNG Delivery, OAR

BRACEWELL

March 8, 2022

Via Electronic and First-Class Mail
Return Receipt No. 7019 2970 0001 3110 0359

Hon. Michael S. Regan, Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Mail Code 1101A
Washington, D.C. 20460
regan.michael@epa.gov

Re: *Request to Withdraw Final Rule and Request for Stay Pending Judicial Review*

Dear Administrator Regan,

We submit this letter on behalf of Cheniere Energy, Inc. (Cheniere), which hereby requests the Environmental Protection Agency (EPA) withdraw or stay pending judicial review the rule finalized on February 28, 2022 titled "National Emission Standards for Hazardous Air Pollutants: Stationary Combustion Turbines; Amendments."[1] For the reasons discussed below, Cheniere asks EPA to withdraw the rule *before* it takes effect or, alternatively, stay the rule pending judicial review.

Cheniere is an international energy company headquartered in Houston, Texas, and is the leading producer of liquefied natural gas (LNG) in the United States. Cheniere provides clean, secure, and affordable energy to the world, while responsibly delivering a reliable, competitive, and integrated source of LNG, in a safe and rewarding work environment.

The rule lifts a 2004 regulatory stay of the effectiveness of emission standards for certain stationary combustion turbines and would take effect the day the rule is published in the Federal Register.[2] If this happens, turbines that were permitted, authorized, built, installed, and operated in reliance on applicable requirements in effect at the time will need to demonstrate compliance with emission standards within 180 days—a timeline that is insufficient to address complex technical and engineering concerns. Not only did Cheniere rely on applicable requirements in effect at the time, but so did the Federal Energy Regulatory Commission, state air permitting authorities operating under EPA-approved programs, and

[1] National Emission Standards for Hazardous Air Pollutants: Stationary Combustion Turbines; Amendments, https://www.epa.gov/system/files/documents/2022-03/5909.1_turbineneshapamendments_final_20220225.admin-wdisclaimer.pdf (prepublication version).
[2] Prepublication Final Rule at 1.

Ms. Brittany M. Pemberton T: +1.202.828.1708 F: +1.800.404.3970
Partner 2001 M Street NW, Suite 900, Washington, DC 20036-3310
brittany.pemberton@bracewell.com bracewell.com

EPA itself, through both its ability to comment on Cheniere's PSD permits (which include applicable federal requirements) and through its role as a cooperating agency in the FERC permitting process.

EPA relies on "recent caselaw concerning stays issued under the authority of the Clean Air Act and the Administrative Procedure Act" to justify lifting the stay. Although EPA's position is without citation, the cases that we presume EPA is referencing actually support EPA authority to withdraw a not yet effective rule at any time and to issue a stay pending judicial review of a published final rule where "justice so requires."[3] That standard is met here.

The rule would have implications across the domestic energy sector and particularly in the LNG industry at a time when Russia's invasion of Ukraine has shaken global energy markets and threatens to disrupt energy supply to Europe, where U.S. LNG has a significant role to play in providing reliable supplies of natural gas. Cheniere operates two LNG facilities on the U.S. Gulf Coast where it uses 62 of the combustion turbines that will become subject to the rule. The vast majority of these turbines are necessary to drive compressors integral to the refrigeration process to liquefy natural gas. The design of Cheniere's LNG terminals is complex, and the subject turbines are located on elevated pedestals with limited space for installing control equipment. Accordingly, significant case-by-case design and engineering work may be required to determine feasibility of control installation and options. Potentially imposing significant costs and operational disruption on the U.S. LNG industry at the same time the Administration is focused on Europe's strategic need to break its reliance on Russian gas is counterproductive. It is also unnecessary considering that the risks from combustion turbine HAPs are minimal and that EPA is actively considering a petition to delist these very turbines.

With respect to this last point, it is not clear why EPA now wishes to lift the 2004 stay when the Agency is considering further action that might result in delisting all stationary combustion turbines. This is contrary to the Agency's position on two other occasions. Specifically, when EPA first issued the stay in 2004, industry raised serious questions regarding the need to regulate emissions from the subcategories at issue. As a result, EPA issued this stay "to avoid wasteful and unwarranted expenditures on installation of emission controls which will not be required if the subcategories are delisted."[4][5] More recently, in March 2020, EPA again concluded it was appropriate to delay taking action to remove the stay until it makes a

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[3] 5 U.S.C. § 705; *see, e.g., Becerra v. U.S. Dep't of Interior*, 276 F.Supp.3d 953, 963–64 (N.D. Cal. 2017) (plain language of 5 U.S.C. § 705 allows an agency to suspend a rule after its effective date pending judicial review but does not authorize a stay of the rule's compliance date); *California v. U.S. Bureau of Land Management*, 277 F.Supp.3d 1106, 1118–19 (N.D. Cal. 2017) (rejecting arguments under 5 U.S.C. § 705 that an agency could stay the compliance date of a postponed rule because the compliance date functioned as a second effective date); *Air Alliance Houston v. EPA*, 906 F.3d 1049, 1060–61 (D.C. Cir. 2018) (plain language of 42 U.S.C. §7607(d)(7)(B) limits a stay of a final EPA action to 90 days even if that time is insufficient to conduct mandatory reconsideration of the action); *Clean Air Council v. Pruitt*, 862 F.3d 1, 10 (D.C. Cir. 2017) (a stay of a final EPA action under 42 U.S.C. § 7606(d)(7)(B) is lawful only if the agency's reconsideration of the rule meets the statutory test for mandatory reconsideration).

[4] Prepublication Final Rule at 6.

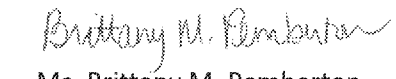
[5] "Inhalation Human Health Risk Assessment for U.S. Stationary Combustion Turbines 2014 Base Year Evaluation," Final Report, EPRI Product No. 3002016528 (May 2019).

determination regarding the pending delisting petition "so that turbine owners and operators do not make expenditures on emission controls and performance testing that will not be required if the source category is delisted."[6] Withdrawing this rule that removes the stay or staying it pending judicial review would provide time for EPA to fully consider the delisting petition, while also avoiding the imposition of "wasteful and unwarranted expenditures" that may ultimately be unnecessary if the category is delisted.

While the underlying rule was finalized in 2004, multiple EPA administrations since that time have kept the stay in place to avoid unwarranted expenditures while the Agency assesses delisting petitions and the very validity of the underlying Subpart YYYY compliance requirements for these combustion turbines. However, it is not just the removal of the stay that is troubling. It is also troubling that despite numerous comments from operators of combustion turbines that complex retrofits could take years to design, engineer, and install, the Agency still put forth a far too short 180 day compliance timeline.

For all of these reasons, Cheniere respectfully requests that EPA withdraw the rule before it takes effect or, alternatively, stay the rule pending judicial review.

Best regards,



Ms. Brittany M. Pemberton
Partner

cc (via email):

Joe Goffman
Acting Assistant Administrator, Office of Air and Radiation
U.S. Environmental Protection Agency
goffman.joseph@epa.gov

Jeffrey Prieto
General Counsel, Office of General Counsel
U.S. Environmental Protection Agency
prieto.jeffrey@epa.gov

Michael Weller
Senior Counsel, Cheniere Energy, Inc.
michael.weller@cheniere.com

Matthew Paulson, Bracewell LLP
matthew.paulson@bracewell.com

[6] 85 Fed. Reg. 13,524 at 13,527 (Mar. 9, 2020).

Message

From: Utech, Dan [Utech.Dan@epa.gov]
Sent: 3/3/2021 2:12:05 PM
To: Goffman, Joseph [Goffman.Joseph@epa.gov]; Gunning, Paul [Gunning.Paul@epa.gov]
Subject: RE: RESEARCH REQUEST AND ICYMI - Cheniere to Provide Cargo Emissions Data to LNG Customers AND a

Yes please

From: Goffman, Joseph <Goffman.Joseph@epa.gov>
Sent: Wednesday, March 3, 2021 8:53 AM
To: Gunning, Paul <Gunning.Paul@epa.gov>; Utech, Dan <Utech.Dan@epa.gov>
Subject: RE: RESEARCH REQUEST AND ICYMI - Cheniere to Provide Cargo Emissions Data to LNG Customers AND a

Khary has emailed me, too. OAR will handle, assuming that's OK with you. Thanks.

Joseph Goffman
Acting Assistant Administrator
Office of Air and Radiation
U.S. Environmental Protection Agency

From: Gunning, Paul <Gunning.Paul@epa.gov>
Sent: Tuesday, March 2, 2021 2:53 PM
To: Utech, Dan <Utech.Dan@epa.gov>
Cc: Goffman, Joseph <Goffman.Joseph@epa.gov>
Subject: Re: RESEARCH REQUEST AND ICYMI - Cheniere to Provide Cargo Emissions Data to LNG Customers AND a

Dan - Hope all is well. I am not sure why they are looping me in, but I wanted to make sure you had an accurate depiction of our involvement. We did receive some questions from Cheniere staff (Fiji George) about interpreting the emissions data we collect through the Greenhouse Gas Reporting Program. Not an uncommon request that we deal with from all of our stakeholders. Not much more to it than that.

Paul

From: Khary Cauthen <Khary.Cauthen@cheniere.com>
Sent: Tuesday, March 2, 2021 12:50 PM
To: Utech, Dan <Utech.Dan@epa.gov>
Cc: Gunning, Paul <Gunning.Paul@epa.gov>
Subject: FW: RESEARCH REQUEST AND ICYMI - Cheniere to Provide Cargo Emissions Data to LNG Customers AND a

Dan: Hope that all is well with you and that you're settling into EPA- Congrats again.

I'm sure that you've seen our announcement from other Obama Administration alums but just in case I knew that you would be interested in Cheniere's announcement last week that we plan to begin providing its LNG customers with greenhouse gas ("GHG") emissions data associated with each LNG cargo produced at the Company's Sabine Pass and Corpus Christi liquefaction facilities. The Cargo Emissions Tags ("CE Tags") are designed to enhance environmental transparency by quantifying the estimated GHG emissions of LNG cargoes from the wellhead to the cargo delivery point, and are expected to be provided to customers beginning in 2022.

The CE Tags will be calculated utilizing Cheniere's proprietary lifecycle analysis ("LCA") model, which has been built incorporating the accounting frameworks from LCAs created by the U.S. Department of Energy's National Energy Technology Laboratory, and will utilize publicly available data from value chain participants, as well as operational data from both the Sabine Pass and Corpus Christi liquefaction facilities.

Request: Part of this effort includes getting the best emissions data from all aspects of our business. We are in the process of joint efforts with Paula Gant at GTI to monitor and collect our emissions from our vessels. Your own Climate Change Division Director Paul Gunning is also helping us with our efforts. To that end, Cheniere is awaiting a Letter of Exemption for one of my researchers to travel from London to Corpus Christi (See attached letter). The request was sent to afford enough time for Dr. Balcombe to travel and quarantine with some days to spare ahead of boarding our vessel. I had hoped to hear back from the consulate in London by now. It would be greatly appreciated if you could weigh in with the State Department this week that accurate life cycle analysis is in the national interest.

Please let me know if you have any questions.

Khary

Khary Cauthen
Vice President, Federal Government and Public Affairs
Cheniere Energy, Inc.
701 8th Street NW, Suite 810
Washington, DC 20001

Direct: 202.442.3074
Cell: 202.577.6595

Cheniere to Provide Cargo Emissions Data to LNG Customers

FEBRUARY 24, 2021 8:30AM EST

HOUSTON--(BUSINESS WIRE)-- Cheniere Energy, Inc. ("Cheniere" or the "Company") (NYSE American: LNG) announced today that it plans to begin providing its LNG customers with greenhouse gas ("GHG") emissions data associated with each LNG cargo produced at the Company's Sabine Pass and Corpus Christi liquefaction facilities. The Cargo Emissions Tags ("CE Tags") are designed to enhance environmental transparency by quantifying the estimated GHG emissions of LNG cargoes from the wellhead to the cargo delivery point, and are expected to be provided to customers beginning in 2022.

"We believe significantly enhanced data-driven emissions transparency will support Cheniere, our customers and our suppliers as we work to identify tangible opportunities to quantify and improve environmental performance," said Jack Fusco, Cheniere's President and Chief Executive Officer. "We consider this announcement to be a critical first step for the industry. Cheniere will continuously work to improve the data incorporated in the CE Tags with the ultimate goal of providing dynamic GHG emissions data."

The CE Tags will be calculated utilizing Cheniere's proprietary lifecycle analysis ("LCA") model, which has been built incorporating the accounting frameworks from LCAs created by the U.S. Department of Energy's National Energy Technology Laboratory, and will utilize publicly available data from value chain participants, as well as operational data from both the Sabine Pass and Corpus Christi liquefaction facilities.

"As one of the largest consumers of natural gas on a daily basis in the U.S., and one of the largest producers of LNG worldwide, Cheniere is ideally positioned to collaborate with domestic and international value chain participants to provide improved transparency and advance the global transition to a lower-carbon future," said Fusco.

About Cheniere

Cheniere Energy, Inc. is the leading producer and exporter of liquefied natural gas (LNG) in the United States, reliably providing a clean, secure, and affordable solution to the growing global need for natural gas. Cheniere is a full-service LNG provider, with capabilities that include gas procurement and transportation, liquefaction, vessel chartering, and LNG delivery. Cheniere has one of the largest liquefaction platforms in the world, consisting of the Sabine Pass and Corpus Christi liquefaction facilities on the U.S. Gulf Coast, with expected total production capacity of approximately 45 million tonnes per annum of LNG operating or under construction. Cheniere is also pursuing liquefaction expansion opportunities and other projects along the LNG value chain. Cheniere is headquartered in Houston, Texas, and has additional offices in London, Singapore, Beijing, Tokyo, and Washington, D.C.

For additional information, please refer to the Cheniere website at www.cheniere.com and Annual Report on Form 10-K for the year ended December 31, 2020, filed with the Securities and Exchange Commission.

Forward-Looking Statements

This press release contains certain statements that may include "forward-looking statements" within the meanings of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. All statements, other than statements of historical or present facts or conditions, included herein are "forward-looking statements." Included among "forward-looking statements" are, among other things, (i) statements regarding Cheniere's financial and operational guidance, business strategy, plans and objectives, including the development, construction and operation of liquefaction facilities, (ii) statements regarding expectations regarding regulatory authorizations and approvals, (iii) statements expressing beliefs and expectations regarding the development of Cheniere's LNG terminal and pipeline businesses, including liquefaction facilities, (iv) statements regarding the business operations and prospects of third parties, (v) statements regarding potential financing arrangements, (vi) statements regarding future discussions and entry into contracts, (vii) statements relating to the amount and timing of share repurchases, and (viii) statements regarding the COVID-19 pandemic and its impact on our business and operating results. Although Cheniere believes that the expectations reflected in these forward-looking statements are reasonable, they do involve assumptions, risks and uncertainties, and these expectations may prove to be incorrect. Cheniere's actual results could differ materially from those anticipated in these forward-looking statements as a result of a variety of factors, including those discussed in

Cheniere's periodic reports that are filed with and available from the Securities and Exchange Commission. You should not place undue reliance on these forward-looking statements, which speak only as of the date of this press release. Other than as required under the securities laws, Cheniere does not assume a duty to update these forward-looking statements.

View source version on businesswire.com: https://www.businesswire.com/news/home/20210224005183/en/

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Message

From: Hooper, Daniel [hooper.daniel@epa.gov]
Sent: 3/30/2022 8:58:56 PM
To: Goffman, Joseph [Goffman.Joseph@epa.gov]
CC: Campbell, Ann [Campbell.Ann@epa.gov]; Kim, Eunjung [Kim.Eun@epa.gov]
Subject: READING: Materials for Thursday, March 31
Attachments: RE: ACTION: Request for EtO Call Sheets; FOR JOE'S BOOK: follow up on today's PM 2.5 NAAQS meeting; OAR Briefing Memo_Turbine NESHAP - Cheniere Energy Letter.03.31.22.docx; 111d Natural Gas Cofiring Briefing OAR.03.31.2022.pptx; Materials for Small Refinery Communications meeting 3/31 at noon; Title V ARR (NSR Lookback) Briefing 03-28-22.docx; Title V ARR (NSR Lookback) Appendices 3-28-22.docx

Additional Materials:

- For review: EtO call sheets for Janet McCabe (review by 9 am tomorrow) – 1 email
- As requested: follow up on PM 2.5 NAAQS meeting – 1 email

Goffman, Joseph Calendar
Goffman.Joseph@epa.gov
On Thursday, March 31, 2022
Time zone: (UTC-05:00) Eastern Time (US & Canada)
(Adjusted for Daylight Saving Time)

March 2022

Su	Mo	Tu	We	Th	Fr	Sa
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	**31**		

Busy | Tentative | Free
Out of Office | Working Elsewhere | Outside of Working Hours

March 2022

Thu, Mar 31

	All Day	AF OOO
	Before 8:00 AM	**Free**
	8:00 AM – 9:00 AM	**Free**
	9:00 AM – 9:25 AM	Management Roundtable
	9:25 AM – 9:30 AM	**Free**
	9:30 AM – 9:55 AM	Comms weekly
	9:55 AM – 10:00 AM	**Free**

■	10:00 AM – 10:50 AM	Power Sector 111 Update – Natural Gas Cofiring (1 ppt)
□	**10:50 AM – 11:00 AM**	**Free**
■	11:00 AM – 11:30 AM	Meeting with ALA / "Zeroing in on Healthy Air"
■	11:30 AM – 11:55 AM	One-on-One with Jon Edwards
□	**11:55 AM – 12:00 PM**	**Free**
■	12:00 PM – 12:50 PM	SRE Discussion (OAR/OGC/OCIR) (1 email)
□	**12:50 PM – 1:00 PM**	**Free**
■	1:00 PM – 1:50 PM	Title V Applicable Requirements Rule (NSR Lookback) (2 word docs)
□	**1:50 PM – 2:00 PM**	**Free**
■	2:00 PM – 2:45 PM	AAPCA Member Call: EPA's Power Sector Approach Listening Session
■	2:00 PM – 3:00 PM	AAPCA - Power Sector
■	3:00 PM – 3:15 PM	Check in with Sincere
□	**3:15 PM – 4:05 PM**	**Free**
■	4:05 PM – 4:50 PM	Video-call: Subpart YYYY NESHAP Compliance and Uncertainty for LNG Delivery, OAR (1 word doc)
□	**4:50 PM – 5:00 PM**	**Free**
■	5:00 PM – 6:00 PM	DO NOT SCHEDULE: Management Time
□	**After 6:00 PM**	**Free**

Daniel Hooper
Assistant Chief of Staff
Office of Air and Radiation, US EPA
hooper.daniel@epa.gov
202.343.9167 office

Pronouns: He/Him/His

Message

From: Hooper, Daniel [hooper.daniel@epa.gov]
Sent: 3/29/2022 8:56:32 PM
To: Goffman, Joseph [Goffman.Joseph@epa.gov]
CC: Campbell, Ann [Campbell.Ann@epa.gov]; Kim, Eunjung [Kim.Eun@epa.gov]
Subject: READING: Materials for Wednesday, March 30
Attachments: DRAFT IPM Summer 2022 Reference Case Overview.pptx; FW: EJ in Air Permitting - OAR Presentation materials, clean draft documents; Title V ARR (NSR Lookback) Briefing 03-28-22.docx; Title V ARR (NSR Lookback) Appendices 3-28-22.docx; Copy of Copy of 2017-2020 Guidances - OAQPS1+slm REV.xlsx; For Review -- O3 Determinations draft press release; Briefing Materials: DA McCabe Briefing - Video-call: Subpart YYYY NESHAP Compliance and Uncertainty for LNG Delivery, OAR

Additional materials:

- For review – draft materials for DA meeting on Subpart YYYY NESHAP Compliance and Uncertainty for LNG Delivery (review by 9 am tomorrow) – 1 email
- For review: O3 Determinations draft press release (review by 9 am tomorrow) – 1 email

Goffman, Joseph Calendar
Goffman.Joseph@epa.gov
On Wednesday, March 30, 2022
Time zone: (UTC-05:00) Eastern Time (US & Canada)
(Adjusted for Daylight Saving Time)

March 2022

Su	Mo	Tu	We	Th	Fr	Sa
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	**30**	31		

Busy | Tentative | Free
Out of Office | Working Elsewhere | Outside of Working Hours

March 2022

Wed, Mar 30

	Before 8:00 AM	**Free**
	8:00 AM – 9:00 AM	**Free**
	9:00 AM – 9:25 AM	Management Roundtable

☐	**9:25 AM – 9:30 AM**	**Free**
■	9:30 AM – 9:55 AM	Air Issues Meeting
☐	**9:55 AM – 10:00 AM**	**Free**
■	10:00 AM – 10:45 AM	Review of CAA Guidance Documents (1 Excel file)
■	10:45 AM – 11:00 AM	Pre-brief Title V Applicable Requirements Rule (NSR Lookback) (2 word docs)
▨	11:00 AM – 11:30 AM	Weekly EPA/OIRA check-in
■	11:30 AM – 12:00 PM	Intern'l Phone Setup
■	12:00 PM – 12:50 PM	IPM draft 2022 Reference Case (1 ppt)
☐	**12:50 PM – 1:00 PM**	**Free**
■	1:00 PM – 1:45 PM	Update on Environmental Justice in Air Permitting Workgroup Deliverables (1 email)
■	1:45 PM – 2:00 PM	OAR/OECA Discussion
■	2:00 PM – 3:00 PM	DO NOT SCHEDULE: Management Time
☐	**3:00 PM – 3:15 PM**	**Free**
■	3:15 PM – 3:35 PM	Presenter Invite - Regional Administrators Meeting
■	3:30 PM – 3:55 PM	One-on-One with Ann Ferrio
☐	**3:55 PM – 4:00 PM**	**Free**
■	4:00 PM – 4:25 PM	One-on-One with Chris Grundler
☐	**4:25 PM – 4:30 PM**	**Free**
■	4:30 PM – 5:00 PM	MEETING: CPO/EPA Biweekly
■	5:00 PM – 5:25 PM	One-on-One with Jon Edwards
▨	5:00 PM – 5:45 PM	MEETING: Weekly CPO/EPA/DOT Vehicle Call
☐	**After 5:45 PM**	**Free**

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Message

From: Hooper, Daniel [hooper.daniel@epa.gov]
Sent: 4/14/2022 8:45:38 PM
To: Goffman, Joseph [Goffman.Joseph@epa.gov]
CC: Campbell, Ann [Campbell.Ann@epa.gov]; Kim, Eunjung [Kim.Eun@epa.gov]
Subject: READING: Materials for Friday, April 15
Attachments: Materials: Follow up on TCEQ Request; Materials: Virtual meeting with Cheniere re: Quad Y NESHAP Discussion; PM NAAQS Reconsideration and 24 hr standard 041322 MK.docx; 2022 04 15 OAR OECA Monthly.docx

---

Goffman, Joseph Calendar
Goffman.Joseph@epa.gov
On Friday, April 15, 2022
Time zone: (UTC-05:00) Eastern Time (US & Canada)
(Adjusted for Daylight Saving Time)

April 2022

Su	Mo	Tu	We	Th	Fr	Sa
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	**15**	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

Busy — Tentative — Free
Out of Office — Working Elsewhere — Outside of Working Hours

April 2022

Fri, Apr 15

	Before 8:00 AM	**Free**
	8:00 AM – 9:15 AM	**Free**
	9:15 AM – 10:00 AM	Weekly Check-In (1 word doc)
	10:00 AM – 10:25 AM	Management Roundtable
	10:25 AM – 10:30 AM	**Free**
	10:30 AM – 11:00 AM	OECA/OAR Monthly Meeting (1 word doc)
	11:00 AM – 11:30 AM	Video-call: Follow up on TCEQ Request (1 email)
	11:30 AM – 12:00 PM	Virtual meeting with Cheniere re: Quad Y NESHAP Discussion (1 email)
	12:00 PM – 1:00 PM	Lunch/Management Time
	12:30 PM – 12:55 PM	One-on-One with Sarah Dunham
	1:00 PM – 2:00 PM	OAR Confirmation Prep Planning

▩	2:00 PM – 2:25 PM	General Discussion
☐	**2:25 PM – 2:30 PM**	**Free**
▩	2:30 PM – 3:00 PM	General Discussion with OTAQ and OGC/ARLO
☐	**3:00 PM – 4:30 PM**	**Free**
☐	**After 4:30 PM**	**Free**

Daniel Hooper
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Message

From: Hooper, Daniel [hooper.daniel@epa.gov]
Sent: 4/14/2022 5:56:17 PM
To: Hooper, Daniel [hooper.daniel@epa.gov]
Subject: Materials: Virtual meeting with Cheniere re: Quad Y NESHAP Discussion
Attachments: 2021 External meeting request.docx; Cheniere Energy Inc. Request to EPA (3-8-22).pdf; OAR Briefing Memo_Turbine NESHAP - Cheniere Energy Letter.03.31.22.docx; Turbine NESHAP.Cheniere Energy.DepAdmin.03.31.22.docx

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Pronouns: He/Him/His

[SEQ CHAPTER \h \r 1]External Meeting Request Form for Joe Goffman

Today's Date: 4/5/2022

Requesting Organization: Cheniere Energy, Inc. & Bracewell LLP

Title of the Meeting: Quad Y NESHAP Discussion

Purpose: discuss potential solutions related to LNG applications

Background: summarized in attached letter to Adm. Regan

Is this meeting related to ongoing litigation: No.

Earliest possible date for the meeting: Date is set for 4/15/2022 at 11:30am ET

Last possible date for the meeting: see above

Is the meeting urgent and if so, why: recent WH announcements regarding pressing need for LNG exports establishes additional urgency for regulatory clarification

Requested Time Length: Thirty minutes (more if available)

Have you met with anyone within EPA: email correspondence J McCabe, J Goffman, others

Invitees: Joe Goffman, others

External Participants: Tom Myers (VP/HSE), Mike Weller (Sr Counsel), Sean Markowitz (EVP/CLO), and Khary Cauthen (VP/Fed Affrs)(CE); Scott Segal and Jeff Holmstead (BW)

Teleconference Required: No?

Video Conference Required: Yes

Point of Contact for the Meeting: Scott Segal, [HYPERLINK "mailto:scott.segal@bracewell.com"] and 202-

Ex. 6 Personal Privacy (PP)

Please email this form back to OAR_Invitations@epa.gov

BRACEWELL

March 8, 2022

Via Electronic and First-Class Mail
Return Receipt No. 7019 2970 0001 3110 0359

Hon. Michael S. Regan, Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Mail Code 1101A
Washington, D.C. 20460
regan.michael@epa.gov

Re: *Request to Withdraw Final Rule and Request for Stay Pending Judicial Review*

Dear Administrator Regan,

We submit this letter on behalf of Cheniere Energy, Inc. (Cheniere), which hereby requests the Environmental Protection Agency (EPA) withdraw or stay pending judicial review the rule finalized on February 28, 2022 titled "National Emission Standards for Hazardous Air Pollutants: Stationary Combustion Turbines; Amendments."[1] For the reasons discussed below, Cheniere asks EPA to withdraw the rule *before* it takes effect or, alternatively, stay the rule pending judicial review.

Cheniere is an international energy company headquartered in Houston, Texas, and is the leading producer of liquefied natural gas (LNG) in the United States. Cheniere provides clean, secure, and affordable energy to the world, while responsibly delivering a reliable, competitive, and integrated source of LNG, in a safe and rewarding work environment.

The rule lifts a 2004 regulatory stay of the effectiveness of emission standards for certain stationary combustion turbines and would take effect the day the rule is published in the Federal Register.[2] If this happens, turbines that were permitted, authorized, built, installed, and operated in reliance on applicable requirements in effect at the time will need to demonstrate compliance with emission standards within 180 days—a timeline that is insufficient to address complex technical and engineering concerns. Not only did Cheniere rely on applicable requirements in effect at the time, but so did the Federal Energy Regulatory Commission, state air permitting authorities operating under EPA-approved programs, and

[1] National Emission Standards for Hazardous Air Pollutants: Stationary Combustion Turbines; Amendments, https://www.epa.gov/system/files/documents/2022-03/5909.1_turbineneshapamendments_final_20220225.admin-wdisclaimer.pdf (prepublication version).
[2] Prepublication Final Rule at 1.

Ms. Brittany M. Pemberton T: +1.202.828.1708 F: +1.800.404.3970
Partner 2001 M Street NW, Suite 900, Washington, DC 20036-3310
brittany.pemberton@bracewell.com bracewell.com

EPA itself, through both its ability to comment on Cheniere's PSD permits (which include applicable federal requirements) and through its role as a cooperating agency in the FERC permitting process.

EPA relies on "recent caselaw concerning stays issued under the authority of the Clean Air Act and the Administrative Procedure Act" to justify lifting the stay. Although EPA's position is without citation, the cases that we presume EPA is referencing actually support EPA authority to withdraw a not yet effective rule at any time and to issue a stay pending judicial review of a published final rule where "justice so requires."[3] That standard is met here.

The rule would have implications across the domestic energy sector and particularly in the LNG industry at a time when Russia's invasion of Ukraine has shaken global energy markets and threatens to disrupt energy supply to Europe, where U.S. LNG has a significant role to play in providing reliable supplies of natural gas. Cheniere operates two LNG facilities on the U.S. Gulf Coast where it uses 62 of the combustion turbines that will become subject to the rule. The vast majority of these turbines are necessary to drive compressors integral to the refrigeration process to liquefy natural gas. The design of Cheniere's LNG terminals is complex, and the subject turbines are located on elevated pedestals with limited space for installing control equipment. Accordingly, significant case-by-case design and engineering work may be required to determine feasibility of control installation and options. Potentially imposing significant costs and operational disruption on the U.S. LNG industry at the same time the Administration is focused on Europe's strategic need to break its reliance on Russian gas is counterproductive. It is also unnecessary considering that the risks from combustion turbine HAPs are minimal and that EPA is actively considering a petition to delist these very turbines.

With respect to this last point, it is not clear why EPA now wishes to lift the 2004 stay when the Agency is considering further action that might result in delisting all stationary combustion turbines. This is contrary to the Agency's position on two other occasions. Specifically, when EPA first issued the stay in 2004, industry raised serious questions regarding the need to regulate emissions from the subcategories at issue. As a result, EPA issued this stay "to avoid wasteful and unwarranted expenditures on installation of emission controls which will not be required if the subcategories are delisted."[4][5] More recently, in March 2020, EPA again concluded it was appropriate to delay taking action to remove the stay until it makes a

---

[3] 5 U.S.C. § 705; *see, e.g., Becerra v. U.S. Dep't of Interior*, 276 F.Supp.3d 953, 963–64 (N.D. Cal. 2017) (plain language of 5 U.S.C. § 705 allows an agency to suspend a rule after its effective date pending judicial review but does not authorize a stay of the rule's compliance date); *California v. U.S. Bureau of Land Management*, 277 F.Supp.3d 1106, 1118–19 (N.D. Cal. 2017) (rejecting arguments under 5 U.S.C. § 705 that an agency could stay the compliance date of a postponed rule because the compliance date functioned as a second effective date); *Air Alliance Houston v. EPA*, 906 F.3d 1049, 1060–61 (D.C. Cir. 2018) (plain language of 42 U.S.C. §7607(d)(7)(B) limits a stay of a final EPA action to 90 days even if that time is insufficient to conduct mandatory reconsideration of the action); *Clean Air Council v. Pruitt*, 862 F.3d 1, 10 (D.C. Cir. 2017) (a stay of a final EPA action under 42 U.S.C. § 7606(d)(7)(B) is lawful only if the agency's reconsideration of the rule meets the statutory test for mandatory reconsideration).

[4] Prepublication Final Rule at 6.

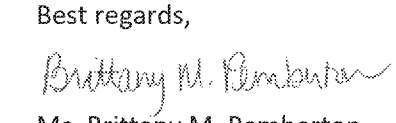
[5] "Inhalation Human Health Risk Assessment for U.S. Stationary Combustion Turbines 2014 Base Year Evaluation," Final Report, EPRI Product No. 3002016528 (May 2019).

determination regarding the pending delisting petition "so that turbine owners and operators do not make expenditures on emission controls and performance testing that will not be required if the source category is delisted."[6] Withdrawing this rule that removes the stay or staying it pending judicial review would provide time for EPA to fully consider the delisting petition, while also avoiding the imposition of "wasteful and unwarranted expenditures" that may ultimately be unnecessary if the category is delisted.

While the underlying rule was finalized in 2004, multiple EPA administrations since that time have kept the stay in place to avoid unwarranted expenditures while the Agency assesses delisting petitions and the very validity of the underlying Subpart YYYY compliance requirements for these combustion turbines. However, it is not just the removal of the stay that is troubling. It is also troubling that despite numerous comments from operators of combustion turbines that complex retrofits could take years to design, engineer, and install, the Agency still put forth a far too short 180 day compliance timeline.

For all of these reasons, Cheniere respectfully requests that EPA withdraw the rule before it takes effect or, alternatively, stay the rule pending judicial review.

Best regards,



Ms. Brittany M. Pemberton
Partner

cc (via email):

Joe Goffman
Acting Assistant Administrator, Office of Air and Radiation
U.S. Environmental Protection Agency
goffman.joseph@epa.gov

Jeffrey Prieto
General Counsel, Office of General Counsel
U.S. Environmental Protection Agency
prieto.jeffrey@epa.gov

Michael Weller
Senior Counsel, Cheniere Energy, Inc.
michael.weller@cheniere.com

Matthew Paulson, Bracewell LLP
matthew.paulson@bracewell.com

[6] 85 Fed. Reg. 13,524 at 13,527 (Mar. 9, 2020).

Appointment

From: King, Melanie [King.Melanie@epa.gov]
Sent: 3/7/2022 11:09:45 PM
To: King, Melanie [King.Melanie@epa.gov]; Hutson, Nick [Hutson.Nick@epa.gov]; Argentieri, Sabrina [argentieri.sabrina@epa.gov]
CC: Culligan, Kevin [Culligan.Kevin@epa.gov]; Igoe, Sheila [Igoe.Sheila@epa.gov]; Anderson, Lea [anderson.lea@epa.gov]

Subject: Turbine NESHAP stay removal - Cheniere Energy
Location: Microsoft Teams Meeting

Start: 3/8/2022 1:30:00 PM
End: 3/8/2022 2:00:00 PM
Show Time As: Busy

Required Attendees: King, Melanie; Hutson, Nick; Argentieri, Sabrina
Optional Attendees: Culligan, Kevin; Igoe, Sheila; Anderson, Lea

Sorry for the early meeting but it's hard to find another time when we're all free

---

Microsoft Teams meeting

Join on your computer or mobile app
Click here to join the meeting

Join with a video conferencing device
sip:teams@video.epa.gov
Video Conference ID: Ex. 6 Personal Privacy (PP)
Alternate VTC instructions

Or call in (audio only)
Ex. 6 Personal Privacy (PP) United States, Raleigh
Phone Conference ID: Ex. 6 Personal Privacy (PP)
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Appointment

From: Lassiter, Penny [Lassiter.Penny@epa.gov]
Sent: 3/14/2022 1:44:36 PM
To: Lassiter, Penny [Lassiter.Penny@epa.gov]; Hutson, Nick [Hutson.Nick@epa.gov]; Cozzie, David [Cozzie.David@epa.gov]; King, Melanie [King.Melanie@epa.gov]

Subject: To Discuss Cheniere Energy Turbines issue
Location: Microsoft Teams Meeting

Start: 3/14/2022 6:00:00 PM
End: 3/14/2022 6:30:00 PM
Show Time As: Busy

Required Attendees: Hutson, Nick; Cozzie, David; King, Melanie

---

Microsoft Teams meeting

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sip:teams@video.epa.gov
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Appointment

From: King, Melanie [King.Melanie@epa.gov]
Sent: 3/14/2022 6:44:17 PM
To: King, Melanie [King.Melanie@epa.gov]; Argentieri, Sabrina [argentieri.sabrina@epa.gov]; Hutson, Nick [Hutson.Nick@epa.gov]; Igoe, Sheila [Igoe.Sheila@epa.gov]

Subject: Cheniere/Turbine NESHAP
Location: Microsoft Teams Meeting

Start: 3/15/2022 1:00:00 PM
End: 3/15/2022 1:30:00 PM
Show Time As: Busy

Required Attendees: Argentieri, Sabrina; Hutson, Nick; Igoe, Sheila

following up on our discussion about options for Cheniere

Microsoft Teams meeting

Join on your computer or mobile app
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sip:teams@video.epa.gov
Video Conference ID: Ex. 6 Personal Privacy (PP)
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Or call in (audio only)
Ex. 6 Personal Privacy (PP) United States, Raleigh
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For all EPA meetings, there is no expectation of privacy regarding any communications. Participation in a recorded meeting will be deemed as consent to be recorded. Information on EPA systems is the property of the Agency and may become official records.

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Appointment

From: Hutson, Nick [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b7e6dc331d174798a3a269070576d896-Hutson, Nick]
Sent: 5/23/2022 7:39:33 PM
To: Hutson, Nick [Hutson.Nick@epa.gov]; King, Melanie [King.Melanie@epa.gov]; Anderson, Lea [anderson.lea@epa.gov]; Jordan, Scott [Jordan.Scott@epa.gov]; Honda, Gregory [honda.gregory@epa.gov]

Subject: Discuss Cheniere submission
Attachments: Cheniere_Energy_Inc_Subcategory_Subpart_YYYY_(May_19_2022).pdf
Location: Microsoft Teams Meeting

Start: 5/24/2022 1:30:00 PM
End: 5/24/2022 2:00:00 PM
Show Time As: Busy

Required Attendees: King, Melanie; Anderson, Lea; Jordan, Scott; Greg Honda

---

Microsoft Teams meeting

Join on your computer or mobile app
Click here to join the meeting

Join with a video conferencing device
sip:teams@video.epa.gov
Video Conference ID: Ex. 6 Personal Privacy (PP)
Alternate VTC instructions

Or call in (audio only)
Ex. 6 Personal Privacy (PP) United States, Raleigh
Phone Conference ID Ex. 6 Personal Privacy (PP)
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CHENIERE

Cheniere Energy, Inc.
700 Milam Street, Suite 1900
Houston, Texas 77002
phone: 713.375.5000
fax: 713.375.6000

National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines, Part 63, Subpart YYYY

Proposed New Subcategory:

Platform-mounted AeroDerivative stationary combustion turbines firing gas and driving compressors used for liquefaction at an LNG Export Facility that began operation prior to March 9, 2022

I. Introduction

This paper provides support for creating a separate subcategory of stationary combustion turbines to address certain unique circumstances at Cheniere's two Gulf Coast liquefied natural gas (LNG) export terminals. Based on EPA's broad statutory subcategorization authority, EPA should recognize that platform-mounted AeroDerivative refrigerant compressor turbines (RCTs) operated at LNG export facilities that utilize the ConocoPhillips *Optimized Cascade*SM (CoPOC) LNG production process represent a subcategory that was not contemplated during the development of Subpart YYYY and that there are currently no emissions standards for this subcategory. Cheniere chose this design for its LNG export facilities in part because it provides high "turndown" capability and enables maintenance practices that are important to ensuring the safety and reliability of Cheniere's facilities during the kinds of unavoidable (and often severe) weather events that are common on the Gulf Coast. However, the CoPOC design at Cheniere's LNG facilities presents unique challenges that affect the feasibility of using emission control devices that are available for use at other stationary combustion turbines.

II. EPA Has Broad Subcategorization Authority

Under Section 112(d) of the Clean Air Act, EPA has authority to distinguish "among classes, types, and sizes of sources within a category or subcategory" when it comes to setting emission or work practice standards.[1] EPA has relied on a wide range of criteria in establishing subcategories, and courts have broadly construed EPA's statutory authority to create different subcategories, explaining that EPA's exercise of its statutory authority to subcategorize is an expert determination warranting deference that can only be overcome when there is not a rational connection between the facts found and the subcategory decision.[2] As a result, the only successful challenge to a subcategory decision by EPA involved a subcategory based solely on low risk.[3]

Since EPA first established the list of source categories and subcategories of hazardous air pollutants pursuant to Clean Air Act Section 112(c)(1), EPA has regularly considered the availability or feasibility and the cost of controls when establishing source categories and subcategories based on "classes, types, and sizes of sources." In 1992, EPA noted that it may consider "process operations (including differences between batch and continuous operations),

[1] 40 U.S.C. § 7412(d).
[2] *NRDC v. EPA*, 489 F.3d 1364, 1375 (D.C. Cir. 2008).
[3] *NRDC*, 489 F.3d at 1373 (rejecting EPA's decision to create a "low-risk" subcategory).

ED_013122_00000392-00001

CHENIERE
Cheniere Energy, Inc.
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Houston, Texas 77002
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fax: 713.375.6000

emissions characteristics, control device applicability and costs, safety, and opportunities for pollution prevention."[4] It made a similar statement in 1998, explaining that "In establishing subcategories, the EPA has considered factors such as air pollution control engineering differences, process operations (including differences between batch and continuous operations), emission characteristics, control device applicability, and opportunities for pollution prevention"). 63 Fed. Reg. 48,890 at 48,895 (Sept. 11, 1998).

Likewise, in the 2003 Quad Y Proposal, EPA noted that it could define a subcategory based on a number of factors including "overall facility size, emissions characteristics, processes, or air pollution control device viability."[5]

Consistent with this, EPA has stated that "The Clean Air Act allows EPA to divide source categories into subcategories when differences between given types of units lead to corresponding differences in the nature of emissions and the technical feasibility of applying emission control techniques."[6] Some examples of National Emission Standards for Hazardous Air Pollutants (NESHAPs) in which EPA created subcategories based in part on the availability, feasibility, or cost of controls include the RICE NESHAP[7] and the Industrial Commercial and Institutional Boiler NESHAP.[8]

EPA also has a history of creating subcategories based on the location of the emission units. For example, in 2013 EPA amended the NESHAP for reciprocating internal combustion engines (RICE) to create a new subcategory for existing RICE located in "sparsely populated areas" because

> [e]ngines located in remote areas that are not close to significant human activity may be difficult to access, may not have electricity or communications, and may be unmanned most of the time. The costs of the emission controls, testing, and continuous monitoring requirements may be unreasonable when compared to the HAP emission reductions that would be achieved, considering that the engines are in sparsely populated areas.[9]

Similarly, EPA created a separate stationary combustion turbine subcategory for turbines located on the North Slope of Alaska "based on concerns about the applicability of emission control technology."[10]

---

[4] *See* 57 Fed. Reg. 31,576, 31,580 (July 16, 1992).
[5] 68 Fed. Reg. 1888, at 1908 (Jan. 14, 2003) (emphasis added).
[6] 68 Fed. Reg. 1660, at 1670 (Jan. 13, 2003).
[7] 78 Fed. Reg. 6674, at 6675-76 (Jan. 30, 2013).
[8] 76 Fed. Reg. 15,554, at 15,572 (Mar. 21, 2011).
[9] *See also* 78 Fed. Reg. at 6682.
[10] 69 Fed. Reg. 10,512, at 10,532 (Mar. 5, 2004); *see also id.* ("Stationary combustion turbines located on the North Slope of Alaska have been identified as a subcategory due to operation limitations and uncertainties regarding the application of controls to these units.").

ED_013122_00000392-00002

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phone: 713.375.5000
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III. Overview Of Cheniere's Liquefaction Process and Cheniere's Refrigerant Compressor Turbines

Through the CoPOC process, dry gas is fed to refrigeration systems at "LNG production trains," where it is liquefied through a combination of heat exchangers and pressure reduction processes that utilize propane, ethylene, and methane refrigerants. The LNG product is then pumped to LNG storage tanks for export.

Cheniere uses the CoPOC process at all nine of its LNG production trains— six at the Sabine Pass, Louisiana facility (SPL) and three at the Corpus Christi, Texas facility (CCL). Each of Cheniere's nine liquefaction trains use six LM2500+ G4 gas turbine-driven RCTs, each rated at 34.7 megawatts (MW). Thus, Cheniere has a total of fifty-four (54) RCTs, collectively rated at almost 1.9 gigawatts (GW), in operation at any one time. As discussed below, instead of servicing and maintaining the RCTs in place, it regularly swaps them out for maintenance, so it owns and employs another 33 RCTs as part of its maintenance program. Thus, Cheniere owns and operates a total of 87 RCTs at its two LNG export facilities.

All the RCTs at Cheniere's LNG facilities are "AeroDerivative," which means the core engine is a General Electric CF6 flight engine that is used on most of the commercial aircraft flying today. Although AeroDerivative turbines are also used at other stationary sources, they first operated at an LNG facility (the Darwin LNG facility in Australia) in 2006. They are light weight and approximately 40 percent more efficient than Frame 5 or Frame 7 turbines, which are the other turbines commonly used in the LNG industry. Based on publicly available information, we believe that none of the other LNG export facilities currently operating in the U.S. use the CoPOC process or AeroDerivative combustion turbines to drive refrigeration compressors.

The design of Cheniere's LNG terminals is complex, with the turbines installed on pedestals positioned approximately 60 feet from base elevation, approximately 33 feet from ground level and clustered closely together for design efficiency. This elevated, compact design is integral to the LNG production process, and (as discussed further below) was selected because of its high "turndown" capability and high maintainability.

The turbine design drives the configuration of the surrounding liquefaction facility. Traditional "Frame" turbines must be spaced out to provide additional room to accommodate equipment, personnel access and replacement parts to allow the turbines to be maintained in place. This design configuration creates adequate space to add exhaust controls on Frame turbines, while the spacing and elevated location of Cheniere's AeroDerivative turbines makes installation of exhaust controls much more challenging.

IV. The Design Implemented By Cheniere Was Necessary Based On Specific Circumstances

Because of their location, both SPL and CCL are subject to natural events, such as high winds, high seas, fog, tropical storms, and hurricanes that at times may disrupt shipping from transiting their respective channels. The challenges of maintaining high rates of efficiency and reliability at

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these locations drove Cheniere's selection of the CoPOC design because of its high "turndown" capability and high maintainability relative to other designs.

A. High "Turndown" Capability

Cheniere's LNG terminals operate 24 hours per day, constantly producing LNG that is stored in LNG tanks until loaded onto a LNG tanker for export. If there are disruptions on the shipping channel that prevent an LNG tanker from loading LNG and the LNG storage tanks are approaching their "tops", Cheniere may need to ramp down production. Because the CoPOC design has the ability to turndown to 10 percent of normal production levels without shutting down completely, starts and stops of turbines and associated maintenance, startup, or shutdown (MSS) emissions can be avoided or minimized when the channels close due to natural events.

This high turndown capability has multiple advantages over other liquefaction designs. First, it allows the facilities to avoid the significant flaring—approximately 24 hours—associated with the necessary cooldown process after a full process shutdown. Second, it minimizes the number of startup and shutdown sequences, increasing the reliability of equipment such as turbines, pumps, fans, and valves. Together, this results in lower air emissions. Finally, it allows the temperatures in the exchangers to remain constant, which supports mechanical integrity and reduces process safety risks, by reducing the number of thermal cycles of the exchangers.

The other type of large-scale LNG plant currently in operation utilizes a design known as C3MR. These plants have large cryogenic heat exchangers. At these plants, production can be ramped back only to about 60 percent of normal production before a complete shutdown is required. Cheniere's CoPOC design, with its ability to maintain operations at only 10 percent of normal production, provides significantly greater flexibility when responding to the natural events that at times can disrupt shipping and loading of LNG. This design thus allows Cheniere to minimize flaring, reduce the frequency of startups and shutdowns, associated MSS emissions and maintain constant temperature in the heat exchangers, thereby increasing equipment reliability, supporting mechanical integrity of critical equipment and reducing the overall risk profile of operations to the public and environment.

B. High Maintainability

The occurrence of these natural events along the Gulf Coast were a consideration that drove Cheniere's need for turbines designed for flexible maintenance. Cheniere chose AeroDerivative turbines in part because they can be changed out and maintained off-site. In contrast, "Frame" turbines such as the Frame 5s or Frame 7s are larger and not designed for modular change out, which means that they are normally maintained in place. Cheniere can modularly replace a RCT in as little as 25 hours. In contrast, the type of Frame turbine used with the C3MR design may be offline for combustion inspection at 12,000 hours for 7 to 10 days, hot gas path inspection at 24,000 hours for 14 days and at the "major inspection" point at 48,000 hours for 27 days. It can take approximately 5 to 10 days to swap out a Frame turbine. Part availability can also be a challenge for frame turbines, which could extend outage timelines. This ability to rapidly replace turbines reduces "downtime", which allows sections of the plant to remain in a cold state,

thereby reducing thermal cycles of critical equipment leading to improved mechanical integrity and reduced process safety risk.

The parallel refrigeration strings inherent to the CoPOC process also allows on-line maintenance because one refrigeration string can stay online and maintain process temperatures while the other string undergoes maintenance. This reduces MSS emissions associated with a full process shutdown and reduces thermal cycles of critical equipment.

The advantages of being able to swap out RCTs at Cheniere's Gulf Coast facilities is best illustrated by an example. If export operations are curtailed because an LNG carrier is stuck off the coast waiting for the channel to reopen, Cheniere is able to take advantage of the maintenance window that is created. Because production can be turned down to as low as 10 percent of normal levels, one or more RCTs can be taken offline without the need for a shutdown. Because Cheniere can swap out an RCT in as little as 25 hours, it can take advantage of the weather conditions to swap out an RCT for maintenance, without having any additional impact on operations.

Clustering of the AeroDerivative turbines is desired to increase thermal and process efficiency. Keeping the equipment closely located reduces thermal losses and pressure drop associated with long runs of piping and reductions due to gravitational losses (changes due to elevation), resulting in more efficient LNG production.

The AeroDerivative turbines are located on elevated platforms to allow for a more compact design and construction. This equipment arrangement allows any condensables in the process streams to "fall out" in associated knock-out drums. This prevents any condensed liquids from entering the compressors. This enhances mechanical reliability and integrity. This configuration is inherent to the CoPOC process design and is an example of robust safety design.

Additionally, in the event a rotor needs to be replaced, the top half of the casing likely needs to be removed to perform the replacement. If the compressors are located on the ground, the only place for the suction and discharge piping to attach to the compressor is the top half of the compressor casing. In that design case all the suction and discharge piping must be removed before the compressor casing can be accessed and removed to replace the rotor. The flanges on suction and discharge piping are some of the largest in the facility and have delicate gaskets that can be difficult to handle. The piping alignment and compressor alignment, which is normally only done once, will likely need to be done every time the compressor top casing is removed. All these factors could increase the maintenance timeline by approximately 10-12 days for compressors and turbines located on the ground. Thus, the compressors and turbines are elevated to provide better maintainability.

V. Feasibility of Pollution Control Devices

Due to the design of the SPL and CCL facilities and the configuration of the 54 RCTs, installation of oxidation catalysts presents significant engineering challenges. Specifically, there are structural concerns, as stack-based controls would require significant structural and

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infrastructure retrofits due to the platform mounted turbines design. Due to the location of Cheniere's Gulf Coast facilities and regulatory mandated design requirements for wind resistant structures, it may not be feasible to retrofit the existing equipment with an oxidation catalyst. A feasibility analysis would need to address spacing, process conditions, hazard modeling, mechanical integrity, process safety and catalyst performance. If it is determined that installation of oxidation catalysts is possible, it is unlikely that it could be accomplished without significant reconstruction requirements that may have a lasting impact on process conditions. Specifically, the addition of an oxidation catalyst is likely to result in increased backpressure, which in turn could introduce additional safety and operational risks. Engineering and design to evaluate the feasibility of installing oxidation catalysts could take several years, not including the time associated with regulatory approval.

VI. Cheniere's LNG Export Terminals Are Subject To The Oversight Of FERC and PHMSA

The Federal Energy Regulatory Commission's (FERC's) authority over LNG facilities comes from the Natural Gas Act (15 U.S.C. §§ 717b and 717b-1). Current FERC Orders authorizing construction and operation require annual inspections and Semi-Annual Reports to FERC regarding any modifications to the facility. FERC's position is that "any changes to an LNG facility or its design, whether occurring before or after the facility has gone into operation, require Commission authorization before they are implemented." 18 C.F.R. § 153.5.

The Pipeline and Hazardous Materials Safety Administration's (PHMSA's). authority over LNG facilities stems from the Pipeline Safety Act (49 U.S.C. §§ 60101, et seq.), which PHMSA implements through safety regulations at 49 C.F.R. Part 193. These regulations include a requirement to notify PHMSA of modifications exceeding $10 million, which any redesign and/or rebuild would exceed. In addition, FERC and PHMSA together evaluate the adherence of an LNG facility's to PHMSA's safety regulations during initial federal permitting, but the obligation to comply with Part 193 is ongoing. For example, PHMSA establishes "exclusion zones," which are areas surrounding an LNG facility in which the operator legally controls all activities to protect the public from the potential adverse effects of thermal radiation heat flux levels and flammable vapor-gas dispersion concentrations for as long as the facility is in operation. The addition of air pollution controls could impact one or both, which could necessitate PHMSA review.

FERC's authority is extremely broad and many other changes at LNG facilities may prompt review and/or approval by one or both agencies. Changes that might trigger FERC review include but are not limited to:

- Changes to basic process design
- Changes to structures, including those that could affect dispersion modeling or flood event modeling
- Changes that could affect process safety
- Changes or issues that result in elevated risk work activity
- Impacts to existing fire and gas detection and mitigation systems

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- Impacts that could influence the application of industry standards
- Changes that influence facility siting
- Significant changes to process design
- Addition of new structures or equipment

For example, under the 2012 Order that authorized construction of SPL, Cheniere was required to submit for review and written approval information demonstrating that the proposed emission control systems for acid gas removal would not affect the siting analysis required by PHMSA that was included in the application and supplements. The addition of an oxidation catalyst would meet several of the above examples necessitating a review and approval process.

Any structural changes at SPL or CCL to enable the installation of pollution control devices are likely to be subject to the oversight of the FERC and PHMSA. The requirement to consult with and potentially engage in a formal process with PHMSA and FERC could significantly delay the installation of any pollution control device. Based on Cheniere's experience with both agencies, Cheniere believes that agency engagement could range from informal coordination (which alone can take significant time and resources) up to the requirement to submit a formal amendment to the underlying FERC order, requiring Commission approval. Additionally, changes to either facility would need to be reviewed by PHMSA, potentially requiring the agency to issue a Letter of Determination that the changes contemplated are still compliant with 49 CFR 193 siting requirements. If necessary, consultation or formal approvals require extensive documentation to the agencies, a process that could take up to two years.

VII. EPA Should Use Its Broad Subcategorization Authority To Establish A New Stationary Combustion Turbine Subcategory

Several factors that EPA has historically considered when making decisions about subcategories justify creating a separate subcategory for the platform-mounted RCTs at SPL and CCL.[11] These facilities are the only sources in the United States using platform-elevated AeroDerivative turbines to drive compressors at LNG export facilities. We are not aware of any other facility in the U.S.—LNG or otherwise— that uses turbines in this specific type of manufacturing process, and EPA has repeatedly recognized that different "manufacturing processes are an acceptable basis that Congress intended for distinguishing between classes or types of sources."[12]

EPA's past practices of creating subcategories based on a source's location and the technical feasibility of controls clearly support this new subcategory.[13] Previously, EPA has created

[11] 68 Fed. Reg. at 1908.

[12] 82 Fed. Reg. 60,873, at 60,881 (Dec. 26, 2017); *see also* 68 Fed. Reg. 70,904, at 70,918 (Dec. 19, 2003) ("It is our general policy to subcategorize when there are technical distinctions among classes, types, or sizes of sources, and manufacturing processes of sources, that would impact setting an appropriate emission limit even when creating the subcategories leads to some with a small number of sources.") (emphasis added).

[13] *See* 78 Fed. Reg. at 6682; 69 Fed. Reg. at 10,532; *see also* 76 Fed. Reg. 15,554, at 15,575 (Mar. 21, 2011) (Through EPA's discretion to develop subcategories, "we are able to define subsets of similar emission sources within a source category if differences in … technical feasibility of applying emission control techniques … exist within the source category" and such a decision can be based on "[t]he design, operating, and emissions information that EPA reviewed during" the rulemaking.).

ED_013122_00000392-00007

subcategories for engines in "sparsely populated locations" and for turbines situated on the North Slope of Alaska because the location impacts the source's ability to apply pollution controls or the cost-effectiveness of them. The same is true of the turbines at SPL and CCL given that they are located in tight clusters on elevated platforms. And, as described in detail above, significant case-by-case design and engineering work would be required to determine the feasibility of retrofitting controls. If feasible, retrofitting would at the very least require major infrastructure improvements, including structural modifications to existing turbine pedestals, installation of additional pedestals to support the control equipment, the rerouting of turbine exhaust, and the installation of supplementary equipment necessary to ensure effective operation of the control equipment. These infrastructure improvements would likely necessitate extensive coordination with other Federal agencies, namely PHMSA and FERC.

Finally, EPA has created new source subcategories when presented with information that shows that a type of source was not contemplated by the original rulemaking. In 2019, SA Exploration, Inc. wrote to EPA regarding the applicability of emission standards for Commercial and Institutional Solid Waste Incineration Units (NSPS CCCC) and for Other Solid Waste Incineration Units (NSPS EEEE) to certain portable incinerators used at various exploration camps in Alaska. After reviewing information provided by the company, EPA concluded that there are currently no emissions standards that apply to these particular units, explaining that

> [a]fter further review of the CISWI subcategories, we recognize that this type of unit may represent a different subcategory that was not contemplated during the development of CISWI rule. In addition, we do not have any emission data to evaluate this subcategory.[14]

The same is true for refrigeration combustion turbines used at LNG export facilities. Because no such facilities existed or were even being considered in the U.S. when EPA developed Quad Y, they were certainly not contemplated during the development of the rule.

[14] EPA Letter to SA Exploration, Inc. at 2 re: Regulatory Interpretation of Incinerator Regulations for Small, Portable Incinerator (Mar. 1, 2019).

Message

From: Hutson, Nick [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B7E6DC331D174798A3A269070576D896-HUTSON, NICK]
Sent: 3/28/2022 4:22:50 PM
To: King, Melanie [King.Melanie@epa.gov]
Subject: RE: Meeting on Cheniere is going to be very small (and late today)

Yes, I had the same impression once I just re-read your original pager.

Ex. 5 Deliberative Process (DP)

Nick Hutson, PhD
Group Leader
Energy Strategies Group
Office of Air Quality Planning & Standards
U.S. Environmental Protection Agency
Research Triangle Park, NC 27711
Office: 919 541 2968
Mobile: 919 864-1853
email: *hutson.nick@epa.gov*

From: King, Melanie <King.Melanie@epa.gov>
Sent: Monday, March 28, 2022 12:21 PM
To: Hutson, Nick <Hutson.Nick@epa.gov>
Subject: RE: Meeting on Cheniere is going to be very small (and late today)

I'm working on it. The one-pager I had started didn't really have a lot of the elements Kevin listed so I'm working on a updated one.

From: Hutson, Nick <Hutson.Nick@epa.gov>
Sent: Monday, March 28, 2022 12:20 PM
To: King, Melanie <King.Melanie@epa.gov>
Subject: RE: Meeting on Cheniere is going to be very small (and late today)

Melanie,

Do you have time to work on this? I don't want to start on it if you're already doing it.

Nick Hutson, PhD
Group Leader
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Research Triangle Park, NC 27711
Office: 919 541 2968
Mobile: 919 864-1853
email: *hutson.nick@epa.gov*

From: Culligan, Kevin <Culligan.Kevin@epa.gov>
Sent: Monday, March 28, 2022 11:32 AM
To: Lassiter, Penny <Lassiter.Penny@epa.gov>; Hutson, Nick <Hutson.Nick@epa.gov>; King, Melanie <King.Melanie@epa.gov>
Subject: Meeting on Cheniere is going to be very small (and late today)

Peter/Joe and Janet – it is at 6:00 today – would be very good to make sure Peter has a 1 pager before 6:00.

Should include (this is not all inclusive)

Joe explicitly asked for:

History (with dates)
- Original stay of requirements
- Proposal to lift stay
- Final keeping stay in place

Ex. 5 Deliberative Process (DP)

Message

From: Hutson, Nick [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B7E6DC331D174798A3A269070576D896-HUTSON, NICK]
Sent: 3/29/2022 12:49:43 PM
To: King, Melanie [King.Melanie@epa.gov]
Subject: RE: Meeting on Cheniere is going to be very small (and late today)

Rescheduled to Thursday, I believe.

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Office: 919 541 2968
Mobile: 919 864-1853
email: *hutson.nick@epa.gov*

From: King, Melanie <King.Melanie@epa.gov>
Sent: Tuesday, March 29, 2022 8:44 AM
To: Hutson, Nick <Hutson.Nick@epa.gov>
Subject: RE: Meeting on Cheniere is going to be very small (and late today)

Do we know if there was ever a meeting?

From: Hutson, Nick <Hutson.Nick@epa.gov>
Sent: Monday, March 28, 2022 3:09 PM
To: King, Melanie <King.Melanie@epa.gov>
Subject: RE: Meeting on Cheniere is going to be very small (and late today)

Yes … but I think the 6 PM mtg got pushed back … now it's a CCS discussion.

Nick Hutson, PhD
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Office: 919 541 2968
Mobile: 919 864-1853
email: *hutson.nick@epa.gov*

From: King, Melanie <King.Melanie@epa.gov>
Sent: Monday, March 28, 2022 3:08 PM
To: Hutson, Nick <Hutson.Nick@epa.gov>
Subject: RE: Meeting on Cheniere is going to be very small (and late today)

I didn't get a response from Kevin. Should I email the draft document to him and Penny?

From: King, Melanie
Sent: Monday, March 28, 2022 12:49 PM
To: Culligan, Kevin <Culligan.Kevin@epa.gov>; Hutson, Nick <Hutson.Nick@epa.gov>
Subject: RE: Meeting on Cheniere is going to be very small (and late today)

I sent you both links to the new one-pager I started. When you have time take a look and let me know what other info should be added.

Ex. 5 Deliberative Process (DP)

From: Culligan, Kevin <Culligan.Kevin@epa.gov>
Sent: Monday, March 28, 2022 11:32 AM
To: Lassiter, Penny <Lassiter.Penny@epa.gov>; Hutson, Nick <Hutson.Nick@epa.gov>; King, Melanie <King.Melanie@epa.gov>
Subject: Meeting on Cheniere is going to be very small (and late today)

Peter/Joe and Janet – it is at 6:00 today – would be very good to make sure Peter has a 1 pager before 6:00.

Should include (this is not all inclusive)

<u>Joe explicitly asked for:</u>

History (with dates)
- Original stay of requirements
- Proposal to lift stay
- Final keeping stay in place

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Message

From: Hutson, Nick [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B7E6DC331D174798A3A269070576D896-HUTSON, NICK]
Sent: 3/30/2022 8:28:58 PM
To: King, Melanie [King.Melanie@epa.gov]; Igoe, Sheila [Igoe.Sheila@epa.gov]
Subject: RE: Web Meeting to Discuss Monitoring Petition "Template" for Subpart YYYY Turbines

Cameron LNG also

Nick Hutson, PhD
Group Leader
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Research Triangle Park, NC 27711
Office: 919 541 2968
Mobile: 919 864-1853
email: *hutson.nick@epa.gov*

From: King, Melanie <King.Melanie@epa.gov>
Sent: Wednesday, March 30, 2022 4:28 PM
To: Hutson, Nick <Hutson.Nick@epa.gov>; Igoe, Sheila <Igoe.Sheila@epa.gov>
Subject: FW: Web Meeting to Discuss Monitoring Petition "Template" for Subpart YYYY Turbines

Jim approached me about having a meeting next week with companies who will need to request approval of operating parameters to continuously monitor because their turbines don't need catalysts to comply and I see that Cheniere is one of the companies attending the meeting.

From: jamesmccarthy@comcast.net <jamesmccarthy@comcast.net>
Sent: Wednesday, March 30, 2022 4:14 PM
To: King, Melanie <King.Melanie@epa.gov>
Subject: RE: Web Meeting to Discuss Monitoring Petition "Template" for Subpart YYYY Turbines

Melanie,

You should have received a "notice" when I forwarded the Teams meeting invitation to the companies working with me (IES Inc). Email addresses for environmental staff / managers at eight companies plus an OEM are in that email and the companies include:

- Kinder Morgan
- Southern Star
- Williams
- Boardwalk Pipelines
- TC Energy
- National Fuel Gas Supply
- Cameron LNG
- Cheniere Energy
- Solar Turbines

Please let me know if you have any questions or comments. Look forward to our web meeting next week, and appreciate you setting up the Teams meeting.

Thanks.

From: King, Melanie <King.Melanie@epa.gov>
Sent: Friday, March 25, 2022 3:48 PM
To: jamesmccarthy@comcast.net
Subject: RE: Web Meeting to Discuss Monitoring Petition "Template" for Subpart YYYY Turbines

Hi Jim,
It looks like April 5 from 1-2:30 p.m. ET works best for the majority of folks here. Will you be setting up the meeting or do I need to set one up? We use Teams for virtual meetings. I've invited Umesh Dholakia (R2), Erin Willard (R3), Tracy Watson (R4), and Bridget Weir (R6). As optional, I also invited the other Regions: Susan Lancey (R1), Majojkumar Patel (R5), David Peter (R7), Alexis North (R8), Lisa Beckham (R9), Geoffrey Glass (R10). I also invited Sara Ayres from OECA as well as Greg Honda and Kevin McGinn from OAQPS. I'm sure everyone won't be able to make it, but we should have enough representation.

Melanie King (she/her)
Energy Strategies Group
Sector Policies and Programs Division
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(919) 541-2469
king.melanie@epa.gov

From: jamesmccarthy@comcast.net <jamesmccarthy@comcast.net>
Sent: Friday, March 25, 2022 4:15 PM
To: King, Melanie <King.Melanie@epa.gov>
Subject: Web Meeting to Discuss Monitoring Petition "Template" for Subpart YYYY Turbines

Melanie,

Thank you for your time this week. In our Wednesday call, I requested EPA support for a web meeting to discuss developing a Turbine NESHAP "Monitoring Petition Template" that could be used by companies operating natural gas-fired turbines that utilize combustion-based emissions control to meet the Subpart YYYY standard. This email is to memorialize our call, and request a meeting with EPA to discuss the Monitoring Petition. My company, IES Inc., is working with several natural gas transmission pipeline / LNG companies to hopefully expedite the process for submitting monitoring petitions required by Subpart YYYY, as well as EPA's review and approval of the plans.

As you know, if a Subpart YYYY turbine is not equipped with an oxidation catalyst, the operator is required to petition the Administrator for operating limits that will be monitored continuously [per §63.6120(e) and §63.6125(b)], with the Petition including the elements in §63.6120(f). We would like to discuss the content and elements of the Petition, and provide a template for EPA review and comment in order to facilitate development of a document that can be used by companies to submit facility-specific petitions. With EPA's assistance, we hope to expedite this process so that approved monitoring is in place as soon as possible and prior to the initial performance test.

A proposed meeting agenda, initial outline for the Monitoring Petition Template, and candidate dates and times for a web meeting follow. Per your request regarding EPA regional offices, several key EPA regions are identified below.

(1) Draft Agenda - Meeting on Turbine NESHAP Monitoring Petition for Combustion-Based Turbine Compliance

- Introductions – EPA, operators, and OEM(s)
- Objective – Develop Turbine NESHAP Monitoring Petition template to expedite / streamline EPA review and approval
- Review turbine technology (combustion-based) and petition requirements
- Review Draft Outline of Petition Template
- Discussion on petition content and EPA advice on how to proceed
- Next steps – Schedule for submittal of Petition Template and group follow-up meeting with EPA

- Schedule provides limited time for monitoring petition submittal and approval prior to the initial performance test deadline (no later than September 5) and initial test notification deadline (60 days prior or no later than July 7 for a September 5 test)

(2) Draft Outline for Petition: The outline below is based on the 5 items in §63.6120(f)

Turbine NESHAP Parameter Monitoring Petition per §63.6125(b)

- Turbine technology overview and Subpart YYYY monitoring requirements
- Parameter selection and rationale, including operating range
  - Basis for operating range
- Parameter instrumentation, specifications and QA/QC

(3) The following dates are proposed and hopefully one is amenable to EPA. Please let me know if another date or time is preferred. We propose a 90 minute meeting to ensure adequate time is available..

- April 4 (Mon): 10:00 am – 11:30 am eastern or 2:00 – 3:30 eastern
- April 5 (Tues): 10:00 am – 11:30 am eastern or 1:00 – 2:30 eastern
- April 7 (Thur): 10:00 am – 11:30 am eastern or 2:00 – 3:30 eastern

(4) You noted that EPA internal outreach would include all regional offices, but it would be helpful if several key regions could be identified for this initial web meeting. While units are located throughout the continental U.S., key Regional Offices include Regions 2, 3, 4 and 6.

The information in this email has been discussed with the operators / OEM that IES Inc. is working with, and we look forward to scheduling a meeting. A list of planned meeting attendees will be provided, and I look forward to hearing about EPA participants.

Thank you for your assistance, and I look forward to getting a web meeting scheduled and making progress on this endeavor. Please call or email if you have any questions or would like to discuss this further.

Jim McCarthy
Innovative Environmental Solutions, Inc.
847-543-0226
jamesmccarthy@comcast.net

Message

From: Hutson, Nick [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B7E6DC331D174798A3A269070576D896-HUTSON, NICK]
Sent: 3/31/2022 5:46:57 PM
To: James Pew [jpew@earthjustice.org]
Subject: RE: Cheniere letter re stationary combustion turbines
Attachments: Cheniere Energy Inc. Request to EPA (3-8-22).pdf

Jim,

I'm not sure why it's not in the docket. But, in any case, attached is a copy for you.

Best,
Nick

Nick Hutson, PhD
Group Leader
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U.S. Environmental Protection Agency
Research Triangle Park, NC 27711
Office: 919 541 2968
Mobile: 919 864-1853
email: *hutson.nick@epa.gov*

From: James Pew <jpew@earthjustice.org>
Sent: Thursday, March 31, 2022 1:03 PM
To: Hutson, Nick <Hutson.Nick@epa.gov>
Subject: RE: Cheniere letter re stationary combustion turbines

Hi Nick -- just checking again on that correspondence. It's not in the docket -- is there a copy you can share?
Best,
Jim

From: James Pew
Sent: Friday, March 25, 2022 2:29 PM
To: hutson.nick@epa.gov
Subject: Cheniere letter re stationary combustion turbines

Hi Nick – do you know if the correspondence from Cheniere is in the docket yet? I have not been able to find it.
Best,
Jim

James S. Pew
Senior Attorney
Earthjustice
1001 G St., NW, Ste. 1000
Washington, DC 20001
T: 202.667.4500 x5214 or 202-667-5214

F: 202.667.2356
earthjustice.org

Appointment

From: Hutson, Nick [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b7e6dc331d174798a3a269070576d896-Hutson, Nick]
Sent: 5/23/2022 7:39:35 PM
To: King, Melanie [King.Melanie@epa.gov]; Anderson, Lea [anderson.lea@epa.gov]; Jordan, Scott [Jordan.Scott@epa.gov]; Honda, Gregory [honda.gregory@epa.gov]

Subject: Discuss Cheniere submission
Attachments: Cheniere_Energy_Inc_Subcategory_Subpart_YYYY_(May_19_2022).pdf
Location: Microsoft Teams Meeting

Start: 5/24/2022 1:30:00 PM
End: 5/24/2022 2:00:00 PM
Show Time As: Tentative

Required Attendees: King, Melanie; Anderson, Lea; Jordan, Scott; Greg Honda

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Microsoft Teams meeting

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sip:teams@video.epa.gov
Video Conference ID: Ex. 6 Personal Privacy (PP)
Alternate VTC instructions

Or call in (audio only)
Ex. 6 Personal Privacy (PP) United States, Raleigh
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Message

From: Hutson, Nick [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B7E6DC331D174798A3A269070576D896-HUTSON, NICK]
Sent: 4/27/2022 4:58:25 PM
To: Honda, Gregory [honda.gregory@epa.gov]
Subject: RE: Q's for Cheniere

Perfect Greg … very consistent with questions that I had in mind.

Nick

Nick Hutson, PhD
Group Leader
Energy Strategies Group
Office of Air Quality Planning & Standards
U.S. Environmental Protection Agency
Research Triangle Park, NC 27711
Office: 919 541 2968
Mobile: 919 864-1853
email: *hutson.nick@epa.gov*

From: Honda, Gregory <honda.gregory@epa.gov>
Sent: Wednesday, April 27, 2022 12:57 PM
To: Hutson, Nick <Hutson.Nick@epa.gov>
Subject: Q's for Cheniere

Hi Nick,

My questions for Cheniere would be along the lines of:

- Some operators and turbine manufacturers have suggested they are able to meet the formaldehyde standard with oxidation catalyst. In that regard, yes or no, do you have any formaldehyde test data?
- Is there detailed engineering or other information that would demonstrate the challenges of installing a catalyst? Some of these were hinted at in the letter and in the comments from Cheniere to the 2019 proposal, but any additional information would be useful to understand.
- Are there other details that can be provided that distinguish the turbines you use from the turbines that are used by others, in liquefaction or for other purposes?
- Are there other LNG export terminals or other facilities that you expect to have similar challenges because of similar designs?

Maybe the tone of those could be softened a bit.

-Greg

Gregory Honda (he/him)
Energy Strategies Group
Sector Policies and Programs Division
Office of Air Quality Planning and Standards
(919) 541-2034

Message

From: Hutson, Nick [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B7E6DC331D174798A3A269070576D896-HUTSON, NICK]
Sent: 5/23/2022 1:00:45 PM
To: Anderson, Lea [anderson.lea@epa.gov]; Jordan, Scott [Jordan.Scott@epa.gov]
CC: King, Melanie [King.Melanie@epa.gov]
Subject: FW: Cheniere Subpart YYYY
Attachments: Cheniere_Energy_Inc_Subcategory_Subpart_YYYY_(May_19_2022).pdf

FYI

Nick Hutson, PhD
Group Leader
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Office: 919 541 2968
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email: *hutson.nick@epa.gov*

From: Lassiter, Penny <Lassiter.Penny@epa.gov>
Sent: Thursday, May 19, 2022 6:40 PM
To: Hutson, Nick <Hutson.Nick@epa.gov>; King, Melanie <King.Melanie@epa.gov>
Cc: Cozzie, David <Cozzie.David@epa.gov>; Marguerite McLamb <mclamb.marguerite@epa.com>
Subject: Fwd: Cheniere Subpart YYYY

Sent from my iPhone

Begin forwarded message:

From: Michael Weller <Michael.Weller@cheniere.com>
Date: May 19, 2022 at 6:29:32 PM EDT
To: "Lassiter, Penny" <Lassiter.Penny@epa.gov>
Cc: Tom Myers <Thomas.Myers@cheniere.com>
Subject: Cheniere Subpart YYYY

Dear Ms. Lassiter – Cheniere Energy Inc. is submitting the attached paper as a follow-up to our meeting with Joe Goffman on April 15, 2022 regarding EPA's recent removal of the stay applicable to Subpart YYYY.

Thank you for your consideration and please reach out if you have any questions.

Thanks very much,

Mike

Michael Weller
Senior Counsel
Cheniere Energy, Inc.
700 Milam Street, Suite 1900
Houston, Texas 77002

Direct: 713-375-5498
Cell: 713-962-7013
Fax: 713-375-6498
michael.weller@cheniere.com
www.cheniere.com

Message

From: Hutson, Nick [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B7E6DC331D174798A3A269070576D896-HUTSON, NICK]
Sent: 5/26/2022 8:37:55 PM
To: Lassiter, Penny [Lassiter.Penny@epa.gov]; Cozzie, David [Cozzie.David@epa.gov]; McLamb, Marguerite [McLamb.Marguerite@epa.gov]
Subject: DRAFT pager on subcategorization for CT NESHAP

Ex. 5 Deliberative Process (DP)

Melanie, Greg and I put the pager together and then asked OGC to weigh in. We'll welcome your thoughts.

Turbine NESHAP - Cheniere Subcategory Pager.docx

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Office: 919 541 2968
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email: *hutson.nick@epa.gov*

Message

From: Hutson, Nick [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B7E6DC331D174798A3A269070576D896-HUTSON, NICK]
Sent: 3/9/2022 4:26:59 PM
To: Ashley, Jackie [Ashley.Jackie@epa.gov]
Subject: FYI - Cheniere Energy
Attachments: Cheniere_0116.pdf; Cheniere Energy Inc. Request to EPA (3-8-22).pdf

Cheniere Energy's request to "stay the lifting of the stay" attached.
Cheniere Energy's comments on the RTR/lift the stay proposal … also attached.

Nick

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