FERC/DEIS-0300 **June 2021**

ENHANCEMENT BY COMPRESSION PROJECT

DRAFT ENVIRONMENTAL IMPACT STATEMENT

Iroquois Gas Transmission System, L.P.

Docket No. CP20-48-000

Federal Energy Regulatory Commission
Office of Energy Projects
888 First Street, NE, Washington, DC 20426

FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, D.C. 20426

OFFICE OF ENERGY PROJECTS

In Reply Refer To:
OEP/DG2E/Gas Branch 1
Iroquois Gas Transmission System, L.P.
Enhancement by Compression Project
Docket No. CP20-48-000

TO THE INTERESTED PARTY:

The staff of the Federal Energy Regulatory Commission (FERC or Commission) has prepared a draft environmental impact statement (EIS) for the Enhancement by Compression Project (Project), proposed by Iroquois Gas Transmission System, L.P. (Iroquois) in the above-referenced docket. Iroquois requests authorization to construct and operate natural gas transmission facilities in New York and Connecticut. The Project is designed to provide a total of 125,000 dekatherms per day of incremental firm transportation service for two existing customers of Iroquois, Consolidated Edison Company of New York, Inc. and KeySpan Gas East Corporation doing business as National Grid.

The draft EIS responds to comments that were received on the Commission's September 30, 2020 Environmental Assessment (EA)[1] and discloses downstream greenhouse gas emissions for the Project. With the exception of greenhouse gas emissions, the FERC staff concludes that approval of the proposed Project, with the mitigation measures recommended in this EIS, would not result in significant environmental impacts. FERC staff continues to be unable to come to a determination of significance with regards to greenhouse gas emissions.

The draft EIS incorporates the above referenced EA, which addressed the potential environmental effects of the construction and operation of the following Project facilities:

- Athens Compressor Station – installation of one new 12,000 horsepower (hp) natural gas turbine (Unit A2) in a new building with associated cooling, filter separators, and other facilities connecting to Iroquois' existing 24-inch-diameter mainline within the existing fenced compressor station boundary (Greene County, New York).
- Dover Compressor Station – installation of one new 12,000 hp natural gas turbine (Unit A2) in a new building with associated cooling, filter separators, and other facilities connecting to Iroquois' existing 24-inch-diameter mainline

[1] The Project's Environmental Assessment is available on eLibrary under accession no. 20200930-3011

and expansion of the existing compressor station fenceline within the property boundary (Dutchess County, New York).

- Brookfield Compressor Station – construction of a control/office building, addition of two new, natural gas 12,000 hp turbines (Unit B1 and Unit B2) in a new building with associated cooling, filter separators, and other typical facilities connecting to Iroquois' existing 24-inch-diameter mainline. Additionally, Iroquois would install incremental cooling at Plant 2-A to allow for compressed discharge gas to be cooled, prior to being compressed at the proposed downstream compressors (Units B1 and B2). Iroquois would also replace existing turbine stacks on the existing compressor units (Unit-A1 and Unit-A2) and add other noise reduction measures (e.g., louvers, seals) to minimize existing noise at the site. Modifications at this site would require expansion of the existing compressor station fenceline within the property boundary (Fairfield County, Connecticut).
- Milford Compressor Station – addition of gas cooling to existing compressor units and associated piping to allow for compressed discharge gas to be cooled within the current fenced boundaries of the existing compressor station, where no gas cooling facilities currently exist (New Haven County, Connecticut).

The Commission mailed a copy of the *Notice of Availability of the Draft Environmental Impact Statement for the Proposed Enhancement by Compression Project* to federal, state, and local government representatives and agencies; elected officials; environmental and public interest groups; Native American tribes; potentially affected landowners and other interested individuals and groups; and newspapers and libraries in the Project area. The draft EIS is only available in electronic format. It may be viewed and downloaded from the FERC's website (www.ferc.gov), on the natural gas environmental documents page (https://www.ferc.gov/industries-data/natural-gas/environment/environmental-documents). In addition, the draft EIS may be accessed by using the eLibrary link on the FERC's website. Click on the eLibrary link (https://elibrary.ferc.gov/eLibrary/search) select "General Search" and enter the docket number in the "Docket Number" field (i.e. CP20-48-000). Be sure you have selected an appropriate date range. For assistance, please contact FERC Online Support at FercOnlineSupport@ferc.gov or toll free at (866) 208-3676, or for TTY, contact (202) 502-8659.

The draft EIS is not a decision document. It presents Commission staff's independent analysis of the environmental issues for the Commission to consider when addressing the merits of all issues in this proceeding. Any person wishing to comment on the draft EIS may do so. Your comments should focus on draft EIS's disclosure and discussion of potential environmental effects, including climate impacts due to downstream greenhouse gas emissions, and measures to avoid or lessen environmental impacts. To ensure consideration of your comments on the proposal in the final EIS, it is

important that the Commission receive your comments on or before 5:00pm Eastern Time on **August 2, 2021**.

For your convenience, there are three methods you can use to submit your comments to the Commission. The Commission encourages electronic filing of comments and has staff available to assist you at (866) 208-3676 or FercOnlineSupport@ferc.gov. Please carefully follow these instructions so that your comments are properly recorded.

1) You can file your comments electronically using the eComment feature on the Commission's website (www.ferc.gov) under the link to FERC Online. This is an easy method for submitting brief, text-only comments on a project;

2) You can file your comments electronically by using the eFiling feature on the Commission's website (www.ferc.gov) under the link to FERC Online. With eFiling, you can provide comments in a variety of formats by attaching them as a file with your submission. New eFiling users must first create an account by clicking on "eRegister." If you are filing a comment on a particular project, please select "Comment on a Filing" as the filing type; or

3) You can file a paper copy of your comments by mailing them to the Commission. Be sure to reference the Project docket number (CP20-48-000) on your letter. Submissions sent via the U.S. Postal Service must be addressed to: Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, 888 First Street NE, Room 1A, Washington, DC 20426. Submissions sent via any other carrier must be addressed to: Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, 12225 Wilkins Avenue, Rockville, Maryland 20852.

Any person seeking to become a party to the proceeding must file a motion to intervene pursuant to Rule 214 of the Commission's Rules of Practice and Procedures (18 CFR Part 385.214). Motions to intervene are more fully described at https://www.ferc.gov/ferc-online/ferc-online/how-guides. Only intervenors have the right to seek rehearing or judicial review of the Commission's decision. The Commission grants affected landowners and others with environmental concerns intervenor status upon showing good cause by stating that they have a clear and direct interest in this proceeding which no other party can adequately represent. **Simply filing environmental comments will not give you intervenor status, but you do not need intervenor status to have your comments considered.**

Questions?

Additional information about the Project is available from the Commission's Office of External Affairs, at **(866) 208-FERC**, or on the FERC website (www.ferc.gov) using the eLibrary link. The eLibrary link also provides access to the texts of all formal documents issued by the Commission, such as orders, notices, and rulemakings.

In addition, the Commission offers a free service called eSubscription that allows you to keep track of all formal issuances and submittals in specific dockets. This can reduce the amount of time you spend researching proceedings by automatically providing you with notification of these filings, document summaries, and direct links to the documents. Go to https://www.ferc.gov/ferc-online/overview to register for eSubscription.

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TECHNICAL ACRONYMS AND ABBREVIATIONS

Agreement	Paris Climate Agreement
pCi/L	picocuries per liter
CO_2e	carbon dioxide equivalents
CEQ	Council on Environmental Quality
Certificate	Certificate of Public Convenience and Necessity
Commission	Federal Energy Regulatory Commission
Con Edison	Consolidated Edison Company of New York, Inc.
Dth/day	dekatherms per day
EA	environmental assessment
EIS	environmental impact statement
EI	environmental inspector
ExC Project	Enhancement by Compression Project
EPA	U.S. Environmental Protection Agency
FERC	Federal Energy Regulatory Commission
GHG	greenhouse gas
GWP	global warming potential
Hp	Horsepower
Iroquois	Iroquois Gas Transmission System, L.P.
Iroquois study	*End-Use Greenhouse Gas Analysis of the Enhancement by Compression Project*
LDC	local distribution company
NAAQS	National Ambient Air Quality Standards
National Grid	KeySpan Gas East Corporation doing business as National Grid
NEPA	National Environmental Policy Act of 1969
NGA	Natural Gas Act
NOI	*Notice of Intent to Prepare an Environmental Assessment for the Proposed Enhancement by Compression Project and Request for Comments on Environmental Issues*
New York Climate Act	Climate Leadership and Community Protection Act

NYSDEC	New York State Department of Environmental Conservation
OEP	Office of Energy Projects
Project	Enhancement by Compression Project
SCC	Social Cost of Carbon
Secretary	Secretary of the Commission
tpy	tons per year
USACE	U.S. Army Corps of Engineers
USDOT-PHMSA	U.S. Department of Transportation – Pipeline and Hazardous Materials Safety Administration
USGCRP	U.S. Global Change Research Program

EXECUTIVE SUMMARY

1. Introduction

On February 3, 2020, Iroquois Gas Transmission System, L.P. (Iroquois) filed an application with the Federal Energy Regulatory Commission (FERC or Commission) in Docket No. CP20-48-000. Iroquois is seeking a Certificate of Public Convenience and Necessity under Section 7(c) of the Natural Gas Act (NGA) to construct and operate natural gas transmission facilities in New York and Connecticut as part of its existing system. Iroquois' proposed facilities are referred to as the Enhancement by Compression Project (ExC Project or Project).

The purpose of this Environmental Impact Statement (EIS) is to ensure our[1] National Environmental Policy Act of 1969 (NEPA) analysis will be sufficient for the Commission to act on this proceeding. We are including additional disclosure of greenhouse gas emissions associated with the combustion of natural gas transported by the Project. The EIS will assist the Commission in its consideration of the Project's contribution to climate change and its decision-making process to determine whether Iroquois' proposed Project is in the public convenience and necessity (see *N. Nat. Gas Co.*, 174 FERC ¶ 61,189, at P 29 (2021)). This EIS incorporates by reference the published Environmental Assessment (EA).[2] All environmental comments previously received on the EA will be discussed in this EIS.

The FERC is the lead federal agency for authorizing interstate natural gas transmission facilities under the NGA, and the lead federal agency for preparation of this EIS, in accordance with NEPA (Title 40 of the Code of Federal Regulations, Part 1501) and the Energy Policy Act of 2005.

2. Proposed Action

The Project consists of one new 12,000 horsepower (hp) compressor unit, cooling equipment, and associated facilities at each of its existing Athens (Greene County, New York) and Dover (Dutchess County, New York) Compressor Stations, and two new 12,000 hp compressor units, cooling equipment, and associated facilities at its existing Brookfield Compressor Station (Fairfield County, Connecticut). Iroquois also proposes to add gas cooling and related equipment at its existing Milford Compressor Station (New Haven County, Connecticut). The Project would provide a total of 125,000 dekatherms/day of incremental firm transportation service for two existing Iroquois customers.

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1 "We," "us," and "our" refer to the environmental staff of the Office of Energy Projects .

2 The Project's Environmental Assessment is available on the FERC's eLibrary website, located at https://elibrary.ferc.gov/idmws/search/fercgensearch.asp, by searching Docket Number CP20-48 and/or the applicable accession no. 20200930-3011.

3. Public Involvement

On March 25, 2020, the Commission issued a *Notice of Intent to Prepare an Environmental Assessment for the Proposed Enhancement by Compression Project and Request for Comments on Environmental Issues* (NOI). The NOI was published in the *Federal Register*[3] and mailed to 770 interested parties. We received a total of 160 comments in response to the NOI.

To satisfy the requirements of the NEPA,[4] our staff prepared an EA for Iroquois' proposal. The EA was issued for a 30-day comment period and placed into the public record on September 30, 2020.[5] The analysis in the EA addressed geology, soils, water resources, wetlands, vegetation, fisheries, wildlife, threatened and endangered species, land use, recreation, visual resources, socioeconomics, cultural resources, air quality, noise, safety, cumulative impacts, and alternatives. All substantive comments received in response to the NOI and prior to issuance of the EA were addressed in the EA.[6] In response to the EA, we received 28 comments.

On May 27, 2021, the Commission issued a *Notice of Intent to Prepare an Environmental Impact Statement for the Proposed Enhancement by Compression Project and Schedule for Environmental Review*. This notice identified the purpose of the EIS and established a schedule for its issuance. Comments received in response to the EA are addressed in this EIS.[7]

4. Environmental Impacts and Conclusions

The EA evaluated the potential impacts of construction and operation of the Project on the resources identified in section 3 above. We incorporate the EA by reference in the EIS. Our analysis determines that construction and operation of the Project would not result in significant environmental impacts, with the exception of greenhouse gas emissions, which FERC staff is unable to come to a determination of significance. Our analysis, both in the EA and in this EIS, is based on a review of the information provided by Iroquois and further developed from data requests; field investigations; scoping; literature research; alternatives analysis; and contacts with federal, state, and local agencies as well as Indian tribes and individual members of the public.

In addition, in the EA we developed recommendations that Iroquois should implement to further reduce the environmental impacts that would otherwise result from

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3 85 Fed. Reg. 17,870 (2020).

4 Title 42 of the U.S. Code, Sections 4321 *et seq.* *See also* Title 18 of the Code of Federal Regulations, Part 380 (2020) (Commission's regulations implementing NEPA).

5 See accession no. 20200930-3011.

6 EA at A-15, table A-4.

7 All written comments are part of the FERC's public record for the Project and are available for viewing in e-library under docket number CP20-48.

construction and operation of the Project. We determined that these measures are necessary to reduce adverse impacts associated with the Project and, in part, are basing our conclusions on implementation of these measures. Therefore, we are recommending that these mitigation measures be attached as conditions to any authorization issued by the Commission. These recommended mitigation measures are presented in section E of the EIS and remain unchanged from those identified in the EA.

A. INTRODUCTION AND BACKGROUND

1. Project Background

On February 3, 2020, Iroquois Gas Transmission System, L.P. (Iroquois) filed an application with the Federal Energy Regulatory Commission (FERC or Commission) in Docket No. CP20-48-000. Iroquois is seeking a Certificate of Public Convenience and Necessity (Certificate) under Section 7(c) of the Natural Gas Act (NGA) to construct and operate natural gas transmission facilities in New York and Connecticut as part of its existing system. The Enhancement by Compression Project (ExC Project or Project) is designed to provide a total of 125,000 dekatherms/day (Dth/day) of incremental firm transportation service for two existing Iroquois customers: Consolidated Edison Company of New York, Inc. (Con Edison) and KeySpan Gas East Corporation doing business as National Grid (National Grid).

On March 25, 2020, the Commission issued a *Notice of Intent to Prepare an Environmental Assessment for the Proposed Enhancement by Compression Project and Request for Comments on Environmental Issues* (NOI). The NOI was published in the *Federal Register*[1] and mailed to 770 interested parties, including federal, state, and local government representatives and agencies; elected officials; affected landowners; environmental and public interest groups; Native American tribes; other interested individuals and entities; and local libraries. We[2] received a total of 160 comments in response to the NOI. Comments on the Project during the scoping process were filed by 1 state agency, 17 non-governmental organizations, and 120 interested members of the public, including several landowners.[3]

In response to the NOI, commenters requested to extend the scoping period because of the COVID-19 pandemic and requested that the Commission develop an Environmental Impact Statement (EIS) instead of an Environmental Assessment (EA). Many of the comments received were in opposition to the Project, including numerous commenters that questioned the need for the Project, expressed opposition to fossil fuels in favor of renewable energy or use of heat pumps, and raised concerns regarding health risks associated with natural gas sourced from hydraulic fracturing. Commenters also raised concerns with Project emissions and impacts on air quality and health, including increased susceptibility to air pollution resulting in an increase in death rates due to COVID-19. Other issues raised during the scoping process included potential adverse impacts on property values; adverse impacts on minority and low-income populations, as well as school age children; and increased noise impacts on residences and wildlife in the vicinity of the proposed compressor station modifications.

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1 85 Federal Register. 17,870 (2020).

2 "We," "us," and "our" refer to the environmental staff of the Office of Energy Projects.

3 Some stakeholders provided multiple comments.

To satisfy the requirements of the National Environmental Policy Act of 1969 (NEPA),[4] our staff prepared an EA for Iroquois' proposal. The analysis in the EA addressed geology, soils, water resources, wetlands, vegetation, fisheries, wildlife, threatened and endangered species, land use, recreation, visual resources, socioeconomics, cultural resources, air quality, noise, safety, cumulative impacts, and alternatives. All substantive comments received in response to the NOI and prior to issuance of the EA were addressed in the EA.[5]

The EA was issued for a 30-day comment period and placed into the public record on September 30, 2020.[6] In response to the EA, we received 28 comments, including comments from the U.S. Environmental Protection Agency (EPA), New York State Department of Environmental Conservation (NYSDEC), Con Edison, National Grid, 19 interested members of the public, and Iroquois.[7] The issues raised in response to the EA include procedural concerns regarding the Commission's environmental review process; the need for the Project; alternatives; impacts on wetland and water resources; impacts on wildlife and special status species; socioeconomic impacts; air quality impacts; Project safety; cumulative impacts; indirect impacts; and greenhouse gas (GHG) emissions and climate change.

On May 27, 2021, the Commission issued a *Notice of Intent to Prepare an Environmental Impact Statement for the Proposed Enhancement by Compression Project*. The comments received in response to the EA are addressed in this EIS.[8]

2. Project Description

The proposed Project, summarized below, consists of new proposed facilities to be installed at existing facility sites owned by Iroquois in New York and Connecticut:

- Athens Compressor Station – installation of one new 12,000 horsepower (hp) natural gas turbine (Unit A2) in a new building with associated cooling, filter separators, and other facilities connecting to Iroquois' existing 24-inch-diameter mainline within the existing compressor station fenced boundary (Greene County, New York).
- Dover Compressor Station – installation of one new 12,000 hp natural gas turbine (Unit A2) in a new building with associated cooling, filter

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4 42 U.S. Code, Sections 4321 *et seq.* *See also* Title 18 of the Code of Federal Regulations, Part 380 (2020) (Commission's regulations implementing NEPA).

5 EA at A-15, table A-4.

6 The Project's Environmental Assessment is available on the FERC's eLibrary website, located at https://elibrary.ferc.gov/idmws/search/fercgensearch.asp, by searching Docket Number CP20-48 and/or accession no. 20200930-3011.

7 Some stakeholders provided multiple comments; EA at A-15, table A-4.

8 All written comments are part of the FERC's public record for the Project and are available for viewing in e-library under docket number CP20-48.

separators, and other facilities connecting to Iroquois' existing 24-inch-diameter mainline and expansion of the existing compressor station fenceline within the property boundary (Dutchess County, New York).

- Brookfield Compressor Station – construction of a control/office building, addition of two new 12,000 hp natural gas turbines (Unit B1 and Unit B2) in a new building with associated cooling, filter separators, and other typical facilities connecting to Iroquois' existing 24-inch-diameter mainline. Additionally, Iroquois would install incremental cooling at Plant 2-A to allow for compressed discharge gas to be cooled prior to being compressed at the proposed downstream compressors (Units B1 and B2). Iroquois would also replace existing turbine exhaust stacks on the existing compressor units (Unit-A1 and Unit-A2) and add other noise reduction measures (e.g., louvers, seals) to minimize existing noise at the site. Modifications at this site would require expansion of the existing compressor station fenceline within the property boundary (Fairfield County, Connecticut).
- Milford Compressor Station – addition of gas cooling to existing compressor units and associated piping to allow for compressed discharge gas to be cooled within the current fenced boundaries of the existing station, where no gas cooling facilities currently exist (New Haven County, Connecticut).

Iroquois states that the purpose of its proposed Project is to provide 62,500 Dth/day of firm transportation service from Waddington, New York to Hunts Point, New York for Con Edison, and 62,500 Dth/day of firm transportation service from Waddington, New York to South Commack, New York for National Grid. Iroquois states that both Con Edison and National Grid have experienced demand growth on their distribution systems due to new construction in the commercial and multi-family sectors, and requests for lower emitting fuels to replace heating oil, necessitating additional supply to adequately provide natural gas service. Iroquois proposes to place the Project into service in the fourth quarter of 2023.

B. PURPOSE OF THE EIS

The purpose of this EIS is to ensure our NEPA[9] analysis will be sufficient for the Commission to act in this proceeding and we are including additional disclosure of GHG emissions associated with the combustion of natural gas transported by the Project (see section C below). The EIS will assist the Commission in its consideration of the Project's contribution to climate change and its decision-making process to determine whether Iroquois' proposed Project is in the public convenience and necessity (see *N. Nat. Gas Co.*, 174 FERC ¶ 61,189, at P 29 (2021)).

This EIS incorporates by reference the published EA.[10] All environmental comments previously received on the EA are discussed in this EIS (see sections C and D below).

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[9] On July 16, 2020, CEQ issued a final rule, Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act (Final Rule, 85 Fed. Reg. 43,304), which was effective as of September 14, 2020; however, the NEPA review of this project was in process at that time and was prepared pursuant to the 1978 regulations.

[10] See accession no. 20200930-3011

C. GREENHOUSE GAS EMISSIONS AND RESPONSE TO CLIMATE CHANGE COMMENTS

Although the remaining resource sections reviewed in section D below incorporate the Project's EA by reference, here we include the EA's climate change section, as updated, for improved readability.

Climate change is the variation in climate over time and cannot be represented by an individual event or anomalous weather pattern. While a single large flood event or particularly hot summer are not strong indications of climate change, a series of floods or warm years that statistically change the average precipitation or temperature over years or decades may indicate climate change. Recent research has begun to attribute certain extreme weather events to climate change.[11]

The leading U.S. scientific body on climate change is the U.S. Global Change Research Program (USGCRP), composed of representatives from 13 federal departments and agencies.[12] The Global Change Research Act of 1990 requires the USGCRP to submit a report to the President and Congress no less than every 4 years that "1) integrates, evaluates, and interprets the findings of the USGCRP; 2) analyzes the effects of global change on the natural environment, agriculture, energy production and use, land and water resources, transportation, human health and welfare, human social systems, and biological diversity; and 3) analyzes current trends in global change, both human-induced and natural, and projects major trends for the subsequent 25 to 100 years." These reports 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.

In 2017 and 2018, the USGCRP issued its Climate Science Special Report: Fourth National Climate Assessment, Volumes I and II.[13] The Fourth Assessment Report states that climate change has resulted in a wide range of impacts across every region of the country. Those impacts extend beyond atmospheric climate change alone and include changes to water resources, transportation, agriculture, ecosystems, and human health. The United States and the world are warming, global sea level is rising and acidifying,

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[11] U.S. Global Change Research Program. *Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II: Report-in-Brief* (2018). available at https://nca2018.globalchange.gov/ (accessed June 3, 2021).

[12] The USGCRP member agencies are: Department of Agriculture, Department of Commerce, Department of Defense, Department of Energy, Department of Health and Human Services, Department of the Interior, Department of State, Department of Transportation, Environmental Protection Agency, National Aeronautics and Space Administration, National Science Foundation, Smithsonian Institution, and U.S. Agency for International Development.

[13] U.S. Global Change Research Program. *Climate Science Special Report: Fourth National Climate Assessment, Volume 1, Chapter 3 Detection and Attribution of Climate Change* (2017). available at https://science2017.globalchange.gov/downloads/CSSR2017_FullReport.pdf (accessed June 3, 2021).

and certain weather events are becoming more frequent and more severe. These changes are driven by accumulation of GHG in the atmosphere through combustion of fossil fuels (coal, petroleum, and natural gas), combined with agriculture, clearing of forests, and other natural sources. These impacts have accelerated throughout the end of the 20th and into the 21st century.

GHGs were identified by the EPA as pollutants in the context of climate change. GHG emissions do not result in proportional local and immediate impacts; it is the combined concentration in the atmosphere that affects the global climate system. These are fundamental global impacts that feedback to local and regional climate change impacts. Thus, the geographic scope for cumulative analysis of GHG emissions is global, rather than local or regional. For example, a project 1 mile away emitting 1 ton of GHGs would contribute to climate change in a similar manner as a project 2,000 miles distant also emitting 1 ton of GHGs.

Climate change is a global concern; however, for this analysis, we focus on the potential cumulative climate change impacts on the general Project area. The USGCRP's Fourth Assessment Report notes the following observations of environmental impacts are attributed to climate change in the Northeast region of the United States:

- annual average temperatures from 1901 to 2016 in the northeast increased about 3°F;
- from 1958 to 2016 the northeast experienced a 55 percent increase in the amount of precipitation falling in heavy events (the greatest increase in the nation) and 5 to 20 percent increase in average winter precipitation; and
- the global sea level has risen by about 7 to 8 inches since reliable record keeping began in 1880 and is projected to rise another 1 to 4 feet by 2100.

The USGCRP's Fourth Assessment Report notes the following projections of climate change impacts in the Northeast region with a high or very high level of confidence:

- temperatures are projected to increase by 5.1°F by the 2090s under the worst-case scenario (continually increasing emissions) and would increase by 4.0°F if emissions were decreased;
- the number of days above 90°F are projected to increase, resulting in major human health implications;
- higher than average sea level rise along the Northeastern coast will occur due to land subsidence;
- severe flooding due to sea level rise and heavy downpours are likely to occur more frequently;
- increased fall and winter precipitation could damage crops, and wetter springs would result in delayed planting of grain and vegetables; and

- coastal water temperatures are likely to continue warming and, along with ocean acidification, will contribute to changes in the distribution and productivity of marine species.

It should be noted that while the impacts described above taken individually may be manageable for certain communities, the impacts of compound extreme events (such as simultaneous heat and drought, or flooding associated with high precipitation on top of saturated soils) can be greater than the sum of the parts.

Construction of the ExC Project may result in emissions of up to about 3,006 metric tons of carbon dioxide equivalent (CO_2e) over the duration of construction.[14] Operation of the new emission sources at the compressor stations would result in emissions of up to 164,140 metric tons per year (tpy) of CO_2e.[15] Additionally, operation of the compressor stations (inclusive of existing and new compressor units and all ancillary emission sources) would result in emissions of up to about 423,913 metric tpy of CO_2e.[16] The existing compressor stations are already permitted and are currently in operation. Both of these estimates for operational emissions are based on 100 percent utilization, where the facilities are operated at maximum capacity for 365 days/year, 24 hours/day. Additionally, both of these estimates include fugitive emissions.

The construction and operation of the Project would increase the atmospheric concentration of GHGs, in combination with past and future emissions from all other sources globally and would contribute incrementally to future climate change impacts. In order to assess impacts on climate change associated with the Project, Commission staff considered whether it could identify discrete physical impacts resulting from the Project's GHG emissions or compare the Project's GHG emissions to established targets designed to combat climate change.

To date, staff has not identified a methodology to attribute discrete, quantifiable, physical effects on the environment to the Project's incremental contribution to GHGs. We have looked at atmospheric modeling used by the EPA, National Aeronautics and Space Administration, the Intergovernmental Panel on Climate Change, and others, and we found that these models are not reasonable for Project-level analysis for a number of reasons. For example, these global models are not suited to determine the incremental impact of individual projects, due to both scale and overwhelming complexity. We also reviewed simpler models and mathematical techniques to determine global physical effects caused by GHG emissions, such as increases in global atmospheric CO_2 concentrations, atmospheric forcing, or ocean CO_2 absorption. We could not identify a reliable, less complex model for this task and thus staff could not determine specific localized or regional physical impacts from GHG emissions from the Project. Without

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14 EA at B-68.
15 EA at B-71 through B-72.
16 EA at B-72.

the ability to determine discrete resource impacts, Commission staff are unable to assess the Project's contribution to climate change through any objective analysis of physical impact attributable to the Project.

Additionally, Commission staff have not been able to find an established threshold for determining the Project's significance when compared to established GHG reduction targets at the state or federal level. We note that there have been a series of recent administrative changes and we continue to evaluate their impact on our review process. For example, on January 20, 2021, President Biden issued the *Executive Order on Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis* (EO 13990) and on January 27, 2021, the *Executive Order on Tackling the Climate Crisis at Home and Abroad* (EO 14008). Amongst other objectives, the Executive Orders call for a net-zero emission economy and a carbon-free electricity sector. In addition, on January 20, 2021, President Biden announced that the U.S. will rejoin the Paris Climate Agreement (Agreement), enabling the U.S. to be a party to the Agreement on February 19, 2021. The Agreement aims to limit global warming to well below 2 degrees Celsius, and preferably to 1.5 degrees Celsius, compared to pre-industrial levels.[17] On April 20, 2021, the U.S. proposed establishing a U.S. economy-wide target of reducing net GHG emissions by 50-52 percent below 2005 levels by 2030.[18]

The New York Climate Act established the New York State Climate Action Council, which will be required to develop measures to reduce statewide GHG emissions to 60 percent of 1990 emissions by 2030 and 15 percent of 1990 emissions by 2050. GHG emissions from the operation of the proposed new facilities at the Athens and Dover Compressor Stations in New York would result in annual GHG emissions of about 82,647 metric tpy of CO_2e. This would represent 0.07 percent and 0.26 percent of New York's 2030 and 2050 GHG goals, respectively.[19]

Connecticut has current statutory targets to reduce GHG emissions at least 10 percent below 1990 levels by 2020, 45 percent below 2001 levels by 2030, and 80 percent below 2001 levels by 2050.[20] In Connecticut, total new GHG emissions from

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17 Additional information is available at https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement

18 The United States of America Nationally Determined Contribution (Apr. 20, 2021), *available at* https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/United%20States%20of%20America%20First/United%20States%20NDC%20April%2021%202021%20Final.pdf (accessed May 19, 2021).

19 These percentages differ slightly from those presented in the EA as the EA compared the Project to New York's estimated GHG inventory, whereas in this EIS, we compare the project to the U.S. Energy Information Administration's inventory for New York for consistent comparison between projects in different states. U.S. Energy Information Administration, *Table 1, State Energy-Related Carbon Dioxide Emissions by Year, Unadjusted.: New York* (March 2, 2021), https://www.eia.gov/environment/emissions/state/ (accessed May 20, 2021).

20 EA at B-110.

operation of the Brookfield Compressor Station would result in annual GHG emissions of about 81,493 metric tpy of CO_2e. This would represent 0.36 percent and 0.98 percent of Connecticut's 2030 and 2050 GHG goals, respectively.[21]

To provide further context to the Project's GHG estimate, 167.7 and 37.2 million metric tons of CO_2e were emitted at the state level for New York and Connecticut, respectively in 2018, and 5,769.1 million metric tons of CO2e[22] were emitted at the national level in 2019.[23] The operational emissions of the Project could potentially increase CO_2e emissions, based on the 2018 levels by 0.05 percent and 0.22 percent at the state levels for New York and Connecticut, respectively, and 0.003 percent at the 2019 national level.

The EA did not disclose the Project's downstream GHG emissions as the Project shippers (Con Edison and National Grid) are local distribution companies (LDC) and the exact end-use of the gas is unknown. However, for informational purposes, we estimate the downstream GHG emissions from the Project assuming 100 percent utilization of the Project's natural gas throughput and included it in this document.[24] The Project would deliver up to 125,000 Dth/day of new volumes to end-use customers, which would result in up to 2.41 million metric tpy of CO_2e.[25] We note that this CO_2e estimate represents an upper bound amount of end-use combustion that could result from the gas transported by this Project. This estimate assumes that the maximum capacity is transported 365 days per year, which is rarely the case because many projects are designed for peak use and does not account for any offsets that might occur due to fuel conversions.

In order to provide context of the downstream emissions, we compare the Project's direct (i.e., operational) and indirect (i.e., downstream) GHG emissions to the

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21 These percentages differ slightly from those presented in the EA as the EA compared the Project to Connecticut's estimated GHG inventory, whereas in this EIS, we compare the project to the U.S. Energy Information Administration's inventory for Connecticut for consistent comparison between projects in different states. U.S. Energy Information Administration, *Table 1, State Energy-Related Carbon Dioxide Emissions by Year, Unadjusted.: Connecticut* (March 2, 2021), https://www.eia.gov/environment/emissions/state/ (accessed May 20, 2021).

22 Inclusive of sources and sinks.

23 U.S. Energy Information Administration, *Table 1, State Energy-Related Carbon Dioxide Emissions by Year, Unadjusted.: New York and Connecticut* (March 2, 2021), https://www.eia.gov/environment/emissions/state/ (accessed May 20, 2021); U.S. Environmental Protection Agency, *Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990-2019* at ES-9 (Table ES-2) (2021), *available at* https://www.epa.gov/sites/production/files/2021-04/documents/us-ghg-inventory-2021-main-text.pdf (accessed May 20, 2021).

24 As described in recent Commission orders (see CP20-486), the Commission has included downstream emissions for informational purposes only.

25 Environmental Protection Agency, *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2018* at Annex 2.3, Table A-47 (2020) (Carbon Content Coefficients Used in this Report, Row: Carbon Content of Pipeline Natural Gas, Column: 2018 data), https://www.epa.gov/sites/production/files/2020-04/documents/us-ghg-inventory-2020-main-text.pdf. The 2019 Annex data has not been published at the time of DEIS preparation.

total GHG emissions of the United States as a whole. The EA estimates the maximum potential GHG emissions annually from operation of the Project facilities to be 164,140 metric tpy CO_2e,[26] while the downstream emissions would result in up to 2.41 million metric tpy of CO_2e. To provide context to the GHG estimate, 5,769.1 million metric tons of CO_2e were emitted at a national level in 2019 (inclusive of CO_2e sources and sinks).[27] The Project's operational and downstream emissions could potentially increase CO_2e emissions based on the 2019 levels by 0.045 percent.

As previously discussed, both New York and Connecticut have GHG emissions reduction targets.[28] The New York direct emissions (from operation of the proposed facilities at the Athens and Dover Compressor Stations in New York) and downstream GHG emissions (assuming all of the gas delivered to New York is burned in New York) will result in annual GHG emissions of about 2.5 million metric tpy CO_2e. This would represent 2 percent and 8 percent of New York's 2030 and 2050 GHG goals, respectively. Connecticut's impacts are discussed above (as the gas is to be consumed in New York, there would not be downstream emissions associated with the Project in Connecticut).[29]

Based on our analysis in the EA and in this EIS, we are unable to assess the Project's contribution to climate change through any objective analysis of physical impacts attributable to the Project. Additionally, we are unaware of an established threshold for determining the Project's significance when compared to established GHG reduction targets at the state or federal level. As such, we are unable to come to a significance determination regarding the Project's impacts on climate change. However, we acknowledge the Project would increase the atmospheric concentration of GHGs, in combination with past and future emissions from all other sources and would contribute to climate change.

Iroquois End-Use Analysis

Iroquois has stated that the Project would provide natural gas service to local distribution companies to "meet requests for lower emitting fuels to replace heating oil,"

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26 EA at B-71 through B-72 (Table B-13). We note that this calculation does not include the total estimated construction-related emissions of 3,006 metric tons of CO2e, as such emissions are temporary and would occur only during construction of the Project. *See* EA at B-68 (Table B-11).

27 U.S. Environmental Protection Agency, *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2019* at ES-9 (Table ES-2) (2021), https://www.epa.gov/sites/production/files/2021-04/documents/us-ghg-inventory-2021-main-text.pdf (accessed May 2021).

28 Commenters note that the EA wrongly cites to the 2015 New York State Energy Plan, which, we acknowledge, has been amended to reflect the requirements of the New York Climate Act.

29 These percentages differ slightly from those presented in the EA as the EA compared the Project to New York's estimated GHG inventory, whereas in this EIS, we compare the project to the U.S. Energy Information Administration's inventory for New York for consistent comparison between projects in different states.

and that natural gas transported by the Project would support peak seasonal and daily demand. To support this statement, Iroquois submitted an analysis, *End-Use Greenhouse Gas Analysis of the Enhancement by Compression Project* (Iroquois study), that projected the downstream GHG emissions assuming various scenarios for the end-use of the natural gas transported by the Project.[30] Iroquois evaluated the potential GHG emissions under six projection scenarios in the event the Project were not completed; each scenario was assessed under a different ratio of energy uses (space heating, water heating, and cooking energy), the amount of new-construction or end users that convert to natural gas, and the use of electric heat pumps or fuel oil in the event natural gas from the Project were not available. Based on the projected load growth of each LDC that would receive natural gas from the Project, the study assumed the Project would operate at a utilization rate of approximately 25 percent, delivering 11,395,000 Dth per year.

According to the Iroquois study, the degree to which GHG emissions associated with the Project are offset due to the use of more GHG-intensive fuels is primarily affected by two factors: (1) how much gas transported by the Project is directed to new construction versus conversions from heating oil to natural gas in existing buildings and (2) the market uptake of electric heat pumps. With the exception of a scenario in which the Project is offset completely by use of electric heat pumps, which is projected to reduce GHG emissions by 164 percent when compared with the proposed Project, Iroquois' study claims that the downstream emissions associated with scenarios absent the Project are estimated to be greater (between 1.7 and 39.3 percent) than if the natural gas transported by the Project replaced other fuels. These scenarios represent a range, including upper bound and lower bound ranges, that contextualize the Project's GHG impacts in comparison to scenarios in which the Project is not constructed and demand for space heating, water heating, and other end uses is met through other means (i.e., oil burners or heat pumps).

1. Response to Comments on Climate Change

The majority of the EA commenters identify climate change as a significant global issue, and state that the GHG emissions from the Project would result in adverse effects on the climate. Further, NYSDEC contends the EA: (1) wrongly cites the 2015 New York Energy Plan as the plan has been amended to include requirements from the 2019 Climate Leadership and Community Protection Act (New York Climate Act); (2) doesn't take the state statutory requirements into account properly; and (3) uses out-of-date GHG accounting that is inconsistent with the state's legally-mandated metrics that measure GHG emissions using a 20-year timeline for global warming potential (GWP). Several commenters, including Ms. Iris Marie Bloom and Mr. Bill Kish also cite the New York Climate Act as a reason for recommending denial of the Project.

[30] See accession no. 20200519-5095.

Finally, commenters, including Mr. Bill Kish and the Institute for Policy Integrity express concern regarding fugitive methane emissions associated with operation of the Project facilities and increased natural gas flow through Iroquois' pipeline system, noting that the GWP of methane is greater than that of carbon dioxide.

Our analysis here and in the EA quantifies and discusses the direct GHG emissions from construction and operation of the Project, climate change impacts in the region, and the regulatory structure for GHG under the Clean Air Act.[31] We also quantify fugitive emissions of methane in units of CO_2e for Project construction and operations, as summarized above.[32]

GWP is the measure of a particular GHG's ability to absorb solar radiation as well as its residence time within the atmosphere. In terms of the timeline for quantifying GWP, CO_2e was estimated using a GWP of 25 for methane, based on a 100-year time period, rather than a 20-year time period, as suggested by NYSDEC. This is consistent with the EPA's established method for reporting GHG emissions for air permitting requirements that allows a consistent comparison with federal regulatory requirements.[33]

Regarding comments on New York State's climate targets, while the EA describes measures in the 2015 New York State Energy Plan (which, as stated by commenters, has been amended to reflect the requirements of the New York Climate Act), the analysis of GHG emissions from the proposed Project is represented as a percentage of the New York Climate Act's climate targets for 2030 and 2050.

NYSDEC contends that the EA does not take the state statutory requirements into account properly. Several commenters, including Ms. Iris Marie Bloom, also cite the New York Climate Act as a reason the Project should not be certificated. The NYSDEC references components of the New York Climate Act related to the goals for renewable and carbon-free electricity generation. However, because the natural gas transported by the Project would be used for local distribution and is not proposed for electric generation, an analysis of Project emissions against electric generation goals is not applicable. Although the New York Climate Act provides targets for emissions and offsets and strategies for New York State to meet, we are not aware of specific details of these goals that would enable us to determine if the Project would fit into the state's goals, especially considering that part of the Project's purpose and need is to meet requests for lower-emitting fuels to replace heating oil.

NYSDEC also stated that the EA does not consider local impacts from climate change. We included findings from the leading U.S. scientific body on climate change, the USGCRP, including the various known and projected impacts due to climate change

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31 EA at B-67 through B-72.

32 EA at B-68 and B-71 through B-72.

33 EA at B-61.

in the northeast region in the EA and here in section C as well. We conclude here, as we did in the EA, that construction and operation of the Project would increase the atmospheric concentration of GHGs, in combination with past and future emissions from all other sources, and would contribute cumulatively to climate change.[34]

2. Response to Comments on the Social Cost of Carbon

During scoping and in response to the EA, we received numerous comments on use of Social Cost of Carbon (SCC) tool. The SCC estimates the monetized climate change damage associated with an incremental increase in carbon dioxide emissions in a given year. As stated in the EA, we recognize that the SCC methodology does constitute a tool that can be used to estimate incremental physical climate change impacts, either on the national or global scale. The integrated assessment models underlying the SCC tool were developed to estimate certain global and regional physical climate change impacts due to incremental GHG emissions under specific socioeconomic scenarios. However, the Commission has previously indicated that it is not appropriate for use in our Project-specific analyses for the following reasons: 1) the incorporation of the SCC tool into our review under NEPA does not meaningfully inform the Commission's decision whether and how to authorize a proposed project under the NGA; 2) the Commission does not use monetized cost-benefit analyses as part of the review under NEPA or the decision under the NGA; and 3) the SCC tool has methodological limitations (e.g., different discount rates introduce substantial variation in results and no basis exists to designate a particular monetized value as significant) that limit the tool's usefulness in the review under NEPA and the decision under the NGA.[35]

EA commenters, including NYSDEC and Ms. Karen M. Gaidsz, assert that the Commission must include an analysis of climate change impacts of the Project utilizing the SCC or similar tool. Similarly, the Institute for Policy Integrity contends that the EA does not meet the Commission's obligations to address environmental impacts on climate change under NEPA or the NGA because the EA did not use a tool to quantify the social costs of GHG emissions and assess their significance. The Institute for Policy Integrity comments that the incremental climate impacts (such as potential impacts on human health, changing disease vectors, sea-level rise, coastal storms, flooding, and other extreme weather events) caused by Project-related emissions should be assessed for the Commission to fulfill its obligation under NEPA and the NGA. The commenters provide similar information in response to the EA as they did during Project scoping. The comments provided to date do not provide information which changes our conclusion listed above and FERC staff did not use the SCC tool in this NEPA analysis.

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34 EA at B-108.

35 Order on Remand Reinstating Certificate and Abandonment Authorization, Southeast Market Pipelines Project (SMP Project) CP14-554-002, CP15-16-003, CP15-17-002, March 14, 2018.

3. Response to Comments on Upstream Emissions

NYSDEC states that because of the EA's finding that the Project would result in GHG emissions, an assessment of upstream GHG emissions and a full lifecycle GHG emission analysis is warranted. The Institute for Policy Integrity, Ms. Margot Spindelman, and Mr. Mark Varian state that the Commission does not mention or acknowledge upstream emissions and provides no justification for its failure to estimate these emissions.

The specific source of natural gas to be transported via the ExC Project is currently unknown and would likely change throughout the Project's operation. The commenters provide only general information regarding the source of natural gas for the Project and ask the Commission to extrapolate this data to determine specific Project effects. Because the source of the gas is unknown and may change throughout the life of the Project, analysis of specific environmental impacts of upstream natural gas production are not included in the scope of this EIS.

4. Response to Comments on Downstream Emissions

The Institute for Policy Integrity, and Mr. Mark Varian contend that the Project would result in a substantial amount of downstream emissions that exceed the annual operating emissions disclosed in the EA. Climate change, the Project's contribution to climate change impacts, the Project's GHG impacts in the context of New York and Connecticut's state climate change goals, and the downstream GHG emissions associated with the Project's throughput are discussed above in section C.

The Institute for Policy Integrity also states that the EA wrongly amplifies the applicant's claim that the Project would provide natural gas to fully substitute for other sources of energy, namely fuel oil and electricity, and that further scrutiny and assessment of this claim should be undertaken.

The Institute for Policy Integrity states that the Commission should not rely on Iroquois' proposed projections in the Iroquois study. In addition, Ms. Mary Finneran comments that the statement made in the EA that the Project would result in a reduction in GHG emissions is false, and that increased compression cannot reduce existing emissions but can only increase them. Dennis Higgins states that the gas transported by the Project would not be used solely for customers switching from fuel oil and that increasing compression, by its very nature, cannot reduce existing emissions. Additionally, the Institute for Policy Integrity contends that the Iroquois study includes unrealistically high estimates of offsets to fuel oil because local laws require that fuel oil be phased out more quickly than what is accounted for in the study. The Institute for Policy Integrity notes that New York City laws require emission reductions for buildings larger than 25,000 square feet start in 2024, with reductions reaching 80 percent by 2050. Similarly, it states that local law requires the phase-out of all but No. 2 heating oil by

2030 and imposes increasingly stringent biodiesel requirements for fuel oil, making fuel oil more expensive and less likely to be used in the future. The Institute for Policy Integrity argues that these laws demonstrate that the Iroquois study likely underestimates the use of electric heat pumps in the future.

Furthermore, the Institute for Policy Integrity argues that Iroquois' study fails to consider how demand for energy will increase due to the increase in natural gas supply. It notes that Iroquois' reliance on "perfect substitution" from one energy source to another is contrary to basic supply and demand principles because it assumes that the price of the target resource will remain constant as supply expands. The Institute for Policy Integrity states that the Commission should conduct a substitution analysis to assess the Project's effects and by failing to do so, the Commission did not attempt to obtain the information necessary to enable "reasonable forecasting" of emissions.

To clarify, the Iroquois study was included in the Project application to support their Project's purpose and need statement and we included it in the EA and in this EIS for disclosure purposes. FERC staff did not use the study to make conclusions about Project impacts in the EA or here in this EIS.

D. RESPONSE TO REMAINING COMMENTS RECEIVED ON THE ENVIRONMENTAL ASSESSMENT

Since issuance of the EA and in response to the EA, we received 28 comments, including comments from the EPA, NYSDEC, 19 interested members of the public, National Grid, Con Edison, and Iroquois.[36] In addition to GHG emissions and climate change which are discussed above, comments on the EA include procedural concerns regarding the Commission's environmental review process; the need for the Project; alternatives; impacts on wetland and water resources; impacts on wildlife and special status species; socioeconomic impacts; air quality impacts; Project safety; cumulative impacts; and indirect impacts. The remaining concerns were addressed in the EA and are further discussed below.

1. Purpose and Need

Mr. Dennis Higgins comments that the gas transported by the Project would not be used solely for customers switching from fuel oil. Consistent with Iroquois' stated purpose and need for the Project, natural gas transported by the Project would not be used exclusively for customers switching from fuel oil to natural gas and future conditions regarding energy demand are subject to change. As stated in the EA, the natural gas transported by the Project would also support increased natural gas demand due to new construction in the commercial and multi-family sector.[37] Ms. Margot Spindelman, Mr. Mark Varian, and Ms. Linda Reik question the need for the Project. The need for the Project will be addressed by the Commission in the Order and is outside the scope of this document.

2. Comment Period

Commenters, including Ms. Ann Finneran, Ms. Mary T. Finneran, Ms. Linda Reik, and Mr. Dennis Higgins request an extension of the public comment period due to the COVID-19 pandemic, which resulted in the closure of public buildings, such as libraries, as well as other locations where stakeholders may rely on internet access to comment. Mary T. Finneran also states that the presidential election necessitated additional time to review the EA and provide comments.

The 30-day comment period established for the EA is the standard period of time provided to comment on EAs for natural gas projects and provides a reasonable amount of time for the public to review and comment on a project of this scope. Further, as a matter of standard practice, we review comments received after the close of the comment periods to the extent possible. All comments received since issuance of the EA, regardless of whether they were filed in the 30-day comment period, were evaluated and

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36 Some stakeholders provided multiple comments.

37 EA at A-2.

our responses are included in this EIS. Further, this EIS will have a 45-day comment period. Therefore, an extension of the comment period is not necessary.

3. Finding of "No Effect"

Commenters, including Ms. Johanna Fallert, Mr. Joshua A. Douglass, and Ms. Valerie Carlisle, state that Commission staff wrongly determined in the EA that the ExC Project would have no effect on the environment. Ms. Johanna Fallert asserts that the EA reports no effects from the Project on endangered species, critical habitats, air, water, or humans, including vulnerable populations.

The EA reports a finding of "no effect" in just three instances, all of which are associated with staff's determination of effect on federally listed species, specifically the bog turtle, Atlantic sturgeon, and Indiana bat.[38] The U.S. Fish and Wildlife Service and the National Marine Fisheries Service acknowledged these no effect findings, and the National Marine Fisheries Service further indicated that the Project did not appear to affect any critical habitat for species under its jurisdiction.[39]

Regarding the specific resources identified by commenters, the EA assesses the potential impacts on air quality during construction of the Project and, based on increased exhaust emissions from construction, delivery, and commuter trucks/equipment and dust generation, determined that these impacts would be temporary and localized.[40] For operational impacts on air quality due to the new compressor units, our analysis in the EA was based on the results of Iroquois' air modeling, and given Iroquois' proposed emissions controls to reduce emissions, the Project would have minor impacts on local air quality during operation.[41] Additionally, no waterbodies were identified within the boundaries of the Project facilities, and the one herbaceous wetland that exists within the fenceline of the existing Athens Compressor Station would be excluded from Project workspaces and would not be affected by construction or operation of the new facilities.[42] Therefore, we conclude here, as we did in the EA, that impacts from the Project on water resources, including wetlands, were not significant.[43] Our analysis in the EA also discloses the Project's impacts on humans, including vulnerable populations and environmental justice populations, with regard to the following resources: employment and tax revenue, roadways, public services (e.g., fire, police, schools, hospitals), property values, visual resources, and public health. Our analysis concludes that the Project would

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38 EA at B-31 through B-34, table B-8.
39 EA at B-35.
40 EA at B-67.
41 EA at B-74.
42 EA at B-19.
43 EA at B-20.

result in negligible to minor negative impacts and negligible to minor positive impacts on socioeconomic characteristics and economies in the Project area.[44]

4. Alternatives

Commenters, including Ms. Julana Haliti and Ms. Iris Marie Bloom, contend that there are better alternatives for New York City's heating fuel needs than natural gas, including heat pumps, geothermal energy, and solar energy. Commenters, including Gale Pisha, further claim that residents or developers who convert to natural gas or build to accommodate natural gas heat will eventually need to convert to heat pumps and geothermal energy in the future, resulting in a re-conversion cost, on top of increased natural gas prices to fund the Project.

The applicant's statement of purpose and need informs the choice of alternatives. The choice of alternatives, and the depth of discussion of those alternatives, must be reasonable.[45] The Council on Environmental Quality (CEQ) advises, however, that "a reasonable range of alternatives depends on the nature of the proposal and the facts in each case."[46] Therefore, we need only consider alternatives that will achieve the Project's stated purpose."[47]

Here, the stated purpose for the Project is to provide 62,500 Dth/day of firm transportation service from Waddington, New York, to Hunts Point, New York, for Con Edison, and 62,500 Dth/day of firm transportation service from Waddington, New York, to South Commack, New York, for National Grid.[48] Therefore, the commenters' assertions regarding the use of heat pumps and other forms of heating is outside the scope of the range of alternatives that we must consider.

Finally, Mr. Keith Schue requests that the Commission consider the State of New York's closure of a nuclear generation plant. Mr. Keith Schue requests that the Commission reject the ExC Project and intervene in the state's decision to close down nuclear plants that were providing reliable carbon-free electricity. Other commenters, including Linda Reik, state that the ExC Project should be rejected because it would increase, rather than decrease, natural gas consumption in New York State, which is in opposition to studies calling for the replacement of nuclear energy with renewable energy. Predictions as to how the State of New York may decide to manage its fuel sources in the future are beyond the scope of this EIS.

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44 EA at B-47.

45 *Citizens Against Burlington, Inc. v. Busey*, 938 F.2d 190, 196 (D.C. Cir. 1991).

46 CEQ, *Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations*, 46 Fed. Reg. 18,026, 18,027 (1981).

47 *Citizens Against Burlington, Inc.*, 938 F.2d at 195, 199.

48 EA at A-2.

5. Water Resources

The NYSDEC states that it is not aware of ongoing consultations between the NYSDEC and Iroquois for a Water Withdrawal Permit, as indicated in the EA. The NYSDEC also notes that it is unclear why such a permit would be necessary based on statements in the EA that municipal water would be used for hydrostatic testing and operational water use. Although the EA identifies consultation for this permit as ongoing,[49] Iroquois has indicated that any Water Withdrawal Permit would be associated with construction dewatering, and that the need for such a permit would be determined based on the volume and method of water disposal.[50] Iroquois also stated that the anticipated filing date for the permit application is to be determined, indicating that it has not yet begun consultations with NYSDEC.

6. Wetlands

The NYSDEC comments that the U.S. Army Corps of Engineers (USACE) should be requested to provide a new jurisdictional determination for the Athens Compressor Station because additional wetlands were identified during development of the EA.[51] Iroquois would protect wetlands through the use of Iroquois' best management practices and its proposed implementation of our *Wetland and Waterbody Construction and Mitigation Procedures*. The newly identified wetlands cited by NYSDEC are outside of Project workspaces. Iroquois filed additional correspondence with the USACE, dated November 4 and 19, 2020, that confirmed that no impacts on these wetlands would occur during construction or operation of the Project as they are outside of Project workspaces.[52] On November 24, 2020, the USACE issued a letter confirming they had no jurisdiction over any of the Project activities. [53]

Although the wetlands are outside of Project workspaces, we note that the NYSDEC establishes a buffer zone around wetlands, and the zone around the newly-identified wetlands at the Athens Compressor Station may overlap with adjacent Project workspaces. Consultation between Iroquois and the NYSDEC regarding the potential need for a New York State Freshwater Wetland permit was noted as ongoing in the EA.[54] On January 29, 2021, Iroquois filed additional correspondence with the NYSDEC that Iroquois would decrease workspace for the Athens Compressor Station to

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49 EA at A-17.

50 See accession no. 20200921-5178 for Iroquois filing.

51 Based on NYSDEC correspondence during development of the EA, Iroquois conducted supplemental wetland delineations at the Athens Compressor Station and associated contractor staging area in August of 2020. EA at B-20.

52 See accession no. 20201120-5257.

53 See accession no. 20210129-5337.

54 EA at A-17.

avoid the wetland buffer areas. After review of these changes, on January 21, 2021, the NYSDEC confirmed that no Freshwater Wetland Permit is required.

7. Wildlife and Special Status Species

Several commenters, including Ms. Johanna Fallert and Ms. Iris Marie Bloom, state that indirect impacts of the Project, namely global warming and the production of natural gas from hydraulic fracturing, pose threats to birds and other wildlife. Similarly, Ms. Johanna Fallert also states that the EA wrongly states that the Project would have no impact on special status species, identifying air pollution and global warming from the drilling, transport, and combustion of natural gas as drivers of impacts on birds and other wildlife.

As noted in the EA, Iroquois committed to developing a mitigation plan in coordination with the NYSDEC to minimize the potential for impacts on bog turtles and timber rattlesnakes within workspaces in New York.[55] Subsequent to issuance of the EA, Iroquois finalized, and the NYSDEC approved, *Iroquois' Sensitive Species Education and Avoidance Plan*.[56] Final measures include pre-construction surveys to ensure no individual bog turtles or timber rattlesnakes are present within workspaces, installation of exclusion fences and escape ramps where applicable, and the requirement to stop work and consult the appropriate agency if a bog turtle or timber rattlesnake is encountered during construction. These final measures further support the findings in the EA that construction or operation of the Project would result in *no effect* on bog turtles (as no suitable habitat for the bog turtles exists in the Project area) and not result in significant impacts on timber rattlesnakes.

As stated above in section C.3, because the source of the gas is unknown and may change throughout the life of the Project, analysis of specific environmental impacts of upstream natural gas production are not included in the scope of this EIS.[57] As disclosed in the EA, impacts on special status species in the Project area were determined based on best available information, site survey data, best professional judgement, and agency consultations. With respect to the impacts from global warming, global warming is driven by the accumulation of GHG in the atmosphere through the combustion of fossil fuels combined with other factors; the Project will emit GHGs.[58] However, as discussed in section C above, we could not determine a project's direct incremental physical impacts on the environment caused by GHG emissions or determine whether a project's contribution to climate change would be significant.

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55 EA at B-35 through B-38.
56 See accession no. 20210129-5337.
57 EA at A-15.
58 EA at B-107.

8. Socioeconomics

Iroquois notes that three new operational staff would be hired as a result of the ExC Project. Iroquois also states that the EA underestimates the property taxes that would be generated as a result of the Project.[59] We find that these discrepancies are minor and would not be meaningfully different than those reported in the EA. However, based on Iroquois' clarification on the Project's contribution to property taxes, which would double in Dover, New York, and Brookfield, Connecticut, and triple in Athens, New York, over a 20 year period,[60] we clarify that there would be a minor increase in tax revenue from Project operations for these local communities.

Several commenters, including Valerie Carlisle, express concern that the Project would impact the community's health and their quality of life. Ms. Iris Marie Bloom states that the Project creates a racial justice and environmental justice issue, and that those most harmed by the Project's contribution to climate change, sea-level rise, and fossil-fuel facilities, are low income people, especially people of color. Ms. Bloom further asserts that the Project's air quality impacts may affect environmental justice populations and individuals who have respiratory conditions.

As we disclosed in the EA, environmental justice populations were found in five block groups out of 18 total block groups within one mile of the Project areas. These include low-income populations near the Athens (Census Tract 809, Block Group 3), Dover (Census Tract 400.03, Block Group 1), and Milford (Census Tract 813, Block Group 3 and Census Tract 1506, Block Group 2) Compressor Stations; and one block group with a minority population within one mile of the Milford Compressor Station (Census Tract 813, Block Group 4).[61]

The disclosed potential impacts from the Project on area residents may include traffic delays during construction of the Project and changes in the existing viewsheds during construction and operation of the Project. We continue to conclude that with Iroquois' commitment to implementing mitigation measures to alleviate potential road congestion during construction through avoidance of peak commute times, periods associated with school-related traffic, and in consultation with transportation authorities, traffic-related impacts on the population, including environmental justice populations, would be minor and short-term.[62]

With respect to visual impacts on environmental justice populations, as described in the EA, the proposed modifications would be constructed within existing facility sites

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59 See accession no. 20201030-5316.

60 This equates to annual budget increases of 19.4 percent in Athens, 9.2 percent in Dover, 2.7 percent in Brookfield, and 0.17 percent in Milford. Iroquois' November 20, 2020 Supplemental Information.

61 EA at B-54.

62 EA at B-48.

that contain similar infrastructure and on land classified as industrial/commercial land.[63] In addition, the residences closest to the Milford Compressor Station and the Athens Compressor Station are sufficiently removed from the existing station (over 0.7 mile and 0.5 mile away, respectively), and the project facilities would not be visible to these NSAs. The Dover Compressor Station would only be visible from the residence 0.5 mile to the north, which would be consistent with the existing facilities in their view. Users of nearby roadways would also experience a viewshed consistent with the existing facilities on the compressor station sites. Given that the Project would be on land classified as industrial/commercial and would be consistent with the existing viewsheds, visual impacts on environmental justice communities would be less than significant.

With respect to air emissions, potential pollutant emissions from the Project, when considered with existing and background concentrations, would be below the National Ambient Air Quality Standards (NAAQS), which are designated to protect public health, including sensitive populations such as asthmatics and children.[64]

We conclude that the Project would result in negligible to minor negative impacts and negligible to minor positive impacts on socioeconomic characteristics and economies in the Project areas.[65] Therefore, we conclude that with the mitigation proposed by Iroquois and our proposed recommendation to minimize noise, the Project's impacts on area residents, including vulnerable populations, would be minimized to the greatest extent practicable. In addition, the Project would not result in a disproportionately high and adverse impact on environmental justice communities within the study area.

9. Air Quality

9.1. AIR STATE FACILITY PERMIT

Iroquois asserts that the NYSDEC's Air State Facility permits for the Athens and Dover Compressor Station facilities are not federal permits, but rather state permits.[66] New York has full delegation from the EPA for air permitting programs under the Clean Air Act. As part of that process, Iroquois is in consultation with the NYSDEC regarding air permitting and Final Air Facility Permit issuances are pending.[67] Although the Air Facility Permit is issued by the state, Iroquois is required to obtain it pursuant to New York's EPA-approved State Implementation Plan for non-major sources subject to New Source Review in accordance with the federal Clean Air Act.

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63 EA at B-55.
64 EA at B-56.
65 EA at B-47.
66 See accession no. 20201030-5316.
67 EA at B-65.

9.2. SULFUR DIOXIDE EMISSIONS

Iroquois states that following EA issuance, it reviewed its emissions modeling inputs with the NYSDEC to confirm the accuracy of the sulfur dioxide emissions from the Project facilities and resubmitted the air quality models to the NYSDEC for review. We acknowledge that Iroquois is still consulting with the NYSDEC and Connecticut Department of Energy and Environmental Protection with regards to the air permits for the Project and estimates of Project emissions may be further modified during the permitting agency's review process.[68] Given that the total sulfur dioxide concentrations that were estimated in the Project's air quality model, as presented in the EA, are well below the NAAQS,[69] minor corrections to Iroquois' analysis are not expected to change or modify the EA's conclusion regarding Project impacts on air quality.[70]

9.3. OXIDATION CATALYSTS

Iroquois states that it is planning to install oxidation catalysts at existing and new emergency generators and not on compression turbines as indicated in the EA.[71] We acknowledge this clarification and note that it does not impact our conclusion that operation of the Project would not result in significant impacts on air quality.

9.4. PUBLIC HEALTH IMPACTS

Commenters, including Ms. Gale Pisha, Ms. Johanna Fallert, and Ms. Diana Strablow, state that the particulate matter, hazardous air pollutants, and other pollutant emissions from compressor stations are dangerous to human health (including respiratory health). Ms. Johanna Fallert states that in New York State there are eight counties that have unhealthy ozone or particle pollution (also known as particulate pollution), cites a study quantifying emissions from natural gas compression facilities in New York State, and expresses concern regarding the public health and climate impacts of emissions from the Project. Ms. Diana Strablow expresses concern regarding emissions associated with planned blowdown events.

The Project area counties in New York are all in attainment with the NAAQS. However, New York and Connecticut are in the Ozone Transport Region and, therefore, are subject to more stringent permit requirements for ozone precursor pollutants (oxides of nitrogen and volatile organic compounds).[72] The EA quantifies construction and operation emissions of these pollutants. Based on our analysis, we conclude that air

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68 See accession nos. 20201030-5316, 20210129-5337, and 20210401-5368.

69 EA at B-75.

70 EA at A-77.

71 See accession no. 20201030-5316.

72 Ozone is not directly emitted into the atmosphere from an emissions source. Ozone develops as a result of a chemical reaction between nitrogen oxides and volatile organic compounds in the presence of sunlight. EA at B-61.

quality impacts would not be significant.[73] Further, as stated in the EA, maintenance and emergency blowdowns would occur infrequently at the compressor stations.[74] Emissions from these events are not expected to significantly degrade the local air quality.[75]

Additionally, the Project's impacts on human health were addressed in the EA, which includes an air quality modeling analysis, developed in consultation with the NYSDEC or Connecticut Department of Energy and Environmental Protection, for the modified compressor stations that would increase air pollutant emissions as a result of the Project.[76] The modeling analysis incorporated local topography and meteorological conditions, existing background concentrations of each criteria pollutant, and the emissions from both the existing and new compressor units to model pollutant concentrations. The resulting modeled concentrations were compared to the NAAQS, which, as stated above, are established by the EPA to protect human health, including sensitive populations such as children, the elderly, and those with asthma, and public welfare. The modeled concentrations, when combined with existing ambient pollutant concentrations, do not exceed the NAAQS for any pollutant.[77] As stated in the EA and reaffirmed here, the construction and operation of the Project would not have a significant impact on air quality.[78]

9.5. RADON

Ms. Ann L. Finneran expresses concern regarding the adverse health impacts from the release of methane laced with radon. As stated in the EA, although radon can be entrained in natural gas reserves, upstream natural gas processing helps remove radon before it is delivered into Iroquois pipeline system.[79] We also note that radon has a half-life, defined as the time it takes for the compound to decay to half its initial concentration, of only 3.8 days. The time needed to gather, process, store and deliver natural gas allows a portion of the radon, if present in small quantities after natural gas processing, to decay, thereby decreasing the amount of radon in the gas before being combusted in a compressor station. Additionally, the U.S. Geological Survey found that concentrations of radon in natural gas samples from the Marcellus shale and overlapping Devonian age sandstones, as measured at the wellhead, ranged from 1 to 79 picocuries per liter (pCi/L) and 7 to 65 pCi/L, respectively.[80] Additionally, a study using natural gas samples collected from Texas Eastern Transmission, LP and Algonquin Gas

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73 EA at B-67 through B-77.
74 EA at B-70.
75 EA at B-70 through B-71.
76 EA at B-75.
77 EA at B-74.
78 EA at B-74.
79 EA at B-76.
80 E.L. Rowan and T.F. Kraemer, Radon-222 Content of Natural Gas Samples from Upper and Middle Devonian Sandstone and Shale Reservoirs in Pennsylvania: Preliminary Data (U.S. Geological Survey 2012), available at http://pubs.usgs.gov/of/2012/1159/ofr2012-1159.pdf

Transmission, LLC pipelines from the Marcellus shale gas field measured radon concentrations in natural gas pipelines ranging from 16.9 to 44.1 pCi/L, with resulting in-home concentrations estimated at 0.0042 to 0.0109 pCi/L.[81] These levels are significantly less than the average indoor and outdoor radon levels that occur naturally in the environment.[82] The EPA has set the indoor action level for radon at 4 pCi/L.[83] Because the estimated radon concentrations associated with the natural gas are well below the EPA indoor action level, as stated in the EA, we continue to conclude that radon would not be present in the pipeline-quality gas in significant quantities that would result in health impacts on nearby populations.[84]

10. Public Safety

Commenters, including Ms. Ann Finneran, Ms. Mary Finneran, Ms. Gale Pisha, and Mr. Bill Kish question the safety of Iroquois' existing system to handle the increased natural gas, are concerned that the natural gas would be transported at increased pressure on the existing pipeline, and assert that the aging pipe would be susceptible to leaking and increased danger of explosion. Commenters specifically identify the Athens Compressor Station as an area of concern given its proximity to other infrastructure that transports or utilizes flammable or other dangerous materials. Ms. Mary Finneran claims that the EA's statement that these existing facilities are part of the environmental baseline wrongly implies that the public need not worry and states that the EA does not address the increased danger of explosion and methane breaches from the increased compression.

The maximum allowable operating pressure of Iroquois' existing system would not change due to the proposed Project.[85] Iroquois has sited the compressor stations in compliance with U.S. Department of Transportation – Pipeline and Hazardous Materials Safety Administration's (USDOT-PHMSA) regulations. Further, Iroquois would construct and operate these facilities in compliance with USDOT-PHMSA safety standards. The EA concludes, and we reiterate here, that Iroquois has designed the Project to be in compliance with all applicable USDOT-PHMSA requirements, and that operation of the facility represents a minimal increase in risk to the public.[86] Therefore,

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81 L.R. Anspaugh, Scientific Issues Concerning Radon in Natural Gas, Texas Eastern Transmission, LP and Algonquin Gas Transmission, LLC, New Jersey-New York Expansion Project (2012), available at https://www.slideshare.net/MarcellusDN/scientific-issues-concerning-radon-in-natural-gas http://energyindepth.org/wp-content/uploads/marcellus/2012/07/A-AnspaughReport.pdf

82 The average home in the United States has a radon activity level of 1.3 pCi/L, while outdoor levels average approximately 0.4 pCi/L. EPA, A Citizen's Guide to Radon - The Guide to Protecting Yourself and Your Family from Radon, 402/K-12/002 (2012), available at https://www.epa.gov/sites/production/files/2016-02/documents/2012_a_citizens_guide_to_radon.pdf

83 *Id.*

84 EA at B-77.

85 EA at A-3.

86 EA at B-93.

we continue to find that with implementation of the standard safety design criteria (developed by USDOT-PHMSA), the Project, and Iroquois' existing pipeline, would be constructed and operated safely.

E. CONCLUSIONS AND RECOMMENDATIONS

Based on the environmental analysis in the EA and in this EIS, staff have determined that approval of the Project would not result in significant environmental impacts, with the exception of greenhouse gas emissions. Although we acknowledge the Project's direct and downstream emissions would increase the atmospheric concentration of GHGs, in combination with past and future emissions from all other sources, and would contribute to climate change, we are unable to come to a conclusion regarding the significance of the Project's contribution to climate change.

In accordance with NEPA and Commission policy, we evaluated alternatives to the Project to determine whether they would be reasonable and environmentally preferable to the proposed action. These alternatives included the no-action alternative, system alternatives, fuel alternatives, and location alternatives for the proposed new facilities. Although all of the alternatives we evaluated appear to be technically feasible, none provide a significant environmental advantage over the Project design. Therefore, we conclude that the Project, as modified by our recommendations in section E of this EIS, is the preferred alternative to meet Project objectives.

The staff continues to recommend that the Commission Order include the mitigation measures listed below (unmodified from those listed in the EA) as conditions to the authorization the Commission may issue.

1. Iroquois shall follow the construction procedures and mitigation measures described in its application and supplements (including responses to staff data requests) and as identified in the EA, unless modified by the Order. Iroquois must:

    a. request any modification to these procedures, measures, or conditions in a filing with the Secretary of the Commission (Secretary);

    b. justify each modification relative to site-specific conditions;

    c. explain how that modification provides an equal or greater level of environmental protection than the original measure; and

    d. receive approval in writing from the Director of Office of Energy Projects (OEP), or the Director's designee, **before using that modification**.

2. The Director of OEP, or the Director's designee, has delegated authority to address any requests for approvals or authorizations necessary to carry out the conditions of the Order, and take whatever steps are necessary to ensure the protection of environmental resources during construction and operation of the Project. This authority shall allow:

    a. the modification of conditions of the Order;

b. stop-work authority; and

c. the imposition of any additional measures deemed necessary to ensure continued compliance with the intent of the conditions of the Order as well as the avoidance or mitigation of unforeseen adverse environmental impact resulting from Project construction and operation.

3. **Prior to any construction,** Iroquois shall file an affirmative statement with the Secretary, certified by a senior company official, that all company personnel, EIs, and contractor personnel will be informed of the EIs' authority and have been or will be trained on the implementation of the environmental mitigation measures appropriate to their jobs **before** becoming involved with construction and restoration activities.

4. The authorized facility locations shall be as shown in the EA, as supplemented by filed Project figures. **As soon as they are available, and before the start of construction,** Iroquois shall file with the Secretary any revised detailed survey alignment maps/figures at a scale not smaller than 1:6,000 with station positions for all facilities approved by the Order. All requests for modifications of environmental conditions of the Order or site-specific clearances must be written and must reference locations designated on these Project figures.

   Iroquois' exercise of eminent domain authority granted under NGA Section 7(h) in any condemnation proceedings related to the Order must be consistent with these authorized facilities and locations. Iroquois' right of eminent domain granted under the NGA section 7(h) does not authorize it to increase the size of its natural gas pipeline or aboveground facilities to accommodate future needs or to acquire a right-of-way for a pipeline to transport a commodity other than natural gas.

5. Iroquois shall file with the Secretary detailed alignment maps/sheets and aerial photographs at a scale not smaller than 1:6,000 identifying all facility relocations, and staging areas, pipe storage yards, new access roads, and other areas that would be used or disturbed and have not been previously identified in filings with the Secretary. Approval for each of these areas must be explicitly requested in writing. For each area, the request must include a description of the existing land use/cover type, documentation of landowner approval, whether any cultural resources or federally listed threatened or endangered species would be affected, and whether any other environmentally-sensitive areas are within or abutting the area. All areas shall be clearly identified on the maps/figures/aerial photographs. Each area must be approved in writing by the Director of OEP, or the Director's designee, **before construction in or near that area**.

   This requirement does not apply to extra workspace allowed by the FERC *Upland Erosion Control, Revegetation, and Maintenance Plan*, and/or minor field

realignments per landowner needs and requirements which do not affect other landowners or sensitive environmental areas such as wetlands.

Examples of alterations requiring approval include all route realignments and facility location changes resulting from:

a. implementation of cultural resources mitigation measures;

b. implementation of endangered, threatened, or special concern species mitigation measures;

c. recommendations by state regulatory authorities; and

d. agreements with individual landowners that affect other landowners or could affect sensitive environmental areas.

6. **Within 60 days of the acceptance of the Certificate and before construction begins**, Iroquois shall file an Implementation Plan with the Secretary for review and written approval by the Director of OEP, or the Director's designee. Iroquois must file revisions to its plan **as schedules change**. The plan shall identify:

a. how Iroquois will implement the construction procedures and mitigation measures described in its application and supplements (including responses to staff data requests), identified in the EA, and required by the Order;

b. how Iroquois will incorporate these requirements into the contract bid documents, construction contracts (especially penalty clauses and specifications), and construction drawings so that the mitigation required at each site is clear to on-site construction and inspection personnel;

c. the number of environmental inspectors (EIs) assigned, and how the company will ensure that sufficient personnel are available to implement the environmental mitigation;

d. company personnel, including EIs and contractors, who will receive copies of the appropriate material;

e. the location and dates of the environmental compliance training and instructions Iroquois will give to all personnel involved with construction and restoration (initial and refresher training as the Project progresses and personnel change);

f. the company personnel (if known) and specific portion of the Iroquois' organization having responsibility for compliance;

g. the procedures (including use of contract penalties) Iroquois will follow if noncompliance occurs; and

h. for each discrete facility, a Gantt or PERT chart (or similar project scheduling diagram), and dates for:

i. the completion of all required surveys and reports;

ii. the environmental compliance training of on-site personnel;

iii. the start of construction; and

iv. the start and completion of restoration.

7. Iroquois shall employ at least one EI for the Project. The EI shall be:

a. responsible for monitoring and ensuring compliance with all mitigation measures required by the Order and other grants, permits, certificates, or other authorizing documents;

b. responsible for evaluating the construction contractor's implementation of the environmental mitigation measures required in the contract (see condition 6 above) and any other authorizing document;

c. empowered to order correction of acts that violate the environmental conditions of the Order, and any other authorizing document;

d. a full-time position, separate from all other activity inspectors;

e. responsible for documenting compliance with the environmental conditions of the Order, as well as any environmental conditions/permit requirements imposed by other federal, state, or local agencies; and

f. responsible for maintaining status reports.

8. Beginning with the filing of its Implementation Plan, Iroquois shall file updated status reports with the Secretary on a **monthly basis until all construction and restoration activities are complete**. On request, these status reports will also be provided to other federal and state agencies with permitting responsibilities. Status reports shall include:

a. an update on Iroquois' efforts to obtain the necessary federal authorizations;

b. the construction status of the Project, work planned for the following reporting period, and any scheduled changes for stream crossings or work in other environmentally-sensitive areas;

c. a listing of all problems encountered and each instance of noncompliance observed by the EI(s) during the reporting period (both for the conditions imposed by the Commission and any environmental conditions/permit requirements imposed by other federal, state, or local agencies);

d. a description of the corrective actions implemented in response to all instances of noncompliance;

e. the effectiveness of all corrective actions implemented;

f. a description of any landowner/resident complaints which may relate to compliance with the requirements of the Order, and the measures taken to satisfy their concerns; and

g. copies of any correspondence received by Iroquois from other federal, state, or local permitting agencies concerning instances of noncompliance, and Iroquois' response.

9. Iroquois must receive written authorization from the Director of OEP, or the Director's designee, **before commencing construction of any Project facilities**. To obtain such authorization, Iroquois must file with the Secretary documentation that it has received all applicable authorizations required under federal law (or evidence of waiver thereof).

10. Iroquois must receive written authorization from the Director of OEP, or the Director's designee, **before placing the Project into service.** Such authorization will only be granted following a determination that rehabilitation and restoration of the areas affected by the Project are proceeding satisfactorily.

11. **Within 30 days of placing the authorized facilities in service,** Iroquois shall file an affirmative statement with the Secretary, certified by a senior company official:

    a. that the facilities have been constructed in compliance with all applicable conditions, and that continuing activities will be consistent with all applicable conditions; or

    b. identifying which of the conditions in the Order Iroquois has complied with or will comply with. This statement shall also identify any areas affected by the Project where compliance measures were not properly implemented, if not previously identified in filed status reports, and the reason for noncompliance.

12. Iroquois shall file with the Secretary noise surveys for the Athens, Dover, and Brookfield Compressor Stations **no later than 60 days** after placing each modified station into service. If full power load condition noise surveys are not possible, Iroquois shall file an interim survey at the maximum possible power load **within 60 days** of placing the stations into service and file the full power load survey **within 6 months**. If the noise attributable to operation of all equipment at any modified station under interim or full power load conditions exceeds a day-night sound level of 55 decibels on the A-weighted scale at any nearby noise sensitive area, Iroquois shall:

a. file a report with the Secretary, for review and written approval by the Director of OEP, or the Director's designee, on what changes are needed;

b. install additional noise controls to meet that level **within 1 year** of the in-service date; and

c. confirm compliance with this requirement by filing a second full power load noise survey with the Secretary no later than 60 days after it installs the additional noise controls.

Appendix A
List of Preparers

Ferrara, Kylee – Project Manager; Project Description; Cumulative Impacts; Alternatives, Reliability and Safety; Air Quality and Noise

M.S., Environmental Engineering, The Johns Hopkins University, 2016 B.A & Sc., Biology and Geography, McGill University, 2005

Crosley, Shannon – Deputy Project Manager

B.S., Natural Resources Management, University of Maryland, 1998

Bloomfield, Andrea –Land Use, Recreation, and Visual Resources

B.S., Environmental Management, University of Maryland, 2018

Boros, Laurie – Cultural Resources

B.A., Anthropology/Archaeology, Queens College, C.U.N.Y., 1980

Fink, Jennifer – Surface Water; Fisheries, Wildlife and Wetlands; Vegetation; Threatened and Endangered Species

M.S., Environmental Resource Policy, George Washington University, 2016 B.S., Environmental Science, University of Delaware, 2010

Griffin, Robin –Socioeconomics

M.S., Environmental Management, Illinois Institute of Technology, 1999 B.A., English Composition, DePauw University, 1992

Jensen, Andrea – Geology and Soils; Groundwater

B.S., Environmental Geology, College of William and Mary, 2012

Appendix B
Distribution List

Elected and Town Officials

Charles Schumer	United States Senate
Chris Murphy	United States Senate
Kirsten Gillibrand	United States Senate
Richard Blumenthal	United States Senate
Antonio Delgado	United States House of Representatives
Jahana Hayes	United States House of Representatives
Rosa DeLauro	United States House of Representatives
Craig Miner	Connecticut State Senate
George Amedore, Jr.	New York State Senate
James Maroney	Connecticut State Senate
Sue Serino	New York State Senate
Alan Surman	Dutchess County Legislature
Edward Bloomer	Greene County Legislature
Chris Tague	New York State Assembly
Kathy Kennedy	Connecticut State Assembly
Kieran Michael Lalor	New York State Assembly
Stephen Harding	Connecticut State Assembly
Albert Gasparini	Town of Athens
Alice Dew	Town of Brookfield
Andrea DiStephan	Town of Brookfield
Andrew House	Town of Dover
Anthony Paluch	Town of Athens
Hal Brodie	Town of Athens
Harry Shaker	Town of Brookfield
James Murphy	Town of Dover
Jan Maluda	Town of Dover
John Barile	Town of Brookfield Public Schools
John J. Farrell	Town of Athens
Katherine E. Palmer-House	Town of Dover
Linda M. Stacey	Town of Athens
Mary Brandow	Town of Athens
Michael Ragaini	Town of Athens
Paul Johnston	Town of Dover
Ralph Tedesco	Town of Brookfield
Redmond Abrams	Town of Dover
Richard Surrano Jr.	Town of Athens
Richard Yeno	Town of Dover
Robert Butler, Jr.	Town of Athens
Shannon Spinner	Town of Athens

Stephen C. Dunn	Town of Brookfield
Susan D. Slater	Town of Brookfield

Federal Agencies

Ahuva Battams	Office of Pipeline Safety USDOT PHMSA
Amy Sweeney	US Department of Energy
Andree DuVarney	Natural Resources Conservation Service, USDA
Attn: CECW-P	Army Corps of Engineers, Planning and Policy Division
BJ Howerton	Bureau of Indian Affairs, DOI
Brian Costner	Office of NEPA Policy and Compliance, DOE
Brian Lavoie	U.S. Department of Energy
Camille Mittelholtz	Office of Assistant Secretary for Transportation Policy, USDOT
Christopher Oh	US Customs and Border Protection Dept. of Homeland Security
Cindy Barger	U.S. Environmental Protection Agency
Danielle Schopp	Office of Environment and Energy, HUD
David Fish	Bureau of Safety and Environmental Enforcement, DOI
Dr. Jill Lewandowski	Bureau of Ocean Energy Management, DOI
Edward Boling	Council on Environmental Quality
Esther Eng	US Geological Survey
James Smalls	USDA Forest Service-Ecosystem Management Coordination
John Eddins	Office of Federal Programs, Advisory Council on Historic Preservation
Karen Lynch	Pipeline & Hazardous Materials Safety Administration, Office of Pipeline Safety, USDOT
Lisa Murkowski	Senate Energy and Natural Resources Committee
Mark Whitney	Office of Environmental Management, DOE
Marko G Velikonja	Bureau of Oceans & International Environmental & Scientific Affairs, DOS
Melanie Stevens	Office of Pipeline Safety USDOT PHMSA
Mr. Everett Bole, CHMM	U.S. Department of Health and Human Services
Nell Fuller	Conservation and Environmental Program Division, FSA, USDA
NOAA National Marine Fisheries Service	NOAA National Marine Fisheries Service, Dept. of Commerce
Patrick Walsh	National Park Service, DOI
Sentho White	Office of Pipeline Safety USDOT PHMSA
Sharunda Buchanan	National Center for Environmental Health, CDC, HHS

Stephen Finn	Environment and Natural Resources Division, DOJ
Terry L McClung	Bureau of Indian Affairs, DOI
US Department of Interior	U.S. Bureau of Land Management, DOI
Victoria Rutson	Surface Transportation Board, USDOT
William Schoonover	Pipeline & Hazardous Materials Safety Administration USDOT

Tribes

Arnold L. Printup	The Saint Regis Mohawk Tribe
Blair Fink	Delaware Tribe
Bonney Hartley	Stockbridge-Munsee Band of the Mohican Nation of WI
Dr. Joe Stahlman	Seneca Nation of Indians
Erin Thomson-Paden	Delaware Nation
James Quinn	Mohegan Tribe of Indians of Connecticut
John Brown and Doug Harris	Narragansett Indian Tribe
Marissa Turnbull	Mashantucket (Western) Pequot Tribal Nation
Nathan Allison	Stockbridge-Munsee Band of Mohican Indians
Paul Lepsch	Seneca Nation of Indians
Sonnie Allen	Delaware Nation
Susan Bachor	Delaware Tribe
Tony Gonyea	Onondaga Nation

Federal, State, and Local Agencies

Adam Labatore	USACE – New York District
Brian Orzel	USACE – New York District
David Simmons	USFWS – New England
Eliese Dykstra	U.S. Fish and Wildlife Service – New England Field Office
Kevin Kotelly	USACE – New England
Lisa Mike or Gary Wikfors	NOAA NMFS
Noelle Rayman-Metcalf	USFWS – New York
Basil Seggos	Department of Environmental Conservation
Beatriz Milne	CTDEEP – Office of Planning and Progam Development, Commissioner's Office
Brian Baker	NYSDEC – Region 4 – Bureau of Division of Water
Chuck Nieder	NYSDEC – Bureau of Ecosystem Health, Division of Fish and Wildlife
Daniel Mackay	NYS – Office of Parks and Recreation and Historic Preservation
Dawn McKay	CTDEEP – Bureau of Natural Resources, Wildlife Division, Natural Diversity Database

Jason Mulford	NYS – Department of Agriculture & Markets – Division of Agricultural Development
John Rhodes	Department of Public Service
Jonathan Binder, Esq	New York State Dept of Environmental Conservation
Karen Gaidasz	New York State Dept of Environmental Conservation
Katie Dykes	CT Department of Energy and Environmental Protection
Kelly Turturro	NYSDEC – Region 3
Melanie Bachman	Connecticut Siting Council
Robert Messenger	NYSDEC- Bureau of Forest Resource Management, Division of Lands and Forest
Susan Amarello	CTDEEP – Bureau of Air Management, Engineering and Enforcement Division
Cathy Labadia	CT – State Historic Preservation Office
Elizabeth Shapiro	CT – State Historic Preservation Office
Jason DeSousa	Brookfield Fire Department
Jay Purcell	Brookfield Police Department
John Farrell	Greene County Emergency Services
John J. Farrell	West Athens Limestreet Fire Dept
Roger Massey	Village of Athens Police Dept
Ryan Sartori	Dover Fire Department
Wayne Gravius	Brookfield Volunteer Fire Company
Tim Farrell	West Athens Limestreet Fire Dept

Libraries

Christine Angeli	Milford Public Library
Connecticut Post	Hearst Connecticut Media Group
Deane Renda	Whisconier Middle School
David Walker	Columbia University
Joseph W. Foskett, Esq	The Business Council of New York State
Laurie Buckley	Dover Plains Library
Michael Tierney	Dover UFSD
Poughkeepsie Journal	A Gannett Co. Inc. Newspaper
Sam Gruber	D.R. Evarts Library
The Daily Mail	Columbia Greene Media
The News-Times	Hearst Connecticut Media Group
Yvonne Cech	The Brookfield Library

Private Companies and Nongovernmental Organizations

Andrew MacBride	National Grid
Brianna Breault	Breault 2018 Family Trust

C/O Peter Scalzo	42 Hawleyville Rd LLC
Elizabeth W. Whittle, Esq.	Nixon Peabody LLP
Gregory T. Simmons	Cullen and Dykman, LLP
John Allocca	National Grid
Justin Atkins	New York State Electric & Gas Corp
Kenji Takahashi, Asa Hopkins, David White, Shelley Kwok, Nate Garner, & John Rosenkranz	Synapse Energy Economics, Inc.
Kenneth T. Maloney	Cullen and Dykman, LLP
Kimberly A.E. Pritchard	Iroquois Transmission System
Linda Dent	Rochester Gas and Electric Corporation
Patrick Tarmey	National Grid
Samara Jaffe	National Grid
Sebrina M. Greene	Con Edison Co Of New York Inc
JR Deschaine Holding, LLC	
Field Goods Properties LLC	
Greene County IDA	
New Athens Gen Co LLC	
Northeast Treaters of NY LLC	
Village Athens Water	
West Athens Limestreet Fire	
c/o Macricostas Constantine	
Federal National Mortgage Assn	
Cricket Valley Energy Center	
Design Land Developers	
Webster Leasing LLC	
1087 Federal Rd LLC	
20 Whisconier Rd LLC	
Ability Beyond Disabilities	
Alves Landscaping LLC	
Iroquois Gas Transmission	
Iroquois Gas Transmission	
Photronics Conn Inc	
Pinnacle Const Consult	
Presbytery Southern New England	
Prince Properties LLC	
Raj Dominion LLC	
Raymond Estates Assn	
Grays Bridge Partners	
Nemco LLC	
Brookfield North LLC	

Central Dover Development Corp
Duncan Hill LLC
School District # 2
Vincent Charles Gerald Lt
Vincent Hazel Ann Lt
World Olivet Assembly Inc
State of Connecticut
Conn Light & Power Co
Weantinge Hrtge Lnd T Inc
Beard Sand & Gravel Co Inc
Damato Brothers Builders Milford LLC
Damato Investments LLC
Davis Holding Co
Jordan Realty LLC
Milford Land Conservation Trust Inc
615 Plains Rd LLC
Cirque Development LLC
Genvest LLC
Iroquois Gas Transmission
KJC Holdings LLC
Lexington Green W Assoc C/O D A Rich Company
Milford Motorcycle Riders
MRM Holdings LLC
Southern Connecticut Gas
Southern Connecticut Gas
William & Evelyn Balamaci T
McNeil Enterprises Inc C/O Palumbo & Delaura LLC
Palumbo & Delaura LLC
Midtown Trackage Ventures, LLC
Hawleyville Vol Fire Co
Richard H&M J Aylward Ret
USA HUD
557 Plains Realty LLC
Secretary of Housing & Urban Dev
Elker Gail A Meeson Trustee of the BH Elker Trust
The Oblong Land Consrvncy Inc
Central Hudson Gas & Elec
Jeffrey Miller LLC

RMC Classic Realty LLC
Herrab Family LP
LWF LLC
111 Leslie St LLC
Ryders Village Realty
Niagara Mohawk Power Corp
O & G Industries Inc
National Propane LP
Peckham Materials Corp
Coalition to Protect New York
FrackBustersNY
Sierra Club Atlantic Chapter
Institute for Policy Integrity, New York University School of Law

Stakeholders

A Edward Kozel
Adam Stash
Ahsan Z Qazi
Alan Russo
Albert F Fournier
Albert G. Sunman
Aleksandar Satara
Alfred D Fusco
Alfred J. Abbot, AKA Albert J.
Allen Raiano
Alphonse Ippolito, Trustee
Alton T Terrell
Amir Khan
Amory Susco
Andrea Mullen
Andrew & Courney Litowitz & Surv
Andrew B Cochrane
Andrew Pereira
Andrew S Pacuk
Ann D Kelly
Anna Tamborino
Anne L Grutkowski
Ante Jelaska
Anthony Barone
Anthony Biasetti
Anthony Ferrara
Anthony Fossum
Anthony G Arslan
Anthony Hernandez
Anthony Iannone
Anthony Nejame
Antonio Liburdi
Antonios Pafalis
Arlene A Jacopian
Arthur B Gruber
Arthur N Gravenhorst
Arthur Webster, Jr. and Carol Webster
Ashish C Soman
Astride M Soares
Atilio Medina
Aurelia V Michelson
Azeez Bhavnagarwala
Aziz Seyal
Barbara Burns
Barbara F Stone
Barbara J Colber
Barbara M Adler
Barbara M Levy
Barbara Malachowski
Barbara Montague
Barbara Orlando
Barbara R Szepesi
Ben Lepore
Benjamin Jordan
Bernard Hample
Betsy E Anderson
Bill Tran
Bradford H Elker
Bradford M Fallon
Bradley Gutcheon
Bradley K Sanchez
Bradley Koch
Brian A Falkenstein
Brian R Garten
Brian White
Brodie
Brook Hardy
Bruce H Nantel
Bruno Ricci and Mary Ellen May-Ricci
Bryan D Luizzi
Bryan Kendall
Bryan Woodhouse
Cari Gardner
Carl V Johnson
Carla Armistread
Carmine J. Salter
Carol J Peters
Carolyn M Butler
Catherine Adiletta
Catia Ferraz
Charles A Lippi
Charles E. Vincent
Charles Ford
Charles Vanzanten
Charles W Moores
Christine Vincent
Christopher & Lori A. Vincent
Christopher Darco
Christopher Vincent & Steven P. Vincent
Claude Dedrick
Clifford Schorr
Connie S Summerlin
Constance R Arcobello
Courtney E Peck
Craig Mulcahy
Cristina M Sinanian
Current Resident
Current Resident
Curtis William Fox
Daniel Afonso
Daniel Iesu
Daniel Leniart
Daniel Murphy
Daryn L. Gast & Diana M. Gast
David C Gray
David Cacace
David Gold
David Guernsey
David J Yi
David L Broughton
David Pelle
David R Dubret
David S Stowe
David Seifer

Deane D Schultz

Deborah Gurney
Deirdre A Healey
Demetra N Ballas
Dennis L Slavin
Dennis Sandberg
Diana Lisi
Diana Steigauf
Diana Strablow
Dianne Sefcik
Donald C Morris
Donald E Quinsland
Donald Gardner
Donald H Luth
Donald Healy
Donald L. Smith
Donna Hepburn
Donna J. Simmons
Dorothy A Smulley
E Dennis Deloughy
E Dennis Deloughy
Edmund H Baulsir
Eduardo Carrera
Edward Brill
Edward D Obrien
Edward F Moran
Edward J & Barbara J Pavelko & Surv
Edward Seferian
Edwina Dizenzo
Elisabeth A. Ellingsen
Elizabeth A Kennedy
Elizabeth Enders
Elizabeth L Turner
Emma B Pavao
Emma Rodriguez
Enio Albuquerque
Eric Busch
Eric P Gustavson
Eric Weitz
Erik Hovdestad

Ernest A Dubois
Estella Jackson
Esther B Watstein
Esther Ruotolo
Evangelia Krasinski
F Mitchell Dana
Fiat Islami
Frances M. Gaines
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Fred Smithhauser
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Geraldine Genovese
Gerard Noel
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Gina A Bulkley
Gon Yen Shen
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Guildo J. Lepage
Guy Metz
Harold J Allison
Harold Stanley
Harry J Garafalo
Heather Nimsger
Helen Kobee
Horst Lentz
Howard M Winkler
Howard Towers
Ilona Kamaran
Irene Capozziello
Irene H Capozziello

Iris Dougherty

J Morgan Pasicki
Jacqueline S. & Brian Pineau & Surv
James B Austin Jr & Bridget A Austin & Surv
James Baker
James Chacho
James Chizmadia
James Edery
James F Repasi
James Haskins
James Hudak
James M Glynn
James Ruopp
James Sliech
James V Mallico
James W Lash
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Jane F Norgren
Jane Sinnott
Jane T Montgomery
Janet A Arsenault
Janie A Balak
Jeannette J Meister
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Jeffrey D Larson
Jeffrey Dalton
Jeffrey H Kornblut
Jeffrey Honeck
Jennifer L McNellis
Jennifer L Ward
Jennifer M Delaney
Jennifer McCoy
Jerald M Simon
Jerry G Salese
Jesse R Goode
Jill M Signore
Joan C Giudice
Joanne Kilgore
Joe Arconti
Joe Niedermeyer

Joe Vettorino
John & Teresa Turchiano
John Callanta
John Cusmano
John D Mitchell
John Dalessandro
John Deschaine
John E Scharfenberg
John F Temple
John Fox
John Gerlach
John Gillis
John J Henchy
John Kravarik
John M Matern
John Modzelewski
John Nowicki
John Pitt
John Rocco
John Styranovski
John Vandevender
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Jonathan Gallo
Jonathan H Hausman
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Joseph Kline
Joseph Kruszewski
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Joseph P Halloran
Joseph P. Cardinale
Joshua Drumm
Joshua J Yurcisin
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Jules A Martin
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Julie M Costella
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Justin Ponte
Justin Snow
Kaeley Blum
Karen Harrington
Karen Reiss
Karen Wolff
Karl D Hargrave
Katherine E Cordova
Kathie Sabel
Kathleen D Schock
Kathleen Gilligan
Kathleen Mulligan
Kathryn L Bogie
Keith Vienneau
Keith W. Schue
Kelly Sullivan
Kenneth Brennan
Kenneth F Sumner
Kenneth Kolwicz
Kenneth M Lynch
Kenneth Warner
Kennis Koldewyn
Kevin J Cullen
Kevin Russell
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Kimberly A Andrade
Kimberly C Viera & James Wasco & Surv
Kirk L Knudsen
Kylee Ferrara
Laura Heinlein
Laura Parker
Laura Pinto-Silver
Laurie S. Delgado
Lawrence Butler
Lawrence W Grant
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Lenard Lo Frisco
Leo J Basbagill
Leonard J Joudy
Liane V & Peter F Connors & Surv
Linda Camposano
Linda Dangelo
Linda Einczig
Linda L Newlan
Lisa M Ballas
Livio Faustini
Lois R. Martin
Lois Schneider
Loreto P Fuentes
Lori A Jorgensen
Lucian A Terranova
Lucille G Marottolo
Lynda Vincent
Lynn M Luchetti
Manharbhai Patel
Marcia Lynn Taylor
Marco Domingos
Marcus Irrek
Margaret H Gardella
Marie Erodici
Marie G Fiora
Marie Williams
Marilyn Rennagel
Mario Avellino
Mario Castiello
Mark E Breslin
Mark Matson
Mark Mockovak
Mark Prochorenko
Mark S Rose
Mark Velez & Lori Phillips & Surv.
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Martin F Doris
Martin Ogden
Martin Rader
Martin Sbriglio
Mary E Scrivines
Mary Hoag
Mary L Hastings
Maryann Kubilus
Marylou Thompson
Matthew Colucci
Matthew Vienneau

Mau Lou
Maureen G Dinardo
Max Nirenberg
Mei Hui Wang
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Michael E Kopp
Michael F Sagnelli
Michael Ferro
Michael Gillotti
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Michael Lennon
Michael Manna
Michael Monahan
Michael Rosnick
Michael S Perrotti
Michael Sabbarese
Michael T Pacelli
Michael Taguiam
Michael Veeder
Michael Volpe
Michael W Logan
Michael W Zancewicz
Michael Woronick
Monica C Dellacroce
Monica Roberts
Nancy Lavoie
Neil F Kurkjy
Nelson J Rodriguez
Nicholas J Sarullo
Nirmal Uppalapati
Nora V Lundquist
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Okchin Pivarnik
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Panuong Lisawat
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Patrick Smith
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Paul A Swanson
Paul Cumberton
Paul D Yukna
Paul F Goglia
Paul Lukomski
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Peter Cavallaro
Peter D Jenny
Peter Glen
Peter M. Chast
Peter Trapani
Peter Wilkes
Peter Willey
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Philip S Santos
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Priscilla Garamella
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Rajhi Patel
Rajiv Gupta
Raju Punjabi
Ralph A Yarosh
Ralph Porto
Ralph Scofield
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Richard Morrical
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Rita Rizza
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Robert J Orner
Robert J Ward
Robert J. Weitzel
Robert Litchko
Robert M Andel
Robert M Saymon
Robert S Pagano
Robert S Zawadski
Robert W Mazzone
Robert W Pickering
Robert Yance
Roberto A Longo
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Rory J Thompson
Rose C Picarazzi
Ruben Wind
Rudolph Testa
Ryan A Singer
Sabrina P Coito
Sal Fertucci
Sally Ann Conroy
Sandra M Cabrera

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Scott L Reilly
Scott Pomponio
Scott W Senete

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Shannon Crosley
Sharon Fitzpatrick
Sherry Blank
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Stacy & Jonathan Capobianco
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Stanley W Stanford
Stephanie Desouza
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Stephen A Burroughs
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Stephen Cross
Stephen Degaray
Stephen Kohlhase
Steve Jarvis
Steven P. and Jaime E. Vincent
Steven Pires
Sueli Monteiro
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Susan Tropeano
Taesoo Moon
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Thayam Gopalakrishna
Theodore E Felker
Theresa B Mihalov
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Therese M Napoli
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Thomas A Velky
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Thomas J Bender
Thomas J Voytek

Thomas Marshall
Thomas Renna
Thomas Vazzano
Tim Mcmullin

Timothy Adam
Timothy G Arsenault
Timothy J Murray
Timothy M. Grivalsky
Timothy Williams
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Tova Clayman
Traci L. Gabaree
Trenton Foster
Trevor Ryan Wakeley
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Victor L Konyago
Victoria Duel
Victoria Gocci
Vilma M Zloe
Vincent Savona
Virginia Deluca
Virginia E Turnbull
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W Gordon-Petremont
W.A. Vincent
Walter R Purcell
Warren Eddy
Warren F Malkin
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Wayne V Rogalski
Wendy Blair
Wilhelm Matty
William A Hlavac
William Contaxis
William Dorsey
William Giovanni
William J Johnston
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William M. Kirkpatrick
Yvonne Crosby