PRELIMINARY SCOPING STATEMENT

Danskammer Energy Center

Town of Newburgh
Orange County, New York

Case No.: 18-F-0325

Prepared for:

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AADT	Annual Average Daily Traffic
ACC	Air-cooled condensers
amsl	Above Mean Sea Level
APE	Area of Potential Effect
AQRV	Air Quality Related Values
BACT	Best Available Control Technology
Bgs	Below Ground Surface
BMP	Best Management Practices
BPIPPRM	USEPA Building Profile Input Program for PRIME
ºC	Degrees Celsius
CA	Comparison Areas
CAA	Clean Air Act
CAAA	Clean Air Act Amendments
CEMS	Continuous Emission Monitoring System
Certificate	Certificate of Environmental Compatibility and Public Need
CFR	Code of Federal Regulations
CMP	Coastal Management Program
CO	Carbon monoxide
CO_2	Carbon dioxide
Code	Code of Town of Newburgh
CRIS	Cultural Resources Information System
CSAPR	Cross State Air Pollution Rule
CSX	CSX Transportation
CT	Combustion Turbine
CTG	Combustion Turbine Generator
CWA	Clean Water Act
CZMA	Coastal Zone Management Act
Danskammer	Danskammer Energy, LLC
Danskammer Energy	Danskammer Energy, LLC
dB	Decibels

dBA	A-weighted decibels
DCS	Distributed Control System
DMM	Document and Matter Management
DPW	Department of Public Works
ECL	Environmental Conservation Law
EIS	Environmental Impact Statement
EJ	Environmental Justice
EJAIA	Environmental Justice Air Impact Area
EM&CP	Environmental Management & Construction Plan
EMF	Electric and magnetic fields
EMP	Environmental Monitoring Plan
EO	Executive Order
EPC	Engineering, Procurement, and Construction
ERC	Emission Reduction Credits
ESA	Endangered Species Act
ºF	Degrees Fahrenheit
FAA	Federal Aviation Administration
FCC	Federal Communications Commission
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FRP	Facility Response Plan
ft	Feet
GEP	Good Engineering Practice
GHG	Greenhouse Gas
GIS	Geographic Information System
GPM	Gallons Per Minute
GPS	Global Positioning System
GSU	Generator step-up
HAP	Hazardous Air Pollutant
HASP	Health and Safety Plan
HRSG	Heat Recovery Steam Generator
ICNIRP	International Commission on Non-Ionizing Radiation Protection
I-District	Industrial District
IE	Ion Exchange
Interim Policy	Statement of Interim Policy on Magnetic Fields of Major Electric Transmission Facilities

IPAC	Information Planning and Conservation
ISA	Impact Study Area
kV	Kilovolts
LAER	Lowest Achievable Emissions Rate
lb	pounds
LiDAR	Light Detection and Ranging
LOS	Level of Service
LSZ	Landscape Similarity Zones
LWRP	Local Waterfront Revitalization Plans
$\mu g/m^3$	Micrograms per cubic meter
MOSF	Major Oil Storage Facility
Mph	Miles Per Hour
MW	Megawatt
MWh	Megawatt Hour
NAAQS	National Ambient Air Quality Standards
National Register	National Register of Historic Places
NFPA	National Fire Protection Association
NHP	Natural Heritage Program
NHPA	National Historic Preservation Act
NIA	Noise Impact Analysis
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NO_2	Nitrogen Dioxide
NOx	Nitrous Oxides
NPDES	National Pollutant Discharge Elimination System
NPL	Superfund National Priorities List
NPS	National Park Service
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NSPS	New Source Performance Standards
NSR	New Source Review
NTIA	National Telecommunications and Information Administration
NWI	National Wetlands Inventory
NYAAQS	New York Ambient Air Quality Standards
NYS	New York State

NYCRR	New York Code of Rules and Regulations
NYHPA	New York Historic Preservation Act
NYISO	New York Independent System Operator
NYNHP	New York Natural Heritage Program
NYOGS	New York State Office of General Services
NYPA	New York Power Authority
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
NYSDOL	New York State Department of Labor
NYSDOS	New York State Department of State
NYSDOT	New York State Department of Transportation
NYSDPS	New York State Department of Public Service
NYSM	New York State Museum
NYSOPRHP	New York State Office of Parks, Recreation and Historic Preservation
NYSPSC	New York State Public Service Commission
O_3	Ozone
OATT	Open Access Transmission Tariff
O&M	Operations and Maintenance
OCIDA	Orange County Industrial Development Authority
OEM	Original Equipment Manufacturer
OPRHP	Office of Parks, Recreation and Historic Preservation
%PGA	Percent Peak Ground Acceleration
PILOT	Payment in Lieu of Tax
PIP	Public Information Plan
Plan	New York State Energy Plan
PM10	Particulate Matter (10 micrometers or less)
PM2.5	Particulate Matter (less than 2.5 micrometers)
POI	Point of Interconnection
ppb	Parts per billion
ppm	Parts per million
ppt	Parts per trillion
PSD	Prevention of Significant Deterioration
PSL	Public Service Law
PSS	Preliminary Scoping Statement
RACT	Reasonably Available Control Technology

RCRA	Resource Conservation and Recovery Act
REV	New York's Reforming Energy Vision initiative
RGGI	Regional Greenhouse Gas Initiative
RM	River mile
RMP	Risk Management Program
RO	Reverse Osmosis
RPS	Renewable Portfolio Standard
SASS	Scenic Area of Statewide Significance
SAV	Submerged Aquatic Vegetation
SCFWH	Significant Coastal Fish and Wildlife Habitat
SCR	Selective Catalytic Reduction
SEQRA	State Environmental Quality Review Act
SER	Significant Emission Rates
SHPA	State Historic Preservation Act
SHPO	State Historic Preservation Office
SHWS	State Hazardous Waste Sites
SILs	Significant Impact Levels
SIP	Sate Implementation Plan
Siting Board	New York State Board on Electric Generation Siting and the Environment
SLM	Sound Level Meter
SO_2	Sulfur Dioxide
SPCCP	Spill Prevention Control and Countermeasures Plan
SPDES	State Pollutant Discharge Elimination System
SPL	Sound Pressure Level
SPR	Spill Prevention Report
SRIS	System Reliability Impact Study
SRHP	New York State Register of Historic Places
Station	Existing Danskammer Generating Station
STG	Steam Turbine Generator
SWMF	Solid Waste Management Facility
SWPPP	Storm Water Pollution Prevention Plan
the Project	Danskammer Energy Center
tpy	Tons per Year
TRC	TRC Environmental Corporation
TRIS	Toxic Release Inventory System

TSCA	Toxic Substances Control Act
ULSD	Ultra-Low Sulfur Diesel
UPA	Uniform Procedures Act
USACE	United States Army Corps of Engineers
USCG	United States Coast Guard
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VCP	Voluntary Cleanup Program
VFW	Veterans of Foreign Wars
VIA	Visual Impact Analysis
VOCs	Volatile Organic Compounds
WHO	World Health Organization
WMA	Wildlife Management Area
WQC	Water Quality Certificate
WRCRA	New York Waterfront Revitalization and Coastal Resources Act
%	Percent
§	Section

1.0 PROJECT INFORMATION

1.1 Introduction of Applicant and Their Property Rights and Interests

The applicant, Danskammer Energy, LLC ("Danskammer Energy" or "Danskammer"), is proposing to repower its existing 532 megawatt ("MW") (nameplate capacity) generating facility (the "Danskammer Generating Station" or the "Station") located in the Town of Newburgh, Orange County, New York with a state-of-the-art natural gas fired combined cycle power generation facility with a net capacity of approximately 536 MW (the "Project"). Danskammer Energy owns and operates the existing Station, which currently operates as a peaking facility for the region. The existing Station is connected to the Central Hudson 115 kilovolt ("kV") transmission system and has provided energy and capacity in the lower Hudson Valley for more than 50 years.

Danskammer Energy is a Delaware limited liability company that was formed in November 2013 as a special purpose entity to own and operate the existing Danskammer Generating Station. The ownership interests in Danskammer Energy were acquired from Mercuria Energy in December 2017 by Danskammer Holdings, LLC, a Delaware limited liability company formed in September 2017. Information regarding the ownership of Danskammer Energy will be set forth in detail in Exhibit 1 of the application being submitted pursuant to Article 10 of the PSL (the "Article 10 Application") and as required by 16 NYCRR § 1001.1. Danskammer Energy does not have, nor has it sought, the power of eminent domain, either directly or indirectly. The principals of Danskammer Energy have made over $15 billion in energy investments; developed, financed, or constructed approximately 15,000 MW of renewable and conventional power generation facilities; managed over 17,500 MW of power capacity; and are experienced in developing, acquiring, and managing investments in the power sector.

Danskammer Energy intends to submit an Article 10 Application for approval to construct the Project as a major electric generating facility and receive a Certificate of Environmental Compatibility and Public Need. Pursuant to the rules of the New York State Board on Electric Generation Siting and the Environment (the "Siting Board"), applicants proposing to submit an Article 10 Application must submit a Preliminary Scoping Statement ("PSS"). This document represents the PSS for the repowering Project, known as the Danskammer Generating Energy

Center, and is intended to satisfy the filing requirements set forth in the Article 10 regulations at 16 NYCRR §1000.5(l).

This PSS document sets forth reasonably available information that meets the requirements of 16 NYCRR §1000.5(l), including, among other things, a description of the proposed Project and the Project site, the existing environment conditions, and an identification of the proposed methodology or scope of the studies that will be conducted in support of each Exhibit of the Article 10 Application. For ease of reference, and to demonstrate compliance with 16 NYCRR §1000.5(l) and that the requisite information has been provided regarding the methodology or scope to be utilized for each Exhibit of the Article 10 Application, below is a cross-reference table, Table 1.1-1, that can be used as a road map for this PSS document. Table 1.1-1 cross-references each of the required Article 10 Application Exhibits, as well as each requirement set forth in 16 NYCRR §1000.5(l), with the corresponding section(s) of this PSS document. For those Article 10 Exhibits or 16 NYCRR §1000.5(l) requirements that are not applicable to this Project, it is so noted in Table 1.1-1.

Table 1.1-1. Cross-Reference Table

Article 10 Application Exhibit	Corresponding Section of the Danskammer Energy Center PSS
Exhibit 1, General Requirements	Section 1.1
Exhibit 2, Overview and Public Involvement	Sections 1.2-1.3, 1.7
Exhibit 3, Location of Facilities	Section 2.1
Exhibit 4, Land Use	Section 3.1
Exhibit 5, Electric System Effects	Section 2.10
Exhibit 6, Wind Power Facilities	Not applicable to this Project
Exhibit 7, Natural Gas Power Facilities	Section 2.7
Exhibit 8, Electric System Production Modeling	Section 8.0
Exhibit 9, Alternatives	Section 4.0
Exhibit 10, Consistency with Energy Planning Objectives	Section 1.4
Exhibit 11, Preliminary Design Drawings	Section 2.4

Article 10 Application Exhibit	Corresponding Section of the Danskammer Energy Center PSS
Exhibit 12, Construction	Section 2.14
Exhibit 13, Real Property	Sections 1.5, 2.1
Exhibit 14, Cost of Facilities	Section 2.15
Exhibit 15, Public Health and Safety	Section 3.2
Exhibit 16, Pollution Control Facilities	Sections 2.5, 2.13
Exhibit 17, Air Emissions	Section 3.3
Exhibit 18, Safety and Security	Section 2.11
Exhibit 19, Noise and Vibration	Section 3.4
Exhibit 20, Cultural Resources	Section 3.5
Exhibit 21, Geology, Seismology and Soils	Section 3.6
Exhibit 22, Terrestrial Ecology and Wetlands	Section 3.7
Exhibit 23, Water Resources and Aquatic Ecology	Section 3.8
Exhibit 24, Visual Impacts	Section 3.9
Exhibit 25, Effect on Transportation	Section 3.10
Exhibit 26, Effect on Communications	Section 3.11
Exhibit 27, Socioeconomic Effects	Section 5.0
Exhibit 28, Environmental Justice	Section 5.0
Exhibit 29, Site Restoration and Decommissioning	Section 2.16
Exhibit 30, Nuclear Facilities	Not applicable to this Project
Exhibit 31, Local Laws and Ordinances	Section 6.0
Exhibit 32, State Laws and Regulations	Section 6.0
Exhibit 33, Other Applications and Filings	Section 6.0
Exhibit 34, Electric Interconnection	Section 2.10
Exhibit 35, Electric and Magnetic Fields	Section 9.0
Exhibit 36, Gas Interconnection	Section 2.7
Exhibit 37, Back-Up Fuel	Section 2.7

Article 10 Application Exhibit	Corresponding Section of the Danskammer Energy Center PSS
Exhibit 38, Water Interconnection	Section 2.6
Exhibit 39, Wastewater Interconnection	Section 2.6
Exhibit 40, Telecommunications Interconnection	Section 2.10
Exhibit 41, Applications to Modify or Build Adjacent	Not applicable to this Project
16 NYCRR §1000.5(l) Requirements	**Corresponding Section of the Danskammer Energy Center PSS**
1000.5(l)(1) (reasonably available information regarding the Project)	Sections 1.2, 2.0 (including all subsections)
1000.5(l)(2) (preliminary scope of environmental impact analysis)	Section 3.0 (including all subsections)
1000.5(l)(2)(i) (brief description of proposed Project and its environmental setting)	Sections 1.2, 1.6, 2.0 (including all subsections), Sections 3.0 (with each subsection addressing the environmental setting/existing conditions for each environmental and health resource identified)
1000.5(l)(2)(ii) (potentially significant adverse environmental and health impacts resulting from the construction and operation of the Project)	Section 3.0 (with each subsection addressing a different potentially significant adverse environmental and health impact resulting from the Project)
1000.5(l)(2)(iii) (extent and quality of information needed to asses each potentially significant adverse environmental and health impact)	Section 3.0 (with each subsection addressing the extent and qualify of information needed to assess each potentially significant adverse environmental and health impact resulting from the Project)
1000.5(l)(2)(iv) (for wind-powered facilities)	Not applicable to this Project
1000.5(l)(2)(v) (proposals for avoiding potential adverse environmental and health impacts)	Section 3.0 (with each subsection addressing the preliminary proposals for avoiding each potentially significant adverse environmental and health impact resulting from the Project)

Article 10 Application Exhibit	Corresponding Section of the Danskammer Energy Center PSS
1000.5(l)(2)(vi) (proposals for mitigating potential adverse environmental and health impacts)	Section 3.0 (with each subsection addressing the preliminary proposals for mitigating each potentially significant adverse environmental and health impact resulting from the Project)
1000.5(l)(2)(vii) (sufficiency of on-site fuel storage capacity and supply)	Section 2.7
1000.5(l)(2)(viii) (reasonable and available alternative locations)	Section 4.0
1000.5(l)(2)(ix) (consistency with NYS coastal management program)	Sections 3.1, 6.6
1000.5(l)(2)(x) (statement as to why primary proposed location and source are best suited for Project)	Section 4.0
1000.5(l)(2)(xi) (preliminary evaluation of demographic, economic and physical attributes of community comprising Project site and preliminary environmental justice evaluation)	Section 5.0
1000.5(l)(2)(xii) (any other material issues raised by the public and affected agencies)	Section 1.7.5
1000.5(l)(3) (all other state and federal permits, certifications and authorizations needed for Project)	Sections 6.2, 6.3, 6.4
1000.5(l)(4) (all state laws and regulations applicable to the Project)	Sections 6.2, 6.4
1000.5(l)(5) (all local laws and regulations applicable to the Project)	Sections 6.2, 6.5
1000.5(l)(6) (a description of the applicant, its formation, status, structure, et al.)	Section 1.1
1000.5(l)(7) (a description of the applicant's property rights and interests)	Sections 1.5, 2.1
1000.5(l)(8) (any other information the applicant deems relevant)	This information is presented throughout the PSS

1.2 Brief Description of the Proposed Project

Danskammer Energy is proposing to repower its Danskammer Generating Station located in the Town of Newburgh, Orange County, New York. The location of the Project site is depicted on New York State Department of Transportation and U.S. Geological Service mapping in Figures 1.2-1 and 1.2-2, respectively, and is described in further detail in Section 2, Project Description. Figure 1.2-3 is an aerial photograph of the site portraying the existing Station, general redevelopment site boundaries, and adjacent land use. The proposed repowering will result in a new modern energy center at the existing site through the installation of a new, state-of-the art electric generator. The new Project facility, to be named the Danskammer Energy Center, will provide a more efficient and cost effective facility to produce electricity while reducing existing environmental impacts on the surrounding communities and providing tax and other local benefits into the future. Once approved, the Project will also provide numerous jobs during the construction period.

Figure 1.2-1. Site Location Map – New York State Department of Transportation

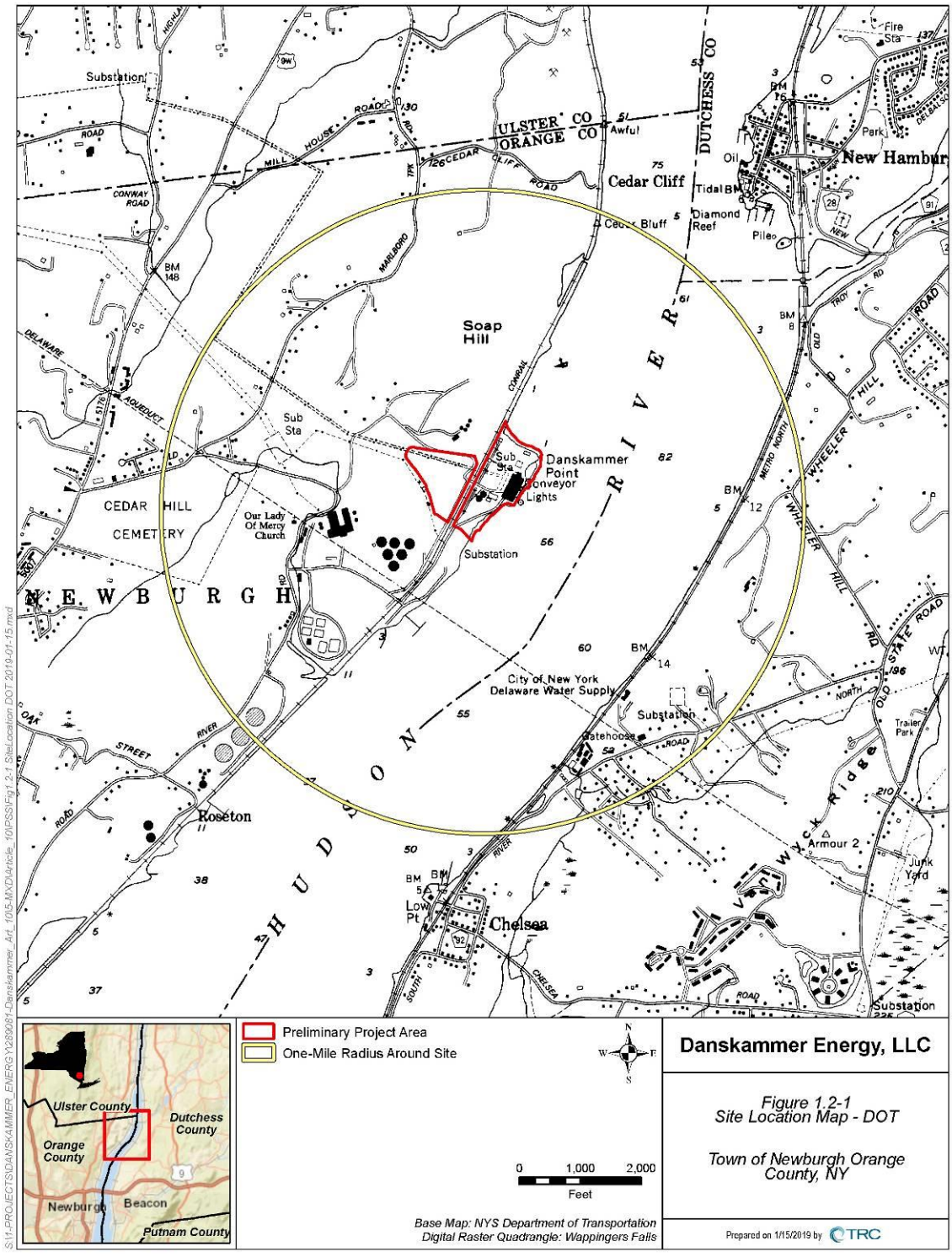


Figure 1.2-2. Site Location Map – US Geological Service

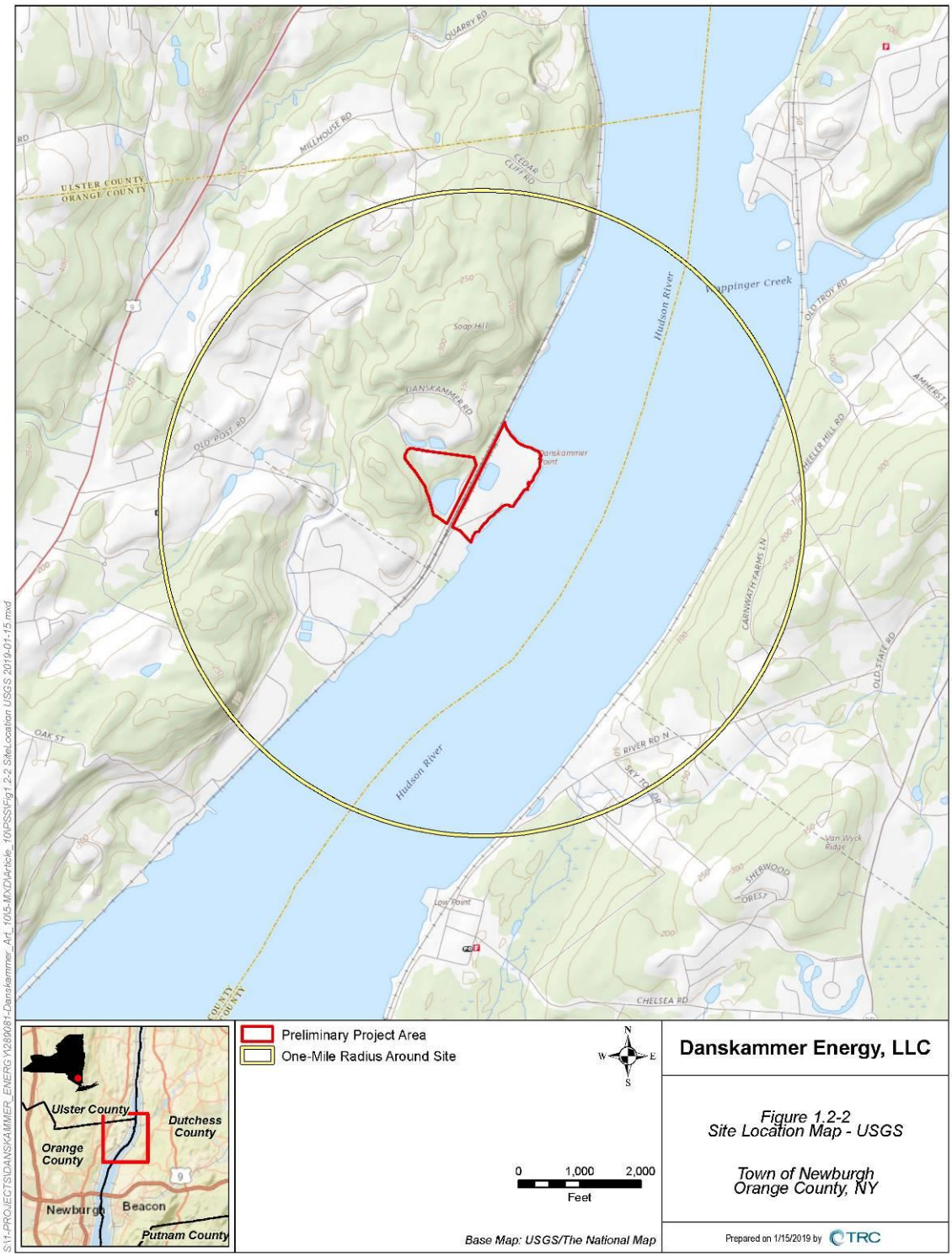


Figure 1.2-3 Site Aerial

Combined Cycle Development

Danskammer Energy is evaluating the development of a new combined cycle generation facility that will have a nameplate capacity, per the manufacturer design, of 636.4 MW, but that is anticipated to operate at a 536 net MW optimal baseload output across a range of ambient temperatures and conditions, including summer output conditions when market demand is greatest. The Project facility will also incorporate the ability (supplemental firing) to provide additional peaking output to potentially ramp up to as much as but no more than 600 net MW to meet the market demands, or support variations in generation from renewable resources. The Project facility's operations will be limited to its maximum net output of 600 MW due to several limiting factors (see Section 2 – Project Description for additional information). The proposed combined cycle facility design would include the following:

- 1x1 configuration utilizing one (1) J-class technology combustion turbine generator ("CTG") and one steam turbine generator ("STG");
- Natural gas will be utilized as the primary fuel with provisions to use ultra-low sulfur diesel ("ULSD") fuel oil for up to 30 days/year as a back-up fuel;
- To accommodate short-term operation on distillate oil, the proposed combined cycle facility will include approximately 5 days of on-site fuel oil storage;
- Air-cooled condensers ("ACC") to minimize water usage and eliminate existing aquatic impacts by removing the need for once through cooling; and,
- Selective catalytic reduction technology ("SCR") to control oxides of nitrogen ("NOx") and an oxidation catalyst to control carbon monoxide ("CO") and volatile organic compound ("VOC") emissions, respectively.

A composite site plan showing the anticipated location of the combined cycle development at the Danskammer site is provided as Figure 1.2-3.

1.3 Project Purpose and Benefits

The Project will result in numerous benefits to the economies and environment of both the Town of Newburgh and Orange County as well as all of the lower Hudson Valley. The Danskammer Energy Center will utilize state-of-the-art technology for emission controls and reliable generation. It will be constructed on an existing generation property and replace an aging facility. The proposed Project will improve generation efficiency since the heat rate will be amongst the lowest heat rates for combined cycle combustion turbine projects. The Project

facility will include the ability to start and ramp quickly and include significant turn-down capability, allowing for efficiently meeting market demands now and in the future as renewable generation increases. Emissions from the Project on a per megawatt-hour basis could be over 40% lower than the existing Station and carbon emissions from the Project could be as low as 50% of recently proposed limits by the New York State Department of Environmental Conservation ("NYSDEC") for existing power plants. Natural gas will be utilized as a primary fuel and ULSD will be used as a back-up fuel, if needed for emergency and reliability reasons. Construction of the Project facility will create hundreds of construction jobs and will continue to provide property tax and other benefits to the local community. Finally, the Project will eliminate the use of a "once-through" cooling system at the existing Station and the associated water withdrawal from the Hudson River.

1.4 Consistency with Energy Planning Objectives

1.4.1 New York State Energy Plan

Article 6 of New York State's Energy Law requires the State Energy Board to adopt a State Energy Plan ("Plan") every four years. The Plan provides broad policy direction to guide energy related decision-making in the public and private sectors within New York State and a focus on meeting future energy needs while balancing reliability, cost, environmental and public health impacts, and economic growth. The most recent Plan, adopted in 2015, contains a series of policy objectives and coordinates with New York's Reforming Energy Vision ("REV") initiative and the objectives to increase renewable energy sources in New York and to significantly reduce greenhouse gas ("GHG") emissions while stabilizing energy costs. The Plan also calls for energy infrastructure modernization within New York, among other things.

The Plan sets the ambitious target of having 50% of the state's electricity generation come from renewable energy sources by 2030. However, renewable power generation is intermittent. Power sources, such as wind and solar facilities, do not produce power 24 hours a day and therefore cannot be relied upon to fully meet demand when demand spikes. In order to thrive, these renewable power sources require the support of electricity sources that can activate quickly when the sun is not shining and when the wind is not blowing. The Project is expected to operate as a baseload facility due to its efficient operating cost structure and is specifically

designed to provide the flexibility in dispatch that will be increasingly required to maintain reliability as the portion of New York's electricity supplies generated from renewable resources increases.

The Plan has also set ambitious GHG reduction goals. The state has mandated a 40% reduction in GHG emissions, from 1990 levels, by 2030. In order to achieve this goal, the state's existing fleet of generators must become more efficient. More efficient facilities create fewer GHG emissions per megawatt-hour produced. The Project is specifically designed to drive this efficiency. The Project will be one of the most efficient facilities of its kind in the State of New York and will be significantly more efficient than the existing Danskammer Generating Station. In fact, the Project's heat rate will be among the lowest for combined-cycle-combustion turbine projects, which means less fuel is combusted to produce a given amount of electric power output. Carbon emissions from the project could be as low as 50% of the NYSDEC's recently proposed limits for existing power plants.

In furtherance of the Plan's goal of modernizing the State's energy infrastructure, the new, more-efficient Project will displace higher-emitting and higher-cost generation. The new Project facility can achieve this because it will be one of the most efficient natural gas fired power plants in New York State and will utilize state-of-the-art technology to minimize emissions and create a highly efficient baseload generating facility with operational flexibility to be responsive to real-world market conditions.

The Project will help New York State achieve its 2030 greenhouse gas reduction and renewable energy production goals. Furthermore, the Project facility's design reduces water consumption, air emissions per megawatt-hour produced and potential aquatic impacts. The natural gas-fired power facility will generate enough power for more than a half million New York homes.

1.5 Project Location and Site History

The proposed Project will be located entirely within the existing approximately 180-acre Danskammer-owned property. The proposed Project site, comprised of approximately 45 acres and located entirely within the Danskammer-owned property, is located on Danskammer Road in

the Town of Newburgh, New York. The location of the proposed Project site is indicated on the site location maps previously provided as Figures 1.2-1 and 1.2-2, respectively.

A site map and site aerial photography showing the physical layout of the existing Station, general Project site boundaries, and adjacent land use is provided as Figures 1.2-3. The entire Danskammer-owned property is bordered to the northwest by the Tilcon Materials Inc. quarry and the Hudson River to the northeast, to the east by the Hudson River, and to the south by Riverview Power, LLC's Roseton Generating Station. The CSX Transportation ("CSX") rail road tracks transect the eastern portion of the Project site (west of the plant) in a northwest/southeast orientation, to the west by a single story house and Danskammer Road. Central Hudson Gas & Electric owns the lands west of Danskammer Road up to the security gate entrance area.

The existing Danskammer Generating Station has four (4) operating boilers with a combined nameplate rating of 532 MW. Two (2) of the boilers (Units 1 and 2) utilize natural gas as the primary fuel source with low sulfur #6 oil as a back-up. They began commercial operation in 1951 and 1954, respectively. The other two (2) boilers (Units 3 and 4) operate exclusively on natural gas and began operation in 1959 and 1967, respectively. These units are cooled by a once-through system that draws water from the Hudson River and discharges heated water back to the Hudson River. There is one (1) No. 6 fuel oil storage tank with a capacity of approximately 610,112 gallons. There are two (2) active wastewater treatment facilities located on the northeastern portion of the Danskammer-owned property. The northwestern area of the Danskammer-owned property is a New York State permitted Danskammer plant coal ash landfill. One (1) sewage treatment facility is located at the southeast corner of the Danskammer-owned property. The southwestern area of the Danskammer-owned property is primarily undeveloped except for the New York Power Authority ("NYPA") transmission lines running through the site to the NYPA substation, which borders the southeastern property owned by Danskammer.

1.6 Overview of Environmental Setting

The Project site is located on the western shore of the Hudson River at River Mile ("RM") 66 and approximately 4 miles north of the Newburgh-Beacon Bridge. In this area of the Hudson

River, the river is determined to be an estuary because salt water from the ocean combines with freshwater from northern tributaries. The Hudson River in the immediate vicinity of Danskammer is about 4,000 feet wide and 50 feet deep on average. The Project site is located on the northern portion of an area known as Newburgh Bay that is up to 1 mile wide just south of the site. The site is located within the salt-intruded reach of the Hudson River Estuary only when fresh water flow is low for extended time periods. Salinity in this area rarely exceeds 2 parts per trillion ("ppt").

Orange County is comprised of mostly suburban communities whose primary land use is single-family residential. The land use patterns throughout the local areas around the general region of the Project site are largely residential, agricultural and open space with pockets of commercial and industrial development especially along major transportation corridors.

Predominant land uses surrounding the Project site include industrial, residential, and commercial, with the eastern border comprised of the Hudson River. Within a half-mile of the Project site, the land use is industrial, including the adjoining Roseton Generating Station, and there is one residential home, which is located along the northwest corner of the Danskammer property is approximately 2,000 feet from the Project site. Within one mile of the Project site, there is a scattering of residential and commercial buildings, the Cedar Hill Cemetery, and vacant land.

The existing use of the Project site is for an electric generating facility. Danskammer Energy holds a currently valid Title V operating air permit issued by the NYSDEC as well as other applicable federal, state and local approvals and licenses required to operate the existing generating facility, including a State Pollutant Discharge Elimination System ("SPDES") permit and a NYSDEC Major Oil Storage Facility ("MOSF") License.

The preliminary scope with respect to the potential environmental impacts of the Project, including a description of the current environmental setting and the studies that will be performed and included as part of the Article 10 Application, has been provided in Section 3.0 of this PSS. Each subsection of Section 3.0 of this PSS has been prepared to identify potentially significant adverse environmental and health impacts or improvements resulting from the

proposed Project; to determine the extent and quality of information needed to adequately evaluate these impacts; to describe how Danskammer Energy proposes to avoid and/or minimize adverse impacts; and to identify measures proposed to mitigate such impacts, all in accordance with Section 100.5 of the Article 10 regulations, at 16 NYCRR §1000.5, and as shall be set forth in the corresponding exhibits of the Article 10 Application.

1.7 Public Involvement Program

1.7.1 Planning and Pre-Application Phase

1.7.1.1 IDENTIFICATION OF STAKEHOLDERS

Danskammer Energy has implemented a Public Involvement Program ("PIP") for the Project that seeks opportunities to engage and partner with Project stakeholders, and form a solid foundation of community acceptance and support throughout the PIP development and implementation and the Article 10 process. Danskammer Energy will build upon relationships already established as part of its current operation of the existing Station.

Danskammer Energy has and will continue to focus its communications regarding the proposed repowering Project on the following groups of stakeholders:

- Host Municipality
- Adjacent Municipalities
- Affected Agencies
- Host Landowner
- Adjacent Landowners
- Public Interest Groups

The Project stakeholders that have been identified to date by Danskammer Energy are listed in the final PIP Plan submitted for the Project to the New York State Public Service Commission ("NYSPSC") on July 25, 2018. Danskammer Energy has identified stakeholders within a three-mile radius PIP study area. While Danskammer Energy utilized a three-miles study area for purposes of the PIP Plan, the environmental and technical studies that have been or will be prepared as part of the PSS and the Article 10 Application to address potential Project impacts, as applicable, will utilize study areas applicable to each respective resource, as determined by

applicable law or accepted practice, and such study areas for each resource may be less than, or extend beyond the limits of, the defined three-mile radius study area utilized for the PIP Plan.

1.7.1.2 CONSULTATION WITH STAKEHOLDERS

The overall plan for consulting with affected governmental agencies began with making initial contact with each agency to make certain they are aware of the Project and informing them of Danskammer Energy's tentative schedule and/or milestone targets during the Article 10 Application and review process. This included outlining the steps for intervenor funding and providing information on who to contact with any questions or comments about the Project and/or about the Article 10 review process. As needed, subsequent interaction with the agency(ies) will answer specific questions or concerns about the Project and identify the applicable studies and impact analyses to be performed for the Project.

Table 1.7-1 summaries the current and future outreach initiatives Danskammer Energy designed to educate residents about the Article 10 process and identify opportunities to participate in the process. This table will be updated during the implementation of the Project's PIP, and such additional activities will be summarized in the Project's Article 10 Application. Danskammer Energy hosted four (4) "Pre-Application" open houses at two locations within the study area over the span of two days. A morning and evening session occurred at each location. The Middlehope Elementary School in Newburgh, NY on December 17, 2018 and the Veterans of Foreign Wars ("VFW") Hall in Wappingers Falls, NY on December 18, 2018 served as the open house venues.

Table 1.7-1. Outreach to Residents

Activity	Goal	Schedule
Initiate Stakeholder Outreach Meetings	Provide introduction of Project	Summer/Fall 2018
Pre-Application Open House for Public	Inform residents about Project, Article 10 process, and intervenor funds; provide contact information; and solicit feedback.	December 17, 2018 and December 18, 2018
Notice in official town and County Papers	Inform residents of Project and Project website; intent to apply under Article 10; encourage participation in the process; information on intervenor funds.	January 2019
Mailer to Adjacent Landowners	Provide information about Project, Article 10 process, intervenor process, and how to participate.	Summer/Fall 2019
Provide Project flyers for distribution in Town Halls and public libraries of host and adjacent municipalities	Provide information about Project, Project website, Article 10 process, intervenor process, and how to participate.	Summer/Fall 2019

1.7.1.3 OUTREACH MATERIALS AND ACTIVITIES

To ensure early, comprehensive outreach as well as to facilitate a readily accessible and understandable method of communicating with the public, Danskammer Energy has implemented a program using special consumer-friendly resources designed to encourage and solicit maximum public feedback. These efforts and resources include:

- Individual meetings with stakeholders
- Preparation and dissemination of educational materials: Project Fact Sheet and Article 10 Application Fact Sheets
- Toll Free Project Phone Number for comments: (845) 428-9473
- Project E-mail address for comments: info@danskammerenergy.com
- Open Houses: Four (4) Application Information Open Houses held on December 17 and 18 of 2018

- Project Website for dissemination of information and comments: www.danskammerenergy.com

A copy of the Project Fact Sheet and Article 10 Application Fact Sheets is provided in Appendix A.

1.7.1.4 OUTREACH FOR KEY PROJECT MILESTONES

As outlined in Table 1.7-1 above, outreach is scheduled for all key milestones of the Project. This schedule began with a number of introductory stakeholder meetings introducing Danskammer Energy and the Project to interested agencies, local officials and public interest groups. Many of these meetings are still taking place, and those meetings that have already occurred are listed in the latest bi-monthly PIP meeting tracking table in Appendix A. To date, Project representatives have met with, or made presentations to, the following stakeholders:

- New York State Department of Public Service
- New York State Department of Environmental Conservation
- New York State Department of State
- Senate Energy Chair Senator Kevin Parker
- Assembly Energy Chair Assemblyman Michael Cusick
- 39th Senate District Office
- 41st Senate District Office
- 42nd Senate District Office
- 104th Assembly District Office
- 105th Assembly District Office
- 106th Assembly District Office
- Empire State Development
- Orange County Legislature (Chairman Brescia, Majority Leader Bonelli, Ways and Means Chairman Benton)
- Orange County Executive and Deputy Executive
- Orange County Sheriff's Department
- Orange County Planning Department
- Orange County Office of Emergency Services
- Orange County Public Works Department
- Orange County Industrial Development Agency
- Orange County Partnership
- Town of Newburgh Town Council
- Town of Newburgh Supervisor, Deputy Supervisor, Town Attorney, Town Engineer, Code Enforcement Supervisor
- Town of Poughkeepsie Supervisor
- Town of Fishkill Supervisor
- Town of Wappinger Supervisor
- Marlboro School District
- City of Newburgh City Council

- Riverkeeper
- Scenic Hudson
- Natural Resources Defense Council
- New York League of Conservation Voters
- Representatives from the New York State Governor's Office
- Hudson Valley Building and Construction Trades Council
- Construction Contractors Association of the Hudson Valley

Key project milestones include the submission of this PSS and future submission of the complete Article 10 Application.

1.7.1.5 ON-GOING BI-MONTHLY TRACKING REPORT

In accordance with its PIP Plan, Danskammer Energy prepares, on a bi-monthly basis, a spreadsheet-style tracking report identifying PIP Plan activities and a summary of the results (feedback and actions in response to such feedback) of the activities as well as a summary of upcoming or planned activities. This report is filed with the Secretary of the Siting Board, is posted on the Department of Public Service's Document and Matter Management ("DMM") system under the docket number 18-F-0325 and is also posted on the Project website. A copy of the latest Bi-Monthly Tracking Report for the Project is provided in Appendix A.

1.7.1.6 PUBLIC ACCESS TO PROJECT DOCUMENTS

The Project's Final PIP Plan, PSS, Article 10 Application, and related licensing applications and documents are or will be made available, upon each document submission, to the public on the Project website. These documents are also available on the NYSDPS' DMM system, and can be found by searching for Docket Number 18-F-0325. However, to ensure the widest possible access to Project permitting documents, Danskammer Energy agreed in its PIP Plan to establish document repositories in libraries and locations within the Host and Adjacent Municipalities as identified in Appendix A, where Project materials will also be made available. During initial discussions with library staff members, Danskammer Energy will brief the staff as to the importance of the document repository and the need to maintain repository documents in an area accessible to the public. At the time of each document submission, library staff members will be notified and briefed on the intent and purpose of the particular document.

1.7.1.7 INTERVENOR FUNDING

Under Article 10 regulations, Danskammer Energy is required to provide funds, i.e., "intervenor funding", to be made available for municipalities, groups, or individuals that wish to make a meaningful contribution during the Article 10 proceeding. The intervenor funds are provided to the Siting Board at the time of the PSS filing as well as when the Article 10 Application is filed. Danskammer Energy has provided information on intervenor funding, and the process to apply for such funds, as part of the PIP Plan, during its open houses, and on the Project website and will continue to do so throughout the pre-application process.

1.7.2 Study and Application Phase

Consistent with the Project's PIP Plan, during the preparation of the Article 10 Application and the planning and implementation of required studies, Danskammer Energy will continue to consult with agency representatives and other stakeholders through meetings, correspondence and other methods that facilitate consultation, including field visits and telephone conferences. Danskammer Energy will continue to schedule and respond to requests for meetings and presentations from local government officials, interest groups, stakeholders and interested citizens. These meetings and presentations during the preparation of the studies and the Article 10 Application will continue to provide information about the proposed Project and facilitate the receipt of comments and suggestions from interested parties.

1.7.3 Application and Certification Phase

Filing of the Article 10 Application with the Siting Board and with parties that have indicated an interest in receiving the application will begin the formal Article 10 Application review process. The review process will include formal notification, opportunities for parties to formally request and exchange information, public statement hearing sessions to receive comments and statements and testimony about the Project. Danskammer Energy will ensure that all notice and filing requirements are complied with. Through the submittal of its intervenor funding at the time of filing the Article 10 Application, Danskammer Energy will provide financial resources to be allocated by the presiding examiner designated by the Board to municipal and local parties to review and understand the studies, information and issues addressed in the Article 10

Application. These activities will ensure that effective public involvement continues throughout the Article 10 Application review and certification process.

1.7.4 Compliance and Implementation Phase

During the construction, commissioning and operation of the plant, Danskammer Energy will continue to maintain relationships established with regulatory agency staff, local officials, stakeholders, and interested citizens. During construction and commissioning, Danskammer Energy will schedule meetings to report on the Project's status. Danskammer Energy representatives will be available to attend meetings, give presentations, and answer questions as requested. Danskammer Energy will continue to participate and support community activities during the life of the Project facility.

Agency consultations and updates will continue throughout start-up operations and testing. During construction and commissioning, there will be meetings and filings with agencies to document the completion of the construction of various Project components, compliance with permit conditions and the certification of equipment. Compliance filings and reports will be filed and noticed to all parties to the certification proceedings for subsequent approval by the Siting Board. These compliance filings will provide formal documentation and verification that the requirements imposed by the Article 10 Certificate are adhered to and implemented throughout the course of the design, construction and operation of the Project.

1.7.5 Significant Issues Raised During Public Meetings and Informal Consultation with Agencies

Danskammer Energy's preliminary outreach efforts through the implementation of its PIP Plan have identified a number of questions and issues of local concern regarding the Project. Significant issues raised during public meetings and open houses, meetings with various officials and public interest groups, initial consultation with state agencies and comments received have included:

- Efficiency;
- Environment;
- Potential for alternative generation;
- Emissions;
- Resiliency of Project facility to storms and floodwaters;
- Construction teams to be used;

- Anticipated property tax payments;
- Information regarding intervenor funding process;
- Potential visual impacts;
- Potential Environmental Justice Area impacts;
- Potential noise impacts;
- Decommissioning of existing plant;
- Safety;
- Tribal consultation;
- Landfill;
- Venue where Article 10 proceedings will take place; and,
- Project timeline;

Community input is of paramount importance to Danskammer Energy and will play a major role throughout the entire Article 10 process. Danskammer Energy has been diligently working to address the preliminary issues outlined above through the design of the Project facility and communication with agencies, local officials and community members. Danskammer Energy will continue to seek opportunities to optimize the Project facility layout during the preparation of the Article 10 Application. The proposed manner in which the above issues have been or will be addressed is outlined in the following sections of the PSS and summarized briefly below.

Efficiency

The Project will utilize state-of-the-art technology for emission controls and generation. The combined cycle facility, proposed to replace the existing steam generating units, will consist of one (1) J-class heavy duty combustion turbine, with one (1) heat recovery steam generator ("HRSG"), providing steam to serve a single steam turbine generator. The spent steam exhausting from the steam turbine will be condensed in an air-cooled condenser and the condensate will be recycled to the HRSG. The air-cooled condenser is highly efficient and minimizes the amount of water necessary for operation.

A detailed description of the proposed Project facility is provided in Section 2.0, Project Description.

Environment

The proposed Project facility has been designed to minimize environmental impacts. It will use natural gas, one of the cleanest burning fossil fuels, as a primary fuel and will utilize ULSD as a back-up fuel if needed for emergency and reliability reasons. The development is being

proposed on the previously disturbed site of an existing generating facility, thereby eliminating the environmental impacts typical with the development of a "greenfield" site. The Project facility's footprint has been developed to avoid impacts to wetland areas to the greatest extent practicable. Additionally, the Project will result in the elimination of the existing "once-through" cooling currently being utilized. Finally, air emissions from the Project facility will comply with all applicable federal and state standards.

A detailed preliminary scope for the environmental impact analyses that will be performed for multiple exhibits (i.e., Exhibits 17, 19, 20, 21, 22, 23 and 24) of the Article 10 Application has been provided in Section 3.0, Environmental Impact Analysis.

Potential for Alternative Generation

The Project's proposed use of the state-of-the-art, quick start and fast-ramping J-class combined cycle technology, which is designed for faster start-ups in order to respond to rapidly increasing system demands while permitting much lower output during times of low system demands, provides greater flexibility during times when intermittent renewable resources, like wind and solar facilities, cannot produce energy. The Danskammer Energy Center combined cycle facility will contribute to the baseload power plants that provide the backbone for the electric supply system in New York. The flexibility provided by the Project facility, meeting the system demand base-load needs while providing quick start and fast-ramping capacity when needed, enables a larger share of renewable energy resources to be added to the system. The Project will utilize ULSD as a back-up fuel, if needed for emergency and reliability reasons. Danskammer Energy is also evaluating the potential for incorporating black-start capability as part of the Project. Section 2, Project Description, describes the use of back-up fuel, and the evaluation of black-start capability, in more detail.

Emissions

Impacts to the environment in terms of air quality are calculated in terms of air pollutant concentrations at receptor points, which will be determined for the air resource study area around the Danskammer Energy Center Project. The proposed Project facility will be designed so as to not have a significant air quality impact or result in the exceedance of any National Ambient Air Quality Standards. The replacement of aging generation capacity with state of the art generating

facilities will result in a significant reduction in the site wide emission rate per megawatt-hour produced of all conventional and greenhouse gas air pollutants. A detailed preliminary scope for the air quality impact analysis that will be performed and included as part of Exhibit 17 of the Article 10 Application has been provided in Section 3.3, Air Resources.

Resiliency of Facility to Storms and Floodwaters

Current FEMA mapping was taken into consideration in preliminarily determining the layout for the proposed Project on the Project site. Additional land surveys showing current elevations have been completed, and further studies, including a wetland delineation will be performed for the Article 10 Application. The proposed Project facility has been designed to withstand a storm based on the 500-year return period in order to achieve a high level of flood protection. The analysis being performed for Exhibit 4 of the Article 10 Application will consider the potential for future sea level rise. Further flood zone information is provided in Section 3.8, Water Resources and Aquatic Ecology.

Construction Teams to be Used

The engineering, procurement, and construction ("EPC") contractor selected to construct the Project will be responsible for managing the construction workforce. However, it is anticipated that the required construction labor force for the Project would be readily met with the available trades and union workforce in the Hudson Valley.

Anticipated Property Tax Payments

Danskammer Energy anticipates negotiating a Payment in Lieu of Tax ("PILOT") agreement with the Orange County Industrial Development Agency for the repowered Project facility.

Information Regarding Intervenor Funding Process

Danskammer Energy submitted a PIP plan to the Siting Board on May 24, 2018. A revised, final PIP Plan was submitted on July 25, 2018, which addressed comments on the initial submission. Within the PIP Plan, the process of intervenor funding is discussed in detail. Additionally, Project Fact Sheets have been prepared for distribution explaining intervenor funding and the overall process of Article 10, and intervenor funding was also discussed during the open houses

that took place on December 17 and 18, 2018. Intervenor funding is also discussed in Section 1.7, Public Involvement Program of this PSS.

Potential Visual Impacts

With regard to the visual impacts associated with the Project, the final height of the proposed stacks for the Project is dependent upon air quality modeling, as is discussed in Section 3.3, Air Resources of this PSS. A discussion of how potential visual impacts will be addressed in Exhibit 24 of the Article 10 Application is provided in Section 3.9, Visual Impacts.

Potential Environmental Justice Impacts

The potential for environmental justice impacts will be analyzed in accordance with Part 487 of NYSDEC's regulations, entitled Analyzing Environmental Justice Issues in Siting of Major Electric Generating Facilities Pursuant to Public Service Law Article 10. The purpose of the Part 487 regulations is to establish a regulatory framework for undertaking an analysis of environmental justice issues associated with the siting of a major electric generating facility in New York State and is intended to enhance public participation and review of environmental impacts of proposed major electric generating facilities in environmental justice communities and reduce disproportionate environmental impacts in overburdened communities. A detailed preliminary scope for the environmental justice analysis that will be performed and included as part of Exhibit 28 of the Article 10 Application has been provided in Section 5, Identification of Demographic and Economic Attributes to the Community, of this PSS.

Potential Noise Impacts

The potential for noise impacts to nearby residences and businesses will be analyzed in Exhibit 19 of the Article 10 Application. Danskammer Energy proposes to utilize the requirements set forth Section 1001.19 of the Article 10 regulations, at 16 NYCRR §1001.19, the New York State Department of Environmental Protection's Noise Policy and the Town of Newburgh's noise ordinance as the basis for determining the acoustic design goal of the Project, as further described in Section 3.4, Noise and Vibration.

Decommissioning of Existing Facility

Once the Project is fully operational, existing generation equipment at the Station will be decommissioned. Danskammer Energy will consider options for the existing plant building structure and other existing plant equipment and structures at a later date, outside of this Article 10 proceeding.

Safety

The Project will utilize the existing natural gas and electrical infrastructure and thus, there is no increased risk posed by the Project with respect to a natural gas pipeline leak resulting from train derailment on the Danskammer-owned property or other causes off-site. In addition, railroads slow down as they approach the generating facility and Danskammer Energy is unaware of any incidents of train accidents at the existing Station.

Tribal Consultation

Danskammer Energy will conform to the requirements of the National Historic Preservation Act (Public Law 89-665, as amended by Public Law 96-515; 16 USC 470 et seq.) and the New York Historic Preservation Act of 1980 (Chapter 354 of Parks, Recreation and Historic Preservation Law) in assessing the Project's potential impacts on cultural resources, and in consultation, including with relevant Indian nations or tribes, if any. In addition, Danskammer Energy intends to consult with the Commissioner of the Office of Parks, Recreation, and Historic Preservation to determine how to complete sufficient tribal consultation.

Landfill

While the Station has fully operated with natural gas as its primary fuel since 2012, the ash and other by-products that were generated by the prior use of coal combustion at the Station have been recovered for on-site placement in a permitted landfill or off-site re-use. A solid waste management facility ("SWMF") located on the plant property to the northwest of the Project site is used exclusively to receive the coal combustion by-products and other facility waste that were generated by the prior use of coal combustion at the existing Station. The SWMF operates in conformance to the conditions of its existing NYSDEC permit, as described in Section 3.2, Public Health and Safety.

Venue where Article 10 Proceedings will take Place

Danskammer Energy, through the PIP Plan, will work with local communities, municipalities and agencies to determine the most appropriate venues for meetings related to Article 10 to be held, which are not required to be held at the location of the Siting Board. Four (4) pre-Application open houses were held during the mornings and evenings at the Middlehope Elementary School in Newburgh, NY on December 17, 2018 and the VFW Hall in Wappingers Falls, NY on December 18, 2018 to facilitate a large number of interested stakeholders.

For any future open houses or public meetings hosted by Danskammer Energy, Danskammer Energy, with assistance from involved parties, will ensure that adequate facilities are chosen. After the Article 10 Application is filed and determined compliant with the Article 10 statute and regulations, the Department of Public Service will schedule and hold one or more public statement hearings at a location near the Project site. Danskammer Energy will attempt to work with DPS staff to determine the most appropriate venue for these public statement hearings. Evidentiary hearings, at which testimony is taken, will likely take place at the location of the Siting Board in Albany, New York.

Project Timeline

The Project PIP Plan was submitted on May 25, 2018 and then revised per NYSPSC comments and resubmitted on July 25, 2018. Depending on the time necessary to negotiate Project study stipulations and perform the necessary studies, Danskammer Energy anticipates filing its Article 10 Application in late Summer 2019. Assuming such a filing date, Danskammer Energy anticipates that the construction of the proposed Project would be complete and the Project facility would be on-line in 2023. Decommissioning of existing steam generators would follow later in 2023.

2.0 PROJECT DESCRIPTION

2.1 Introduction

The applicant, Danskammer Energy, is proposing to repower its existing 532 megawatt (MW) (nameplate capacity) generating facility (the "Danskammer Generating Station" or the "Station") located in the Town of Newburgh, Orange County, New York with a state-of-the-art natural gas fired combined cycle power generation facility (the "Danskammer Energy Center" or the "Project"). The Danskammer Energy Center facility will have a net baseload capacity of approximately 536 MW, with a maximum net generation capacity of 600 MW. The Project facility will have a gross capacity of approximately 636.4 MW, which represents the total combined capacity of the gross steam turbine generator nameplate capacity of 270 MW and the gross gas turbine generator nameplate capacity of 366.4 MW. The difference between the Project facility's gross nameplate capacity of 636.4 MW and its net maximum output of approximately 600 MW is the result of various limiting factors including: mechanical limitations of the plant equipment; the electrical grid and connection limitations; the ambient conditions; and the auxiliary loads supporting various plant equipment.

Once the Danskammer Energy Center is fully operational, existing generation equipment at the Station will be decommissioned. The new Danskammer Energy Center will provide a highly efficient and cost-effective facility to produce electricity, while minimizing impacts on the surrounding communities and providing tax benefits into the future. The proposed Project will improve generating efficiency since the heat rate will be amongst the lowest heat rates for combined cycle combustion turbine projects. Emissions from the Danskammer Energy Center on a per megawatt-hour basis could be 40% lower than the existing facility and carbon emissions from the project could be as low as 50% of recently proposed limits by the New York State Department of Environmental Conservation ("NYSDEC") for existing power plants. Following Article 10 approval, the Project will provide numerous construction jobs, as well as stimulate construction related spending in the local community and surrounding area.

A general site location map is included as Figure 1.2-1 and 1.2-2 in the previous section of this document. The previously provided aerial photograph of the site and surrounding area as well as the development zone is re-presented as Figure 2.1-1 below. Exhibit 3 of the Article 10

Application, regarding location of the Project facilities, will provide maps, drawings and explanations of location of the proposed Project facility, all interconnections, and all ancillary features not located on the Project facility site (e.g. roads, railroads, fuel or energy storage or regulation facilities, solid waste disposal areas, waste treatment and disposal facilities). The mapping provided in Exhibit 3 of the Article 10 Application will be consistent with the requirements of 16 NYCRR §1001.3.

The Danskammer-owned property in the area of the Project site is bordered to the northwest by the Tilcon Materials Inc. quarry and the Hudson River to the northeast and east, and to the south by the Riverview Power, LLC's Roseton Generating Station. The CSX Transportation rail road tracks transect the eastern portion of the property (west of the plant) in a northwest/southeast orientation, and the property is bordered to the west by a single-story house and Danskammer Road. Central Hudson Gas & Electric (Central Hudson) owns the lands west of Danskammer Road up to the security gate entrance area.

The Danskammer-owned property consists of approximately 180 acres. The Station is currently operated and maintained by Danskammer Energy as an active power generation station. The existing Danskammer Generating Station has four (4) operating boilers with a combined nominal or nameplate capacity of 532 MW. Two (2) of the boilers (Units 1 and 2) utilize natural gas as the primary fuel source with low sulfur #6 oil as a back-up. They began commercial operation in 1951 and 1954, respectively. The other two (2) boilers (Units 3 and 4) operate exclusively on natural gas and began operation in 1959 and 1967, respectively. These units are cooled by a once-through system that draws water from the Hudson River and discharges heated water back to the Hudson River.

Figure 2.1-1. Site Aerial

Ancillary equipment located north of the power block includes wastewater treatment and two (2) 2.5 MW emergency diesel generators. West of the power block includes coal pile storage and conveyor systems. The electric switchyard (115 kV) is co-owned by Danskammer Energy and Central Hudson. South of the power block resides a sewage treatment facility, No.6 oil above ground storage tank and a utility owned gas pipeline. East of the power block resides circulating water pumps, a fire pump house and intake structure.

The proposed Project site, which comprises a portion of the Danskammer-owned property as shown in Figure 2.1-1, has been selected, in part, due to the availability of existing infrastructure to support future operations. The repowered Project facility will interconnect with Central Hudson's 115 kV transmission system through the existing substation on site. As such, no additional off-site electrical transmission system right-of-way will be required for the interconnection to Central Hudson's transmission system. The potential need for transmission system improvements to accommodate the repowering project will be determined as part of the System Reliability Impact Study ("SRIS") discussed in Section 7.0 of this Preliminary Scoping Statement ("PSS").

In addition to available infrastructure indicated above, the repowered Project facility will use the existing natural gas transmission system for the delivery of natural gas. Danskammer Energy has confirmed that the existing natural gas supply to the Project site will be adequate to satisfy the needs of the Project facility.

The Project will be located entirely on lands owned by Danskammer Energy. Consistent with the requirements of 16 NYCRR §1001.13, Exhibit 13 of the Article 10 Application will include a survey of the Project site showing property boundaries with tax map sheet, block and lot numbers, the owner of record of all parcels included in the Project site and for all adjacent parcels, easements, grants and related encumbrances on the Project site parcels, public and private roads on or adjoining or planned for use as access to the Project site, zoning and related designations applicable to the Project site and adjoining parcels; a map of all proposed interconnection facilities and off-Project site or off-property access drives and construction lay-down or preparation areas for such interconnections; a demonstration that Danskammer Energy has title to the Project site, including ingress and egress access to a public street; a statement that

Danskammer Energy has such deeds, easements, leases, licenses, or other real property rights or privileges as are necessary for all interconnections for the Project facility; and an identification of any improvement district extensions necessary for the Project facility and a demonstration that Danskammer Energy has obtained, or can obtain, such improvement district extensions.

2.2 Project Overview

Danskammer Energy is currently evaluating a repowering scenario where the existing facilities would be upgraded with a 1-on-1 combined cycle configuration, utilizing a gas combustion turbine and steam turbine generator, with a total net baseload capacity of approximately 536 MW. The facility will also incorporate the ability (supplemental firing) to provide additional peaking output to potentially ramp up to as much as 600 net MW to meet the market demands, or support variations in generation from renewable resources.

2.3 Project Description

The proposed combined cycle configuration of the Project, which is currently still under evaluation, is briefly outlined below:

2.3.1 Combined Cycle Configuration

As currently envisioned, the Project's combined cycle facility will consist of the following major components:

- Power Block: 1x1 configuration using one (1) J-class combustion turbine (One (1) "quick" start turbine with a single heat recovery steam generator and a single steam turbine).
- Fuel: Natural gas will be the primary fuel with provision to use ultra-low sulfur diesel ("ULSD") as a back-up fuel for up to 720 hours per year.
- Cooling System: Primary, air-cooled condenser ("ACC"), secondary, fin-fan cooler.
- Emissions Control: Selective catalytic reduction technology ("SCR") and an oxidation catalyst to control emissions of oxides of nitrogen ("NOx") and carbon monoxide ("CO"), respectively.
- Back-up Fuel Storage: Up to 5-days of on-site fuel oil storage capacity.

As shown in Figure 2.1-1, the existing Danskammer Generating Station currently occupies most of the river front site. The Project combined cycle facility will be located on land directly south of the Unit 3 and 4 Precipitator building and stack. (See Figure 2.1-1).

Ancillary equipment located within the Project site will include:

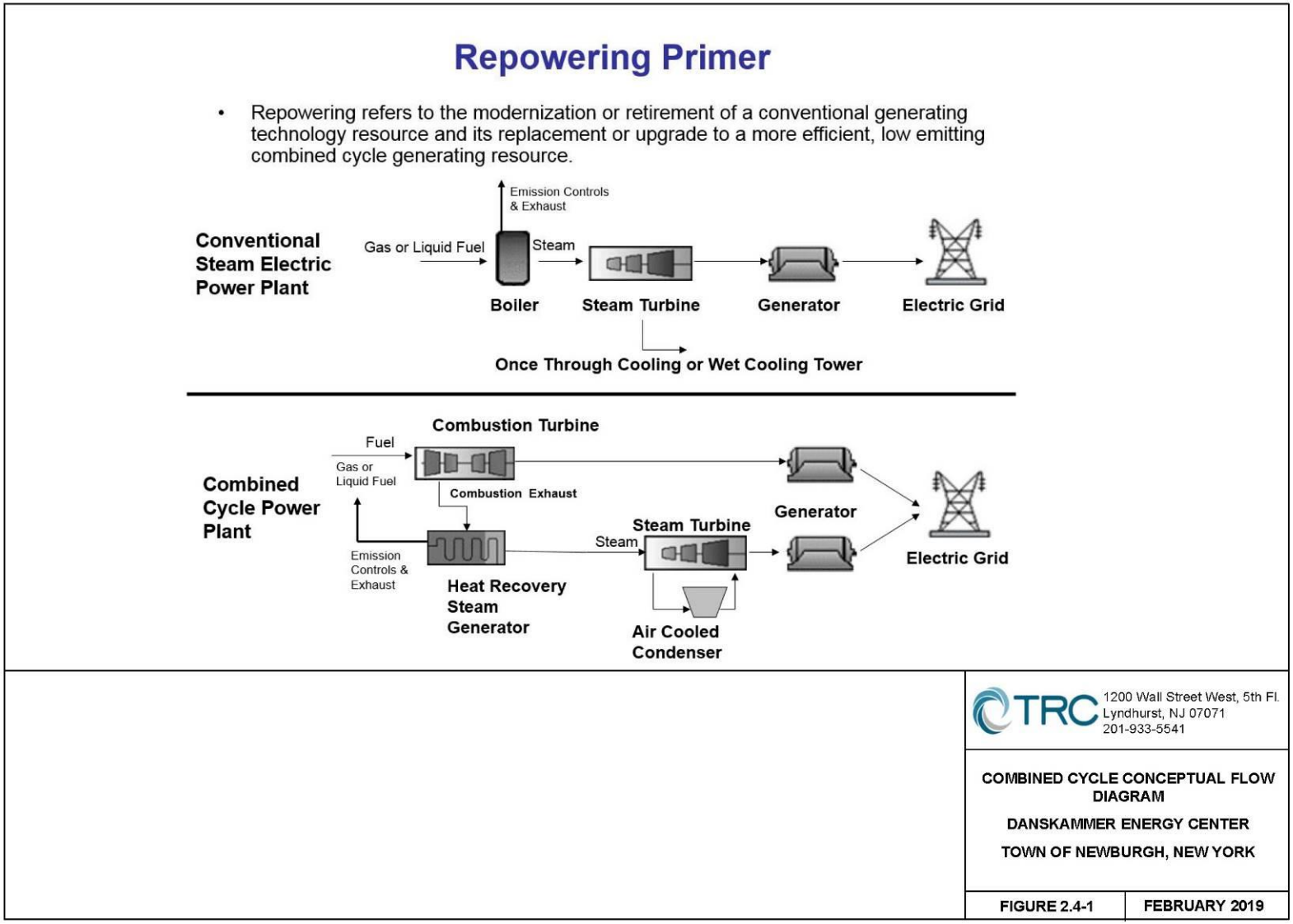
- Process makeup water treatment and demineralization equipment
- Not to exceed three (3) million gallon demineralized water storage tank(s)
- Natural gas metering and compression equipment
- Control Room and Administration Building
- Aqueous ammonia unloading and storage equipment.

2.4 Major Facility Components

Figure 2.4-1 is a conceptual flow diagram for a combined cycle power generation facility. The combustion turbine consists of a compressor, combustor, and turbine sections. The fuel (natural gas or ULSD) is fired in the combustor section with high-pressure air from the compressor. The resulting exhaust gases created by the combustion process are expanded through the turbine sections. The expanding exhaust gases cause the turbine blades and shaft to rotate. A generator is coupled to the turbine shaft to convert the rotational energy into electrical energy. The process of utilizing the power generated from a combustion turbine generator and a steam turbine generator is referred to as "combined cycle" electric generation. A combined cycle plant uses the waste heat (i.e., hot exhaust gases) from the combustion turbine ("CT") as the heat source to produce steam to drive a steam turbine.

In a combined cycle facility, the heated exhaust gas from the CT is routed via ductwork to a heat recovery steam generator ("HRSG"). In the HRSG, heat from the exhaust gas is used to convert water into steam and then to superheat the steam for use in a steam turbine. Following extraction of heat, the exhaust gas exits the HRSG through a stack, after passing through sections that include catalyst systems for emissions controls.

Figure 2.4-1. Conceptual Flow Diagram



2.4.1 Major Components of the Combined Cycle Facility

A. COMBINED CYCLE BUILDINGS AND STRUCTURES

The Project combined cycle facility features a compact design. The major pieces of equipment for the combined cycle facility include one combustion turbine/generator set, one HRSG and exhaust stack, a steam turbine/generator set, an air-cooled condenser (steam cooling system), a fin-fan cooler (auxiliary cooling system), and an auxiliary boiler. Additional support systems and equipment include, but are not limited to, the following:

- Feed-water systems;
- Condensate system;
- Selective catalytic reduction system;
- Oxidation catalyst;
- Natural gas compressor building,
- Aqueous ammonia storage and offloading facility;
- Aqueous ammonia/chemical injection systems;
- Fire protection system (including detection and alarm system);
- Process wastewater collection and management systems;
- Generator step-up ("GSU") transformers;
- Auxiliary power transformers;
- 115 kV overhead or buried electrical transmission lines;
- 115 kV switchyard;
- Medium voltage switchgear;
- Controls and instrumentation; and,
- Potential emergency (standby) generator(s); and,
- Demineralized water storage tank(s), and a back-up fire pump.

Aqueous ammonia is primarily used for emissions control purposes (i.e., as part of the SCR system). Aqueous ammonia (19% by weight) will be transported to the Project site and stored in one above-ground storage tank. It is anticipated that the tank will have a storage capacity of 30,000 gallons. Aqueous ammonia will be pumped into vaporizers (as part of the SCR system) for the CT for NOx control.

The water treatment system may consist of one or more of the following subsystems:

- An iron removal system (i.e., green sand filtration system);
- Multimedia filtration; and,
- Reverse osmosis ("RO") and/or ion exchange ("IE") demineralization systems.

The above systems will provide high quality demineralized water for use in the combustion turbine and HRSG. High quality demineralized water is needed to minimize the potential for scale formation or corrosion of internal system components. It is also used in the combustion turbine for emissions control purposes (i.e., NOx control), power augmentation and compressor cleaning.

A back-up diesel powered fire pump will be located adjacent to the demineralized water storage tank. The fire pump will be used to maintain on-site firefighting capability in the unlikely event that electric power was unavailable from the local utility grid to operate the facility's electric fire pump. Under normal operating conditions, the diesel fire pump will not be operated, except for occasional testing to verify that the pump is operating properly.

The combustion turbine and its combustion turbine generator and steam turbine and its steam turbine generator will be housed in their respective enclosures. These enclosures may also include other mechanical equipment, such as pumps, piping and electrical equipment needed for plant operation. The enclosures may have overhead cranes to facilitate equipment maintenance activities. Elevated platforms will be provided for access to equipment and piping. The roofs of the structures will be designed to support metal decking and insulating panels. The walls will be constructed using insulated metal siding supported on a steel frame.

A two (2) story control room/administration building will be located on the north end of the Project site. Electrical equipment will be located on the first floor and administrative office space and the control room will be located on the second floor. Limited parking will be provided in front of this building for staff and visitors. There will be a maintenance shop/warehouse located on the Project site as well.

B. COMBINED CYCLE COMBUSTION TURBINE

For the Project combined cycle facility, Danskammer Energy is proposing to install one J-class combustion turbine firing primarily natural gas, with a maximum of 720-hours per year of operation on ULSD. Ancillary systems provided with the combustion turbine/generator package include: a static excitation system, electric starting system, inlet filter/silencer, packaged electrical/control systems, fire protection systems, compressor water wash skids, and engine lubricating oil systems.

C. HEAT RECOVERY STEAM GENERATOR (HRSG)

The proposed HRSG will be a multi-pressure, horizontal unit with reheat. The HRSG will include the following:

- A multi-pressure level heat recovery system;
- An economizer;
- Reheater;
- Duct Burners;
- Steam superheaters;
- Chemical injection and drum level instrumentation; and,
- Boiler re-circulation system.

The HRSG will have a chemical feed system to maintain feedwater chemistry in accordance with manufactures guidelines. The HRSG also will contain a static oxidation catalyst to reduce CO to carbon dioxide ("CO_2") and a SCR system to reduce NOx emissions.

D. STEAM TURBINE GENERATOR

Steam generated in the HRSG will be expanded through a steam turbine generator to produce additional electricity. The steam turbine will exhaust to an air-cooled condenser. The steam turbine generator will be designed to run continuously, as will the gas turbine generator but will also be capable of operating as a cycling unit that will perform at various ranges of output depending on market demands.

A high pressure/low pressure turbine steam bypass system will be provided to dump steam to the condenser, if necessary.

E. AIR-COOLED CONDENSER

An ACC will be installed to provide cooling for the steam exhausted from the steam turbine. Steam will be routed from the steam turbine exhaust through ducts to a series of fin tube heat exchangers. Condensate will be discharged from the air-cooled condenser and returned to the HRSG to keep water usage minimized. Air is moved through the air-cooled condenser by a series of fans, with ambient air drawn from below and the heated air discharged through the top.

F. AUXILIARY SYSTEM COOLING (FIN-FAN COOLER)

A fin-fan cooler (auxiliary cooling system) will be provided for cooling of plant equipment and sub-systems (other than the steam turbine exhaust managed by the ACC). The fin-fan cooler rejects heat from a fluid directly to ambient air using a series of tubes, fins and fans similar to an automobile radiator. Propylene glycol, a non-hazardous regulated coolant, will be used rather than ethylene glycol (antifreeze), which is classified as hazardous. Some of the equipment and sub-systems that will be cooled by the fin-fan cooler include the steam turbine and combustion turbine generator coolers, lube oil coolers and auxiliaries and the HRSG feed pump coolers.

G. AUXILIARY BOILER

An auxiliary boiler will be used to establish vacuum on the ACC, keep the HRSG warm during periods of turbine shutdown and provide sealing steam to the steam turbine in case of warm and hot shutdowns. The auxiliary boiler will be fired by natural gas.

H. STACK

The exhaust gas from the HRSG will flow into an above grade stack. The exhaust stack will include platforms to facilitate testing and lighting requirements. It is common for these stacks to be in the range of 150 to 200 feet above grade. However, the stack height for the Project will be based on emissions criteria and other design factors that are specific to the site (see Section 3.3 Air Resources). Controlling structures will include the combustion turbine building, steam turbine generation building, the ACC, and the HRSG for the new combined cycle unit. In

addition, the air quality modeling analysis will also examine the impact of the existing buildings at the Danskammer Generating Station. By comparison, two of the existing plant's exhaust stacks are 220 feet above grade and the other two stacks are 240 feet above grade.

2.4.2 Layout and Appearance

The Project facility will be designed to be compatible with the nearby and surrounding land uses, incorporating reasonable features to minimize visual impacts, including structure color and texture selection. Exhibit 11 of the Article 10 Application will provide preliminary design drawings prepared by a licensed professional engineer that meet the requirements of 16 NYCRR §1001.11, including the proposed site plan and layout; proposed construction operation plans, including material laydown, construction preparation, major excavation and soil storage and construction equipment and worker parking areas; grading and erosion control plans, including soil types, depth to bedrock, general areas of cut and fill, retaining walls, contours and permanent stormwater retention areas; a proposed landscaping plan; a proposed lighting plan; architectural drawings, including buildings and structure arrangements and elevations; design detail drawings of any underground facilities; plans and drawings for any new interconnection facilities; and a list of applicable engineering codes, standards, guidelines and practices.

2.5 Air Quality Control Systems

The facility's nitrogen oxide (NOx) emissions will be reduced to the lowest achievable emission rates ("LAER") by post combustion treatment using a SCR system. As employed successfully at similar facilities throughout the country, a low concentration (19 percent) solution of aqueous ammonia will be injected into the flue gas, upstream of the SCR catalyst, where it will mix with the NOx in the presence of the SCR catalyst to form nitrogen and water vapor. Ammonia that does not react will pass through the HRSG and out the stack. This phenomenon is termed "ammonia slip". Ammonia slip will be calculated or monitored along with continuous monitoring of NOx and CO exiting the stack.

Following NOx control, the carbon monoxide emissions will be reduced using an oxidation catalyst (also referred to as a CO catalyst). Exhaust gas passing through the catalyst bed will oxidize the CO to CO2. Since natural gas and ULSD do not contain appreciable amounts of sulfur, sulfur dioxide (SO2) emissions will be minimal.

Conventional pollutant emissions from the new combined cycle plant on a per megawatt-hour basis could be over 40% lower than the existing Station. Greenhouse gas emission rates will also be reduced when comparing the proposed combined cycle unit to the existing steam units.

The exhaust stack will be equipped with a continuous emissions monitoring system ("CEMS") to monitor the concentrations of NOx, O2, and CO. A system to monitor or calculate ammonia slip also will be provided or developed. The stack will have a platform to provide access to the monitoring equipment.

The CEMS measures and reports the emissions products/release rates of the plant in accordance with the requirements of applicable state and federal codes and standards. Alarms will be generated, printed and displayed on the CEMS monitor for high levels for each monitored parameter. The CEMS will be designed as a stand-alone system with the capabilities to extract/condition the exhaust gas, transport it to the analyzers, perform the appropriate analysis, record the findings and generate the required reports and alarms.

The proposed Project facility will incorporate data acquisition and control systems, which will optimize combustion turbine performance. These same systems will minimize pollutant emissions through a combination of operator and software-driven process adjustments and notifications.

2.6 Water Use and Wastewater Generation

The combined cycle facility minimizes both water supply needs and wastewater discharge requirements through use of an air-cooled condenser for steam system cooling, a fin-fan cooler for auxiliary cooling and internal recycle/reuse of process wastewater, when feasible. The proposed combined cycle facility's water supply demand typically is anticipated to range from approximately 50 gallons per minute ("gpm") to 135 gpm, when firing natural gas as the fuel. Maximum day water needs will occur if the facility is operated using ULSD as the back-up fuel, primarily because additional water is required for emission control purposes at the combined cycle facility when firing ULSD. Under these conditions, maximum water needs could approach 1,300 gpm. The final water balances in normal operation and emergency fuel conditions will be

determined as part of the final design process but is expected to be in the typical ranges noted above.

2.6.1 Water Supply

Water to support the proposed Project facility will be obtained from the Town of Newburgh distribution system through existing metered connections with the potential for additional metered connections as needed. Danskammer Energy is working with Town of Newburgh representatives to discuss facility water supply needs and to confirm the availability of water in sufficient volumes to meet water supply and facility fire flow needs. Based on hydrant flow test data, the existing distribution system is capable of meeting the projected water supply needs of the proposed Project facility. Danskammer Energy will continue to work closely with the Town of Newburgh Water Department to ensure that optimal interconnection points are determined. A backflow prevention system that conforms with the Town of Newburgh backflow cross-connection program will be installed. On-site demineralized water storage is incorporated into the Project facility design, which provides the ability to dampen day-to-day variations in water supply needs when firing ULSD as the back-up fuel.

Exhibit 38 of the Article 10 Application will provide a description of the expected water supply needs of the Project, consistent with 16 NYCRR §1001.38. Exhibit 38 will include estimates of hourly and daily peak and average water supply needs, demonstration that adequate water is available in terms of quantity and pressure for fire protection, and a description of water chemistry requirements. A description of the methodology used (i.e., estimate, comparison, data, calculation) to prepare the water supply needs and minimum and maximum flow rate estimates will be provided.

Exhibit 38 will also identify the public water supply source for the Project and provide the analysis laid out in Section 1001.38(e) of the Article 10 regulations, including:

- Studies to assess the available capacity of the water supply source and an analysis of the impacts, in terms of quantity, quality, and pressure during both normal and drought periods of the Project facility's water use on the water supply system, including an identification of the well field(s) in the localized zone;
- An identification of all infrastructure requirements necessary to serve the Project facility including treatment requirements;

- The impact of the Project facility on excess infrastructure capacity, including distribution piping, mains, pumps, storage, or additional supply during both normal and maximum system demands;
- If use of surface water or an on-site well is proposed for water supply for the Project facility, a qualitative analysis of the water balance and an assessment of the impacts of the removal of the maximum daily withdrawal for the facility, particularly during drought periods, on stream flows and the ecological balance of waterbodies, including hydrogeological studies to clearly demonstrate the effect of this withdrawal on any contaminant plumes that have the potential to be influenced by the proposed well. These studies will state all methods used to show that this withdrawal will not adversely affect any public or private wells;
- If new surface water withdrawal is proposed for water supply for the facility, an identification and description of any water treatment facilities and intake structures including a demonstration that each facility represents best technology available, if applicable; and
- An identification and description of any facility water treatment facilities.

Exhibit 38 will also identify and evaluate other reasonable water supply alternatives and mitigation measures to avoid or minimize water supply impacts. This analysis will include a contingency plan, if required, for water use curtailment during times of drought or water emergency.

Danskammer Energy will describe any negotiations or agreements with Town of Newburgh, including any modifications or restrictions. An evaluation of compliance with any requirements regarding water withdrawals contained in applicable State regulations will be contained in Exhibit 38. The existing water distribution system is expected to be adequate for the Project.

2.6.2 Wastewater

The facility will produce a limited amount of wastewater consisting of pretreatment system/demineralizer waste streams, evaporative cooler blowdown, combustion turbine wash water, plant maintenance water (i.e., collected in building floor drains), and steam system sample drains. Process waste streams which cannot be reused will be collected for subsequent off site treatment and disposal by a licensed waste hauler or discharged to an outfall in accordance with the terms and conditions of a State Pollutant Discharge Elimination System ("SPDES") permit. Site stormwater runoff will be collected and routed to on-site treatment systems sized to

effectively manage the NYSDEC's water quality design storm. Sanitary wastewater will be directed to the existing sanitary collection system located within the Project site.

Exhibit 39 of the Article 10 Application will provide a description of the wastewater generated by the Project. It is expected that the existing wastewater disposal systems will be adequate for the Project. If it is determined that a new sanitary or process wastewater sewer interconnection is necessary, Danskammer Energy will provide further information in Exhibit 39 in a manner that is consistent with 16 NYCRR §1001.39.

2.7 Fuel Supply and Sufficiency of On-Site Fuel Storage Capacity

Natural gas will be utilized as the primary fuel with provisions to use ULSD for up to 720 hours per year as a back-up fuel, if needed for emergency and reliability reasons. The proposed Project facility will use the existing natural gas transmission system for the delivery of natural gas. Danskammer Energy has confirmed that the existing natural gas supply to the site will be adequate to satisfy the needs of the combined cycle facility. In Exhibit 7 of the Article 10 Application, Danskammer Energy will provide further information regarding the Project's natural gas facilities, including an estimate of the monthly and hourly gas usage by the Project facility, the gas pressure required for the combined cycle gas turbine and an explanation as to how the pressure will be regulated or increase. In Exhibit 36 of the Article 10 Application, Danskammer Energy will provide further analysis of the Project's gas interconnection, including a study of gas supply options, capacity and system impact.

Providing back-up fuel capability enhances electrical distribution system reliability if natural gas supplies are disrupted or needed to meet residential heating or other demands. The design will have up to 5-days of on-site fuel oil storage, to be used as needed for emergency or reliability reasons.

Consistent with NYSDEC requirements, the fuel oil storage tank will have secondary containment capable of containing 100 percent of the tank contents plus sufficient freeboard for 8-inches of precipitation. In addition, ULSD transfer piping will be double-walled when located outside alternative secondary containment structures. Exhibit 37 of the Article 10 Application will further discuss the proposed Project's back-up fuel needs.

2.8 Chemical Use

For the steam cycle, Danskammer Energy will work closely with the selected equipment vendor to optimize a water purification conditioning program for use in the steam cycle and ACC. The chemical conditioning program will be consistent with general industry practice.

A standard ammonia injection system for NOx control will be provided for the combined cycle unit. The system will take ammonia forwarded from the ammonia storage tank, vaporize the ammonia, and inject it into the exhaust gas in the proper proportions. Required equipment will be mounted on an ammonia injection skid, except for the ammonia injection header. Double walled piping systems with interstitial leak monitoring will be used for underground piping.

2.9 Instrumentation and Controls

Instrumentation and control devices will be used to sense, indicate, transmit and control process variables as required for safe, efficient and reliable operation of the facilities and component systems. A distributed control system ("DCS") will be installed to monitor combustion turbine and steam turbine performance characteristics as well as performance characteristics of associated process equipment. The DCS system will implement both closed and open loop control to bring the plant from cold start up, to the desired operating condition, and back to cold shutdown.

The DCS system also will be used to monitor, display and record process data received from field sensors and through communication links. This information will then be used for general process supervision, execution of plant equipment and performance calculations, historical record keeping/trending including sequence of events recording and diagnostics for management and maintenance of the plant.

Other process instrumentation and control devices include:

- Control valves;
- Flow instruments (venturies, orifice plates and averaging pitot tubes);
- Level instruments (level indicators, level switches and level transmitters);
- Pressure and differential pressure indicators (gauges and switches);
- Process analyzers; and

- Temperature instruments (indicators and sensors).

2.10 Electric Transmission and Interconnection; Telecommunication Interconnection

Central Hudson's electric system extends from the suburbs of metropolitan New York City north to the Capital District at Albany. The system is broken into five (5) operational divisions – Catskill, Poughkeepsie, Kingston, Fishkill, and Newburgh. These operational divisions are interconnected through transmission system corridors and associated substations that distribute power to the communities.

As further discussed in Section 7 of this PSS, a SRIS, which includes analyses for thermal, voltage, short circuit and stability, will evaluate the impact of the repowered Project facility on Central Hudson's bulk power distribution system and sub-systems in the Mid-Hudson River Valley of New York. The study will be conducted in accordance with the New York Independent System Operator ("NYISO") SRIS Criteria and Procedures and will be provided to the NYISO for review and approval. The results of the SRIS will be presented in Exhibit 5 of the Article 10 Application.

In Exhibit 34 of the Article 10 Application, Danskammer Energy will provide further information and analysis regarding the Project's proposed electric interconnection, including the design voltage and voltage of initial operation, the equipment proposed to be installed in the substation, and any other interconnection details, as needed and appropriate.

No off-site improvements to telecommunication or communication facilities are anticipated to be necessary as it is expected that the proposed Project will interconnect to existing telecommunication and communication facilities that presently service the Project site. Exhibit 40 of the Article 10 Application will address the telecommunication interconnection proposed for the Project, including a detailed description of the telecommunications interconnection, an analysis demonstrating that there will be sufficient capacity to support the requirements of the Project and a description of the agreements that have been executed, with companies for providing the communications interconnection.

2.11 Safety and Security

The safety of the surrounding community and power plant personnel is of paramount importance to Danskammer Energy. The new Project facilities will be designed, constructed, and operated in accordance with all applicable codes and standards. They will be designed and built with significant attention paid to safety in the overall design, as well as for the proper handling and storage of fuels and hazardous materials. Danskammer Energy will coordinate safety plans for construction and operation activities with existing facility staff, local emergency officials and community members.

Safety and emergency systems will include, but not be limited to: secondary containment around storage tanks and oil containing equipment, such as transformers and waste oil storage areas, fire detection and protection systems, automatic shutdown systems, emergency lighting with back-up power supply, and adequate fire-fighting access and supplies. The Project facilities also will incorporate control systems and surveillance systems that will pre-alarm and then automatically shut down the affected portion of the plant if abnormal conditions occur, such as a loss of fuel or low fuel supply pressure, or the sounding of fire alarms.

In terms of security, during construction, security personnel will be on site 24 hours per day, 7 days per week, 365 days per year. All site security personnel will be equipped with communication equipment (i.e., plant radios and cell phones) to maintain contact with construction and operations management personnel and any outside agencies, as necessary.

During operations, the Project facility will be staffed 24 hours per day, 7 days per week, 365 days per year. As with the existing Station, the site perimeter will be secured with a chain link fence topped with barbed wire, sliding motorized gates and surveillance equipment so as to permit only authorized access to the Project facility's service drive, structures and operations. Motorized gate(s) will be closed during normal operations with access provided by facility (control room) personnel or passcode by employees. Live video surveillance of the entrance, perimeter and discrete sensitive areas will be monitored by control room staff.

Normal plant lighting, consistent with Town of Newburgh exterior lighting requirements, and emergency temporary lighting, will be provided throughout the Project facility and site.

A comprehensive safety security plan will be developed and implemented during both construction and facility operation. The plan will set forth in Exhibit 18 to the Article 10 Application and shall be consistent with 16 NYCRR §1001.18 and describe such features as:

(1) access controls including fences, gates, bollards and other structural limitations;

(2) electronic security and surveillance facilities;

(3) security lighting, including specifications for lighting and controls to address work-site safety requirements and to avoid off-site light trespass;

(4) lighting of facility components to ensure aircraft safety;

(5) setback considerations for facility components which may present hazards to public safety; and

(6) a description of a cyber security program for the protection of digital computer and communication systems and networks that support the facility demonstrating compliance with current standards issued by a standards setting body generally recognized in the information technology industry, including, but not limited to, the Federal Department of Commerce's National Institute of Standards and Technology, the North American Electric Reliability Corporation, or the International Organization for Standardization, and providing for periodic validation of compliance with the applicable standard by an independent auditor.

The security plan will also include a preliminary safety response plan to ensure the safety and security of the local community. This plan will detail what contingencies would constitute a safety or security emergency and appropriate responses to these situations. The response plan will discuss what evacuation control measures are or will be put in place as well as the protocols for notifying the community.

The security plan will also provide a description of on-site equipment and systems designed to prevent or handle fire emergencies and hazardous substance incidents, as well as contingency plans in the event of an emergency situation.

Danskammer Energy will provide these plans to local first responders and the New York State Division of Homeland Security and Emergency Services and request that comments be provided. Any reviews that are received will be included in Exhibit 18 of the Article 10 Application.

2.12 Fire Protection

A complete fire protection system, designed in general accordance with applicable state and local codes and recommended practices, including the New York State Building Codes, will be installed. This will include, where appropriate, foam protection systems, deluge systems, electric and diesel fire pumps, and an internal fire protection loop. The fire protection loop capacity will be determined in accordance with the recommendations of National Fire Protection Association ("NFPA") 850 and will be at least equal to the flow rate required for the largest single fire hazard.

The primary source of water for fire protection purposes will be the Town of Newburgh's municipal distribution system. During operation, plant personnel will be trained as an on-site fire brigade, working cooperatively with the local fire department, to function as the first line of defense in the event of a small fire at the facility.

2.13 Pollution Control Facilities

Other than the air quality control facilities described above, it is not anticipated that any additional pollution control facilities will be required to construct and operate the Project. If new or modified permits are required, Exhibit 16 of the Article 10 Application will discuss the required approvals, associated pollution control measures, and completed applications as required under 16 NYCRR §1001.16.

2.14 Construction

Following receipt of the Article 10 Certificate and associated environmental permits and approvals (currently anticipated in October 2020), construction will commence on the Project combined cycle facility, which will have a targeted on-line date of 2023.

Consistent with 16 NYCRR §1001.12, Exhibit 12 of the Article 10 Application will present the construction sequence for the installation of the Project. A preliminary quality assurance and control plan will be provided that describes how Danskammer Energy will monitor and assure conformance of facility installation with all applicable design, engineering and installation standards and criteria, including the necessary staff and associated qualifications. Exhibit 12 will also include a statement that confirms that the work will conform to the requirements for

protection of underground facilities contained in Public Service Law Section 119-b and that any new poles, if needed, will comply with applicable pole numbering and marking requirements,

Exhibit 12 will also provide preliminary design, location and construction controls to avoid interference with existing utility transmission and distribution systems. These plans and descriptions will indicate the locations and typical separations of proposed facilities from existing electric, gas, and communications infrastructure and any measures to minimize interferences where avoidances cannot be reasonably achieved.

Finally, a plan for addressing public complaints will be provided in Exhibit 12, which will include procedures for dispute resolution during Project facility construction and operation.

2.15 Cost of Facilities

Exhibit 14 of the Article 10 Application will provide a detailed estimate of total capital costs associated with the Project; however, certain information may considered proprietary and would be provided under separate cover and requested to be treated as trade secrets under applicable regulations. Overall, the Project is currently and preliminarily estimated to cost approximately $400 million.

Detailed costs identified in Exhibit 14 will be estimates (in 2018 dollars) and will include the costs associated with development and permitting, equipment and engineering, and other costs necessary for interconnecting the Project to the New York grid. Sources for these costs will be determined based on Danskammer Energy's experience building energy projects in the United States and the estimated prices from third-party vendors associated with the various Project components.

2.16 Decommissioning and Site Restoration

Once the Project is fully operational, existing generation equipment at the Station will be decommissioned. Danskammer Energy will consider options for the existing plant building structure and other existing plant equipment and structures at a later date, outside of this Article 10 proceeding.

The Project has an estimated useful economic life of approximately 30 years, at which time the Project will be decommissioned or repowered. Exhibit 29 of the Article 10 Application will provide a plan for decommissioning the Project facility, which will include removing and recycling, to the greatest extent possible, equipment and related materials in order to essentially return the Project site to its pre-construction condition. The performance criteria for site restoration will be presented, which are expected to fall into the following categories:

(1) safety and the removal of hazardous conditions;
(2) environmental impacts;
(3) aesthetics;
(4) salvage and recycling;
(5) potential future uses for the site; and
(6) the useful life of the facility.

As part of this discussion, the plan included in Exhibit 29 will discuss how decommissioning and restoration of the Project at a future date will be funded and the sequence of activities to achieve the plan's goals.

3.0 ENVIRONMENTAL IMPACT ANALYSIS

3.1 Land Use

3.1.1 Introduction

This section corresponds the analysis to be performed and included in the Article 10 Application, providing background data and information pertaining to land use, including a brief description of the existing land use setting, existing land use plans, any potentially significant adverse impacts to existing or currently planned land uses and the proposed analysis to be performed and included in Exhibit 4 to evaluate the Project's compatibility with existing land uses in the vicinity of the proposed Project site. This section further identifies governing zoning regulations, including a description of the existing and proposed zoning districts within the study area and the uses permitted within each zone. Existing service districts and providers have also been identified.

3.1.2. Existing Conditions

Danskammer Energy's approximately 180-acre Danskammer Generating Station property is located at Danskammer Road in the Town of Newburgh, Orange County, New York. The proposed Project will be located entirely within the bounds of the existing Danskammer site, which encompasses all lands needed for the construction and operation of the new Project facility. The lands are currently devoted to industrial use, along with natural and maintained vegetation.

The Town of Newburgh will be considered the "host community" for this Project.

A. LAND USE

Orange County consists primarily of suburban communities where the primary land use is single-family residential. The land use patterns throughout the local areas around the general region of the Project site are largely residential, agricultural and open space with pockets of commercial and industrial development especially along major transportation corridors. Dutchess County, to the east of the Project on the other side of the Hudson River, has historically been primarily agricultural lands but current land uses are consistent with those of Orange County.

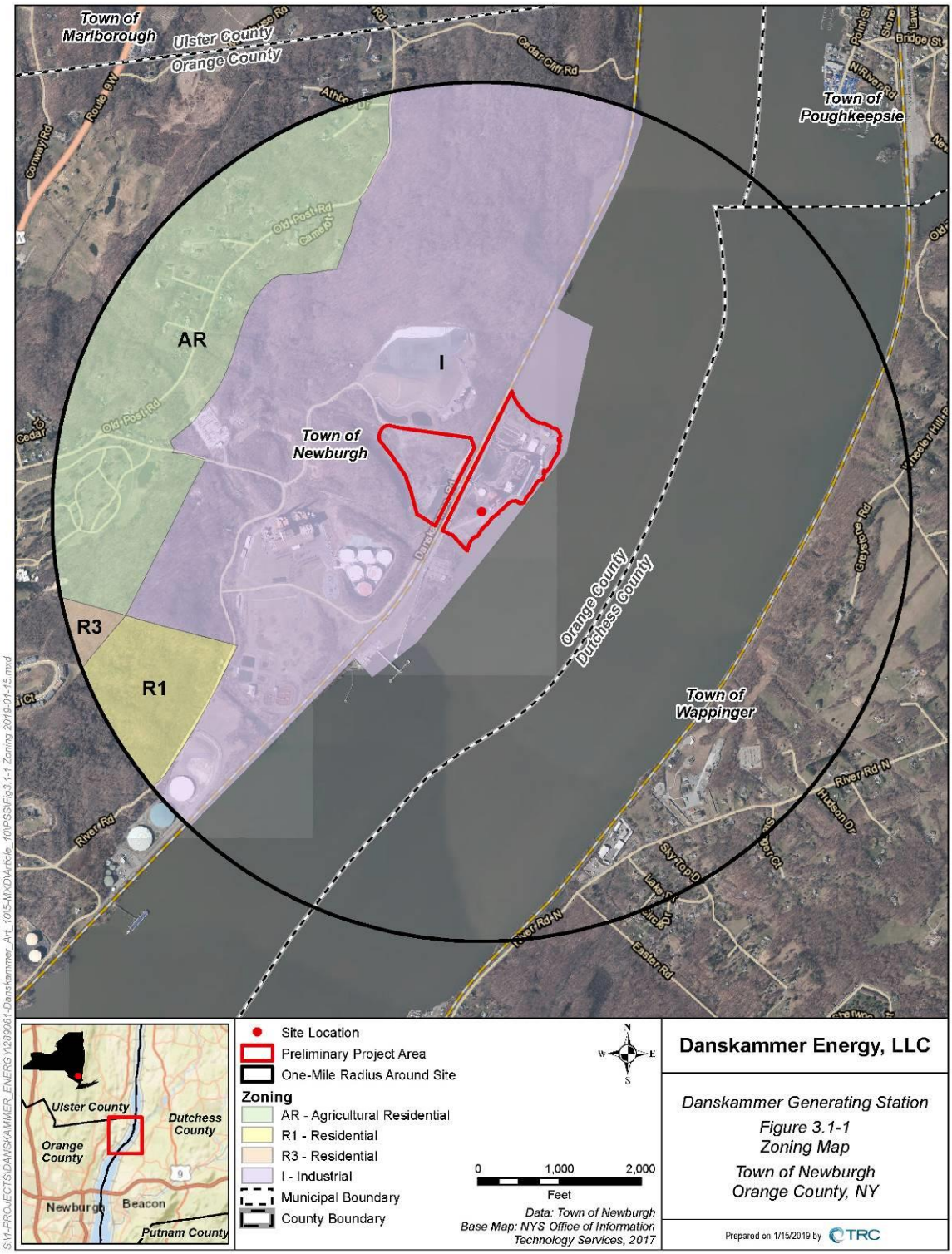
Predominant land uses surrounding the Project site include industrial, residential, and commercial uses. The Project site is bordered on the east by the Hudson River. Within a mile of the proposed Project site the land use is primarily industrial, including the adjoining Roseton Generating Station. There is a single residential structure located adjacent to the property to the west of the landfill, after which the nearest residential or commercial building is located approximately 2,000 feet away from the Project facilities as currently proposed. Within one mile of the proposed Project, there is a scattering of residential and commercial buildings, the Cedar Hill Cemetery, and vacant land. On the other side of the Hudson River, land use is primarily residential, agricultural and open space with scattered commercial operations.

B. ZONING

The Zoning Law of the Town of Newburgh (Code of the Town of Newburgh, Ch. 185) establishes specific land use requirements, such as minimum lot size, setback requirements, and other limitations. The Zoning Law also establishes specific zoning districts and use categories, including residential, agricultural, business, and industrial. The Zoning Law also provides for several overlay districts.

The proposed Project site is located on the existing Danskammer Generating Station site, whose lots are currently zoned Industrial Business District ("I-District") (see Figure 3.1-1). All other properties immediately surrounding the Project site fall within the I-District, which extends to approximately 400 feet to the east of Old Post Road. The parcels upon which the Project are to be located generally do not comply with the lot dimensions for the I-District (e.g. minimum lot area, minimum lot width) and the existing facility accordingly exceeds the allowable maximum building coverage and surface coverages. In order to take advantage of existing infrastructure (thereby minimizing construction-related environmental impacts), the proposed facility would be located less than 400 feet from the property line for the rear yard (which is the Hudson River) and less than 400 feet from the property line to the southwest (which is zoned I-District). Preliminary design analysis further suggests that the stack for the combined cycle unit will exceed 100 feet in height. Section 6.5.2 of Exhibit 6 of this Preliminary Scoping Statement contains a more extended discussion of the relationship between these Project features and the bulk and area requirements of the I-District.

Figure 3.1-1. Zoning Map



Absent the Article 10 process, a variance from the Town of Newburgh would be required for the proposed Project. In view of existing technology, construction of the Project structures cannot comply with these bulk use requirements, and therefore can be considered unduly restrictive. For example, the height of the stack is driven by air modeling analyses undertaken to ensure that the Project will comply with all air quality standards, which in turn protect public health and welfare. Therefore, Danskammer Energy may request the Siting Board to elect not to apply these provisions. Danskammer Energy is also in discussions with the Town of Newburgh Code officials with respect to any concerns they may have with these provisions. Further analysis related to zoning has been included in Section 6.0, State and Local Regulations of this Preliminary Scoping Statement.

C. FLOOD PLAINS

The Federal Emergency Management Agency ("FEMA") Flood Insurance Rate Maps (“FIRMs“) for the Project site area (Community Panel Numbers 36071C0153E and 36071C0154E) were reviewed to assess whether the Project site is located within a designated flood plain or flood zone. Based on this review, areas of the Danskammer-owned property parcels are located within the 100-year and 500-year flood zone but the proposed Project facility will be located outside of these zones (see Figure 3.1-2). Since the site was inundated with flood waters during Super Storm Sandy in October 29, 2012, flood protection measures including an emergency pump, wave action buffers and elevated platforms and diking have been installed. The new facility will mitigate or eliminate flooding concern through a design that incorporates flood resistant design elements, including raising the elevation of the facility foundation.

D. POLICY

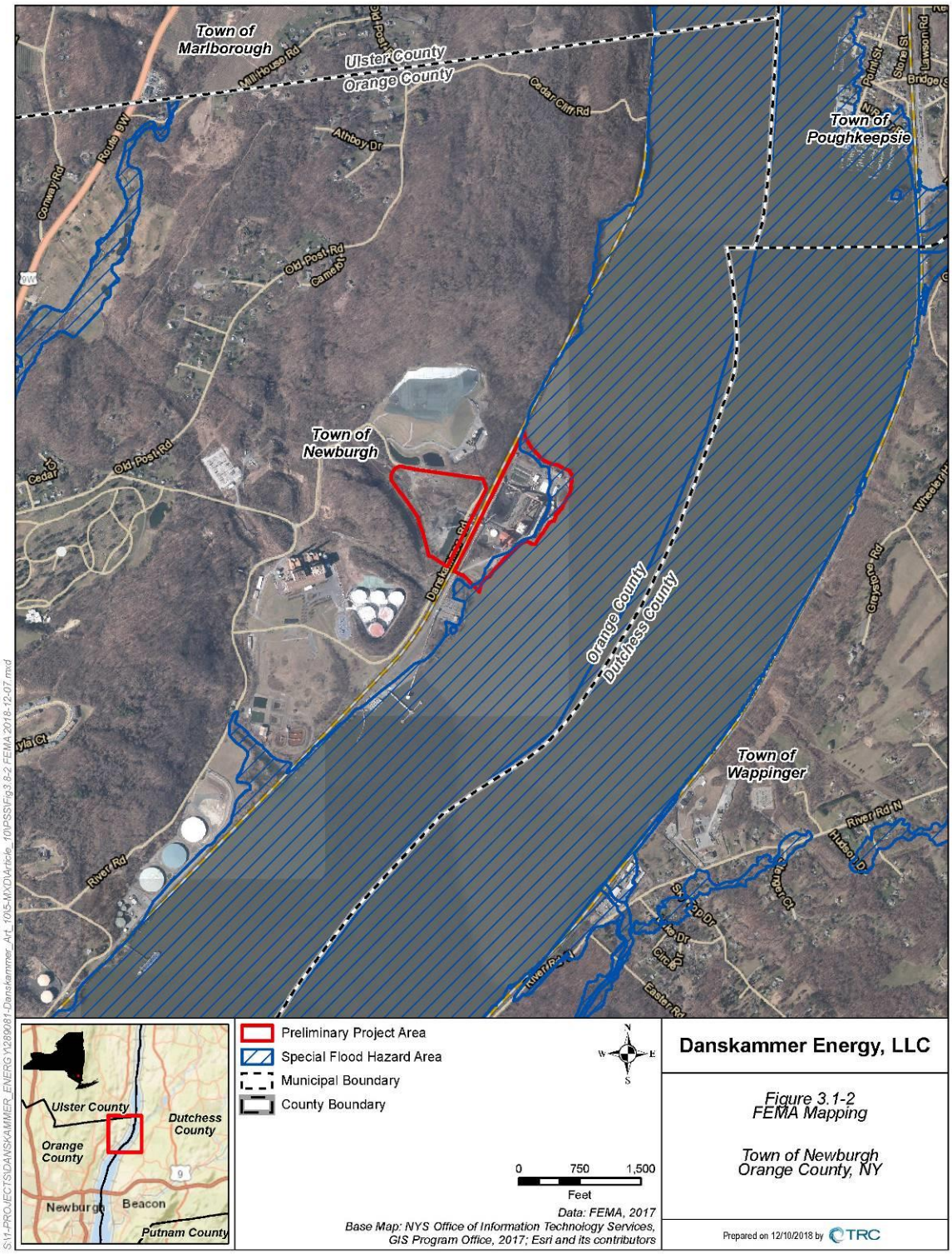
This section provides an overview of primary existing local and county land use plans that could be related to the Project facility. A discussion of the Coastal Management Program is also provided.

Town of Newburgh Comprehensive Plan

The Town of Newburgh Comprehensive Plan Update[1] was adopted in August, 2006. It notes that the Town wants to guide new development in a way that benefits the Town while also preserving and enhancing its overall character. The plan establishes an Action Plan with over fifty short, intermediate, and long-term items for the Town to consider for implementation. These action items were sorted into three broad categories: Infrastructure and Utilities, Transportation, and Planning & Zoning. These measures were collectively expected to address key concerns such as traffic congestion, housing affordability, economic development and community aesthetics. The Project is consistent with the Town of Newburgh's Comprehensive Plan, which would have considered the existing plant in its analysis.

[1] http://www.townofnewburgh.org/uppages/PDF%20Final%20Report.pdf (accessed on January 24, 2019)

Figure 3.1-2. FEMA Mapping



Orange County Comprehensive Plan

The Orange County Comprehensive Plan — 2018 Update – FINAL DRAFT[2] was published by the Orange County Department of Planning on January 3, 2019. The draft plan provides an overview of the current and future state of the County, replacing the Orange County Comprehensive Plan: Strategies for Quality Communities adopted in 2003 and last updated in 2010. The draft plan seeks to balance growth and development pressures with the desire to protect open spaces and working landscapes in a manner that is equitable and thoughtful.

The County's draft plan continues to support the previously established "Priority Growth Area" concept first advanced in the 1980 Comprehensive Plan. The Project site is located in a priority growth area located along the County's northeast border, where growth has already occurred along the shores of the Hudson River in proximity to 1-87.

The County's draft plan also includes the following supplemental chapters:

- Orange County, NY Open Space Plan
- Orange County Water Master Plan
- Orange County Greenway Compact
- Orange County Agriculture and Farmland Protection Plan
- Economic Development Strategy
- Transportation

New York Coastal Management Program

The Project site is wholly located within the designated New York State Coastal Zone and therefore, the proposed activities at the Project site are subject to New York State's Coastal Management Program ("CMP") policies. The CMP is involved in initiatives that help to revitalize, promote, and protect New York's waterfronts. In pursuit of this goal, New York State permits any local government that has any portion of its jurisdiction contiguous to the state's coastal waters to submit a Local Waterfront Revitalization Program ("LWRP") to NYSDOS for

[2] https://www.orangecountygov.com/DocumentCenter/View/11613/Orange-County-Comprehensive-Plan-2018-Update---Core-Document-FINAL-DRAFT-1319 (accessed on January 24, 2019)

approval. See Exhibit 6, Section 6.6 for further information regarding the New York State Coastal Management Program.

The Project site has two designated significant coastal fish and wildlife habitats ("SCFWHs") within its vicinity: Kingston-Poughkeepsie Deepwater and the Wappinger Creek SCFWHs. Aquatic Ecology is discussed in Section 3.8, Water Resources and Aquatic Ecology, and wildlife is discussed in Section 3.7, Terrestrial Ecology and Wetlands of this Exhibit 3 to this Preliminary Scoping Statement.

Recreational resources near the Project area are both water and land based. Impacts to recreational resources are expected to be limited as the Project site is contained on land previously used for electrical generation. For more information regarding recreational resources, see Section 3.12, Recreational Resources.

E. DISTRICTS AND SERVICE PROVIDERS

An initial assessment of the service providers and districts associated with the Project site located in the Town of Newburgh, Orange County, New York has been conducted by reviewing available state, county and local mapping (Table 3.1-1). Mapping of these areas, as well as any potential impacts upon these providers/districts, will be addressed within the Article 10 Application.

The list below includes both special purpose units of government as well as special districts. In New York, local municipal services are provided by general purpose municipal corporations (i.e., counties, cities, towns and villages) as well as by several types of special purpose units of government. These include school districts and fire districts. Additional services are provided by special districts. Special districts created under the town law are not units of local government, but instead are administered by the local boards. These districts were created to provide a service in an area of need and are supported only by the property owners within the district. These include districts such as refuse and garbage, library, sewer, etc.

Table 3.1-1. Districts and Service Providers

Service Provider	District
School Districts	Newburgh Enlarged City School District
	Marlboro Central School District
Fire Districts	Newburgh Fire Department
	Middle Hope Fire Department
Police Provider	Orange County Sheriff's Department
	New York State Police, Troop T
Sanitary Sewer Provider	On-site treatment facility
Water Provider	Town of Newburgh Water Department
Garbage Collection Provider	Lamela Sanitation — Based in Marlboro, NY
Library Districts	Newburgh Free Library
	Marlboro Free Library
Parks Provider	Town of Newburgh Recreation Department
Mass Transit	Dial a Bus
School Transportation Providers	Newburgh Enlarged City School District Gallagher Bus Service Corp George M. Carroll Inc Mid State Bus Service, Inc Visconti Bus Service, LLC West Point Tours, Inc Marlboro Central School District Quality Bus Service

3.1.3. Potentially Significant Adverse Impacts

The proposed Project site will be located on property currently used for energy production and the generation of electric power, and therefore the Project can be viewed as a continuation of the existing land use of this area. Additionally, Danskammer Energy has selected portions of the site for development that have been previously disturbed so as to limit impacts to natural resources onsite. As a consequence, land use will not change significantly as a result of this Project.

Based on a preliminary analysis, the proposed Project would conflict with the use and bulk zoning standards for the I-District. The Article 10 Application will review the project for

compliance with these and other zoning requirements. Further analysis related to zoning has been included in Section 6.0, State and Local Regulations of this Preliminary Scoping Statement.

Temporary construction impacts, such as increases in ambient noise and traffic levels from construction vehicles, may be experienced in the nearby neighborhoods. However, these potential impacts will be temporary in nature and are not expected to be significant. All construction will be in accordance with applicable local and state construction standards and conditions of the regulatory approvals to be obtained for the Project.

The Danskammer Energy Center is not expected to significantly adversely impact the districts and service providers identified above. The number of operational employees is expected to be comparable to those working at the existing plant so there will not be the placement of a significant number of additional students in local schools. Danskammer Energy will maintain its existing relationship with local fire and police services to ensure the facility continues to operate in a safe manner. Potential impacts upon potable water and wastewater are discussed in Section 3.8, Water Resources and Aquatic Ecology.

3.1.4. Extent and Quality of Information Required for Evaluation

Danskammer Energy will review existing land use and local regulations as they relate to this Project. This review will assess the community character, new and proposed land uses, master plans, zoning districts and permitted land use within each zone. Study methodology to assess the Project's compatibility with community character will include: a review of published literature, existing land uses and governing and proposed land use plans; interviews with public officials; and public reach out to local stakeholders, community action groups and the business community, among others. Service providers will be contacted and consulted with in order to eliminate and/or limit any potential adverse impacts.

In conjunction with the preparation of Exhibit 4 of the Article 10 Application, a qualitative assessment of the Project's compatibility with existing, proposed and allowed land uses within one mile of the Project area ("Land Use Study Area") will be conducted. This assessment will include an analysis of the Project's compatibility with any known or proposed land use changes or developments in the Land Use Study Area, including any known traffic patterns for that

development. Future land use plans for the surrounding communities, including any proposed large-scale developments, will be determined through conversations with town planning officials, the review of published planning documents, and feedback/information obtained through public outreach efforts with potentially affected stakeholders. Sensitive receptors (e.g., local schools, hospitals, recreational areas) will be identified through consultation with local officials. The potential impacts, if any, of short- and long-term effects of Project-generated noise, odor, traffic and visual impacts on the use and enjoyment of areas within the Land Use Study Area will be presented. This evaluation will also discuss the compatibility of the Project's above-ground structures, as well as any underground interconnections, with surrounding land uses. The assessment will specifically address impacts to nearby land uses that may be of particular concern to the community, such as residential areas, schools, civic facilities, recreational facilities and commercial areas.

Exhibit 4 of the Article 10 Application will discuss the proposed Project's consistency with local plans and land use policies, including an extensive review of documents including but not limited to:

- Orange County Comprehensive Plan – Final Draft (January 2019)
- Orange County Administrative Code
- Dutchess County Natural Resources Inventory
- Town of Newburgh Comprehensive Plan (October 2005)
- Town of Newburgh General Code
- Local Laws of the Town of Newburgh
- City of Poughkeepsie Waterfront Redevelopment Strategy

This review will include a detailed discussion and assessment of specific plan components and recommendations, including whether any of the pertinent Comprehensive Plans are specifically referenced and/or incorporated by reference into governing municipal laws or land use regulations.

Exhibit 4 will also provide the following maps with such scale and detail to enable discrimination and identification of all necessary features:

- Existing land uses within the study area;
- Existing overhead and underground major facilities for electric, gas, or telecommunications transmission within the study area;
- All properties upon which any component of the Project will be located, and all adjoining properties, that shows the current land use, tax parcel number, owner of record of each parcel. For adjoining properties, the maps will indicate any known, approved or pending land developments;
- Existing zoning districts and proposed zoning districts within the study area;
- Designated coastal areas, inland waterways and local waterfront revitalization program areas, groundwater management zones, designated agricultural districts, flood-prone areas, and other critical environmental areas;
- Recreational and other land uses within the Land Use Study Area that may be affected by the sight, sound, or odor of construction or operation practices of the Project; and,
- Aerial photographs of all properties within the study area which include the photographer's name and the date the photographs were taken.

3.1.5 Avoidance and Minimization Measures to Adverse Impacts

The Project design was selected with the intention of limiting or avoiding potential adverse impacts to land use. The potential for significant land use impacts has been greatly reduced, if not altogether mitigated, as the site is currently utilized for electricity production.

The Article 10 Application will provide a description of design elements and any proposed mitigation measures. Through the Public Involvement Program, community input will be a key component of this design process.

3.1.6 Proposed Measures to Mitigate Unavoidable Impacts

Unavoidable indirect impacts to properties adjacent to the Project site will be limited in nature and will be primarily of a visual aspect. The proposed Project facility will not be out of character with the industrial landscape of the area. Visibility of the Project facility should not adversely affect community character. More information on visual impacts can be found in Section 3.9, Visual Impacts. Unavoidable direct impacts should be minimal since the Project is sited on property that is currently and has historically been utilized for energy production.

3.2 Public Health and Safety

3.2.1 Introduction

The Project, which is the repowering of the Danskammer Generating Station into the new Danskammer Energy Center ("Project"), may have the potential to cause direct or indirect public health and safety effects and/or benefits. These effects and/or benefits can occur during construction as well as during operation. The safety of the surrounding community and existing Danskammer Generating Station personnel is of paramount importance to Danskammer Energy. The Danskammer Energy Center will be designed, constructed and operated in accordance with all applicable codes and standards, including the National Ambient Air Quality Standards ("NAAQS") or New York Ambient Air Quality Standards ("NYAAQS"), applicable state and local water quality standards, as well as applicable building code design standards and requirements, including the applicable New York State Building Codes and National Fire Protection Association ("NFPA") requirements.

3.2.2 Existing Public Health and Safety Characteristics

The proposed Project will be located at the current Danskammer Generating Station site located in the Town of Newburgh, Orange County, New York. The Project site is currently operating as an electric generation facility. The proposed Project will modernize the existing Station by installing a new, state-of-the-art electric generator. The new generator will provide a more environmentally friendly, efficient and cost effective facility to generate electricity while minimizing impacts on the surrounding communities and providing tax benefits into the future.

As the existing facility already operates as an electric generating station, Danskammer Energy holds a valid Title V operating air permit issued by the New York State Department of Environmental Conservation ("NYSDEC") as well as other applicable federal, state and local approvals and licenses required to operate the facility including a State Pollutant Discharge Elimination System ("SPDES") permit and a NYSDEC Major Oil Storage Facility ("MOSF") License. Liquid wastes typical of power generation operations are found onsite and include used oils collected from oil/water separators and spent lubricating oils. These wastes are transported off-site by an outside contractor and properly recycled or disposed.

While the existing facility's previous operations involved coal combustion prior to 2012, now, neither the existing Station nor the new Project are fueled by coal combustion. The ash and other by-products that were generated by the prior use of coal combustion have been recovered for on-site placement or off-site re-use. A solid waste management facility ("SWMF") located on the larger Danskammer Energy property is used exclusively to receive the coal combustion by-products and other facility waste that were generated by the prior use of coal combustion at the existing facility. Materials such as fly ash, bottom ash, coal pyrite, waste water treatment sludge, boiler cleaning waste sludge, sanitary treatment plant sludge and small volumes of utility demolition waste are permitted for placement in the landfill. Fly ash is generated in the largest volume, with bottom ash and pyrites comprising smaller volumes. The SWMF operates in accordance with New York State Environmental Conservation Act, Article 27 Title 7: 6NYCRR §360-2.11 (c) under the General and Special Conditions detailed in NYSDEC Permit No. 3-3346-00011-000018. Permit Special Condition Nos. 35 and 36 specifically require water quality monitoring in conformance with an approved Environmental Monitoring Plan ("EMP").

Additional solid waste generated at the facility is limited to small quantities of office waste, small amounts of wastewater treatment residues and general plant refuse. Solid waste is collected onsite and is removed from the Project site under a contract with a local private vendor.

Existing security measures have been developed to maintain a safe work environment for employees. Danskammer Energy has emergency response plans for the existing plant and maintains contact with local police, fire and emergency service providers (who were all contacted prior to the submission of this document). Police services are provided to the site by the Town of Newburgh Police Department. Fire and emergency medical services are provided to the Project by the Newburgh and Middle Hope Fire Departments.

Potable water is supplied by the Town of Newburgh and the property is located within the Orange County Sewage District although the facility does not use sewage service.

3.2.3 Potentially Significant Adverse Impacts and Information Required for Evaluation

It is expected that some hazardous materials such as ultra-low sulfur diesel fuel, lubrication oil, and natural gas will be required for construction and operation of the Project. Release of these

substances into the environment can pose a threat to public health and safety. Collection, storage, transport and handling of all hazardous materials will be done in accordance with all federal, state, county and local regulations. Liquid and solid wastes will be generated in the same manner as under the existing conditions of the site. Disposal and treatment of wastes will be done, at a minimum, in a manner consistent with that of the existing facility operations.

Temporary construction impacts, such as increases in ambient noise and traffic levels from construction vehicles, may be experienced in the nearby neighborhoods. However, these potential impacts will be temporary in nature. All construction will be in accordance with applicable local and state construction standards and conditions of the regulatory approvals to be obtained for the Project.

The potential beneficial adverse impacts on air and water resources that may result from the project are discussed within sections 3.3, Air Resources, and 3.8, Water Resources and Aquatic Ecology, respectively. As noted in Section 2.5, preliminary air quality analysis indicates that a new combined cycle plant will result in emissions on a per megawatt-hour basis that are 40% lower than the older existing units. Regarding water resources, as detailed in Section 3.8, repowering of the station will result in the elimination of once-through cooling at the site. Similarly, the existing discharge of heated cooling water to the Hudson River will be eliminated. As such, existing cooling water related aquatic organism impacts will be eliminated. Potential construction related impacts to aquatic species are expected to be minimal.

In accordance with United States Environmental Protection Agency ("USEPA") and NYSDEC regulations a Prevention of Significant Deterioration Air Permit Application (i.e., Part 201 Pre-Construction Air Permit) will be filed with the NYSDEC for review, comment, and approval.

In compliance with the Clean Water Act, a Spill Prevention, Control and Countermeasure ("SPCC") Plan will be prepared which will assess the amount of hazardous material associated with the Project both during construction and operation. During construction, this will primarily be diesel fuel; during operation, this will be primarily be natural gas, ultra-low sulfur diesel, and lubricating oil for the electric generating equipment. In accordance with MOSF requirements and federal chemical storage requirements, a Spill Prevention Report ("SPR") and SPCC Plan,

(SPR/SPCC Plan) will be prepared for the repowered facility to meet the requirements for an SPR as defined in the NYCRR 598.1 and to meet the requirements for a SPCC Plan as defined in Title 40 of the Code of Federal Regulations (40 CFR) at Part 112.

In accordance with Article 10 and other state and federal requirements, in its Article 10 Application Danskammer Energy will conduct an analysis of the effect of the proposed Project on the following resources within the Project study areas: air resources, public water supply resources; community emergency response resources and facilities including police, fire, and emergency medical response plans; emergency communications facilities; hospitals and emergency medical facilities; designated evacuation routes; existing known hazard risks including flood hazard zones, areas of geologic, geomorphic, or hydrologic hazards, storm surge zones, areas of coastal erosion hazard; explosive or flammable materials, transportation and storage facilities; contaminated sites; and other local risk factors. Beneficial impacts of the Project will be identified and discussed and any potential adverse impacts on the environment will be studied related to short-term and long-term effects.

Danskammer Energy notes that upon a preliminary review, no significant adverse impacts are anticipated upon local police, fire, hospitals, and other emergency service providers during construction and operation of the proposed Project.

3.2.4 Avoidance and Minimization Measures to Adverse Impacts

Significant attention to safety will be incorporated into the Facility design and operation, including matters such as security concerns, the handling and storage of materials, and impacts to the environment.

Prior to commencement of construction of the Danskammer Energy Center, a safety plan will be developed and implemented complying with applicable requirements. Danskammer Energy will coordinate the preparation and implementation of this plan with local officials and community members. Additionally, a comprehensive security plan will be developed and implemented during both construction and facility operation. The security plan will be communicated to the Newburgh Fire Department, Middle Hope Fire Department, Newburgh Emergency Coordinator, and Orange County Department of Emergency Services.

The Project facility itself will include comprehensive safety and protection systems including: secondary containment around storage tanks; containment around transformers; fire detection and protection systems; automatic shutdown systems; emergency lighting with back-up power supply; and adequate firefighting access and supplies.

Impacts to air quality will be assessed in terms of air pollutant concentrations at receptor points, which will be determined for the study area around the proposed Project. As indicated in Section 3.3, Air Resources, the proposed Project facility is required to demonstrate that the impact on air quality does not cause or contribute to a violation of the NAAQS or NYAAQS air standards. The standards have been developed to protect the most sensitive population groups, which include young children, the elderly, asthmatics, and those members of the population that have other breathing difficulties. Operation of the proposed Project facility will not result in any significant air quality impacts.

In addition to the air standards addressed above, the Project facility design will be operated in accordance with all applicable codes and standards as to avoid or minimize impairments to the public health and safety, including adverse effects with regard to water resources, noise, traffic and transportation, visual resources, community facilities and natural resources.

3.3 Air Resources

3.3.1 Article 10 Requirements for Air Quality

Exhibit 17 of the Article 10 Application identifies the air quality regulatory framework that will apply to the assessment of the Project and the general air resources which may be affected by the proposed action. Exhibit 17 includes an examination of the applicable air quality requirements and consequent actions required of the proposed Project (i.e. the regulatory framework for obtaining project approval, the need to apply pollution control, and the need to perform modeling impact assessments).

Exhibit 17 of the Article 10 Application will examine the potential adverse impacts of criteria pollutants and other New York State Department of Environmental Conservation ("NYSDEC")-regulated pollutants ("Criteria Pollutant Study") and non-criteria pollutants ("Non-Criteria Pollutant Study") from the Project on air quality. The components of the Criteria Pollutant Study

will include identification of climate and air quality conditions, an inventory of proposed emission sources at the proposed Project, an assessment of Project technology and design, emissions, impacts, and, where warranted, a cumulative impacts analysis with major combustion sources near the proposed site. The components of the Non-Criteria Pollutant Study will include identification of emission constituents and an assessment of Project impacts.

The following documents, and the methodology, procedures and data set forth therein, will govern the study protocol for the air quality analyses presented in Exhibit 17:

For performing air quality dispersion modeling:

- NYSDEC, DAR-10, NYSDEC Guidelines on Modeling Procedures for Air Quality Impact Analysis (May 2006).
- Air Modeling Protocol to be established to the satisfaction of the U.S. Environmental Protection Agency ("USEPA") and NYSDEC specifically for this Project (hereinafter Air Modeling Protocol).
- USEPA, Draft New Source Review Workshop Manual (October 1990).
- USEPA, Revisions to the Guideline on Air Quality Models – Enhancement to the AERMOD Dispersion Modeling System and Incorporation of Approaches to Address Ozone and Fine Particulate Matter, Appendix W of 40 CFR Part 51 (January 2017).
- USEPA, Guidance for PM-2.5 Permit Modeling (May 2014).
- USEPA, Clarification on the Use of AERMOD Dispersion Modeling for Demonstrating Compliance with the NO_2 National Ambient Air Quality Standard (May 2014).

For determining stack height:

- USEPA, Guidelines for Determination of Good Engineering Practice Stack Height (EPA Technical Support Document for the Stack Height Regulations), Document Number EPA-450/4-80-023R (June 1985).

For quantification and assessment of the Project's contribution to the New York State total deposition of sulfates and nitrates, in accordance with the State Acid Deposition Control Act:

- Memorandum from Leon Sedefian to IAM Staff (March 4, 1993).

For performing visibility modeling:

- USEPA, Workbook for Plume Visual Impact Screening and Analysis, Document Number EPA-454/R-92-023 (October 1992).

For non-criteria pollutant ambient air guidelines and benchmarks:

- NYSDEC, DAR-1, AGC/SGC Tables, Division of Air Resources, Air Toxics Section, July 14, 2016.
- NYSDEC, DAR-1, Guidelines for the Evaluation and Control of Ambient Air Contaminants Under Part 212 (August 2016).

For assessing fine particulate matter ("PM-2.5") emissions:

- NYSDEC Policy, CP-33, Assessing and Mitigating Impacts of Fine Particulate Matter Emissions, December 29, 2003.
- NYSDEC Subpart 231-12.6, Significant Impact Levels.

3.3.1.1 CRITERIA POLLUTANTS

The Criteria Pollutant Study will include:

- An assessment of meteorological data sets from Orange County Airport (KMGJ) in Montgomery, New York and the Albany International Airport (KALB) in Albany, New York. Approval for the meteorological data to be used in the Part 201 and Part 231 Prevention of Significant Deterioration ("PSD") applications will be obtained from NYSDEC and USEPA.
- An assessment of existing air quality levels and air quality trends for criteria pollutants in the region surrounding the Project, including air quality levels and trends taken from regional air quality summaries and air quality trend reports. NYSDEC operated monitors will be used to determine background ambient air pollutant levels.
- An assessment of the impacts from quantifiable criteria pollutant emissions, including those generated during construction of the Project. A qualitative assessment of construction-related emissions and impacts and an analysis of fugitive dust and a discussion of fugitive dust control measures.
- A control technology assessment for pollutants subject to PSD and Non-attainment New Source Review ("NSR") promulgated under 6 NYCRR Part 231 to determine the best available control technology and lowest achievable emission rate for the relevant pollutants.

- If the Project's hazardous air pollutant emissions exceed the regulatory thresholds, a case-by-case determination of the Maximum Achievable Control Technology for major sources will be conducted to determine an emission limit or control technology.
- The requirements of New Source Performance Standards at 40 CFR Part 60 will be addressed.
- Pursuant to DAR-10, an assessment of an optimal stack height taking into consideration Good Engineering Practice stack height for the Project and air-quality-related values, visual impacts, and other considerations. The USEPA Building Profile Input Program for PRIME ("BPIPPRM") will be used to determine directionally dependent building dimensions for use in air quality modeling.
- An assessment of stack emissions of criteria pollutants, stack emissions being provided in hourly and annual estimates based on manufacturer's data, available emission factors, design control efficiencies, and other data or regulatory specifications related to the design of the Project.
- A calculation of the number of nitrogen oxides ("NO_x") and volatile organic compounds ("VOCs") emission offsets (if required) to be obtained at a 1.15 to 1.0 ratio and how those offsets will be obtained in accordance with 6 NYCRR 231. The Project's compliance with the NO_x Reasonable Available Control Technology provisions of 6 NYCRR Part 227-2 will be addressed. The Project is subject to the Acid Rain Program and will submit a complete application to the NYSDEC prior to commencing operation.
- Criteria pollutant modeling will be done in accordance with the NYSDEC's DAR-10 and USEPA Revisions to the Guideline on Air Quality Models. Computer input (including meteorological data) and output files of the dispersion modeling results will be provided to NYSDEC and USEPA. The maximum criteria pollutant specific impacts of the Project will be displayed in graphical format on a map of the surrounding community. A wind rose of the meteorological data will be provided.
- A comparison of the predicted air quality impacts from the dispersion modeling analysis to the Significant Impact Levels identified in Subpart 231-12, to the New York Ambient Air Quality Standards ("NYAAQS") as identified in Part 257, and the National Ambient Air Quality Standards ("NAAQS").
- In accordance with the State Acid Deposition Control Act, an assessment of the Project's contribution to the New York State total deposition of sulfates and nitrates at 18 NYSDEC-defined sensitive receptors in New York State, New England, and Canada.
- A cumulative source impact analysis as required by 6 NYCRR Part 231 will be performed for any criteria pollutant for which the Project has impacts above Significant Impact Levels pursuant to Subpart 231-8. The additional sources to be analyzed to determine whether the Project, in conjunction with existing and proposed major sources, will cause or contribute to exceedances of applicable NAAQS and/or NYAAQS, will include those identified as "nearby" existing sources, as defined in the USEPA Modeling Guidelines and NSR Workshop Manual, and by the DAR-10 procedures. The inventory of existing major sources will be developed using data obtained from the NYSDEC, as well as New Jersey and Connecticut (if necessary). The inventory, if necessary, will be

included as an appendix to the air permit application and will be verified by the source state or per DAR-10 requirements. All information submitted in support of the inventory of nearby sources, including verification worksheets, will become public information.

- Start-up and shut-down conditions will be addressed by the Project's air quality modeling. Ancillary emission sources and aqueous ammonia accidental release scenarios will be included and specified in the air modeling analysis.

3.3.1.2 NON-CRITERIA POLLUTANTS

The Non-Criteria Pollutant Study will include:

- A review of pertinent available data provided in USEPA AP-42 on non-criteria pollutants that may be emitted by combustion sources at the Project and identification of emission factors for those pollutants. The specific source, including publication date, of each emission factor will be clearly identified and referenced in the Article 10 Application.
- An assessment of the emission rates for non-criteria pollutants that may be emitted from the combustion sources at the Project. All emission rate calculation methodologies will be described in detail, with appropriate equations and examples provided. These descriptions either will accompany or specifically be cited in any corresponding tabulated emissions data presented in the Article 10 Application.
- An estimation of the maximum potential ground level air concentrations (short-term and annual averages) of non-criteria pollutants from the Project, quantified using the models and approach as approved by the USEPA and NYSDEC.
- A comparison of the maximum predicted air concentrations of non-criteria pollutants to NYSDEC Short-term and Annual Guideline Concentrations.

3.3.1.3 OTHER ANALYSES

Visibility

Exhibit 17 of the Article 10 Application will provide a general visibility impairment analysis for scenic vistas using VISCREEN.

Offsite Consequence Analysis

Exhibit 17 of the Article 10 Application will include an analysis of an accidental release scenario for aqueous ammonia for the Project, following USEPA's procedures for off-site consequence analyses, irrespective of the applicability of section 112(r) of the Clean Air Act.

3.3.1.4 GREENHOUSE GAS EMISSIONS

On July 15, 2009 the NYSDEC issued its Draft Commissioner's Policy "Assessing Energy Use and Greenhouse Gas Emissions in Environmental Impact Statements". The purpose of this Policy is to assist DEC staff in reviewing how energy use and Green House Gas ("GHG") emissions are identified and analyzed in the State Environmental Quality Review Act ("SEQRA") Environmental Impact Statement ("EIS") process, in order for staff to meet NYSDEC's obligations under SEQRA, as well as to maximize energy efficiency and minimize potential climate change impacts of the proposed action. Article 10 does not specifically address GHG Emissions (apart from the requirement in 6 NYCRR §1000.9 that certain applicants provide a comparative evaluation of the environmental impacts of the proposed and alternative locations, including vulnerability to climate change impacts). Therefore, the Project's potential impact on climate change will be addressed using procedures outlined in the July 15, 2009 Draft Commissioner's Policy.

Exhibit 17 of the Article 10 Application will:

- quantify direct and indirect carbon dioxide ("CO_2") emissions from the Project during construction and operation of the proposed Project;
- provide a comparison of annual and total Project lifetime CO_2 emissions to other sources of existing power generation; and,
- provide a menu of possible mitigation options

The Project's compliance with 6 NYCRR Part 251, CO_2 Performance Standards for Major Electric Generating Facilities, and the Regional Greenhouse Gas Initiative will also be addressed.

3.3.2 Ambient Air Quality and Meteorology

3.3.2.1 EXISTING AIR QUALITY

The proposed Project site is located in Orange County, NYSDEC Region 3, Air Quality Control Region 161. The NYSDEC Bureau of Air Surveillance operates various air quality monitors for sulfur dioxide ("SO_2"), nitrogen dioxide ("NO_2"), carbon monoxide ("CO"), inhalable particulates (particulate matter with a mean diameter less than 10 micrometers ("PM-10")), inhalable particulates (PM-2.5), ozone ("O_3"), and nitrogen oxides ("NO_x").

According to 40 CFR §81.333, Orange County is "attainment" or "unclassified" for all criteria pollutants. However, Orange County is located in the ozone transport region.

Table 3.3-1 presents 2015-2017 background concentration data for O_3, SO_2, PM-10, PM-2.5, NO_2, and CO. The ambient air quality data presented herein has been converted from parts per million ("ppm") or parts per billion ("ppb") values, as reported by NYSDEC, to micrograms per cubic meter ("$\mu g/m^3$") concentration values to coincide with the modeling output (except for PM-10 and PM-2.5, which are reported by NYSDEC in $\mu g/m^3$). The highest second-highest short-term (1-, 8-, 24-hour) and maximum annual average concentrations are presented, except for 24-hour PM-2.5 (98^{th} percentile concentration), 8-hour O_3 (4^{th} highest concentration), annual PM-2.5 (3-year average), 1-hour SO_2 (99^{th} percentile concentration), and 1-hour NO_2 (98^{th} percentile concentration). The following text provides more detailed information for these pollutants, including trends and concentrations specific to air quality standards.

Table 3.3-1. 2015-2017 Background Concentrations of Criteria Pollutants

Pollutant	Averaging Period	NAAQS ($\mu g/m^3$)	Background Concentration[1] ($\mu g/m^3$)			Monitor Location
			2015	2016	2017	
CO	1-hour	40,000	2,300	2,024	403	Pfizer Lab/Botanical Gardens, Bronx County
	8-hour	10,000	1,840	1,150	345	
SO_2	1-hour[3]	196	15.2	6.3	15.5	Mt. Ninham, Putnam County
	24-hour	365	6.0	3.9	3.7	
	Annual	80	1.5	0.6	0.6	
PM-10	24-hour	150	39	32	27	IS 52, Bronx County
PM-2.5[5]	24-hour	35	19.3	20.0	13.9	Newburgh, Orange County
	Annual	12	7.4	6.1	6.1	
NO_2	1-hour[4]	188	114.1	104.9	105.3	Pfizer Lab/Botanical Gardens, Bronx County
	Annual	100	32.3	29.3	28.0	
O_3[2]	8-hour	137	141	125	116	Valley Central, Orange County

Notes:
[1] Highest second-highest short-term (1-, 8- & 24-hour) and maximum annual average concentrations presented, except for 24-hour PM-2.5, which is the 98^{th} percentile concentration, 8-hour O_3, which is the fourth highest concentration, annual PM-2.5, which is the 3-year average, 1-hour SO_2, which is the 99^{th} percentile concentration, and 1-hour NO_2, which is the 98^{th} percentile concentration.
[2] Fourth-highest daily maximum 8-hour concentration averaged over 3 years is 127 ug/m^3.
[3] 1-hour 3-year average 99^{th} percentile value for SO_2 is 12.3 ug/m^3.
[4] 1-hour 3-year average 98^{th} percentile value for NO_2 is 108.1 ug/m^3.
[5] 24-hour 3-year average 98^{th} percentile value for PM-2.5 is 17.7 ug/m^3; Annual 3-year average value for PM-2.5 is 6.5 ug/m^3.
Sources: NYSDEC 2015, 2016, 2017.

Ozone (O_3)

The closest representative ozone monitor to the Project site is the Valley Central Station (Valley Central High School, 1175 Route 17K in Montgomery) in Orange County. The Valley Central monitor is located approximately 21.5 kilometers west-southwest of the Project site.

The fourth highest daily maximum 8-hour concentration averaged over 3 years is less than the 8-hour federal standard of 0.070 ppm (137 $\mu g/m^3$). It is difficult to infer pollution trends from ozone data since the occurrence of this pollutant depends not only on a source of the precursor pollutants (NO_x and VOC), but also the driving mechanism (sunlight) that accelerates ozone formation. Relative consistency in regional NO_x and VOC concentrations may result in different resultant ozone concentrations depending on the particular meteorological pattern that was established during the May 1 through September 30 ozone season. In addition, long range transport of ozone and ozone precursors from upwind power plants in the Ohio Valley and Midwest likely contribute to an increased background concentration in the Northeast.

Sulfur Dioxide (SO_2)

The closest representative NYSDEC monitor for SO_2 is located at Mt. Ninham (Gypsy Trail Road in Kent) in Putnam County. This station is located approximately 25.0 kilometers east-southeast from the Project site. Data collected from 2015 through 2017 shows a trend of the annual averaging period concentrations decreasing from 2015 to 2016 and staying the same from 2016 to 2017. Data collected from 2015 through 2017 shows a trend of the 24-hour averaging period concentrations decreasing year over year.

The maximum ambient SO_2 concentrations recorded between 2015 and 2017 show the 3-year average 99^{th} percentile 1-hour SO_2 value to be 6 percent of the NAAQS of 0.075 ppm (196 $\mu g/m^3$).

Inhalable Particulates (PM-10)

PM-10 was recorded at the IS 52 monitor at 681 Kelly Street in Bronx County, which is the nearest representative monitor. This monitor is located approximately 84.1 kilometers south of the Project site. Highest second-highest background 24-hour PM-10 concentrations at the IS 52

monitor have decreased 12 ug/m^3 since 2015 and are 18 percent of the NAAQS. In 2015, the highest second-highest background 24-hour PM-10 concentration was 26 percent of the NAAQS.

Nitrogen Dioxide (NO_2)

The monitor at 200th Street and Southern Boulevard in the Bronx (Pfizer Lab/Botanical Gardens) is the nearest representative NO_2 monitor to the site. Between 2015 and 2017, 1-hour NO_2 concentrations have decreased approximately 8 percent. The maximum ambient NO_2 concentrations recorded between 2015 and 2017 show the 3-year average 98th percentile 1-hour NO_2 value to be over 57 percent of the NAAQS of 0.1 ppm (188 μg/m^3). Maximum annual NO_2 concentrations decreased from 2015 to 2017 (approximately 13 percent). The maximum annual concentration of 32.3 μg/m^3 recorded in 2015 is 32.3 percent of the 0.053 ppm (100 μg/m^3) ambient air quality standard.

Carbon Monoxide (CO)

Like NO_2, the monitor at 200th Street and Southern Boulevard in the Bronx (Pfizer Lab/Botanical Gardens) is the nearest representative CO monitor to the site. CO is more of a concern from mobile sources than from stationary combustion sources, and, as such, monitors are often located at busy traffic intersections (known as CO "hot-spots"). CO concentrations are monitored for comparison against a 1-hour and an 8-hour standard. The highest-second highest 1-hour concentration in 2015 was recorded to be 2,300 μg/m^3, which is well under the standard of 35 ppm (40,000 μg/m^3). The highest-second highest 8-hour concentration in 2015 was 1,840 μg/m^3, also well under the 9 ppm (10,000 μg/m^3) standard.

Inhalable Particulates (PM-2.5)

The monitor at 55 Broadway in Newburgh, Orange County (Newburgh) is the nearest representative PM-2.5 monitor to the site. The USEPA has set the annual PM-2.5 NAAQS at 12 μg/m^3, based on the three-year average of annual mean concentrations, and the 24-hour PM-2.5 NAAQS at 35 μg/m^3, based on the three-year average of the 98th percentile of the 24-hour concentrations. Using the latest three years of PM-2.5 monitoring data (2015-2017) from the Newburgh monitor, the three-year average annual PM-2.5 concentration was 6.5 μg/m^3, while

the three-year average 98th percentile 24-hour PM-2.5 concentration was 17.7 μg/m^3. Both of these values are less than their respective PM-2.5 NAAQS.

3.3.2.2 METEOROLOGY

The climate at the Project site is similar to that of the other Northeastern regions of the United States, with humid hot summers and year around precipitation. The Project site area is considered a humid continental climate by definition (Köppen climate classification *Dfa*).

The Orange County Airport (MGJ) meteorological monitoring station is approximately 25.9 kilometers west-southwest of the Project site. Of the various parameters collected, several are important in assessing the proposed Project impacts. Specifically, wind speed and direction are necessary for the prediction of the location and magnitude of facility emission impacts (a third parameter, atmospheric stability, is calculated from several other parameters). Since combustion turbine performance is affected by inlet air temperature, average maximum and minimum ambient temperature must also be considered.

The Orange County Airport meteorological tower location is such that the recorded data are free of interferences caused by nearby natural or manmade structures and provide an excellent representation of dispersion characteristics within the local area. A wind rose displaying wind speed and direction data for all five years (2013-2017) is shown in Figure 3.3-1. Over the five-year period, predominant winds varied from southwest, south-southwest, and north-northeast. The average wind speed over the five years was 3.04 meters per second. Calm winds during the five years had an average frequency of 0.98 percent.

Local Climatological Data (i.e., normals, means, and extremes) is available from the Albany International Airport meteorological monitoring station, approximately 132 kilometers north of the Project site (Figure 3.3-2). The 30-year annual average recorded dry bulb temperature at the Albany International Airport is 48.2°F (9.0°C). The minimum and maximum mean daily temperatures are 38.6°F (3.7°C) and 57.8°F (14.3°C), respectively. The lowest temperature ever recorded at Albany International Airport was -28.0°F (-33.3°C) and the highest temperature ever recorded was 100°F (37.8°C). For the Project, a minimum temperature of -5°F (-20.6°C), a

maximum temperature of 100°F (37.8°C), and an average temperature of 50°F (10.0°C) will be used to evaluate combustion turbine performance in the air quality modeling analysis.

Figure 3.3-1. Wind Rose

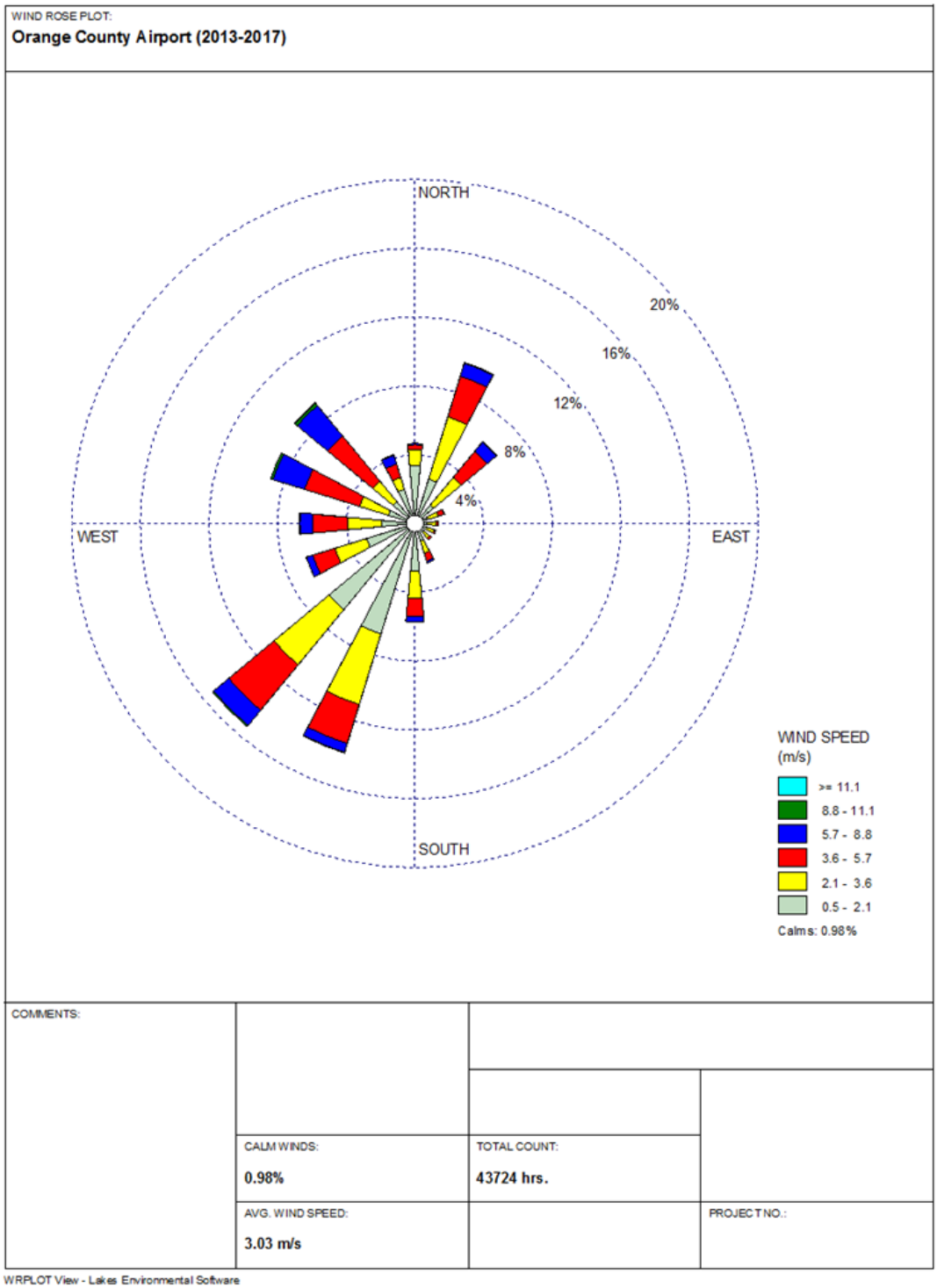


Figure 3.3-2. 2017 Local Climatological Data

METEOROLOGICAL DATA FOR 2017
ALBANY (KALB)

LATITUDE: 42° 44'N LONGITUDE: 73° 47'W ELEVATION (FT): GRND: 280 BARO: 281 TIME ZONE: EASTERN (UTC -5) WBAN: 14735

	ELEMENT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	MEAN DAILY MAXIMUM	37.1	42.7	40.6	63.3	66.7	78.3	81.2	79.4	76.6	68.7	48.1	32.2	59.6
	HIGHEST DAILY MAXIMUM	54	74	66	87	94	95	88	89	91	80	68	53	95
	DATE OF OCCURRENCE	12	24	01	16+	18	12	20	22	25	08	02	19+	JUN 12
	MEAN DAILY MINIMUM	24.0	23.9	22.8	42.7	48.1	57.6	62.3	59.1	54.6	46.9	30.2	17.5	40.8
	LOWEST DAILY MINIMUM	4	3	5	27	36	44	52	49	38	31	18	-5	-5
	DATE OF OCCURRENCE	09	10	05	09	10+	02	30	27+	02	17	30+	28	DEC 28
	AVERAGE DRY BULB	30.6	33.3	31.7	53.0	57.4	68.0	71.7	69.2	65.6	57.8	39.2	24.9	50.2
	MEAN WET BULB	28.2	29.8	27.3	46.4	51.4	60.6	64.5	62.5	59.8	52.5	35.2	22.8	45.1
	MEAN DEW POINT	21.6	21.9	16.7	38.4	45.4	55.2	60.5	57.9	55.6	47.1	27.9	15.7	38.7
	NUMBER OF DAYS WITH:													
	MAXIMUM >= 90°	0	0	0	0	2	3	0	0	3	0	0	0	8
	MAXIMUM <= 32°	8	5	8	0	0	0	0	0	0	0	0	13	34
	MINIMUM <= 32°	22	24	23	2	0	0	0	0	0	1	16	29	117
	MINIMUM <= 0°	0	0	0	0	0	0	0	0	0	0	0	5	5
H/C	HEATING DEGREE DAYS	1060	880	1025	373	256	51	2	17	93	236	766	1239	5998
	COOLING DEGREE DAYS	0	0	0	22	28	147	220	158	120	19	0	0	714
RH	MEAN (PERCENT)	69	62	56	61	66	67	71	70	73	69	64	67	66
	HOUR 01 LST	75	68	60	71	75	80	82	83	85	79	70	71	75
	HOUR 07 LST	74	70	61	65	71	70	75	76	82	78	71	74	72
	HOUR 13 LST	60	52	47	47	55	51	55	54	54	53	52	59	53
	HOUR 19 LST	67	59	54	59	64	68	69	69	74	70	63	66	65
W/O	NUMBER OF DAYS WITH:													
	HEAVY FOG(VISBY <= 1/4 MI)	0	2	1	0	0	0	3	0	4	3	0	2	15
	THUNDERSTORMS	0	1	0	1	4	6	6	2	3	1	0	0	24
PR	MEAN STATION PRESS. (IN.)	29.67	29.61	29.82	29.69	29.57	29.59	29.65	29.70	29.72	29.76	29.78	29.73	29.69
	MEAN SEA-LEVEL PRESS. (IN.)	30.01	29.93	30.12	30.01	29.89	29.90	29.96	30.02	30.04	30.07	30.11	30.06	30.01
WINDS	RESULTANT SPEED (MPH)	3.3	4.1	6.0	2.5	1.8	2.8	1.5	2.1	1.2	2.9	3.3	4.3	2.6
	RES. DIR. (TENS OF DEGS.)	26	26	29	25	25	23	22	23	31	20	25	28	26
	MEAN SPEED (MPH)	8.1	9.4	10.6	8.4	7.8	7.2	5.5	5.6	4.6	6.8	9.2	7.4	7.6
	PREVAIL.DIR.(TENS OF DEGS.)	17	17	29	17	17	17	17	17	17	17	17	29	17
	MAXIMUM 2-MINUTE WIND													
	SPEED (MPH)	37	38	37	30	38	30	24	37	31	32	43	38	43
	DIR. (TENS OF DEGS.)	18	28	29	30	28	29	27	29	30	25	29	27	29
	DATE OF OCCURRENCE	11	25	02	11	18	25	07	22	07	30	19	25	NOV 19
	MAXIMUM 3-SECOND WIND:													
	SPEED (MPH)	50	45	54	41	50	37	32	49	37	46	56	55	56
	DIR. (TENS OF DEGS.)	18	28	27	31	29	29	27	29	32	14	28	28	28
	DATE OF OCCURRENCE	11	25	02	08	18	25	08	22	07	30	19	13	NOV 19
PRECIPITATION	WATER EQUIVALENT:	3.13	2.85	4.07	2.88	5.98	5.12	4.01	3.76	2.73	2.80	0.90	1.93	40.16
	TOTAL (IN.)	1.40	0.71	1.58	0.95	1.04	1.52	1.31	1.72	1.01	1.06	0.41	0.56	1.72
	GREATEST 24-HOUR (IN.)	23-24	25	14	04	01-02	04-05	17-18	18	06-07	29	05-06	22-23	AUG 18
	DATE OF OCCURRENCE													
	NUMBER OF DAYS WITH:	13	9	12	16	17	14	12	9	8	11	10	12	143
	PRECIPITATION 0.01	6	4	6	7	13	10	8	5	5	5	4	7	80
	PRECIPITATION 0.10	1	0	2	0	0	2	1	1	0	1	0	0	8
	PRECIPITATION 1.00													
SNOWFALL	SNOW,ICE PELLETS,HAIL	4.6	22.2	19.4	0.2	T	T	0.0	0.0	0.0	0.0	T	12.1	58.5
	TOTAL (IN.)	1.7	11.2	17.0	0.2	T	T	0.0	0.0	0.0	0.0	T	5.5	17.0
	GREATEST 24-HOUR (IN.)	31	09	14	01	31+	26					27+	25	MAR 14
	DATE OF OCCURRENCE	1	11	15	0	0	0	0	0	0	0	0	5	15
	MAXIMUM SNOW DEPTH (IN.)	27+	13	15									26+	MAR 15
	DATE OF OCCURRENCE													
	NUMBER OF DAYS WITH:	2	4	2	0	0	0	0	0	0	0	0	4	12
	SNOWFALL >= 1.0													

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NORMALS, MEANS, AND EXTREMES
ALBANY (KALB)

LATITUDE: 42° 44'N LONGITUDE: 73° 47'W ELEVATION (FT): GRND: 280 BARO: 281 TIME ZONE: EASTERN (UTC -5) WBAN: 14735

	ELEMENT	POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	30.6	34.6	44.4	58.3	69.4	77.9	82.3	80.4	72.2	59.8	47.9	35.8	57.8
	MEAN DAILY MAXIMUM	79	30.7	33.4	43.4	57.6	69.7	77.8	83.0	80.8	72.6	61.2	48.0	35.5	57.8
	HIGHEST DAILY MAXIMUM	72	71	74	89	92	94	99	100	99	100	89	82	72	100
	YEAR OF OCCURRENCE		2007	2017	1998	1990	2017	1952	1953	1955	1953	1963	1950	2015	SEP 1953
	MEAN OF EXTREME MAXS.	79	51.5	52.1	66.3	80.2	87.0	91.7	93.3	91.4	87.3	78.5	67.6	55.1	75.2
	NORMAL DAILY MINIMUM	30	14.5	17.3	25.7	37.3	47.1	56.5	61.4	59.9	51.6	39.6	31.5	21.2	38.6
	MEAN DAILY MINIMUM	79	13.6	15.4	24.9	36.0	46.6	55.5	60.6	58.8	50.4	39.9	31.0	19.9	37.7
	LOWEST DAILY MINIMUM	72	-28	-21	-21	10	26	36	40	34	24	16	5	-22	-28
	YEAR OF OCCURRENCE		1971	1973	1948	1965	1968	2009	1978	1982	1947	1969	1972	1969	JAN 1971
	MEAN OF EXTREME MINS.	79	-8.0	-6.1	6.0	22.3	32.1	41.2	48.6	45.6	35.0	24.8	15.5	-0.8	21.4
	NORMAL DRY BULB	30	22.6	25.9	35.0	47.8	58.3	67.2	71.8	70.1	61.9	49.7	39.7	28.5	48.2
	MEAN DRY BULB	79	22.1	24.4	34.2	46.8	58.1	66.8	71.8	69.8	61.5	50.5	39.5	27.7	47.8
	MEAN WET BULB	34	19.4	20.7	27.7	38.4	50.1	59.3	64.0	62.9	56.3	45.0	34.7	25.2	42.0
	MEAN DEW POINT	34	18.0	19.0	26.2	36.5	48.5	57.9	62.9	62.1	55.5	43.9	33.5	23.8	40.7
	NORMAL NO. DAYS WITH:														
	MAXIMUM >= 90	30	0.0	0.0	0.0	0.1	0.3	1.5	3.6	1.4	0.2	0.0	0.0	0.0	7.1
	MAXIMUM <= 32	30	16.5	11.0	3.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	1.2	10.5	42.8
	MINIMUM <= 32	30	28.6	25.5	22.9	7.9	0.6	0.0	0.0	0.0	0.2	6.2	17.0	26.2	135.1
	MINIMUM <= 0	30	4.5	1.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	7.5
H/C	NORMAL HEATING DEG. DAYS	30	1316	1093	929	520	235	52	5	18	144	478	759	1131	6680
	NORMAL COOLING DEG. DAYS	30	0	0	0	4	26	118	218	177	51	4	0	0	598
RH	NORMAL (PERCENT)	30	72	69	66	62	67	70	72	75	78	75	74	74	71
	HOUR 01 LST	30	76	74	73	72	78	83	85	88	89	84	79	78	80
	HOUR 07 LST	30	78	77	77	73	76	79	82	87	90	87	82	80	81
	HOUR 13 LST	30	64	59	54	50	53	56	56	59	60	58	63	65	58
	HOUR 19 LST	30	70	66	61	56	59	63	64	71	76	73	72	73	67
S	PERCENT POSSIBLE SUNSHINE	61	46	52	54	54	56	60	64	60	57	52	37	39	53
W/O	MEAN NO. DAYS WITH:														
	HEAVY FOG(VISBY <= 1/4 MI)	54	1.5	1.4	1.5	0.6	0.9	1.0	1.3	2.0	3.5	3.6	1.4	1.9	20.6
	THUNDERSTORMS	72	0.1	0.1	0.5	1.1	3.2	5.0	5.5	4.5	2.0	0.7	0.4	0.1	23.2
CLOUDINESS	MEAN:														
	SUNRISE-SUNSET (OKTAS)				5.6		6.4	6.4							
	MIDNIGHT-MIDNIGHT (OKTAS)				6.4										
	MEAN NO. DAYS WITH:														
	CLEAR														
	PARTLY CLOUDY														
	CLOUDY														
PR	MEAN STATION PRESSURE(IN)	34	29.73	29.72	29.72	29.66	29.67	29.64	29.65	29.70	29.75	29.75	29.76	29.75	29.71
	MEAN SEA-LEVEL PRES. (IN)	34	30.06	30.07	30.04	29.98	29.99	29.95	29.96	30.01	30.07	30.07	30.09	30.07	30.03
WINDS	MEAN SPEED (MPH)	34	8.7	9.1	9.6	9.2	7.9	7.3	6.6	6.0	6.3	7.1	8.3	8.4	7.9
	PREVAIL.DIR(TENS OF DEGS)	46	30	30	30	30	17	17	17	17	17	17	17	30	30
	MAXIMUM 2-MINUTE:														
	SPEED (MPH)	22	44	46	46	40	55	43	41	47	35	39	43	43	55
	DIR. (TENS OF DEGS)		31	29	30	29	32	23	29	35	32	28	29	29	32
	YEAR OF OCCURRENCE		2006	2006	1997	2004	1998	2002	1999	1999	2002	1998	2017	2000	MAY 1998
	MAXIMUM 3-SECOND														
	SPEED (MPH)	22	56	60	56	52	82	54	52	68	49	58	56	55	82
	DIR. (TENS OF DEGS)		25	31	27	28	32	23	28	18	01	33	28	28	32
	YEAR OF OCCURRENCE		2008	2006	1997	2016	1998	2002	1999	2002	1999	2007	2017	2017	MAY 1998
PRECIPITATION	NORMAL (IN)	30	2.59	2.20	3.21	3.17	3.61	3.79	4.12	3.46	3.30	3.68	3.29	2.93	39.35
	MAXIMUM MONTHLY (IN)	71	6.44	5.04	6.21	7.95	8.96	8.74	9.91	10.41	11.06	9.00	8.07	6.73	11.06
	YEAR OF OCCURRENCE		1978	2008	2008	1983	1953	2006	2009	2011	1999	2005	1972	1973	SEP 1999
	MINIMUM MONTHLY (IN)	71	0.42	0.24	0.26	0.60	1.05	0.65	0.49	0.73	0.40	0.20	0.87	0.64	0.20
	YEAR OF OCCURRENCE		1980	1987	1981	1999	2015	1964	1968	1947	1964	1963	2012	1958	OCT 1963
	MAXIMUM IN 24 HOURS (IN)	71	1.91	2.32	2.47	2.78	2.46	3.48	3.49	4.81	6.00	3.31	2.26	4.02	6.00
	YEAR OF OCCURRENCE		1978	2016	2008	2007	2013	1952	1996	2011	1999	1987	1991	1948	SEP 1999
	NORMAL NO. DAYS WITH:														
	PRECIPITATION >= 0.01	30	12.8	10.4	12.1	11.9	13.1	12.2	10.8	10.7	9.8	10.4	11.7	11.9	137.8
	PRECIPITATION >= 1.00	30	0.3	0.3	0.6	0.5	0.5	0.8	1.0	0.7	0.8	0.8	0.7	0.4	7.4
SNOWFALL	NORMAL (IN)	30	17.6	12.4	10.2	2.3	0.1	0.0	0.0	0.0	0.0	0.0	2.8	13.7	59.1
	MAXIMUM MONTHLY (IN)	71	47.8	34.5	34.7	17.7	2.2	T	T	T	T	6.5	24.6	57.5	57.5
	YEAR OF OCCURRENCE		1987	1962	1956	1982	2002	2017	2016	2014	2015	1987	1972	1969	DEC 1969
	MAXIMUM IN 24 HOURS (IN)	71	21.2	17.9	26.6	17.5	2.2	T	T	T	T	6.5	21.9	19.2	26.6
	YEAR OF OCCURRENCE'		1983	1958	1993	1982	2002	2017	2016	2014	2015	1987	1971	2002	MAR 1993
	MAXIMUM SNOW DEPTH (IN)	69	36	22	28	13	0	0	0	0	0	4	18	36	36
	YEAR OF OCCURRENCE		1970	1971	1993	1982						2011	1971	1969	JAN 1970
	NORMAL NO. DAYS WITH:														
	SNOWFALL >= 1.0	30	4.2	2.9	2.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.9	3.7	14.7

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PRECIPITATION (inches) 2017 ALBANY (KALB)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1988	1.95	3.00	1.62	2.22	2.95	1.42	3.12	4.77	1.50	1.40	4.58	1.02	29.55
1989	0.46	1.60	2.69	2.68	5.92	6.52	5.91	2.90	2.81	5.53	1.90	0.75	39.67
1990	3.84	3.94	3.66	3.87	6.12	2.66	1.68	6.66	1.81	4.60	3.67	3.50	46.01
1991	2.15	1.67	2.53	4.14	2.74	1.69	1.65	4.32	3.33	3.82	4.76	2.92	35.72
1992	1.86	1.30	1.66	2.77	3.61	1.96	4.26	2.05	2.43	2.80	3.66	3.02	31.38
1993	2.14	2.86	5.12	5.39	1.37	2.87	6.55	1.54	3.22	3.31	3.80	3.08	41.25
1994	3.20	1.80	4.27	3.45	3.27	3.26	4.25	4.13	2.15	0.83	1.53	2.58	34.72
1995	2.11	1.95	2.20	1.94	1.35	2.27	2.23	3.66	2.28	8.03	3.76	2.30	34.08
1996	5.08	1.49	2.10	5.76	4.24	3.60	6.46	3.15	5.07	2.03	2.91	4.50	46.39
1997	1.67	2.00	4.41	2.30	2.60	0.74	2.34	4.64	4.10	1.91	5.91	2.10	34.72
1998	3.80	2.58	2.86	3.49	5.87	6.58	2.74	2.21	1.98	4.14	1.65	1.04	38.94
1999	4.78	1.59	4.15	0.60	2.77	2.08	2.24	3.45	11.06	2.42	2.07	1.42	38.63
2000	3.43	2.83	3.80	4.23	4.95	6.69	4.48	4.69	3.06	2.48	1.90	4.38	46.92
2001	1.00	1.85	5.50	1.33	3.21	3.78	3.59	2.10	1.64	1.26	1.38	1.95	28.59
2002	2.77	1.61	3.56	2.51	4.55	5.45	0.83	3.86	3.37	4.02	4.86	3.97	41.36
2003	3.45	2.15	2.26	2.89	5.08	2.84	4.52	4.41	4.91	4.67	3.66	5.48	46.32
2004	1.16	1.33	2.43	3.06	3.54	2.08	7.20	7.34	4.67	1.23	3.02	2.93	39.99
2005	4.27	1.38	3.99	2.36	1.44	3.87	7.54	3.01	2.20	9.00	5.71	2.95	47.72
2006	4.75	1.02	1.23	4.73	5.31	8.74	2.92	3.92	3.87	4.95	3.13	2.01	46.58
2007	2.14	1.54	3.29	5.96	3.51	3.36	7.03	2.34	2.74	5.53	3.04	4.74	45.22
2008	1.00	5.04	6.21	2.63	1.24	5.45	6.94	3.01	4.21	5.09	2.43	4.54	47.79
2009	2.24	0.64	2.63	1.47	4.08	5.02	9.91	3.58	1.73	4.16	2.17	3.59	41.22
2010	1.75	3.99	2.69	1.25	1.88	4.69	2.88	1.69	3.44	7.10	3.53	2.95	37.84
2011	2.37	3.87	4.20	4.66	4.68	4.67	3.04	10.41	6.62	3.54	1.86	3.76	53.68
2012	2.26	1.00	1.54	2.97	6.03	2.15	4.41	2.60	5.71	3.40	0.87	4.05	36.99
2013	1.46	1.67	2.49	2.47	6.65	8.68	5.39	2.70	4.81	2.29	1.84	3.38	43.83
2014	2.31	3.48	2.72	2.44	2.61	4.77	6.87	1.58	0.89	4.22	2.44	5.37	39.70
2015	2.17	2.15	1.25	2.10	1.05	6.70	3.42	4.30	6.89	3.20	1.75	3.67	38.65
2016	1.24	4.07	1.18	1.84	2.43	2.31	6.44	3.94	2.18	2.90	3.10	1.75	33.38
2017	3.13	2.85	4.07	2.88	5.98	5.12	4.01	3.76	2.73	2.80	0.90	1.93	40.16
POR= 79 YRS	2.42	2.24	2.93	2.95	3.49	3.64	3.71	3.35	3.54	3.13	2.96	3.00	37.36

WBAN : 14735

AVERAGE TEMPERATURE (°F) 2017 ALBANY (KALB)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1988	20.6	24.1	34.2	46.6	59.5	65.1	75.0	72.3	60.0	46.0	41.0	26.6	47.6
1989	27.8	24.2	33.5	44.6	59.5	68.0	71.6	69.8	62.5	51.5	39.3	13.7	47.2
1990	32.8	28.2	37.8	48.9	55.3	67.3	73.0	70.9	61.7	53.1	41.8	33.6	50.4
1991	23.2	30.0	37.4	51.2	63.2	69.0	71.6	71.2	59.9	53.2	40.1	28.9	49.9
1992	24.5	26.9	31.5	44.7	58.5	65.2	67.6	67.4	61.4	46.5	38.9	29.8	46.9
1993	26.6	18.3	31.4	48.4	59.5	66.3	73.1	71.7	60.5	48.6	38.4	27.4	47.5
1994	12.7	19.2	33.1	48.2	56.4	68.9	74.0	67.1	60.9	50.1	43.3	31.6	47.1
1995	31.3	22.8	40.0	43.9	57.0	66.9	74.0	70.9	59.1	53.4	35.7	23.9	48.2
1996	20.6	25.3	31.1	46.2	55.2	68.6	69.7	70.1	62.3	49.1	34.6	33.8	47.2
1997	22.7	30.4	33.2	44.2	53.6	67.9	70.6	68.6	60.7	48.0	35.8	29.8	47.1
1998	29.0	31.8	38.4	48.8	62.9	66.3	70.9	71.1	63.2	50.7	39.9	33.7	50.6
1999	21.8	28.2	34.4	46.6	59.4	69.7	74.2	69.2	64.8	48.8	44.1	31.0	49.4
2000	20.7	27.6	40.2	45.3	59.4	65.9	67.6	68.5	59.4	50.0	38.0	22.2	47.1
2001	24.6	26.9	30.9	47.4	58.9	68.4	68.9	73.7	62.4	51.9	44.8	34.2	49.4
2002	31.3	31.7	36.3	48.9	55.0	66.8	73.4	72.9	65.0	47.9	38.6	27.1	49.6
2003	15.6	21.1	34.4	44.5	56.8	66.3	72.2	72.7	63.0	48.2	42.3	29.3	47.2
2004	14.7	24.8	37.9	49.1	61.5	66.1	71.0	69.3	63.3	49.9	39.5	27.8	47.9
2005	19.6	27.0	31.2	50.2	54.6	72.9	73.8	73.8	66.2	52.0	42.4	26.7	49.2
2006	31.6	27.9	36.0	49.6	58.7	67.6	74.9	69.8	61.1	48.8	44.6	35.2	50.5
2007	27.4	19.5	31.8	44.3	60.3	68.8	70.6	70.8	64.3	56.8	37.6	27.8	48.3
2008	27.6	26.3	33.8	51.9	55.5	70.4	73.5	68.5	64.3	48.2	39.5	28.5	49.0
2009	18.3	27.5	36.3	49.6	58.0	66.1	68.3	71.0	60.4	48.0	43.4	27.4	47.9
2010	24.4	28.1	41.8	51.9	61.2	67.6	74.9	72.0	64.6	50.3	39.6	25.9	50.2
2011	20.5	23.9	34.4	48.7	62.1	67.9	74.9	70.8	65.2	52.9	44.4	34.0	50.0
2012	28.7	32.1	45.9	48.1	63.2	67.6	74.8	72.3	62.6	53.3	38.1	33.4	51.7
2013	25.5	26.9	33.8	45.9	59.9	67.6	75.9	69.6	61.3	52.6	37.2	27.6	48.7
2014	19.7	21.9	27.7	47.4	60.0	69.3	72.4	69.3	63.2	54.0	38.3	32.5	48.0
2015	19.7	12.7	29.8	47.8	65.6	66.8	73.0	73.1	68.6	49.8	45.5	41.8	49.5
2016	27.7	30.6	42.7	46.0	59.5	68.2	74.0	73.9	66.1	52.4	41.4	30.3	51.1
2017	30.6	33.3	31.7	53.0	57.4	68.0	71.7	69.2	65.6	57.8	39.2	24.9	50.2
POR= 79 YRS	22.1	24.4	34.2	46.8	58.1	66.8	71.8	69.8	61.5	50.5	39.5	27.7	47.8

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HEATING DEGREE DAYS (base 65°F) 2017 ALBANY (KALB)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1988-89	8	30	160	584	714	1185	1146	1133	968	607	194	35	6764
1989-90	0	22	134	413	766	1584	990	1026	839	500	298	44	6616
1990-91	5	6	148	388	689	964	1290	973	850	417	141	22	5893
1991-92	6	0	197	372	740	1111	1248	1098	1034	605	210	56	6677
1992-93	17	27	167	565	773	1082	1183	1300	1034	492	185	67	6892
1993-94	0	11	185	500	791	1161	1619	1272	983	502	283	33	7340
1994-95	0	47	138	457	644	1027	1037	1177	766	627	252	41	6213
1995-96	2	12	196	355	872	1266	1369	1146	1046	559	316	18	7157
1996-97	1	2	133	488	903	961	1306	961	977	616	350	35	6733
1997-98	3	11	152	521	872	1083	1112	924	828	478	98	84	6166
1998-99	2	10	99	435	746	964	1334	1021	940	542	180	22	6295
1999-00	2	14	93	493	621	1048	1367	1077	762	585	209	74	6345
2000-01	14	25	207	456	801	1323	1246	1060	1048	522	202	46	6950
2001-02	21	0	116	405	604	949	1036	927	885	511	326	51	5831
2002-03	4	9	69	534	786	1171	1525	1221	942	611	246	46	7164
2003-04	0	9	88	511	671	1102	1554	1158	834	481	149	50	6607
2004-05	3	24	77	459	758	1148	1400	1060	1043	438	319	5	6734
2005-06	0	1	57	408	671	1177	1029	1033	892	458	228	43	5997
2006-07	0	17	131	494	605	914	1156	1268	1020	619	192	38	6454
2007-08	7	25	89	268	815	1145	1154	1116	959	387	296	16	6277
2008-09	0	10	97	517	757	1126	1442	1045	883	473	225	46	6621
2009-10	5	14	146	520	644	1158	1246	1027	714	388	184	41	6087
2010-11	8	4	88	449	755	1204	1374	1145	941	497	152	29	6646
2011-12	0	2	72	372	611	953	1121	948	585	506	122	47	5339
2012-13	0	2	126	358	802	974	1214	1062	959	565	199	55	6316
2013-14	2	4	166	375	823	1154	1393	1200	1147	525	177	12	6978
2014-15	0	8	122	350	795	998	1398	1459	1085	511	96	51	6873
2015-16	1	0	43	464	575	710	1148	988	682	569	236	38	5454
2016-17	0	1	66	388	701	1067	1060	880	1025	373	256	51	5868
2017-	2	17	93	236	766	1239							

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COOLING DEGREE DAYS (base 65°F) 2017 ALBANY (KALB)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1988	0	0	0	0	36	110	326	263	16	4	0	0	755
1989	0	0	1	0	31	132	213	178	63	0	0	0	618
1990	0	0	2	22	1	119	261	197	55	24	0	0	681
1991	0	0	0	9	92	147	221	198	50	14	0	0	731
1992	0	0	0	2	15	70	106	112	65	0	0	0	370
1993	0	0	0	0	17	116	259	224	55	2	0	0	673
1994	0	0	0	6	24	160	290	119	21	0	1	0	621
1995	0	0	0	0	11	102	289	200	27	0	0	0	629
1996	0	0	0	1	19	132	153	168	57	0	0	0	530
1997	0	0	0	0	3	128	186	129	28	1	0	0	475
1998	0	0	10	0	38	128	192	206	54	0	0	0	628
1999	0	0	0	0	15	170	291	151	94	0	0	0	721
2000	0	0	0	0	42	107	100	141	45	1	0	0	436
2001	0	0	0	3	16	152	150	279	45	8	0	0	653
2002	0	0	0	32	22	113	273	261	77	10	0	0	788
2003	0	0	0	4	0	94	229	258	37	0	0	0	622
2004	0	0	0	11	50	86	194	165	33	0	0	0	539
2005	0	0	0	0	4	248	279	281	99	14	0	0	925
2006	0	0	0	0	37	128	316	174	20	0	0	0	675
2007	0	0	0	5	54	158	188	212	75	22	0	0	714
2008	0	0	0	1	5	185	270	124	84	0	0	0	669
2009	0	0	0	16	13	82	115	208	16	0	0	0	450
2010	0	0	0	2	75	127	321	228	86	0	0	0	839
2011	0	0	0	13	68	122	315	189	85	2	0	0	794
2012	0	0	1	7	70	133	310	233	60	0	0	0	814
2013	0	0	0	0	49	143	351	155	65	0	0	0	763
2014	0	0	0	6	29	148	237	147	74	18	0	0	659
2015	0	0	0	0	123	111	255	259	158	0	0	0	906
2016	0	0	0	2	73	143	285	285	108	6	0	0	902
2017	0	0	0	22	28	147	220	158	120	19	0	0	714

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SNOWFALL (inches) 2017 ALBANY (KALB)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1988-89	0.0	0.0	0.0	T	T	7.8	1.3	5.1	4.7	0.1	0.0	0.0	19.0
1989-90	T	0.0	T	0.0	1.9	8.0	20.3	22.8	4.9	T	0.0	0.0	57.9
1990-91	0.0	0.0	0.0	T	0.4	8.5	11.2	5.3	3.3	0.0	0.0	T	28.7
1991-92	0.0	0.0	0.0	0.0	1.5	12.7	3.4	6.3	4.9	1.9	0.0	0.0	30.7
1992-93	0.0	0.0	0.0	T	2.8	12.6	14.3	28.6	34.3	1.6	0.0	0.0	94.2
1993-94	0.0	0.0	0.0	T	0.7	6.1	42.0	20.2	19.1	T	T	0.0	88.1
1994-95	0.0	0.0	0.0	0.0	4.1	2.9	3.9	15.4	4.6	T	0.0	0.0	30.9
1995-96	T	0.0	0.0	0.0	5.8	25.1	28.4	5.8	20.3	1.1	0.0	0.0	86.5
1996-97	0.0	0.0	0.0	0.0	4.0	11.1	16.7	8.2	23.6	3.0	0.0	0.0	66.6
1997-98	0.0	0.0	0.0	T	11.8	14.7	13.5	6.0	6.1	0.0	0.0	0.0	52.1
1998-99	0.0	0.0	0.0	0.0	T	3.2	20.4	5.8	14.7	0.0	0.0	0.0	44.1
1999-00	0.0	0.0	0.0	0.0	0.4	1.1	31.0	12.4	3.9	13.3	0.0	0.0	62.1
2000-01	0.0	0.0	0.0	0.4	2.5	20.0	7.6	16.0	30.6	T	T	0.0	77.1
2001-02	T	0.0	0.0	T	T	7.8	22.9	3.4	8.7	2.4	2.2	T	47.4
2002-03	0.0	0.0	0.0	0.5	12.0	33.2	32.2	16.7	5.2	5.6	0.0	0.0	105.4
2003-04	0.0	0.0	0.0	T	0.3	28.5	13.3	8.3	14.6	0.1	0.0	0.0	65.1
2004-05	0.0	0.0	0.0	0.0	0.5	10.7	31.8	7.0	25.9	0.0	0.0	0.0	75.9
2005-06	0.0	0.0	0.0	0.1	1.8	8.8	14.2	3.9	1.4	T	0.0	0.0	30.2
2006-07	0.0	0.0	0.0	0.0	T	0.3	3.9	23.2	14.9	3.6	0.0	0.0	45.9
2007-08	0.0	0.0	0.0	0.0	0.4	31.2	7.8	15.8	5.9	T	0.0	T	61.1
2008-09	T	0.0	0.0	T	0.5	27.5	19.4	2.5	2.7	T	0.0	0.0	52.6
2009-10	0.0	0.0	0.0	0.0	T	13.3	7.0	24.9	0.2	0.0	0.0	0.0	45.4
2010-11	0.0	0.0	0.0	T	1.3	11.7	34.4	30.1	8.8	0.9	0.0	T	87.2
2011-12	0.0	0.0	0.0	5.4	T	0.7	7.5	4.6	5.1	0.0	T	0.0	23.3
2012-13	0.0	0.0	0.0	0.0	0.1	13.3	6.2	11.1	19.5	1.2	0.0	0.0	51.4
2013-14	0.0	0.0	0.0	0.0	2.1	20.0	15.0	28.1	5.9	2.4	0.0	0.0	73.5
2014-15	0.0	T	0.0	T	12.3	12.2	15.5	30.6	5.3	T	0.0	0.0	75.9
2015-16	0.0	0.0	T	T	T	2.2	3.3	4.8	0.2	6.4	0.0	0.0	16.9
2016-17	T	0.0	0.0	1.7	0.6	12.1	4.6	22.2	19.4	0.2	T	T	60.8
2017-	0.0	0.0	0.0	0.0	T	12.1							
POR= 80 YRS	T	T	T	0.2	3.7	13.7	16.1	13.7	11.0	2.4	0.1	T	60.9

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REFERENCE NOTES :

PAGE 1:
THE TEMPERATURE GRAPH SHOWS NORMAL MAXIMUM AND NORMAL MINIMUM DAILY TEMPERATURES (SOLID CURVES) AND THE ACTUAL DAILY HIGH AND LOW TEMPERATURES (VERTICAL BARS).
PAGE 2 AND 3:
H/C INDICATES HEATING AND COOLING DEGREE DAYS.
RH INDICATES RELATIVE HUMIDITY
W/O INDICATES WEATHER AND OBSTRUCTIONS
S INDICATES SUNSHINE.
PR INDICATES PRESSURE.
CLOUDINESS ON PAGE 3 IS THE SUM OF THE CEILOMETER AND SATELLITE DATA NOT TO EXCEED EIGHT EIGHTHS(OKTAS).
GENERAL:
T INDICATES TRACE PRECIPITATION, AN AMOUNT GREATER THAN ZERO BUT LESS THAN THE LOWEST REPORTABLE VALUE.
+ INDICATES THE VALUE ALSO OCCURS ON EARLIER DATES.
BLANK ENTRIES DENOTE MISSING OR UNREPORTED DATA.
ASOS INDICATES AUTOMATED SURFACE OBSERVING SYSTEM.
PM INDICATES THE LAST DAY OF THE PREVIOUS MONTH.
POR (PERIOD OF RECORD) BEGINS WITH THE JANUARY DATA MONTH AND IS THE NUMBER OF YEARS USED TO COMPUTE THE MEAN. INDIVIDUAL MONTHS WITHIN THE POR MAY BE MISSING.
WHEN THE POR FOR A NORMAL IS LESS THAN 30 YEARS, THE NORMAL IS PROVISIONAL AND IS BASED ON THE NUMBER OF YEARS INDICATED.
0.* OR * INDICATES THE VALUE OR MEAN-DAYS-WITH IS BETWEEN 0.00 AND 0.05.
CLOUDINESS FOR ASOS STATIONS DIFFERS FROM THE NON-ASOS OBSERVATION TAKEN BY A HUMAN OBSERVER. ASOS STATION CLOUDINESS IS BASED ON TIME-AVERAGED CEILOMETER DATA FOR CLOUDS AT OR BELOW 12,000 FEET
CLEAR INDICATES 0 - 2 OKTAS, PARTLY CLOUDY INDICATES 3 - 6 OKTAS, AND CLOUDY INDICATES 7 OR 8 OKTAS.
GENERAL CONTINUED:
WIND DIRECTION IS RECORDED IN TENS OF DEGREES (2 DIGITS) CLOCKWISE FROM TRUE NORTH. "00" INDICATES CALM. "36" INDICATES TRUE NORTH.
RESULTANT WIND IS THE VECTOR AVERAGE OF THE SPEED AND DIRECTION.
AVERAGE TEMPERATURE IS THE SUM OF THE MEAN DAILY MAXIMUM AND MINIMUM TEMPERATURE DIVIDED BY 2.
SNOWFALL DATA COMPRISE ALL FORMS OF FROZEN PRECIPITATION, INCLUDING HAIL.
A HEATING (COOLING) DEGREE DAY IS THE DIFFERENCE BETWEEN THE AVERAGE DAILY TEMPERATURE AND 65 F.
DRY BULB IS THE TEMPERATURE OF THE AMBIENT AIR.
DEW POINT IS THE TEMPERATURE TO WHICH THE AIR MUST BE COOLED TO ACHIEVE 100 PERCENT RELATIVE HUMIDITY.
WET BULB IS THE TEMPERATURE THE AIR WOULD HAVE IF THE MOISTURE CONTENT WAS INCREASED TO 100 PERCENT RELATIVE HUMIDITY.
ON JULY 1, 1996, THE NATIONAL WEATHER SERVICE BEGAN USING THE "METAR" OBSERVATION CODE THAT WAS ALREADY EMPLOYED BY MOST OTHER NATIONS OF THE WORLD. THE MOST NOTICEABLE DIFFERENCE IN THIS ANNUAL PUBLICATION WILL BE THE CHANGE IN UNITS FROM TENTHS TO EIGHTS(OKTAS) FOR REPORTING THE AMOUNT OF SKY COVER.
STATION HISTORY STOPPED WITH THE 2009 ANNUAL. IF YOU NEED SATION HISTORY INFORMATION GO TO "Historical Observing Metadata Repository", URL IS:
http://www.ncdc.noaa.gov/homr/
SNOWFALL STOPPED MONTH & YEAR INDICATED ABOVE. NO FURTHER YEARS INCLUDED UNLESS RESTARTED.

NOTE:

The "Period of Record:(POR)" for all "averages" is based on "Summary of the Day First Order Station" and "Cooperative Summary of the Day" archives.

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2017
ALBANY
NEW YORK (KALB)

Albany is located on the west bank of the Hudson River some 150 miles north of New York City, and 8 miles south of the confluence of the Mohawk and Hudson Rivers. The river-front portion of the city is only a few feet above sea level, and there is a tidal effect upstream to Troy. Eleven miles west of Albany the Helderberg escarpment rises to 1,800 feet. Between it and the Hudson River the valley floor is gently rolling, ranging some 200 to 500 feet above sea level. East of the city there is more rugged terrain 5 or 6 miles wide with elevations of 300 to 600 feet. Farther to the east the terrain rises more sharply. It reaches a north-south range of hills 12 miles east of Albany with elevations ranging to 2,000 feet.

The climate at Albany is primarily continental in character, but is subjected to some modification by the Atlantic Ocean. The moderating effect on temperatures is more pronounced during the warmer months than in winter when outbursts of cold air sweep down from Canada. In the warmer seasons, temperatures rise rapidly in the daytime. However, temperatures also fall rapidly after sunset so that the nights are relatively cool. Occasionally there are extended periods of oppressive heat up to a week or more in duration.

Winters are usually cold and sometimes fairly severe. Maximum temperatures during the colder winters are often below freezing and nighttime lows are frequently below 10 degrees. Sub-zero readings occur about twelve times a year. Snowfall throughout the area is quite variable and snow flurries are quite frequent during the winter. Precipitation is sufficient to serve the economy of the region in most years, and only occasionally do periods of drought exist. Most of the rainfall in the summer is from thunderstorms. Tornadoes are quite rare and hail is not usually of any consequence.

Wind velocities are moderate. The north-south Hudson River Valley has a marked effect on the lighter winds and in the warm months, average wind direction is usually southerly. Destructive winds rarely occur.

The area enjoys one of the highest percentages of sunshine in the entire state. Seldom does the area experience long periods of cloudy days and long periods of smog are rare.

Based on the 1951-1980 period, the average first occurrence of 32 degrees Fahrenheit in the fall is September 29 and the average last occurrence in the spring is May 7.

7

Station History — ALBANY, NY

NAME	Begin Date	End Date	Latitude	Longitude	Elevation Feet	Relocation	Platform
ALBANY AP	1929-07-01	1930-01-13	42° 45'	-73° 48'	277		AIRWAYS
ALBANY AP	1965-01-01	1969-01-01	42° 45'	-73° 48'	275		AIRWAYS,COOP,USHCN
ALBANY AP	1969-01-01	1995-08-01	42° 45'	-73° 48'	275		COOP,USHCN,WXSVC
ALBANY INTL AIRPORT	2016-06-20	Present	42° 44'	-73° 47'	280		ASOS,COOP,USHCN
ALBANY AP	1930-01-13	1938-06-01	42° 45'	-73° 48'	277		AIRWAYS,COOP
ALBANY WSFO AP	1938-06-01	1948-01-01	42° 45'	-73° 48'	277		AIRWAYS,COOP,USHCN
ALBANY AP	1995-08-01	2016-06-20	42° 44'	-73° 47'	280		ASOS,COOP,USHCN
ALBANY AP	1948-01-01	1965-01-01	42° 45'	-73° 48'	292		AIRWAYS,COOP,USHCN

Element History

Element	Begin Date	End Date	Frequency	Time Of Observation	Equipment *	Equipment * Modifications	Equipment Exposure

* For explanation of codes and abbrevitions see Station Metadata link below.

Other Station Information can be found at:
ASOS Implementation by NWS: http://www.nws.noaa.gov/ops2/Surface/asosimplementation.htm
Station Metadata website: http://www.ncdc.noaa.gov/homr

INQUIRES/COMMENTS CALL: (828) 271-4800, option 2
Fax Number : (828) 271-4876
TDD : (828) 271-4010
Email : ncdc.orders@noaa.gov

NOAA/National Centers for Environmental Information
Attn: User Engagement & Services Branch
151 Patton Avenue
Asheville, NC 28801-5001

Visit our Web Site for other weather data: www.ncdc.noaa.gov

3.3.3 Regulatory Framework for Project Approval

The following sections present a summary of the applicability of federal and state air quality regulations to the proposed Project. The specific regulations included in this review are the Federal New Source Performance Standards ("NSPS"), the NYSDEC regulations and policy, non-attainment New Source Review ("NSR") requirements, the Prevention of Significant Deterioration ("PSD") requirements, the Air Quality Impacts Analysis requirements, the Federal Acid Rain Program requirements, and the NO_x Budget Program requirements.

3.3.3.1 STANDARDS

New Source Performance Standards

The NSPS are technology-based standards applicable to new and modified stationary sources. The NSPS requirements have been established for approximately 70 source categories. Two subparts will be applicable to the proposed combustion turbine: the Standards of Performance for Stationary Combustion Turbines (40 CFR Part 60, Subpart KKKK, which replaces Subpart GG for turbines constructed after February 18, 2005) and Subpart TTTT: Standards of Performance for Greenhouse Gas Emissions from New, Modified, and Reconstructed Stationary Sources: Electric Utility Generating Units. Balance of plant equipment will be evaluated against NSPS upon final engineering design.

National and New York State Air Quality Standards

The location of the proposed Project is an area currently designated as attainment for SO_2, NO_2, CO, PM-10, and PM-2.5. Therefore, for these pollutants, the Project is required to demonstrate that the impact on air quality does not cause or contribute to a violation of the NAAQS or NYAAQS. The NAAQS and NYAAQS for the criteria pollutants are shown in Table 3.3-2.

In 6 NYCRR Part 257, the NYSDEC has promulgated ambient air quality standards for the NAAQS criteria pollutants, as well as for certain other contaminants. It will be necessary to demonstrate through air quality dispersion modeling that the Project will comply with all applicable ambient limits for the criteria pollutants, as well as for potentially emitted trace constituents such as fluorides, beryllium, and hydrogen sulfide. Standards for these pollutants

are also listed in Table 3.3-2. In addition, the Project's air quality impact in terms of other non-criteria pollutants will be evaluated for compliance with health risk criteria, per DAR-1.

While the Project site is designated as attainment for the 8-hour ozone standard, it is located in the ozone transport region. Therefore, and consistent with 6 NYCRR §231-2.12, Table 2, if potential annual emissions of NO_x and/or VOC, precursors to ozone formation, exceed 100 tons per year ("tpy") of NO_x and/or 50 tpy of VOC, respectively, the facility will be required to meet lowest achievable emissions rate ("LAER") levels for the applicable pollutant(s) and obtain emission offsets of VOC and NO_x, if applicable.

Table 3.3-2. National and New York Ambient Air Quality Standards

Pollutant	Averaging Period	NAAQS (µg/m3)	NYAAQS (µg/m^3)
Sulfur Dioxide (SO_2)	1-hour	196[14]	N/A
	3-hour	N/A	1,300[1]
	24-hour	N/A	365[1]
	Annual	80	80[2]
Nitrogen Dioxide (NO_2)	1-hour	188[15]	N/A
	Annual	100[2]	100[2]
Particulate (PM-10)[3]	24-hour	150[4]	N/A
	Annual	N/A	N/A
Total Suspended Particulate	24-hour	N/A	250[6]
(TSP)	Annual	N/A	65[7]
Carbon Monoxide (CO)	1-hour	40,000[1]	40,000[1]
	8-hour	10,000[1]	10,000[1]
Ozone (O_3)	8-hour	150	N/A
Lead (Pb)[3]	Quarterly	0.15[2]	N/A
Fine Particulate (PM-2.5)[3]	24-hour	35[8]	N/A
	Annual	12[9]	N/A
Gaseous Fluorides (as F)[10]	12-hour	N/A	3.70[2]
	24-hour	N/A	2.85[2]
	1-Week	N/A	1.65[2]
	1-Month	N/A	0.80[2]
Beryllium[10]	1-Month	N/A	0.01[2]
Hydrogen Sulfide[10]	1-hour	N/A	14[2]
Settleable Particulates[10,11]	Annual	N/A	0.40[12]
	Annual	N/A	0.60[13]

[1] Not to be exceeded more than once per year.
[2] Not to be exceeded.
[3] Federal standard not yet officially adopted by New York but is currently being applied to determine compliance status.
[4] Fourth highest concentration over a three-year period.
[5] Average of three annual coverage concentrations.
[6] Not to be exceeded more than once per year on average.
[7] Geometric mean of the 24-hour average concentrations over 12-month period. Based on project site being located in the Level III air quality area of Orange County.
[8] Average 98th percentage over a three-year period.
[9] Average annual mean concentration over a three-year period.
[10] Pollutant would not be emitted from the Project.
[11] Based on the Project site being located in the Level III air quality area in Orange County.
[12] Units of milligrams per centimeter squared per month (mg/cm^2/mo). Fifty percent of the monthly values shall not exceed.
[13] Units of mg/cm^2/mo. Eighty-four percent of the monthly values shall not exceed.
[14] Based on 3-year average 99th percentile value.
[15] Based on 3-year average 98th percentile value.
Source: 40 CFR 50, 6 NYCRR 257, 40 CFR 52.

Maximum Achievable Control Technologies ("MACT")

On April 20, 2000, an interpretive rule was published in the Federal Register (78 Fed. Reg. 21363-21365 (April 20, 2000)) stating that new combustion turbines are subject to case-by-case MACT, if they are a "major source" of hazardous air pollutants ("HAP") pursuant to 40 CFR Part 63. Any new source with potential emissions greater than 10 tpy for any single HAP, or 25 tpy for all HAPs combined, is considered a major source.

3.3.3.2 PART 231/PREVENTION OF SIGNIFICANT DETERIORATION PERMIT

The PSD program in New York State is administered through the New York State Air Regulations under 6 NYCRR Part 231. Any fossil fuel fired steam electric plant with a heat input capacity greater than 250 mmBTU/hr with potential emissions greater than 100 tpy of any regulated criteria pollutant is considered a "major" source and is subject to the PSD regulations.

Facilities subject to PSD must perform an air quality analysis (which includes atmospheric dispersion modeling) and a best available control technology ("BACT") or LAER demonstration for those pollutants that exceed the pollutant specific Significant Project Thresholds identified in the regulations. The PSD SERs (significant emission rates), as defined in the PSD Regulation, are provided in Table 3.3-3.

Table 3.3-3. PSD Significant Emission Rates

Pollutant	PSD Significant Emission Rates (tons per year)	Non-attainment NSR Major Source Thresholds (tons per year)
Carbon Monoxide	100	NA
Sulfur Dioxide	40	NA
Particulate Matter (PM)	25	NA
Particulate Matter less than 10 microns (PM-10)	15	NA
Particulate Matter less than 2.5 microns (PM-2.5)	10	NA
Nitrogen Oxides	40	100[a]
Ozone (VOC)	40	50[a]
Greenhouse Gases (GHG)	100,000	NA
Lead	0.6	NA
Fluorides	3	NA
Sulfuric Acid Mist	7	NA
Hydrogen Sulfide	10	NA
Total Reduced Sulfur (including H_2S)	10	NA
Reduced Sulfur Compounds (including H_2S)	10	NA

Note: Pursuant to 40 CFR 52.21 (b) (23) (i) and 6 NYCRR 231-13.1, Table 1.
[a]As precursors to ozone in an ozone transport region.

Compliance with NAAQS

Compliance with the NAAQS will be demonstrated for each PSD-affected pollutant from the Project. A key element in this demonstration will be the determination of whether any of the PSD-affected pollutants has significant impacts. For any pollutants with significant impacts, multi-source and increment consumption modeling will be performed. Impacts will then be added to background air quality levels to assess whether compliance with the NAAQS is maintained. These steps are discussed in further detail below.

Impact Area Determination

The first step of the ambient air quality analysis is to perform atmospheric dispersion modeling to determine if the facility will have significant impacts for one or more pollutants that exceed the Significant Impact Levels ("SILs"). These concentrations are presented in Table 3.3-4.

Multi-Source Modeling

Pollutants for which predicted concentrations are below the levels shown in Table 3.3-4 need not be evaluated further. However, for those pollutants with concentrations greater than the SILs, a NAAQS/NYAAQS analysis will need to be performed. The first step is to determine an area of impact for each individual pollutant, which is defined as the distance at which the model calculated pollutant concentrations fall below the SILs. The second step is to obtain off-site major source inventories within the area of impact, plus a distance to be determined based upon NYSDEC's input. The resultant pollutant concentrations will then be added to the background for comparison with the NAAQS/NYAAQS. If the modeled concentration plus the background concentration is less than the NAAQS/NYAAQS, then the Project is considered acceptable relative to these standards. These compliance analyses will be performed using NYSDEC-recommended USEPA guideline dispersion models and modeling methodologies. The technical guidance for the Project's NAAQS compliance demonstration will be the "NYSDEC Guidelines on Dispersion Modeling Procedures for Air Quality Impact Analyses - DAR 10" (NYSDEC, 2006, formerly Air Guide-26). Each of these guidelines were developed consistent with the USEPA New Source Review Workshop Manual (USEPA, 1990), and the USEPA Guidelines on Air Quality Models (Revised) (USEPA, 2017), and incorporated in Appendix W of 40 CFR Part 51.

Table 3.3-4. USEPA Significant Impact Levels

Pollutant	Averaging Period	Significant Impact Levels ($\mu g/m^3$)
Sulfur Dioxide (SO2)	1-hour	7.8[a]
	3-hour	25
	24-hour	5
	Annual	1
Nitrogen Dioxide (NO2)	1-hour	7.5[b]
	Annual	1
Carbon Monoxide (CO)	1-hour	2,000
	8-hour	500
Coarse Particulate Matter (PM-10)	24-hour	5
	Annual	1
Fine Particulate Matter (PM-2.5)	24-hour	1.2
	Annual	0.2

[a]Interim SIL per August 12, 2010 memorandum "Guidance Concerning the Implementation of the 1-hour SO_2 NAAQS for the Prevention of Significant Deterioration Program" for Steven Page (Director of USEPA OAQPS).
[b]Per guidance from NYSDEC
Source: USEPA, 1990, Table C-4

Increment Analysis

Pollutants from the Project for which predicted impacts exceed the SILs shown in Table 3.3-4 will also require additional modeling with other PSD sources within 50 kilometers or less of the Project's area of impact to evaluate compliance with PSD increments. PSD increments define the maximum allowed incremental air quality impacts for all existing and proposed PSD sources. There are three classes of PSD increments, with the most stringent, identified as Class I, for pristine areas and the most lenient, Class III, reserved for the most polluted areas. For purposes of the Article 10 Air Quality Assessment, only the PSD Class II increments are relevant due to the fact that the majority of the country, including the Project area, are Class II areas. There are currently no Class III areas present in the United States, and the closest Class I areas are in Vermont and southern New Jersey. The PSD Class II increments are presented in Table 3.3-5.

Table 3.3-5. PSD Class II Increments (µg/m^3)

Pollutant	Class II Increment (ug/m^3)
SO_2	
Annual	20[2]
24-hour	91[1]
3-hour	512[1]
PM-2.5	
Annual	4[1]
24-hour	9[1]
PM-10	
Annual	17[1]
24-hour	30[1]
NO_2	
Annual	25[2]

[1]Not to be exceeded more than once per year
[2]Not to be exceeded
Source: 40 CFR 50; 6 NYCRR 257; 40 CFR 52

Ambient Air Quality Monitoring

Proposed facilities subject to PSD review may have to perform up to one year of preconstruction ambient air quality monitoring for those pollutants emitted in amounts exceeding the significant emission rates shown in Table 3.3-3, unless granted an exemption. An exemption from the monitoring can be granted if there exists representative and quality assured air quality data that can be used to adequately fulfill the requirement for establishing the background air quality. A request for exemption from preconstruction ambient air quality monitoring will be submitted for the Project based on existing quality assured ambient air quality data being available from an alternate location(s) (i.e., NYSDEC monitoring stations) that are representative of, or conservative, as compared to conditions at the proposed Project site.

Additional Impact Analyses

The major source status of the Project means that certain additional analyses are required as part of the modeling assessment. These include modeling to assess potential for impacts to soils, vegetation, and visibility in the area surrounding the proposed Project.

Class I Area Impacts

According to the Federal Land Managers' Air Quality Related Values Work Group guidance document of 2010, proposed major sources within 50 kilometers of a Class I area must perform an assessment of potential impacts in the Class I area. This includes the additional impact analyses described above as well as impacts on PSD increments, regional haze, and deposition (i.e., Air Quality Related Values – "AQRV"). The 2010 guidance allows an applicant of a major source to perform an emissions over distance (Q/D) screening test to determine if a refined impact analysis is required for "nearby" (i.e., within approximately 300 kilometers) Class I areas. A source locating at a distance greater than 50 km from a Class I area is considered to have negligible impacts with respect to Class I AQRVs if its total SO_2, NO_x, PM-10, and H_2SO_4 annual emissions (in tons per year, based on 24-hour maximum allowable emissions), divided by the distance (in km) from the Class I area (Q/D) is 10 or less. No further Class I AQRV impact analyses from such sources are necessary.

There are two (2) Class I areas within 300 kilometers of the proposed facility: the Brigantine Wilderness Area and the Lye Brook Wilderness Area. The Brigantine Wilderness Area is located in the Edwin B. Forsythe National Wildlife Refuge in New Jersey, approximately 228 kilometers south of the proposed facility. The Lye Brook Wilderness Area is located in Vermont and is approximately 181 kilometers north-northeast of the proposed facility. The Project is expected to have total emissions of SO_2, NO_x, PM-10, and H_2SO_4 less than 1,810 tons/year, which is the minimum threshold for requiring a Class I analysis at the nearest Class I area.

Best Available Control Technology Demonstration

A PSD "Netting Analysis" will be performed to establish the difference in emissions from the new unit and the emissions from the older units that will be retired upon construction of the Project. The netting analysis may demonstrate that some pollutants may have less than major

source net emissions or even negative emissions when compared to the emissions from the existing units. Facilities subject to PSD must perform a BACT demonstration for those pollutants for which emissions are expected to exceed the significant emission rates presented in Table 3.3-3. A BACT demonstration consists of identifying all technically feasible emission control measures for each pollutant for the proposed size and type of combustion source (i.e., large, stationary combustion turbines). These control technologies are then rated according to their effectiveness from the most to least effective (top-down approach) and then evaluated for their economic, environmental, and energy impacts. Environmental benefits are then compared to cost-effectiveness on a dollars (cost) per ton (of pollutant removed) basis and the technology with the optimal, incremental cost-effectiveness selected as BACT for each pollutant.

3.3.3.3 NON-ATTAINMENT NEW SOURCE REVIEW REQUIREMENTS

In areas classified as non-attainment of the NAAQS for a given pollutant, the NSR permitting requirements of 6 NYCRR Subpart 231-2 are applicable to major new emission sources of that pollutant. While Orange County is designated as attainment for the 8-hour ozone standard, it is located within the ozone transport region. NSR requirements include the need to achieve LAER levels and obtain emission offsets for ozone precursors. Non-attainment NSR Major Source Thresholds can be found in Table 3.3-3.

For any given source, LAER is defined as the more stringent of the following criteria:

- The most stringent emission limitation contained in any state implementation plan for the subject class or category of source, unless the owner or operator of the proposed source demonstrates that such limitations are not achievable; or
- The most stringent emission limitation which is achieved in practice.

Additional requirements specific to non-attainment NSR are as follows:

1. The certification that all emission sources which are part of any major facility located in New York State and under the applicant's ownership or control (or under the ownership or control of any entity which controls, is controlled by, or has common control with the applicant) are in compliance, or are on a schedule for compliance, with all applicable emission limitations and standards under NYSDEC's regulations (*see* 6 NYCRR 231-6.3(a)).

2. The submission of an analysis of alternative sites, sizes and production processes, and environmental control techniques which demonstrates that benefits of the proposed Project or proposed major facility significantly outweigh the environmental and social costs imposed as a result of its location, construction, or modification within New York State (see 6 NYCRR 231-6.3(b)).
3. The submission of a list which identifies the source(s) of approved or proposed emission reduction credits ("ERCs") of VOC or NOx that will be used. The list must include the name and location of the facility, NYSDEC identification number, if applicable, and the emission reduction mechanism. All of the proposed ERCs must be submitted and certified prior to final permit issuance (see 6 NYCRR 231-6.3(d)).

Ozone (O_3)

While the area of the Project facility is designated as attainment for the 8-hour ozone standard, it is located in the ozone transport region. Therefore, and consistent with 6 NYCRR 231-2.12, Table 2, if potential annual emissions of NO_x and/or VOC, precursors to ozone formation, exceed 100 tpy of NO_x and/or 50 tpy of VOC, respectively, the facility will be required to meet LAER levels for the applicable pollutant(s) and obtain ERCs of VOC and NO_x, if applicable.

It is anticipated that the proposed Project will have the potential to emit 100 tpy or more of NO_x. As a result, LAER and ERCs will be required for NO_x emissions. It is possible, although less likely, that the proposed Project will also exceed 50 tpy of VOC and trigger LAER requirements. A demonstration for the Project will be made to establish the proposed LAER for NO_x and possibly VOC emissions. The USEPA RACT/BACT/LAER Clearinghouse database will be reviewed to identify the approved LAER and supporting justification for recently permitted combustion turbine installations. Other information sources (e.g., state agency permit files) will also be reviewed to identify applicable information to be incorporated into the LAER analysis. This analysis will entail a "top-down" approach similar to the BACT demonstration but will be based on the above LAER criteria. It must be shown that any methods of potentially greater control than the proposed LAER are not appropriate or have not been adequately demonstrated.

Emission offsets for the potential annual NO_x and/or VOC emissions of the facility will be acquired at the ratio of 1.15:1 (i.e., 1.15 tons per year offset for every ton per year of potential facility emissions). These offsets, identified as NYSDEC-certified ERCs, will be secured in conformance with 6 NYCRR Subpart 231-2.6 and the NYSDEC DAR -10 / NYSDEC Guidelines on Dispersion Modeling Procedures for Air Quality Impact Analysis: Appendix E:

Interpretation of Part 231 Provisions on Emission Offset Source Location and Net Air Quality Benefit Analysis.

3.3.3.4 OTHER REGULATORY REQUIREMENTS

Cross State Air Pollution Rule (NYSDEC Parts 243-245)

The Cross State Air Pollution Rule ("CSAPR") Phase 1 implementation began on January 1, 2015, with Phase 2 beginning in 2017. Similar to other emission trading programs, CSAPR establishes an allowance trading system to reduce emissions of NOx and SO2 from power plants. EPA established individual state emissions budgets based on the emissions reductions that each upwind state must achieve to prevent it from unlawfully interfering with other states efforts to achieve the NAAQS.

The NYSDEC administers CSAPR through 6 NYCRR Part 243, Transport Rule NOx Ozone Season Trading Program; 6 NYCRR Part 244, Transport Rule NOx Annual Trading Program; and 6 NYCRR Part 245, Transport Rule SO2 Trading Program. These adopted rules incorporate CSAPR and allow NYSDEC to allocate CSAPR allowances to regulated entities in New York.

Acid Rain Program

Title IV of the Clean Air Act Amendments ("CAAA") required USEPA to establish a program to reduce emissions of acid rain forming pollutants, called the Acid Rain Program. The overall goal of the Acid Rain Program is to achieve significant environmental benefits through reductions in SO_2 and NO_x emissions (the NO_x element of the program is only applicable to coal-fired utility units and will not be considered further in this discussion since the proposed Project will not fire coal). To achieve this goal, the Acid Rain Program employs both traditional and market-based approaches for controlling air pollution. Under the program, units are allocated SO_2 allowances by the USEPA. Once allowances are allocated, affected facilities may use their allowances to cover emissions, or may trade their allowances to other units under a market allowance program. In addition, applicable facilities are required to install and operate a CEM system for affected units. The CEM requirements (Part 75) of the Acid Rain Program include: an SO_2 concentration monitor or alternative surrogate method; a NO_x concentration monitor; a

volumetric flow monitor; an opacity monitor; a diluent gas (O_2 or CO_2) monitor; and a computer-based data acquisition and handling system for recording and performing calculations.

The proposed Project is subject to the Acid Rain Program based upon the provisions of 40 CFR §72.6(a)(3) since the turbines are considered utility units under the program definition and do not meet the exemptions listed under paragraph (b) of this Section. The proposed Project will be subject to Phase II Acid Rain requirements and will submit an acid rain permit application 24 months prior to the date on which the Project expects to begin service as a generator.

CO_2 Performance Standards

On June 12, 2012 NYSDEC promulgated Part 251: CO_2 Performance Standards for Major Electric Generating Facilities. Part 251 establishes CO_2 emission limits for proposed new major electric generating facilities that have a generating capacity of at least 25 megawatts.

The Part 251 regulations:

- set a CO_2 emission limit of 925 lbs/MWh (output-based limit) or 120 lbs/mmBtu (input-based limit) for most new or expanded base load fossil fuel-fired plants;
- set a CO_2 emission limit of 1450 lbs/ MWh (output-based limit) or 160 lbs/mmBtu (input-based limit) for simple cycle combustion turbines;
- allow each facility's owner or operator to choose whether to comply with the relevant output-based or input-based emission limits;
- provide for NYSDEC to set case-specific CO_2 emission limits for certain power plants that fire non-fossil fuels; and
- require recordkeeping, monitoring and reporting consistent with existing state and federal regulations.

In October 2015, USEPA issued a NSPS for CO_2 emissions from new power plants. The NSPS for natural gas units is 1,000 lb CO_2/MWh. In December 2018, USEPA proposed revisions to the NSPS for CO_2 emissions from power plants. However, the new proposal does not include revisions to the NSPS for natural gas fired units. Note that the Part 251 CO_2 emissions requirements for the output based limit for fossil fuel-fired units is more restrictive at 925 lbs CO_2/MWh than the EPA limit of 1,000 lb CO_2/MWh for combustion turbines.

Regional Carbon Dioxide Budget Trading Program

The Regional Greenhouse Gas Initiative ("RGGI") is the first market-based regulatory program in the United States to reduce greenhouse gas emissions. RGGI is a cooperative effort among the states of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont to cap and reduce CO_2 emissions from the power sector.

The administrative arm of RGGI provides administrative and technical services to support the development and implementation of each RGGI State's CO_2 Budget Trading Program. These activities include:

- Development and maintenance of a system to report data from emissions sources subject to RGGI, and to track CO_2 allowances
- Implementation of a platform to auction CO_2 allowances
- Monitoring the market related to the auction and trading of CO_2 allowances
- Providing technical assistance to the participating states in reviewing applications for emissions offset projects
- Providing technical assistance to the participating states to evaluate proposed changes to the States' RGGI programs

In the most recent auction (#42), held in December 2018, the clearing price for CO_2 allowances was $5.35 per allowance with a total of 13,360,649 allowances sold.

State Emission Limits

The Project will be required to use ultra-low sulfur distillate fuel (15 ppm sulfur) as a back-up (secondary) fuel source consistent with 6 NYCRR §225-1.2.

The particulate emissions for a stationary combustion installation firing oil, and with maximum heat input exceeding 250 mmBtu/hr, such as the proposed Project, is limited by 6 NYCRR §227-1.2 to 0.10 lb/mmBtu heat input. The PSD BACT requirement may result in a more stringent limitation.

6 NYCRR §211-2 prohibits the emission from any contamination source of any material having an opacity equal to or greater than 20% (6-minute average), except for one continuous 6-minute period per hour of not more than 57% opacity. Opacity is also regulated by 6 NYCRR §227-1.3,

which limits opacity of stationary combustion installations to no greater than 20% (6-minute average), except for one 6-minute period per hour of not more than 27% opacity.

State Reasonably Available Control Technology Requirements

Pursuant to 6 NYCRR Subpart 227-2, Reasonably Available Control Technology ("RACT") requirements have been imposed on all stationary sources of NO_x. Although the facility will be subject to the requirements of Subpart 227-2, proposed use of Selective Catalytic Reduction ("SCR") for NO_x control in conjunction with evolving low-NO_x turbine technology will result in NO_x emissions that will be below those required under RACT. In addition, specific Subpart 227-2 requirements related to record keeping and reporting will apply.

Risk Management Program

Accident and risk management regulations pursuant to Title III of the CAAA (40 CFR Part 68, Section 112(r)) require a subject facility to develop a risk management program ("RMP"). The RMP requirement is triggered for each regulated toxic and flammable substance present on-site in greater quantity than its specified regulatory threshold. Each regulated toxic substance anticipated to be present at the facility will be accounted for and quantified with respect to its respective threshold.

The Project may be designed to accommodate a dedicated aqueous ammonia storage tank, minimizing any consequence of accidental releases. If technically feasible, the facility design and maintenance plan will ensure that the risk of potential impacts on the public is de minimis, triggering no more than minimal requirements under 40 CFR Part 68.

Good Engineering Practice Stack Height

Section 123 of the CAAA required USEPA to promulgate regulations to assure that the control of any air pollutant under an applicable State Implementation Plan ("SIP") was not affected by: 1) stack heights that exceed Good Engineering Practice ("GEP"), or 2) any other dispersion technique. In the Guideline for Determination of Good Engineering Practice Stack Height (Technical Support Document for the Stack Height Regulations) (USEPA, 1985), the USEPA provides specific guidance for determining GEP stack height and for determining whether building downwash will occur. GEP stack height is defined as "the height necessary to ensure

that emissions from the stack do not result in excessive concentrations of any air pollutant in the immediate vicinity of the source as a result of atmospheric downwash, eddies, and wakes that may be created by the source itself, nearby structures, or nearby terrain obstacles".

The GEP definition is based on the observed phenomenon of atmospheric flow in the immediate vicinity of a structure. It identifies the minimum stack height at which significant adverse aerodynamics (downwash) is avoided.

The USEPA GEP stack height regulations specify that the GEP stack height is calculated in the following manner:

	GEP	=	$H_B + 1.5L$
where:	H_B	=	the height of adjacent or nearby structures, and
	L	=	the lesser dimension (height or projected width of the adjacent or nearby structures)

A GEP stack height analysis will be conducted using the USEPA approved Building Profile Input Program with PRIME (version 04274). Controlling structures will include the combustion turbine building, steam turbine generation building, the air cooled condenser, and the heat recovery steam generator for the new combined cycle unit. In addition, the air quality analysis will also examine the impact of the existing buildings at the Danskammer Generating Station.

3.3.4 Potential Emissions and Air Quality Impacts

Potential Impacts on Air Quality

The proposed Project will employ highly efficient emission control technology and will primarily operate on clean burning natural gas. Ultra-low sulfur diesel will be used only as a back-up fuel and only as needed for emergency or reliability reasons. A full air quality modeling analysis will be used to demonstrate the proposed Project meets the applicable air quality standards. The models and procedures to be used in the full analysis are discussed in Section 3.1.4.

Proposed Site-Wide Plant Emissions

The Project will result in emissions of several regulated air pollutants. Specifically, these pollutants include NO_x, SO_2, inhalable PM-10 and PM-2.5, total suspended PM, CO and VOCs.

Minute quantities of trace elements are in Ultra-Low sulfur diesel ("ULSD"), and these elements, specifically lead, will also be emitted in the event the facility is required to rely on its backup fuel source for operations. Selective Catalytic Reduction ("SCR") using an aqueous ammonia injection will be employed to reduce emissions of NO_x. A small quantity of un-reacted ammonia may also be emitted by the Project. This amount will not exceed a 5 ppm average in-stack concentration.

The change in site-wide annual emissions will be based on the emissions from the Project minus the actual historical emissions from the existing generating units. Due to much more efficient equipment and emissions controls, the Project will have fewer emissions on a power output basis. The following discusses the specific emissions expected from the proposed Project. Table 3.3-6 presents a summary of the anticipated permitted emissions rates for the Danskammer Energy Center.

Nitrogen Oxides

NO_x forms as a result of fuel bound nitrogen and as a by-product of the combustion process itself. Typically, higher peak combustion temperatures result in higher NO_x emissions. The combustion gas turbine proposed for the Project will use dry low-NO_x technology in which the peak flame temperature is reduced by increasing the size and duration of the flame front in the combustion chamber when firing natural gas. During ULSD firing, steam or water is injected into the combustion chamber to act as a heat sink to lower the peak flame temperature. NO_x emissions are further reduced using SCR in which aqueous ammonia reacts with NO_x to form nitrogen (elemental) and water vapor. This process will significantly reduce NO_x emissions. Since the Project is located in an ozone transport region, NO_x emissions will be required to meet LAER levels. SCR control technology will be employed to control NO_x emissions during natural gas firing. Additionally, the facility will obtain NO_x offsets at a 1.15 to 1 ratio.

Sulfur Dioxide

SO_2 is formed by the reaction of sulfur in the fuel and oxygen. Sulfur is present in trace amounts in natural gas as an odorant (methyl/ethyl mercaptan) and in ULSD. The proposed Project will use ULSD with a sulfur content not to exceed 15 ppm as a back-up fuel.

Particulate Matter (PM-10 and PM-2.5)

Very small amounts of particulate matter (PM-2.5 and PM-10) are present in exhaust gas as both unburned fuel carbon compounds and from trace mineral matter in distillate fuel oil. Additionally, the PM-10 component (that is, particulate matter with a mean diameter less than 10 micrometers) also includes those compounds that are considered to condense from the hot exhaust gas to form small particles. This fraction is called condensable particulates and may represent the majority of the particulate emission during natural gas firing. Additionally, the condensable fraction may include trace ammonia compounds resulting from a reaction with sulfur trioxide and ammonia from the SCR used to control NO_x emissions. The PM-10/PM-2.5 emissions from the Project will include and account for both forms of particulate emissions, providing a conservative emission rate.

Carbon Monoxide

CO formation is typically the result of incomplete combustion of fuel within the combustion turbine. Incomplete combustion typically occurs under start-up and low-load operating conditions. It is anticipated that potential annual emissions of CO will exceed the PSD significant emission rate threshold of 100 tpy. Therefore, CO emissions become subject to PSD regulations, including the requirement to perform a BACT analysis for CO emissions, which may result in an oxidation catalyst for the Project.

Volatile Organic Compounds (VOCs)

VOC emissions occur under the same conditions that form CO. The combination of high efficiency turbine combustors, clean fuels and good operational practices will serve to minimize emissions of VOC from the Project. Since the Project is located in an ozone transport region, VOC emissions will be required to meet LAER levels if potential annual VOC emissions exceed 50 tpy. Additionally, the Project will be required to obtain and purchase VOC offsets at a 1.15 to 1 ratio if emissions will exceed 50 tpy, per 6 NYCRR §231-13.1 Table 1 (Major facility thresholds and offset ratios for ozone nonattainment areas and the ozone transport region).

Ammonia

As previously discussed, ammonia will be injected into the exhaust gas stream in order to react with nitrogen oxides to reduce the NO_x emissions. A small quantity of ammonia may remain un-reacted in the exhaust stream resulting in emissions of less than 5 ppm for the Project.

Hazardous Air Pollutants

The use of ULSD as a back-up fuel may result in the release of trace elements. However, ULSD is a highly refined fuel and is the cleanest of the liquid distillates, with a sulfur content of 15 ppm by mass. Therefore, Hazardous Air Pollutant ("HAP") emissions are expected to be minimal.

Table 3.3-6. Anticipated Permitted Emission Rates[1]

Pollutant	Combined Cycle	
	Natural Gas	ULSD
NO_x	2	4
CO	2	2
VOC	1	2
NH_3	5	5

[1] ppmdv @ 15% O_2

Fugitive Dust

The construction of the Project may result in short-term and temporary fugitive dust emissions. While clearing and grading activities will be limited since the proposed Project site is barren and relatively level, the transport and staging of the construction components on the site may generate fugitive particulate emissions. Best management practices ("BMP"), such as dust screens and water sprays, will be used to minimize fugitive particulate emissions. The overall construction period is anticipated to last approximately 30 months, after which time all construction access roads will be paved or restored and open soil areas will be covered with grass and plantings. Fugitive particulate emissions after construction are expected to be negligible.

3.3.5 Proposed Air Quality Modeling

Meteorological Data

A five (5) year surface and upper air meteorological database (2013-2017) will be used in the atmospheric modeling assessment. Meteorological data sets from the Orange County Airport, located in Montgomery, 26 kilometers west-southwest of the Project site, and the Albany International Airport, located 132 kilometers north of the Project site, were evaluated to determine the availability and data quality of meteorological data for air quality modeling purposes.

An Automated Surface Observing System station at the Orange County Airport (WBAN 04789) was installed on December 17, 1997 with a height of 33 feet (10 meters). The data recovery rates for wind direction, wind speed, temperature, ceiling height, and opaque sky cover were determined. The data was examined for modeling completeness, and the percent recovery exceeded the minimum criterion of 90% for all five years. Concurrent upper air sounding data from Albany International Airport (WBAN 14735) was used with the hourly surface dataset to create the meteorological dataset required for the modeling analysis. Based on an examination of the spatial distribution of seasonal and annual mixing heights using *Holzworth's Mixing Heights, Wind Speeds, and Potential for Urban Air Pollution throughout the Contiguous United States* (USEPA, 1972), upper air meteorological conditions in the Albany area are considered representative of the air regime at the Project site.

Atmospheric Dispersion Modeling

Standard USEPA dispersion models will be utilized for the dispersion modeling studies. The USEPA AERMOD model is proposed to be used. The AERMOD model was designed for assessing pollutant concentrations from a wide variety of sources (point, area, and volume). AERMOD is currently recommended for modeling studies in rural or urban areas, flat or complex terrain, and transport distances less than 50 kilometers, with one hour to annual averaging times. AERMOD (version 18081) will be used for the preliminary modeling of the proposed facility's potential emissions to determine the maximum ambient air concentrations.

Distillate Fuel HAPs

As previously noted, the use of distillate fuel may result in the emission of HAPs. Using mass balance or AP-42 emission factors, HAP emission rates will be estimated for distillate fuel firing. Acceptable air concentration levels developed by NYSDOH or listed in NYSDEC's "Guidelines for the Evaluation and Control of Ambient Air Contaminants Under Part 212 – DAR 1" (NYSDEC, 2016) will be used in assessing impacts from these HAPs as required. Specific analytical procedures to be followed will be detailed in the Air Quality Modeling Protocol to be submitted to the NYSDEC.

Modeling Protocol

The air quality assessment that will be reflected in Exhibit 17 of the Article 10 Application will be performed in accordance with a modeling protocol developed for and approved by the NYSDEC and the USEPA. The modeling protocol will identify the modeling procedures and applicable models proposed for use in assessing the air quality impacts from the proposed facility. The protocol will establish the methodology to be used for the new source modeling study. Should the results of the single source modeling study indicate air quality impacts greater than the Significant Impact Levels, a multi-source modeling study will be completed. If this occurs, a separate protocol for the multi-source modeling approach and source inventory verification procedure will be developed and submitted to the NYSDEC for its review and approval.

3.4 Noise and Vibration

3.4.1 Introduction

This section presents background data and information pertaining to noise and vibration impacts from the construction and operation of the proposed Project and identifies the issues and information that will be addressed and analyzed in Exhibit 19 of the Article 10 Application. The proposed Project site is located on an existing energy production site in an industrial area on Danskammer Road in the Town of Newburgh, New York. The proposed Project will consist of a combined cycle facility (one G, H, or J-class combustion turbine).

3.4.2 Existing Conditions

In general, the Project site is fairly remote from potentially sensitive noise receptors. There is a single residential structure located adjacent to the property to the west of the landfill, which is approximately 2,000 from the Project structures as currently proposed, after which the nearest residential or commercial buildings are located approximately 4,000 feet from the Project structures on River Road and Old Post Road. Within one mile of the proposed Project, there is a scattering of residential and commercial buildings, the Cedar Hill Cemetery, and vacant land. On the other side of the Hudson River, land use is primarily residential, agricultural and open space with scattered commercial operations.

3.4.3 Applicable Noise Ordinances and Regulations and Acoustic Design Goal

There are no State or Federal noise standards that are applicable to the proposed Project. However, Danskammer Energy proposes to utilize the New York State Department of Environmental Protection's ("NYSDEC") Noise Policy in addition to following the requirements set forth in Section 1001.19 of the Article 10 regulations, 16 NYCRR §1001.19. This program guidance document, entitled "Assessing and Mitigating Noise Impacts", which was issued by NYSDEC in October 2000, discusses various aspects of noise and suggested steps for performing noise assessments (NYSDEC Policy DEP-001).

The Town of Newburgh has a noise ordinance which is applicable to this Project (Chapter 125, "Town of Newburgh Noise and Illumination Control Law", 1992) as well as existing noise standards based on their zoning designation (see Table 3.4-1). The Town of Newburgh noise ordinance and the aforementioned NYSDEC noise impact criterion and requirements of 16 NYCRR §1001.19, whichever is more restrictive, will form the basis for determining the acoustic design goal for the Project.

Table 3.4-1. Town of Newburgh Noise Standard

Receiving Land Use	Daytime (8 a.m. to 10 p.m.)	Nighttime (10 p.m. to 8 a.m.)
Residential	65	56
Commercial/Industrial	80	70

Exhibit 19 will fully analyze the state and local noise standards applicable to the Project, and the degree of compliance at the representative external property boundary lines of the Project site, and at the representative nearest and average noise receptors, and will present this information in a tabular format. The Noise Impact Analysis ("NIA") described below will provide the basis for demonstrating compliance with these standards.

3.4.4 Potentially Significant Adverse Impacts

Construction of the proposed Project may result in short-term, temporary sound impacts for the most proximate residential locations. Actual sound levels during construction will vary with the construction activity and distance to the receptors.

During operation of the proposed Project, sound will be generated by a variety of sources. These include the combustion and steam turbines (casing, air inlet and exhaust), heat recovery steam generator ("HRSG"). ancillary skids and equipment, transformers, gas compressors, air cooled condenser and cooling fans. Offsite sound levels produced by these sources will be a function of the control measures used and the distance to the sound sensitive receptors.

A detailed sound modeling and mitigation analysis will be conducted such that Project-related operational sound levels are reduced to the greatest extent practical. This detailed sound modeling will be included in Exhibit 19 of the Article 10 Application.

3.4.5 Extent and Quality of Information Required for Evaluation

Consistent with 16 NYCRR §1001.19, a NIA of the noise impacts associated with construction and operation of the Project facility, related facilities and ancillary equipment will be prepared and presented in Exhibit 19 of the Article 10 Application.

A noise impact assessment will be carried out to determine what the existing environmental sound levels are within the current Project site, what the expected operational sound levels from the Project are likely to be and how they compare to pre-construction levels. Components of the assessment include the mapping of all potentially sensitive noise receptors, field measurements of current sound levels, an analysis of construction sound levels, the modeling of operational

sound emissions and the determination of the various statistical quantities detailed in Section 1001.19(f) of the Article 10 regulations.

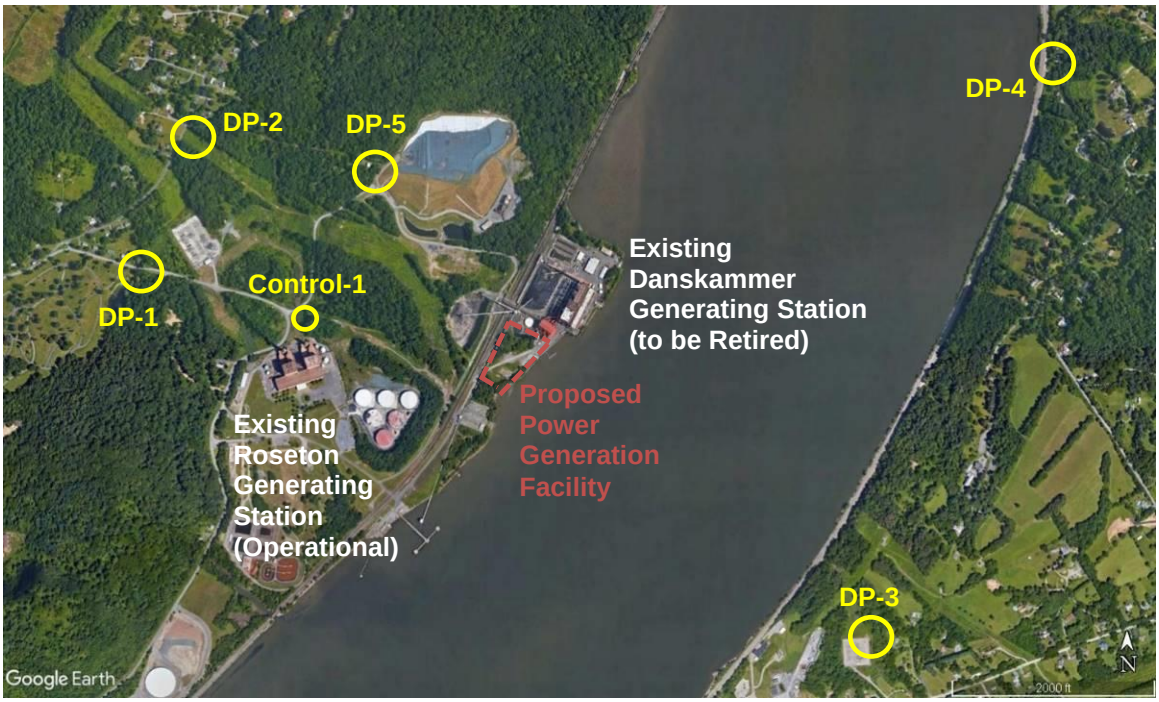
The field work and subsequent analyses will be carried out by Hessler Associates, Inc., an international acoustical engineering firm that has specialized exclusively in noise assessments for power generation projects for over 40 years, including dozens of projects in New York State.

Two surveys of existing background sound levels will be undertaken to evaluate the possibility of seasonal variation, one in the summertime and one in the wintertime. For the summertime survey, four key sound sensitive areas (residences) were identified through the use of satellite imagery (DP-1 to DP-4) as sites for ambient sound monitoring. In addition to these measurement locations, another sound monitor was set up near the Roseton Generating Station as a control position to create a time history of when that plant was operational and when it was not during the survey period in order to assess its effect on the sound levels at the residential design points. Prior to the wintertime survey, a building that was previously believed to be a workshed was identified as a residential home. As such, a fifth residential monitoring location (DP-5) was added to the wintertime survey, which represents the worse-case scenario. The sound survey monitoring locations/modeling design points are provided below in Table 3.4-2 and illustrated in Figure 3.4-1.

Table 3.4-2. Sound Monitoring Locations and Modeling Design Points

Designation	Location	Approx. Distance from the Project Generation Facilities
DP-1	Nearest Houses on River Road	3,800 ft. W
DP-2	Nearest Houses on Old Post Road	4,000 ft. W
DP-3	Nearest Houses Directly Across the River on N River Road, Wappinger Falls	4,500 ft. E
DP-4	Other Houses Across the River on Wheeler Hill and Old Troy Roads, Wappinger Falls	1 mi. E
DP-5	Single Residence Near Existing Landfill	2200 ft. W
Control 1	Approximately 300 feet N of the Roseton Generating Station	n/a

Figure 3.4-1 Sound Monitoring Locations and Modeling Design Points



A map of the Project Area showing the location of sensitive sound receptors in relation to the Project, related facilities and ancillary equipment (including any related substations) will be included in the NIA, which will be included in Exhibit 19 of the Article 10 Application. The sensitive sound receptors shown will include residences, outdoor public facilities and areas, hospitals, places of worship, and schools.

Computer sound modeling of the major Project sources will be performed utilizing a commercially available sound propagation model. The modeling will consider hemispherical spreading and atmospheric absorption for this analysis. The rather significant topography surrounding the site area will be built into the 3-dimensional noise model. ISO standard day conditions of 59° F and 70% relative humidity will be assumed. Modeling design points will be consistent with the locations where background monitoring was performed. However, additional locations may be added as receptor locations if appropriate. The computer sound modeling will also include estimates from sound receptors including plant startups and shutdowns, and mitigation measures such us use of silencers for blow-down venting will be considered.

With the possible exception of specific vendor guarantees, all or most of the component source sound levels will be derived from first-hand field measurements of similar or identical equipment in actual operation at existing combined cycle plants. As such, it is anticipated that the computer noise modeling values used for the major noise-producing components of the Project facility will fairly match the unique operational noise characteristics of the particular equipment models and configurations proposed for the Project facility. The software input parameters, assumptions, and associated data used for the computer modeling will be provided in Exhibit 19 of the Article 10 Application.

The sound modeling will be used as a design tool in order to determine the degree of abatement or mitigation required on individual sound sources. Modeling runs will be made, with sound control added based on different construction and operation scenarios as required, to work toward meeting the acoustic design goals for the Project. Detailed sound modeling for operational phase will be included in Exhibit 19 of the Article 10 Application.

In addition to the above, the NIA will specifically include the following:

- An evaluation of ambient pre-construction baseline noise conditions, including A-weighted/dBA sound levels, prominent discrete (pure) tones, at representative potentially impacted noise receptors, using actual measurement data recorded in winter and summer and during day and night as a function of time and frequency using a suitable and suitably calibrated sound level meter ("SLM") and octave band frequency spectrum analyzer, or similar equipment. The ambient pre-construction baseline sound level should be filtered to exclude seasonal and intermittent noise.
- An evaluation of future noise levels during construction of the facility and related facilities including predicted A-weighted decibels ("dBA") sound levels at potentially impacted and representative noise receptors, using computer noise modeling.
    - Sound levels associated with the various construction phases will also be conservatively estimated at the far field design points to evaluate the potential for disturbance during construction.
    - Sound emission data for the proposed construction equipment will be obtained from the Federal Highway Administration's Roadway Construction Noise Model (RCNM 1.1) or from other similar sources.
- An estimate of the noise level to be produced by operation of the facility, related facilities and ancillary equipment assuming wind-induced background noise or stable atmospheric conditions, as appropriate, and not assuming any attenuation of sound that transiently occurs due to weather or temperature.

- An evaluation of future noise levels during operation of the facility, related facilities and ancillary equipment including predicted A- weighted/dBA sound levels, prominent discrete (pure) tones, and amplitude modulated sound, at potentially impacted and representative noise receptors, using computer noise modeling, and an analysis of whether the facility will produce significant levels of low frequency noise or infrasound.
- A statement in tabular form of the A-weighted/dBA sound levels indicated by measurements and computer noise modeling at the representative external property boundary lines of the facility and related facilities and ancillary equipment sites, and at the representative nearest and average noise receptors, for the following scenarios:
    - Daytime ambient noise level - a single value of sound level equivalent to the level of sound exceeded for 90 percent of the time during the daytime hours (7 am - 10 pm) of a year (L90).
    - Summer nightime ambient noise level - a single value of sound level equivalent to the level of sound exceeded for 90 percent of the time during the nightime hours (10 pm - 7 am) during the summer (L90).
    - Winter nightime ambient noise level - a single value of sound level equivalent to the level of sound exceeded for 90 percent of the time during the nightime hours (10 pm - 7 am) during the winter (L90).
    - Worst case future noise level during the daytime period - the daytime ambient noise level (L90), plus the noise level from the proposed new sources modeled as a single value of sound level equivalent to the level of sound exceeded for 10 percent of the time by such sources under normal operating conditions by such sources in a year (L10).
    - Worst case future noise level during the summer nightime period - the summer nightime ambient noise level (L90), plus the noise level from the proposed new sources modeled as a single value of sound level equivalent to the level of sound exceeded for 10 percent of the time by such sources under normal operating conditions by such sources in a year (L10).
    - Worst case future noise level during the winter nightime period - the winter nightime ambient noise level (L90), plus the noise level from the proposed new sources modeled as a single value of sound level equivalent to the level of sound exceeded for 10 percent of the time by such sources under normal operating conditions by such sources in a year (L10).
    - Daytime ambient average noise level - a single value of sound level equivalent to the energy-average ambient sound levels (Leq) during daytime hours (7 am -10 pm).
    - Typical facility noise levels - the noise level from the proposed new sources modeled as a single value of sound level equivalent to the level of the sound exceeded 50 percent of the time by such sources under normal operating conditions by such sources in a year (L50).
    - Typical future noise level during the daytime period - the energy- average ambient sound level during daytime hours (Leq), plus the noise level from the proposed new sources modeled as a single value of sound level equivalent to the level of the sound exceeded 50 percent of the time by such sources under normal operating conditions by such sources in a year (L50).

In considering how to assess the impacts associated with the Project, Danskammer Energy reviewed the NYSDEC Noise Policy. The guidance notes that an increase in ambient noise of 10 dBA is perceived by the majority of people to be a doubling of the loudness of a sound. For example, if the ambient sound level is 50 dBA, and is then increased to 60 dBA, most people would perceive the new noise level as twice as loud. The guidance recommends that for non-industrial settings, the Sound Pressure Level ("SPL") should probably not exceed ambient noise levels by more than 6 dBA at a given receptor. The addition of any noise source, in a non-industrial setting, should not raise the total future ambient noise level above a maximum of 65 dBA. This would be considered the "upper end" limit since 65 dBA allows for undisturbed speech at a distance of approximately three feet. Noise levels in industrial or commercial areas should not exceed 79 dBA.

The NYSDEC guidance explicitly states that the 6 dBA increase is to be used as a general guideline. However, there are other factors which should also be considered. For example, in settings with very low ambient sound levels, a lower plant sound level may be appropriate to minimize the probability of complaints. For purposes of evaluating impacts for the Danskammer Energy Center, the NYSDEC guidance of an increase in noise levels of 6 dBA or more over existing ambient L90 noise levels will be considered to be a significant adverse noise impact. Exhibit 19 will provide a description of post-construction noise evaluation studies that shall be performed to establish conformance with operational noise design goals.

Exhibit 19 of the Article 10 Application will also provide an evaluation of the potential for community noise impact, which will include the following topics: hearing damage (as addressed by applicable occupational safety and health administration standards); indoor and outdoor speech interference; interference in the use of outdoor public facilities and areas; community complaint potential; the potential for structural damage; and the potential for interference with technological, industrial or medical activities that are sensitive to vibration or infrasound.

3.4.6 Avoidance and Minimization Measures to Adverse Impacts

Short-term, temporary sound impacts may occur during construction activities. These impacts may occur when activities, such as excavating or steam blows, take place. Impacts could also

occur during plant operation if the proper sound control measures are not implemented. Possible mitigation measures to minimize these potential impacts during construction include:

- Requiring functional mufflers on all equipment
- Using special non-tonal back up alarms on construction vehicles
- Staggering the noisiest construction activities such that they do not occur simultaneously
- Limiting all noisy activities to the daytime hours

Exhibit 19 of the Article 10 Application will provide an evaluation of reasonable noise abatement measures for construction activities. Danskammer Energy will also present a Complaint Resolution Protocol specific to this Project and identify practicable post-construction operational controls and other mitigation measures that will be available to address reasonable complaints.

Finally, the actual measures implemented, which could differ from those specified during the impact assessment due to changes in plant layout or final equipment vendors, will be determined during final Project design. Exhibit 19 of the Article 10 Application will provide a discussion of the reasonable mitigation measures considered, including alternative technologies, alternative designs and alternative Project facility arrangements.

3.5 Cultural Resources

3.5.1 Introduction

The National Historic Preservation Act ("NHPA") (Public Law 89-665, as amended by Public Law 96-515; 16 USC 470 et seq.) Section 106 requires that federal agencies with jurisdiction over a proposed project that involves federal funds, permit or licenses or permits, take into account the effect of the undertaking on cultural resources listed, or eligible for listing on the National Register of Historic Places ("NRHP"), and afford the State Historic Preservation Offices ("SHPO"s) and the Advisory Council on Historic Preservation an opportunity to comment with regard to the undertaking.

The New York Historic Preservation Act ("NYHPA") of 1980 (Chapter 354 of Parks, Recreation and Historic Preservation Law) established a similar review process for state agency activities

affecting historic or cultural properties, requiring state agencies to consult with the Commissioner of the New York Office of Parks, Recreation, and Historic Preservation ("OPRHP").

The NYHPA requires project sponsors to consult with the OPRHP if it appears that a project which is being planned may cause any change, beneficial or adverse, in the quality of any historic, architectural, archaeological, or cultural property that is listed in the NRHP or property listed in the New York State Register of Historic Places ("SRHP"), or that is determined by the Commissioner to be eligible for listing in NRHP or SRHP. It requires that project sponsors, to the fullest extent practicable, be consistent with other provisions of the law, avoid or mitigate adverse impacts to such properties, fully explore all feasible and prudent alternatives, and give due consideration to feasible and prudent plans that will avoid or mitigate adverse impacts.

As discussed in §1001.20 of Article 10 regulations, identification of archaeological resources can consist of two phases: Phase IA Literature Review and Sensitivity Assessment and, if deemed necessary, Phase IB Archaeological Identification Survey. To assess the potential for visual impacts to NRHP and SRHP, consultation with the OPRHP is required to define an area of potential effect ("APE"), and the need for field surveys, resource documentation, evaluation, and impact assessment.

3.5.2 Existing Setting

A. HISTORIC ARCHITECTURAL RESOURCES/PROPERTIES (NHRP AND SRHP)

A preliminary review of State Register and NRHP files maintained by OPRHP and the National Park Service was conducted. As shown on Table 3.5-1, one hundred and sixty-eight (168) listed NRHP and SRHP historic properties have been previously recorded within a three-mile radius of the Project site. There are thirty-two (32) listed NRHP and SRHP historic places within the two-mile radius around the Project site (Table 3.5-2). Furthermore, there are three (3) NRHP- and SRHP-listed historic places within one mile-radius of the Project site. (See Table 3.5-3 and Figure 3.5-1). Lastly, background research also identified a previous Architectural Reconnaissance Survey of the Project area completed by Hartgen Archaeological Associates, Inc., in June 2015. As part of this survey, the site for the existing Danskammer Generating Station was determined not eligible for NRHP listing.

Table 3.5-1. Three-Mile Radius NRHP and SRHP Listed Properties

USN	Resource Name	NRHP Status
2706.000003	Stonykill Farm Stonehouse	Listed
2714.000048	Hotel - 15 Main St.	Listed
2714.000049	9A Main St.	Listed
2714.00005	Res - 13 Main St	Listed
2714.000056	Rest, Res - 7 Stone St.	Listed
2714.000148	Nevin Res - 11 Main St.	Listed
2714.000161	Shay's Warehouse and Stable - 32 Point St.	Listed
2714.000165	William Shay Double House - 18 Point St.	Listed
2714.000192	Res - 9 Stone St.	Listed
2714.000196	Abraham Brower House - 2 Water Street	Listed
2714.000202	Adolph Brower House - 1 Water St.	Listed
2714.000205	St. Nicholas Episcopal Church (Zion Memorial Chapel) - 37 Point St.	Listed
2714.000207	Van Anden House - 5 Stone St.	Listed
2714.000208	Ellis House - 18 Division St.	Listed
2714.00021	Myers Store - 10 Main St.	Listed
2714.000235	Stone Street Historic District	Listed
2714.000237	Union Free School - Academy St.	Listed
2714.000239	12 Main St.	Listed
2719.000058	Chelsea Grammar School - Liberty St.	Listed
2719.000127	Carnwath Farms Historic Site and Park, Carnwath Manor - 81 Carnwath Farms Ln.	Listed
2719.000192	Cornelius Carman House - River Rd. South	Listed
2719.000193	Captain Moses W. Collyer House (Driftwood) - River Rd. South	Listed
2719.000231	Wheeler Hill Historic District	Listed
2744.000022	Buckley Res - 1-3 Dutchess Ave.	Listed
2744.000023	Patton Res - 2-4 Dutchess Ave.	Listed
2744.000024	Herring Res - 5-7 Dutchess Ave.	Listed
2744.000025	Derasmo Res - 6-8 Dutchess Ave.	Listed
2744.000026	Laffin Res - 9-11 Dutchess Ave.	Listed
2744.000027	Galioto Res - 10-12 Dutchess Ave.	Listed
2744.000028	Owenhinzmann Res - 13-15 Dutchess Ave.	Listed
2744.000029	Martinez Res - 14-16 Dutchess Ave.	Listed
2744.00003	Adams Res - 17-19 Dutchess Ave.	Listed
2744.000031	Komornik Res - 2-4 Dutchess Terrace	Listed

USN	Resource Name	NRHP Status
2744.000032	Sarubbi Res - 6-8 Dutchess Terrace	Listed
2744.000033	Selage Res - 10-12 Dutchess Terrace	Listed
2744.000034	Ranallo Res - 14-16 Dutchess Terrace	Listed
2744.000035	Buckley Res - 18-20 Dutchess Terrace	Listed
2744.000039	Commercial Bldg. - 5-7 Givens Ave.	Listed
2744.000046	Stone Bridge - Main St.	Listed
2744.000047	Rocky's Shoe Repair - 1 East Main St.	Listed
2744.000048	Msgr. Loughlin Mem. Hall - 2 East Main St.	Listed
2744.000049	Lemar Drugs - 3 East Main St.	Listed
2744.00005	Goring Hall/Purdy Comm. - 5-7 East Main St.	Listed
2744.000052	2657 East Main Street - 2657 East Main St.	Listed
2744.000053	Wagon Wheel Pizza - 10 East Main St.	Listed
2744.000054	Sal's Music Store - 11 East Main St.	Listed
2744.000055	Colangelo's Comm. Bldg. - 12 East Main St.	Listed
2744.000056	Miller Comm. Bldg. - 13 East Main St.	Listed
2744.000057	Brown Comm. Bldg. - 14 East Main St.	Listed
2744.000058	Shubert's Comm. Bldg. - 15 East Main St.	Listed
2744.000059	Lopez Oil Bldg. Grav - 16 East Main St.	Listed
2744.00006	Walker Comm. Bldg - 17 East Main St.	Listed
2744.000061	Courtois Comm. Bldg - 18 East Main St.	Listed
2744.000063	Meltzer Comm. Bldg. - 20 East Main St.	Listed
2744.000065	Grinnell Library - 26 East Main St.	Listed
2744.000066	United Methodist Church - East Main St.	Listed
2744.00007	Olde Millhouse/Szoty Oil Comm. Bldg. - 8 West Main St.	Listed
2744.000071	Mecoreri Comm Bldg - 10 West Main St.	Listed
2744.000073	Bain Commercial Building - 59-61 West Main St.	Listed
2744.000081	Fulton Comm and Res - 1 Market St.	Listed
2744.000083	Pettit Res - 49 Market St.	Listed
2744.000084	Res - 51A & 51B Market St.	Listed
2744.000085	Prussak Res - 54 Market St.	Listed
2744.000086	Stephant Res - 79 Market St.	Listed
2744.000087	Duchess Company Superintendent's House - 120 Market St.	Listed
2744.000117	Silver Commercial Bldg - 6-14 Mill St.	Listed
2744.000118	Town Hall, Ca. 1871 - 7 Mill St.	Listed
2744.000122	Currier Res - 4 Park St.	Listed

USN	Resource Name	NRHP Status
2744.000123	Cruisie Residence - 6 Park St.	Listed
2744.000125	Dimarco Res - 10 Park St.	Listed
2744.000126	Dimarco Res - 12 Park St.	Listed
2744.000127	Bacchi Res - 14 Park St.	Listed
2744.000128	McCloskey Res - 16 Park St.	Listed
2744.000129	Fulton Res - 18 Park St.	Listed
2744.00013	Hunt Res - 20 Park St.	Listed
2744.000131	Lancto Res - 22 Park St.	Listed
2744.000143	United States Post Office of Wappingers Falls - 2 South Ave.	Listed
2744.000144	IOOF Hall - 6 South Ave.	Listed
2744.000145	Delano's Tavern - 8 South Ave.	Listed
2744.000146	NY Telephone Bldg. - 10 South Ave.	Listed
2744.000147	Faller Res - 11 South Ave.	Listed
2744.000148	Brannan Res - 12 South Ave.	Listed
2744.000149	Kulla Res - 14 South Ave.	Listed
2744.00015	Lupert Res - 15 South Ave.	Listed
2744.000151	Baller Res - 16 South Ave.	Listed
2744.000152	Gurneg Res - 18 South Ave.	Listed
2744.000153	Bethel Missionary Baptist Church - 19 South Ave.	Listed
2744.000154	Clark Res - 21 South Ave.	Listed
2744.000155	Van Burg Res - 22 South Ave.	Listed
2744.000156	Doyle Res - 24 South Ave.	Listed
2744.000157	Sowa Res - 25-27 South Ave.	Listed
2744.000158	McClusky Res - 28 South Ave.	Listed
2744.000159	Haines Res - 29 South Ave.	Listed
2744.00016	Dedomizio Comm Bldg - 30 South Ave.	Listed
2744.000161	31 South Ave.	Listed
2744.000162	Delaney Res - 32 South Ave.	Listed
2744.000164	Polichale Res - 34 South Ave.	Listed
2744.000166	Decker Res - 36 South Ave.	Listed
2744.000167	Knight Res - 37 South Ave.	Listed
2744.000168	Hartman Comm - 38 South Ave.	Listed
2744.000169	Gole Res - 39 South Ave.	Listed
2744.00017	Res - 40 South Ave.	Listed
2744.000171	Shay Res - 43 South Ave.	Listed

USN	Resource Name	NRHP Status
2744.000172	Res - 44 South Ave.	Listed
2744.000173	Wordell Res - 45 South Ave.	Listed
2744.000174	Sutton Res - 47 South Ave.	Listed
2744.000175	First Presbyterian Church - 2570 South Ave.	Listed
2744.000176	Bain Res - 49 South Ave.	Listed
2744.000177	Morrill Res - 51 South Ave.	Listed
2744.000178	Dubinski Res - 53 South Ave.	Listed
2744.000179	Kiss Res - 55 South Ave.	Listed
2744.00018	Kenney Res - 57 South Ave.	Listed
2744.000181	Williams Res - 59 South Ave.	Listed
2744.000198	Mulhern House - 14-16 Franklin St.	Listed
2744.0002	1 Andrews Pl.	Listed
2744.000201	3 Andrews Pl.	Listed
2744.000202	7 Andrews Pl.	Listed
2744.000203	9 Andrews Pl.	Listed
2744.000204	A Dutchess Bleachery	Listed
2744.000205	B Dutchess Bleachery	Listed
2744.000206	C Dutchess Bleachery	Listed
2744.000207	D Dutchess Bleachery	Listed
2744.000208	E Dutchess Bleachery	Listed
2744.000209	F Dutchess Bleachery	Listed
2744.00021	G Dutchess Bleachery	Listed
2744.000211	H Dutchess Bleachery	Listed
2744.000212	I Dutchess Bleachery	Listed
2744.000213	J Dutchess Bleachery	Listed
2744.000214	K Dutchess Bleachery	Listed
2744.000215	L Dutchess Bleachery	Listed
2744.000216	M Dutchess Bleachery	Listed
2744.000217	N Dutchess Bleachery	Listed
2744.000218	O Dutchess Bleachery	Listed
2744.000219	4-6 East Main St.	Listed
2744.00022	19 East Main St.	Listed
2744.000221	1-3 Givens Ave.	Listed
2744.000222	13 Givens Ave.	Listed
2744.000223	16-18 Givens Ave.	Listed

USN	Resource Name	NRHP Status
2744.000224	Building Shed - Givens Ave.	Listed
2744.000225	77 Market St.	Listed
2744.000226	81 Market St.	Listed
2744.000227	Mesier Homestead - Mesier Park	Listed
2744.000228	8 Park St.	Listed
2744.000229	Zion Episcopal Church - Satterlee Pl.	Listed
2744.00023	Zion Church Parish Hall - Satterlee Pl.	Listed
2744.000231	Zion Church Rectory - Satterlee Pl.	Listed
2744.000232	Zion Church Park - Satterlee Pl.	Listed
2744.000233	5-7 West Main St.	Listed
2744.000234	9 West Main St.	Listed
2744.000235	11-13 West Main St.	Listed
2744.000236	County Players Falls Theatre - 15 West Main St.	Listed
2744.000237	2 North Mesier Ave.	Listed
2744.000238	4 North Mesier Ave.	Listed
2744.000239	6 North Mesier Ave.	Listed
2744.00024	8 North Mesier Ave.	Listed
2744.000241	10 North Mesier Ave.	Listed
2744.000242	12 North Mesier Ave.	Listed
2744.000243	14 North Mesier Ave.	Listed
2744.000244	United States Post Office - South Ave.	Listed
2744.000252	Wappingers Falls Historic District	Listed
7114.000003	Mill House - Millhouse Rd.	Listed
7114.000155	Cosman Family Cemetery - Lattintown Road	Listed
2714.000485	Main Street Historic District	Listed
11109.00002	Christ Episcopal Church - US 9W	Listed
11109.00003	Amity Baptist Church (Chapel Hill Bible Church) - 49 Bingham Rd.	Listed
11109.00004	Merrit House - 404 Old Post Road	Listed
11109.00006	Shady Brook Farms - 351 Old Post Road	Listed
11150.00001	Dubois-Sarles Octagon - 17 South St.	Listed

Table 3.5-2. Two-Mile Radius NRHP and SRHP Listed Properties

Site USN	Name	Status
2714.000048	Hotel- 15 Main Street	Listed
2714.000049	9A Main Street	Listed
2714.00005	Res. - 13 Main Street	Listed
2714.000056	Rest, Res. - 7 Stone Street	Listed
2714.000148	Nevin Res. - 11 Main Street	Listed
2714.000161	Shay's Warehouse and Stable - 32 Point Street	Listed
2714.000165	William Shay Double House - 18 Point Street	Listed
2714.000192	Res - 9 Stone Street	Listed
2714.000196	Abraham Brower House - 2 Water Street	Listed
2714.000202	Adolph Brower House - 1 Water Street	Listed
2714.000205	St. Nicholas Episcopal Church (Zion Memorial Chapel) - 37 Point Street	Listed
2714.000207	Van Anden House - 5 Stone Street	Listed
2714.000208	Ellis House - 18 Division Street	Listed
2714.00021	Myers Store - 10 Main Street	Listed
2714.000235	Stone Street Historic District	Listed
2714.000237	Union Free School - Academy Street	Listed
2714.000239	12 Main Street	Listed
2714.000484	Stone Street Historic District	Listed
2714.000485	Main Street Historic District	Listed
2719.000057	St Mark's Episcopal Church - Liberty Street	Listed
2719.000058	Chelsea Grammar School - Liberty Street	Listed
2719.000127	Carnwath Farms Historic Site and Park, Carnwath Manor - 81 Carnwath Farms Lane 12590	Listed
2719.000192	Cornelius Carman House - River Road South	Listed
2719.000193	Captain Moses W. Collyer House (Driftwood) - River Road South	Listed
2719.000231	Wheeler Hill Historic District	Listed
7114.000003	Mill House - Millhouse Road 12542	Listed
7114.000155	Cosman Family Cemetery- Lattintown Road	Listed
11109.00002	Christ Episcopal Church - Us 9W	Listed
11109.00003	Amity Baptist Church (Chapel Hill Bible Church) - 49 Bingham Road	Listed
11109.00004	Merrit House - 404 Old Post Road	Listed
11109.00006	Shady Brook Farms - 351 Old Post Road 12542	Listed
11150.00001	Dubois-Sarles Octagon - 17 South Street	Listed

Table 3.5-3. One-Mile Radius NRHP and SRHP Listed Properties

Site USN	Name	Status
7114.000003	Mill House- Millhouse Road	Listed
2719.000127	Carnwath Farms Historic Site and Park, Carnwath Manor- 81 Carnwath Farms Lane	Listed
2719.000231	Wheeler Hill Historic District	Listed

B. ARCHAEOLOGICAL RESOURCES

A review of Geographic Information System ("GIS") data available from the OPRHP's Cultural Resources Information System ("CRIS") indicates that the Project site and the greater surrounding area within a one mile radius are located within an archaeologically sensitive area (see Figure 3.5-2). The Archaeological Sensitivity Maps for New York State define areas within the State where the discovery of archaeological sites is predicted. These areas also contain the locations of known sites that are included in the OPRHP archaeological site files and the New York State Museum ("NYSM") archaeological site files. The exact locations are not displayed on the maps since they are protected from disclosure by the National Historic Preservation Act of 1966 and the State Historic Preservation Act of 1980. The site information depicted on the maps reflects known sites protected by buffer zones, as indicated in gray on Figure 3.5-2. These defined sites with their buffer zones are used by the OPRHP to provide recommendations to State and Federal agencies regarding the need for archaeological surveys.

As shown on Table 3.5-4, there are five archaeological sites previously recorded within a one-mile radius of the Project site and one previously recorded within the Project site (07140.000246). Ten archaeological surveys have been identified by the OPRHP as having been conducted within a one-mile radius.

Table 3.5-4. Archaeological Sites Within 1 mile-radius of the Proposed Project

USN	Site Name	Site Type	Distance from Project Site	NRHP Status
02719.000028	Chelsea River Rd. Foundation Site	Historic	0.73 mi southeast (across Hudson River)	Undetermined
02719.000211	MPR Locus A	Prehistoric	0.8 mi southeast (across Hudson River)	Undetermined
02719.000224	East Connection Site Scatter	Historic	0.71 mi southeast (across Hudson River)	Not Eligible
07114.000142	Gomez House Root Cellar Locus	Historic	0.97 mi northwest	Undetermined
07114.000143	West Branch Tunnel midden site	Historic	0.45 mi west	Undetermined
07140.000246	Danskammer	Multicomponent	Within Project site	Undetermined

Source: OPRHP 2018

Danskammer Site (07140.000246):

The 07140.000246 Archaeological Site Inventory Form on file with the OPRHP records this site as the location of an "Indian path" and was later the site of "Danskammer", the home of Edward Armstrong. In 1834, Armstrong designed a granite temple-inspired dwelling that was constructed by Ein. The dwelling was then sold to Juan Jacinto Jova in 1870 and, in 1932, the building was demolished to allow construction of brick yards. The stones of Danskammer were reportedly bought by Vermont Hatch who used them to build the Storm King Art Center, located in Mountainville, New York. The OPRHP site files do not show any records of archaeological investigations of the site location in modern times.

Considering the extent of prior disturbance at both the Danskammer site, and the existing electric generating station, and the fact that much of the proposed improvements are in areas that have already been developed, it is unlikely that significant historic or prehistoric archeological resources still exist on the Project site.

Figure 3.5-1. Historic Resources within three-mile radius of the Project

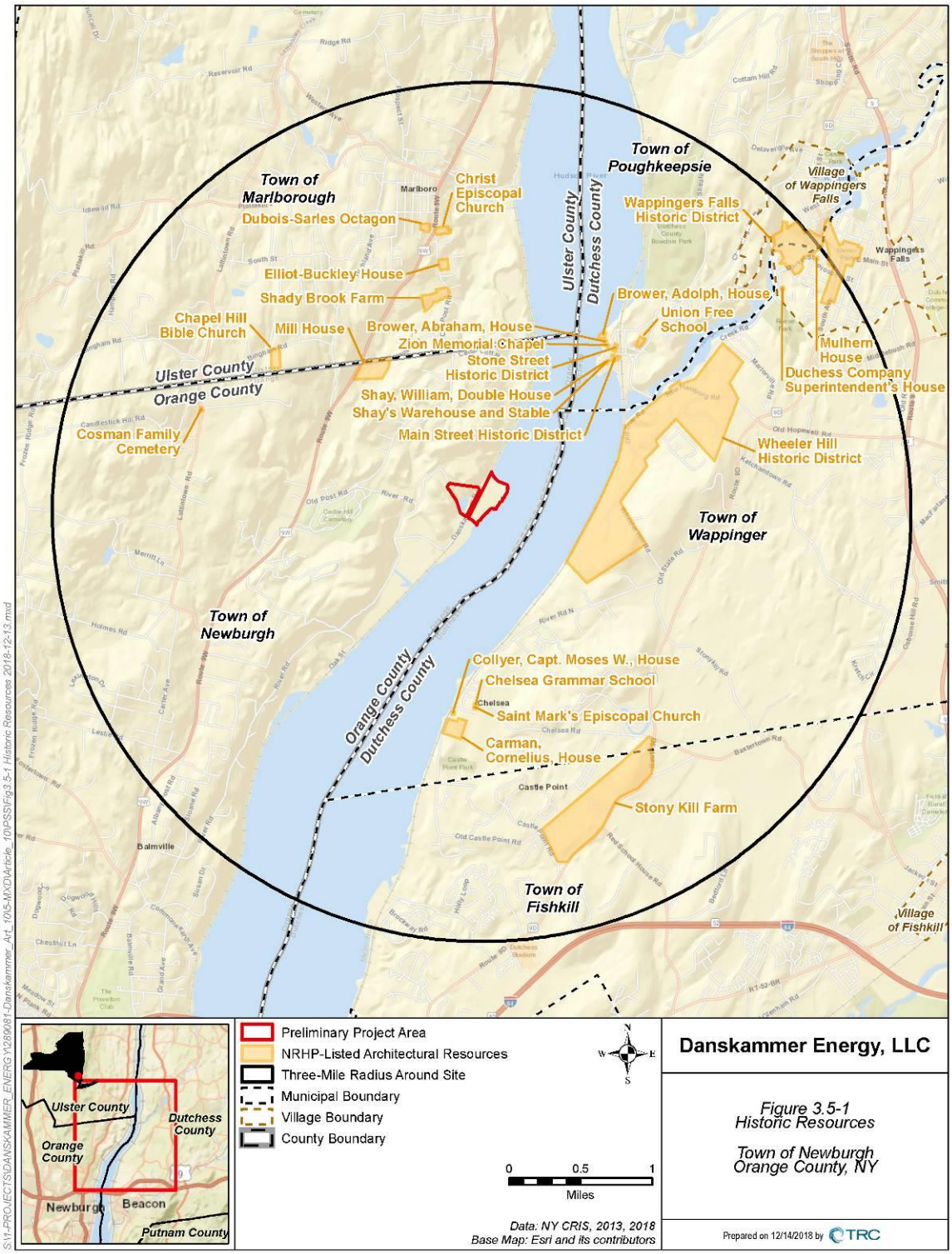
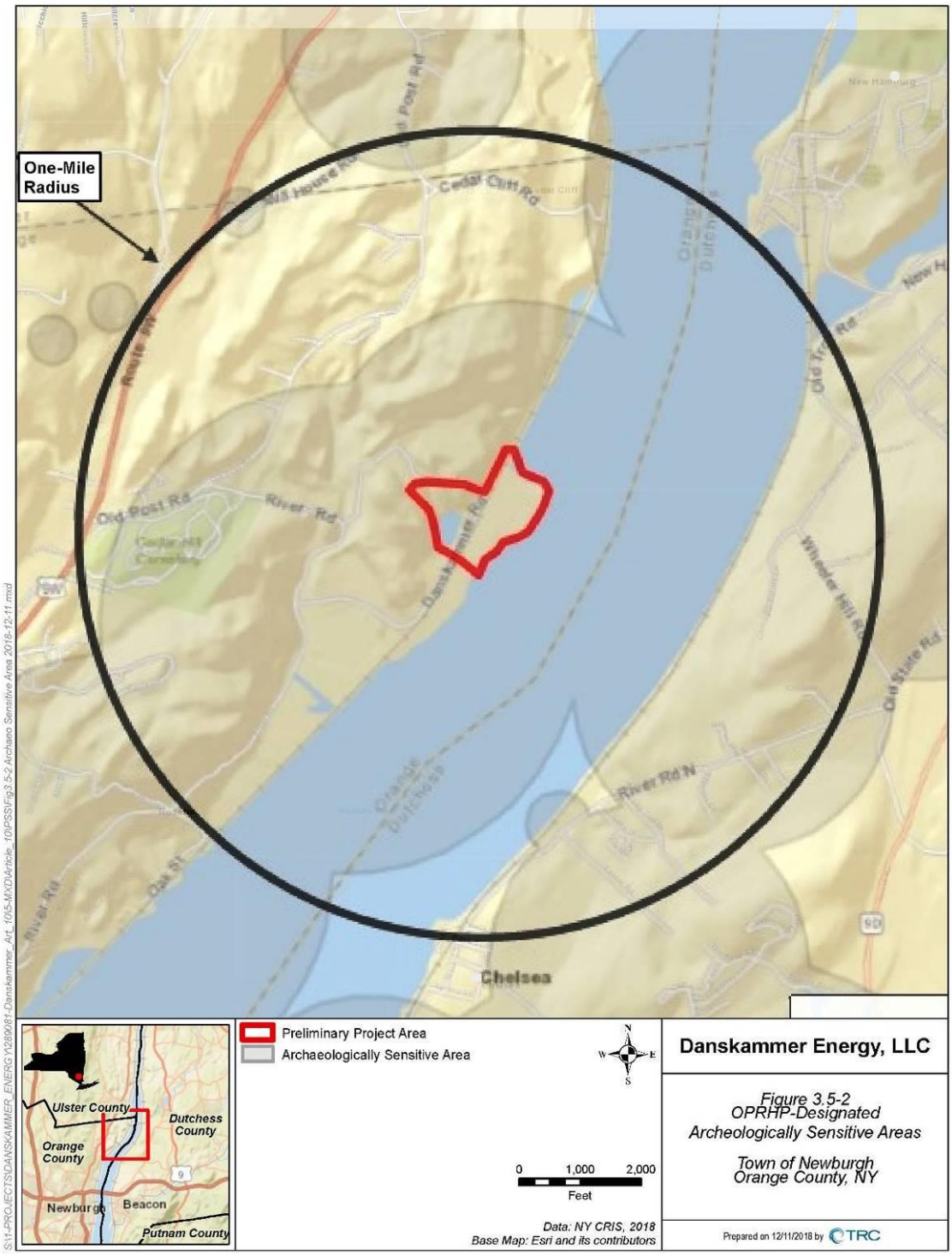


Figure 3.5-2. OPRHP-Designated Archeologically Sensitive Areas within one-mile radius of the Project



3.5.3 Potentially Significant Adverse Impacts

Due to the distance of the nearest registered historic places, it is anticipated that the Project will have no impacts on historic architectural resources in the area. As shown on Figure 3.5-2 and discussed above, the site is located within an archaeological sensitive area. However, due to the extent of prior disturbance at the existing electric generating site and the fact that much of the proposed improvements are in areas that have already been developed, the proposed repowering Project is not anticipated to adversely affect archaeological resources. As outlined in detail in Section 3.5.4 below, Danskammer Energy, in coordination with the OPRHP, anticipates completing a Phase IA literature review, at a minimum, to further investigate potential effects to archaeological resources.

3.5.4 Extent and Quality of Information Required for Evaluation

Archaeological Resources

Danskammer Energy anticipates initiating consultation with the OPRHP by uploading correspondence containing a Project description and location maps to CRIS. Danskammer Energy also anticipates completing a Phase IA archaeological study that will provide recommended courses of action, including whether any field studies would be required to ascertain the presence or absence of NRHP-eligible archaeological resources within the Project's construction impact areas.

All proposed reviews will adhere to the New York Archaeological Council's Standards for Cultural Resource Investigations and the Curation of Archaeological Collections (1994), which have been adopted as the *OPRHP Guidelines*. The proposed studies will cover an APE that encompasses the Project site as well as any known laydown areas and other locations where construction activities associated with the Project may result in ground disturbance that has the potential to affect archeological resources. In addition, and as described below, a broader APE will be defined in consultation with OPRHP and describe an area of indirect potential effects, where visual effects on above-ground historic architectural resources listed or eligible for listing on the NRHP and SRHP could occur. This APE will center around the proposed Danskammer Energy Center and will be determined based on the engineering design of the Project.

A. PHASE IA LITERATURE REVIEW AND SENSITIVITY ASSESSMENT

The Phase IA report will contain the following information:

- Project information including the project size, location, and plans. The Project area will be identified on the most recent USGS quadrangle(s) and, if available, maps of Project plans will be included;
- a general discussion of existing conditions within the Project area including present land use and evidence of prior disturbance;
- environmental information including a description of mapped soils, bedrock geology, physiography and hydrology in the vicinity of the Project area;
- general cultural contexts (historic and prehistoric) of the Project vicinity and historic map research;
- a description of previously recorded archaeological and previous cultural resource survey; this information will be obtained from research of the CRIS database and other web-based resources;
- historic maps and an interpretation of potential historic resources within the Project area; and
- an assessment of the archaeological sensitivity and potential of the Project area.

The Phase 1A Survey Report will be submitted to the OPRHP for review and comment and will determine whether field studies (Phase IB Survey) would be required. Should such field studies be required, Danskammer Energy will consult with the OPRHP regarding areas to be surveyed and testing protocols.

Historic Architectural Resources

Danskammer Energy will also consult with OPRHP regarding potential impacts to historic architectural resources through defining an defining an APE for above-ground architectural resources and establishing a methodology for field survey. Consultation with OPRHP staff will determine field survey level of effort and documentation expectations for historic architectural resources in the APE. Consultation will also discuss preliminary impact assessments based on project design known at that time and possible mitigation measures.

3.5.5 Avoidance and Minimization Measures to Adverse Impacts

No adverse impacts are currently anticipated as a result of the proposed Project. Thus, no avoidance or mitigation measures are anticipated with regard to cultural resources.

3.6 Geology, Seismology, and Soils

3.6.1 Introduction

This section corresponds to the information and analyses to be presented in Exhibit 21 of the Article 10 Application, addressing the technical aspects of Project construction relative to the geological conditions at the proposed Project site. This section presents a preliminary overview of the regional geology and seismic potential as documented in existing literature and discusses applicable regulations, mitigation measures to be implemented and further required studies for presentation and analysis in Exhibit 21 of the Article 10 Application.

3.6.2 Existing Setting

A. TOPOGRAPHY

Based on field observations, the topography of the Project site slopes from west to east toward the Hudson River. According to the United States Geological Survey ("USGS") 7.5-Minute Quadrangle Map (Wappingers Falls, 2013) and information contained in the regulatory agency database search report, the elevation of the Project site ranges from approximately 5 to 210 feet above mean sea level ("amsl").

B. GEOLOGY

The Project site is located in the Valley and Ridge physiographic province (Schuberth, 1968). According to the Geologic Map of New York State (see Figure 3.6-1), the bedrock underlying the Project site consists of the Paleozoic-age Cambrian sandstone and quartzose dolostone with Ordovician shale and sandstone in upper part, and limestone/dolostone in lower part (symbol OC). This bedrock formation is common along the shoreline of the Hudson River. The expected depth to bedrock is expected to be under 20 inches.

The surficial geology within approximately one mile of the Project is shown on Figure 3.6-2. Maps of unconsolidated deposits indicate that the surficial geology of the study area primarily comprises of till (t) and bedrock (r). This composition is consistent with the Hudson River, where a stratigraphy of glacial, river, lake, and estuarine deposits rest on top of the bedrock.

C. SOILS

As shown in Figure 3.6-3, the United States Department of Agriculture ("USDA") Natural Resources Conservation Service ("NRCS") identifies the site as having the following soils at the Project site:

- Ur: Urban land.
- W: Water
- CoC: Collamer silt loam, 8 to 15 percent slopes
- CoD: Collamer silt loam, 15 to 25 percent slopes

Urban land is defined as soil that has been altered by human activity, such as prior development. The Collamer series consists of very deep, moderately well drained soils formed in silty glacio-lacustrine sediments. They are on lake plains and till plains that have a thick mantle of lake sediments. Slope ranges from 0 to 25 percent. Mean annual precipitation is about 94 centimeters ("cm") and mean annual air temperature is about 9ºC.

Figure 3.6-1. Bedrock Map

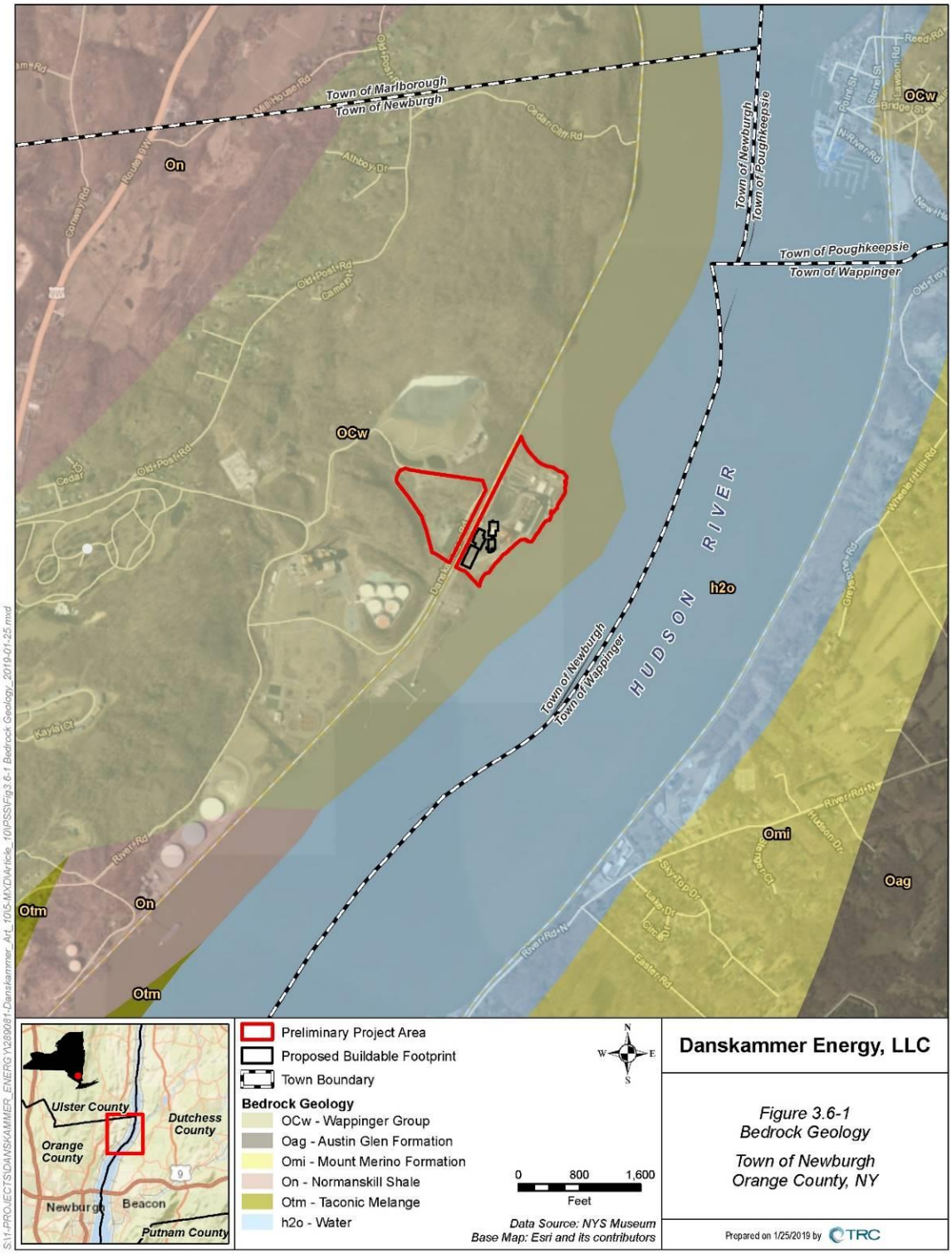


Figure 3.6-2. Surficial Geology Map

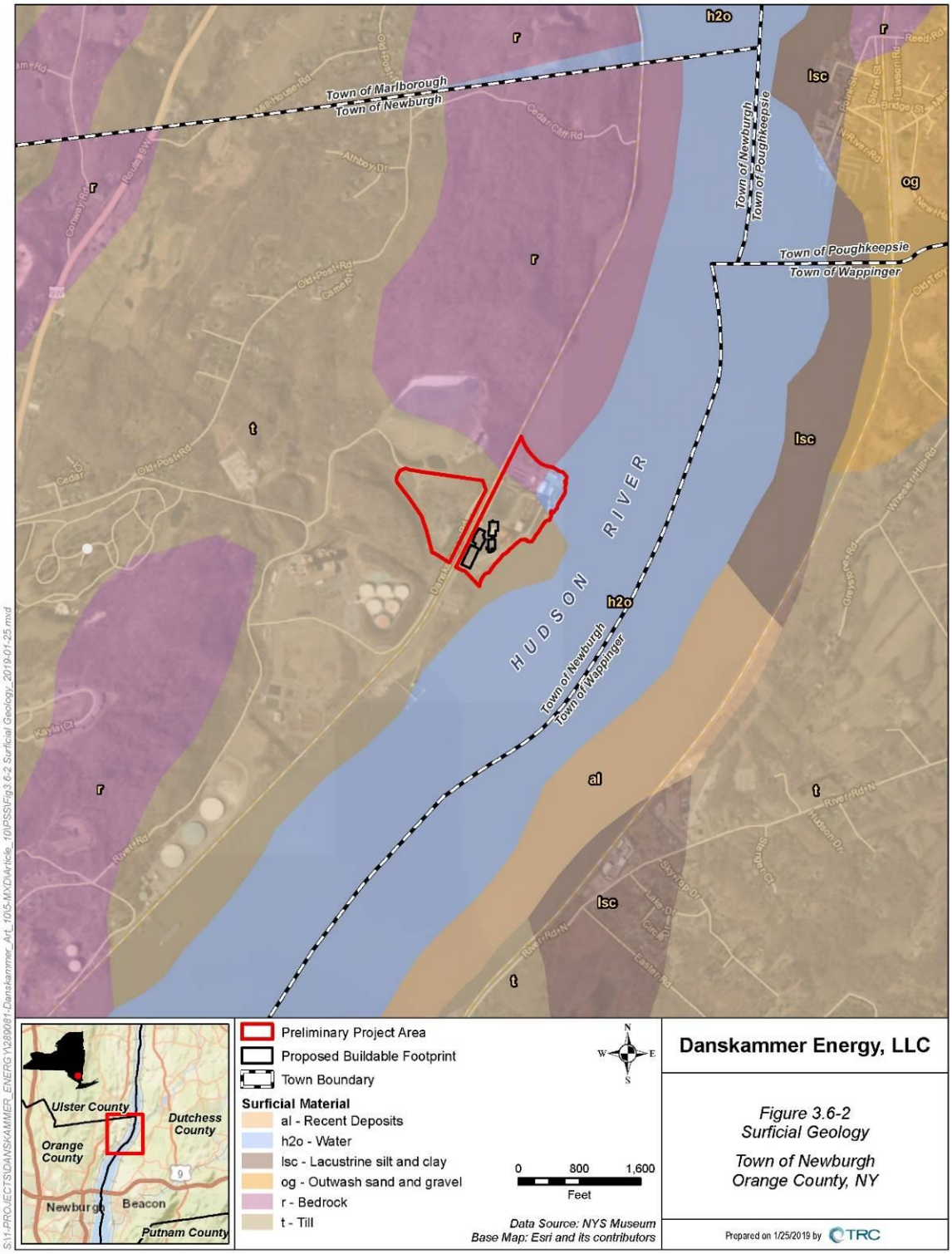
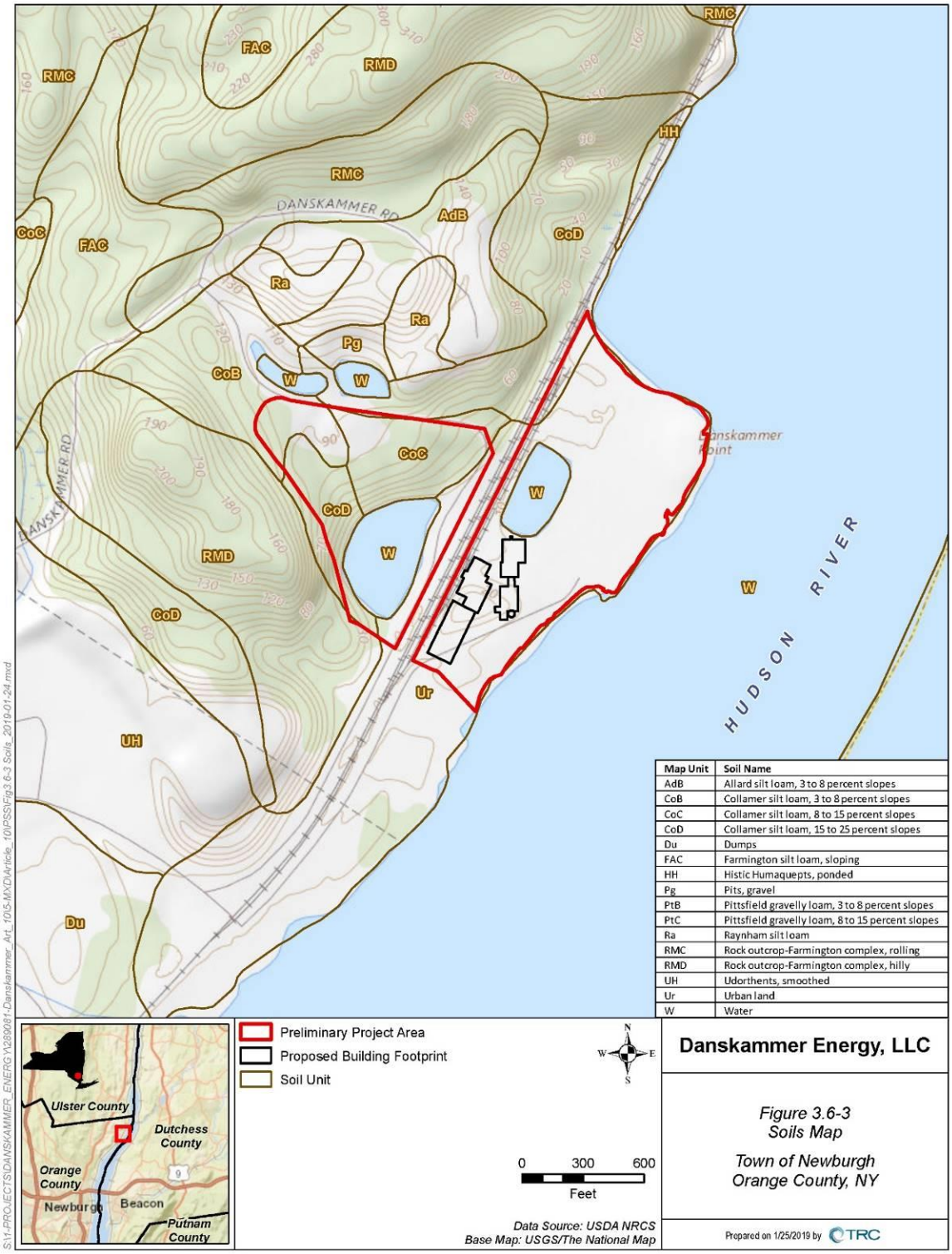


Figure 3.6-3. Soils Map



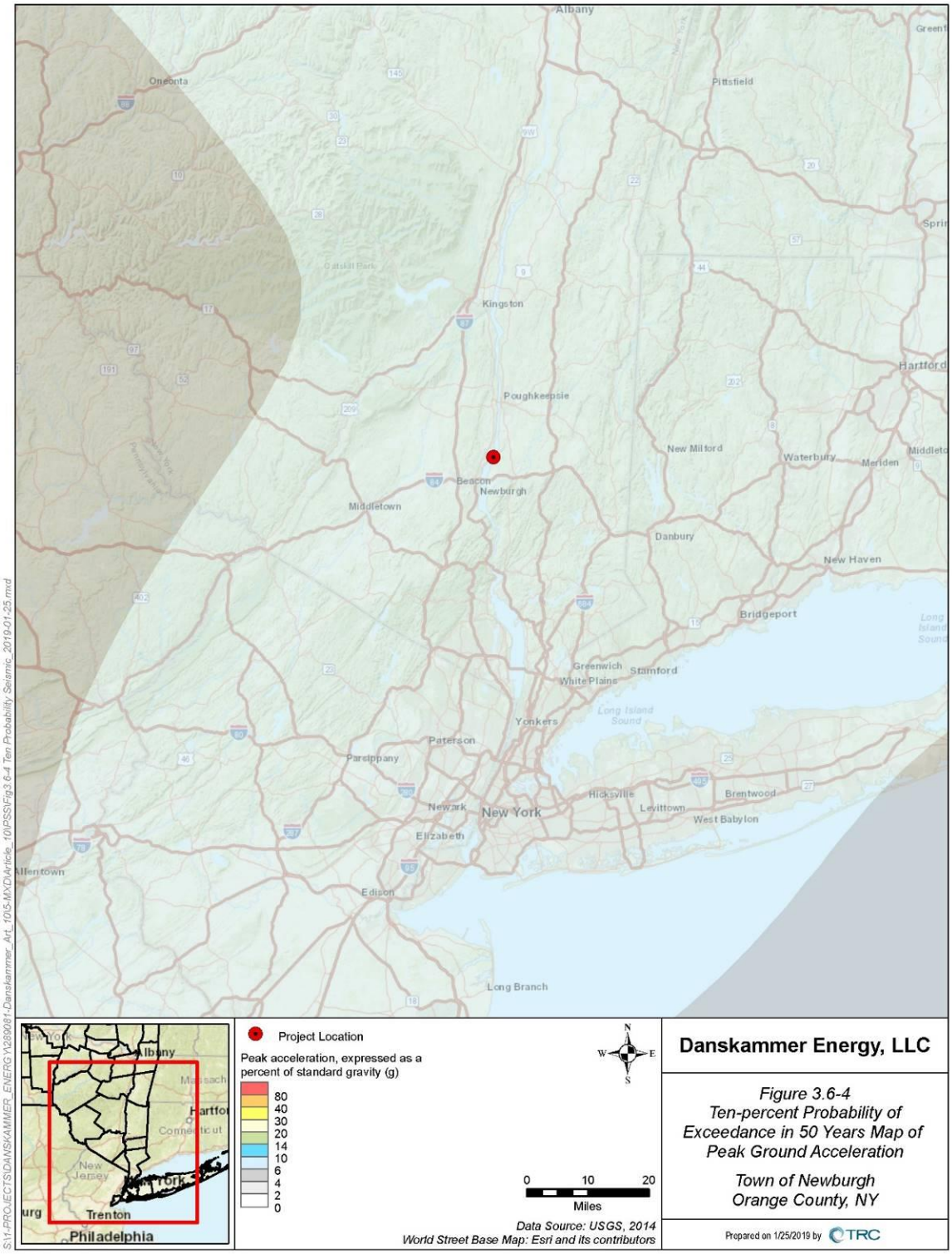
D. TECTONIC AND SEISMIC POTENTIAL

To understand the tectonic setting, the USGS Earthquake Hazards Program was consulted. This database contains information on faults and associated folds in the United States. The USGS Earthquake Hazards Program does not list any faults within the vicinity of the Project Area. As such, this area should be considered a relatively stable tectonic setting.

The 2014 New York State Standard Multi-Hazard Mitigation Plan includes a Seismic Hazard Map for the State of New York, also known as a Percent Peak Ground Acceleration ("%PGA") map. The %PGA map identifies the geographic area affected, the probability of an earthquake of each given level of severity (10% chance in 50 years), and the strength of ground movement (severity) expressed in terms of percent of the acceleration force of gravity or 32 feet per second squared.

As shown in Figure 3.6-4, the NYS Seismic Hazard Mapping indicates that the region within approximately thirty miles of the Project site vicinity has a PGA of 6% to 10% g for earthquakes with a 10 percent probability of occurring within 50 years. Moderate shaking and very light damage is generally associated with a 6% to 10% g earthquake. Even though the proposed site is located within an area of higher seismic risk, the seismic design for the proposed Project facility would be based on the requirements of the International Building Code and the New York State Building Code. Adherence to these requirements would minimize potential risks associated with seismic events.

Figure 3.6-4. NYS Seismic Hazard Mapping



3.6.3. Potentially Significant Adverse Impacts

The construction of the Project will require cut and fill for Project construction. The fill material will be used for several purposes including grading for access roads, buildings, and laydown areas. The basis of design for these Project elements will minimize significant areas of cut or fill within the Project. Danskammer Energy will also take into consideration the soil type and bedrock composition for foundation design.

3.6.4. Extent and Quality of Information Required for Evaluation

Exhibit 21 of the Article 10 Application will identify and map existing conditions, conduct an impact analysis, and propose impact avoidance and mitigation measures as required under 16 NYCRR 1001.21. Mapping will delineate existing slopes on and within the drainage area potentially influenced by the Project facility and interconnections. Soil types within the drainage area of the Project will be described in terms of soil structure, texture, percentage of organic matter, and recharge/infiltration capacity. This section will also discuss the regional geology, tectonic and seismology setting. Conditions will be presented utilizing maps, figures (including vertical profiles showing soils, bedrock, water table, seasonal high groundwater, and typical foundation depths), and analysis of available published maps and scientific literature, technical studies conducted on and in the vicinity of the facility, and on-site field observations, test pits and/or borings as available.

A proposed site plan showing existing and proposed facility site and interconnections, at a scale sufficient to show all proposed buildings, structures, paved and vegetative areas, and construction areas will be provided, with an overlay of proposed contours at two-foot intervals. Preliminary calculations for the quantity of cut and fill required will be presented, as well as estimates of fill, gravel, asphalt, and surface treatment materials to be brought on site (if any), based on good engineering practices. A discussion of the construction sequence, including excavation techniques, storage of temporary cut and fill, and invasive species avoidance measures, will be proffered. Dewatering activities associated with construction, including that related to facilities that are below grade, will be described as necessary. If blasting is required, a preliminary plan will be presented that conforms to applicable regulations.

A preliminary design report will present the types and locations of foundations that are necessary for construction. An evaluation of potentially suitable foundation types will be included, which will be based on soil and geologic conditions as well as conformance to applicable building codes or industry standards. If pile driving is required, a preliminary description of the number and length of piles to be driven as well as construction details (e.g. hours of work, potential impacts to surrounding properties and structures, potential mitigation measures will be provided.

3.6.5 Avoidance and Minimization Measures to Adverse Impacts

Exhibit 21 of the Article 10 Application will also discuss measures designed to avoid and minimize any adverse impacts to geology, seismology and soils arising from construction-related activities. These may include, among others, adhering to the following protocols:

- Excavated soil requiring off-site disposal, if any, will be managed in accordance with applicable laws and regulations, and, as necessary, tested in accordance with the requirements of the intended receiving facility. Transportation of all material leaving the Project site will be in accordance with applicable requirements covering licensing of haulers and trucks, placarding, truck routes, manifesting, etc.
- Areas where contamination, if any, is discovered during excavation activities will be delineated and remediated in accordance with all applicable federal, state and local regulations.
- Any petroleum storage tanks encountered during construction activities will be properly closed and removed in accordance with all applicable regulations. Any associated soil contamination will be remediated as required by the NYSDEC Petroleum Spill Program.
- To minimize the potential for impacts to construction workers, Danskammer personnel, and the surrounding community, all excavation and construction work involving soil disturbance will be performed under a Construction Health and Safety Plan ("HASP"). The HASP will be prepared by the construction contractor, conforming to Danskammer Energy's environmental policies, and modified for the specific site conditions. The HASP will outline measures for managing any contaminated on-site soil in accordance with applicable federal, state, and local regulations, including temporary on-site stockpiling and off-site transportation and disposal.

With these measures and others as may be presented in Exhibit 21 of the Article 10 Application, construction activities will not result in any significant adverse impacts with regard to soil and hazardous materials.

3.7 Terrestrial Ecology and Wetlands

3.7.1 Introduction

This section corresponds to the information and analysis that will be presented in Exhibit 22 of the Article 10 Application. Exhibit 22 will evaluate the impacts of Project construction and operation on terrestrial ecology (vegetation and wildlife) and wetlands. This PSS section describes the existing ecological conditions and wetland features at the Project site, regulatory agencies contacted to date, potential impacts, and proposed studies to obtain the information and develop the analysis required for Exhibit 22.

As depicted on Figure 3.7-1, the Project site is approximately 45 acres in size and includes areas of terrestrial uplands, wetlands, and open water. The Project site is separated into two sections by a rail line running through the center. The eastern section of the Project site is bordered by the Hudson River to the north and east, with a small track of land to the south. The western section of the Project site is bordered by Danskammer Road to the north and east with a transmission line along the western and southern sections.

3.7.2 Existing Conditions

A. ECOLOGICAL COMMUNITIES

Terrestrial Communities

Several upland plant communities as defined by Edinger et al. (2014) were identified on the Project site during the site reconnaissance conducted by the TRC ecologists on November 28, 2018. These communities include developed areas (paved and unpaved areas containing little vegetation), mowed lawn, successional northern hardwoods, paved road/path, riprap/erosion control roadside and interior of non-agricultural building. None of the identified terrestrial communities are considered significant or unusual within New York State. Many of the plant communities observed were disturbed due to the Project site's long and current use as an electric generating plant. Each of the vegetated habitats identified on the Project site are representative of plant communities that have developed from an extensively altered environment and which contains a high frequency of non-native, invasive plant species typically associated with

previously disturbed sites. Brief descriptions of these cover types are provided below. There are no agricultural areas that will be impacted by the Project construction or operation.

Developed Area

This cover type is found throughout the site, surrounding the existing electric generating facility, the wastewater treatment area, and the fuel storage area. This highly disturbed upland environment contains fill material (either paved with asphalt or unpaved and consisting of gravel) with little to no vegetation present. If any vegetation is present, it generally consists of sparse and non-native herbaceous plant species. This community does not have a ranking in New York State because it is a cultural class (Edinger et al., 2014).

Figure 3.7-1. NYSDEC Freshwater Wetlands

Mowed Lawn

This upland cover type is located in the northern part of the western section of the Project site at the highest elevation. This area seems to have been graded in the past. There is another maintained area at the southern end of the eastern section of the Project. The vegetation in both of these areas are primarily multiple species of grasses and are maintained as a grassed field with no shrubs or trees. This community does not have a ranking in New York State because it is a cultural class (Edinger et al., 2014).

Successional Northern Hardwoods

Patches of Successional Northern Hardwoods on the Project site are in the western section of the Project site along an existing aerial transmission line and in very small patches along the Hudson River in the eastern section. Species within this community that were observed include big-toothed aspen *(Populus grandidentata),* black locust *(Robinia pseudoacacia),* Russian olive *(Elaeganus angustifolia),* Chinese privet *(Ligustrum sinense),* Japanese honeysuckle *(Lonicera japonica),* Asian bittersweet *(Celastrus orbiculatas)* and common reed *(Phragmites australis).* Some of the overstory trees are large (generally larger than 12 inches diameter). The Northern Hardwoods community is demonstrably secure in New York State (S5 rank in Edinger et al., 2014).

Riprap/Erosion Control Roadside

A small portion of the Project site has riprap lined channels that prevent stormflows from causing significant erosion. These features occur along the small ephemeral stream located within the Project site that drains to the Hudson River. There are also other small constructed drainage ways along existing roads that have riprap lined ditches within the Project site. This area contains no vegetation. This community does not have a ranking in New York State because it is a cultural class (Edinger et al., 2014).

Interior of Non-agricultural Building

This community is in a majority of the eastern section of the Project site where the active power plant is located. This area contains multiple buildings including the powerplant, garages, storage buildings, the electrical switch yard and other accessory buildings associated with the power

plant. These areas are not vegetated. This community does not have a ranking in New York State because it is a cultural class (Edinger et al., 2014).

B. AQUATIC AND WETLAND COMMUNITIES

Several aquatic and wetland plant communities were also observed onsite during the site evaluation. These areas consist of tidal river, canal, ditch/artificial intermittent stream, quarry pond and floodplain forest. Brief descriptions of these cover types are provided below.

Tidal River

Located to the east of the Project site, the Hudson River is an estuarine subtidal community which occurs in areas with continuously flooded substrates that support no emergent vegetation. Salinities at any one place in the river may fluctuate as the tides flow in and out because brackish water rises and falls with the tides (Edinger et al., 2014). Fish characteristic of this community include year-round residents as well as seasonal migrants or anadromous species that enter the river as adults to spawn and return to the ocean afterwards. Species that inhabit shallow waters can include striped bass *(Morone saxatilis)* and American shad *(Alosa sapidissima).* Some species of deepwater fish include Atlantic tomcod *(Microgadus tomcod)* and hogchoker *(Trinectes maculatus).* In New York State, this community has a ranking of S5 (Edinger et al., 2014).

Canal

A 450-foot long and 34-foot wide intake canal, which is protected by a debris boom and trash rack at the Hudson River end, is located to the northeast of the existing Station. The purpose of this structure is to transport cooling water to the existing power plant. This community does not have a ranking in New York State because it is a cultural class (Edinger et al., 2014). The Project is not anticipated to impact this feature, although the repowering will eliminate the need for the intake of cooling water from the Hudson River.

Quarry Pond

Shown as freshwater wetlands on National Wetland Inventory ("NWI") maps, two small ponds are present in the western section of the Project site in an area that historically had been used to

stockpile coal or coal ash before the plant switched to natural gas for its primary fuel. Surface water is now impounded in this former stockpile area and there are no observable flow paths that carry this impounded water to any other streams or wetlands. These ponds were constructed in upland and are likely not jurisdictional to the U.S. Army Corps of Engineers ("USACE"), although formal consultation with the USACE has not occurred as of this date. This community does not have a ranking in New York State because it is a cultural class (Edinger et al., 2014). The Project is not anticipated to impact these features.

Ditch/artificial intermittent stream

A small ephemeral stream flows southeast along the western boundary of the Project site before emptying into the Hudson River. This stream was likely constructed during historic alterations on the Project site, including the installation of the aerial transmission line and regrading in the upper portions of the property. This community does not have a ranking in New York State because it is a cultural class (Edinger et al., 2014). The Project is not anticipated to impact this stream feature.

Floodplain Forest

The southernmost portion of the eastern section is bordered by a forested wetland. This wetland is within the drainage of the ephemeral stream that flows through the Project site and drains into the Hudson River. The vegetation within this wetland consists of big-toothed aspen, green ash *(Fraxinus pennsylvanica),* American sycamore *(Platanus occidentalis)* and European buckthorn *(Rhamnus cathartica).* This community has a ranking in New York State (S2 and S3 rank in Edinger et al., 2014). The Project is not anticipated to have any direct impacts to this wetland, the preponderance of which is on the adjacent parcel.

C. WETLAND RESOURCES

The Project site was investigated for the presence of aquatic habitats and wetlands as defined by the New York State Department of Environmental Conservation ("NYSDEC") under both the Freshwater Wetlands Act and the Tidal Wetlands Act. The study also looked for "Waters of the United States" as defined by the USACE under the 2015 Clean Water Act.

NYSDEC Freshwater Wetlands

Per the 1975 Freshwater Wetlands Act, the NYSDEC regulates wetlands that are depicted on the agency's freshwater wetland maps as well as those wetlands identified in the field that have a hydrological connection to a NYSDEC-mapped freshwater wetland. Areas adjacent to these wetlands within 100 feet are also regulated. Generally, NYSDEC freshwater wetland jurisdiction only extends to wetlands greater than 12.4 acres in extent.

No NYSDEC-regulated freshwater wetlands are present on the Project site or within one mile of the Project footprint based on the NYSDEC mapping for the Project site (Figure 3.7-1).

NYSDEC Tidal Wetlands

The 1973 Tidal Wetlands Act regulates all tidally influenced wetlands as well as adjacent uplands potentially up to 300 feet from the boundaries of tidal wetlands. The closest mapped tidal wetland is approximately 2,100 feet north of the Project site.

USACE Waters and Wetlands

The USACE regulates certain work activities proposed within navigable waters under Section 10 of the Rivers and Harbors Act of 1899. In addition, the USACE regulates the discharge of dredged or fill material into wetlands under Section 404 of the Clean Water Act. The USACE defines these areas as:

> **Navigable Waters:** "...those waters of the United States that are subject to the ebb and flow of the tide shoreward to the mean high water mark and/or are presently used, or have been used in the past or may be susceptible to use to transport interstate or foreign commerce".
>
> **Wetlands:** "...areas that are periodically or permanently inundated or saturated by surface or ground water and support vegetation adapted for life in saturated soil. Wetlands include swamps, marshes, bogs, and similar areas....".

The Hudson River is regulated as navigable waters under Section 10 of the Rivers and Harbor Act of 1899. USACE jurisdiction may also extend to the existing intake canal located to the northeast of the existing power plant along the Hudson River as Waters of the United States, although the canal has not and is not intended to be used for transport. The intake canal in not within the Project footprint.

Wetland boundaries regulated by the USACE are determined using a three-parameter approach described in the 1987 Corps of Engineers Wetlands Delineation Manual for identifying and delineating jurisdictional wetlands. The manual uses three parameters to identify and delineate wetland boundaries: (1) evidence of wetland hydrology, (2) presence of hydric soils, and (3) dominance of hydrophytes (as defined by the National Plant List Panel).

Field verification of soils within the identified wetland within the Project site generally have a Munsell color of 10YR 4/1 (dark gray) with orange redoximorphic concentrations (mottles.) These soils typically consist of alternating layers of silt loam and sandy loam textures. This is typical for soils in the floodplain of a large river such as the Hudson River. These observed soils meet the hydric soil indicator F3-Depleted Matrix based on the Field Indicators for Hydric Soil Version 8.2, USDA, 2018. Soil types mapped within the Project Area are primarily the Collamer soil series, Urban Land for the area where the existing power plant is located, and Water for the quarry ponds. Observed hydrology within the identified wetland included presence of surface water, a high water table, and saturation within the upper 12 inches of the soil surface. However, the Project is not anticipated to impact the one terrestrial wetland identified at the border of the Project site.

As noted above, there are two quarry ponds on-site. These two man-made features are isolated as there are no observable flow paths that carry this impounded water to any other streams or wetlands. These ponds are likely not jurisdictional to the USACE, although formal consultation with this agency has not occurred as of this date.

D. RARE SPECIES AND OTHER WILDLIFE

Federal and state agencies were contacted regarding the potential presence of federal or state listed endangered/threatened species within and around the Project site and Orange County. In addition, wildlife noted during the November 2018 site visit as well as earlier observations are discussed. Additional site visits will be performed during the growing season in support of the Article 10 Application.

Federal-Listed Endangered and Threatened Species

The United States Fish and Wildlife Service ("USFWS") Information Planning and Conservation System ("IPAC") online resource compiles information on a county-wide basis. The USFWS was consulted on November 12, 2018 to determine if any federally listed species are potentially present within Orange County, where the proposed Project facility will be situated. As indicated in the IPAC report (provided in Appendix B**),** the Indiana bat *(Myotis sodalist),* Northern long-eared bat *(Myotis septentrionalis),* Dwarf Wedgemussel *(Alasmidonta heterodon),* and Small Whorled Pogonia *(Isotria medeoloides)* are potentially present in Orange County. The Dwarf Wedgemussel is described in Section 3.8 Water Resources and Aquatic Ecology while the remaining species are discussed below.

Indiana Bat

The Indiana bat is an endangered species both federally and in New York State. This bat typically hibernates in caves/mines in the winter and roosts under bark or in tree crevices in the spring, summer and fall. Their roosting habitat in the summer is characterized by dead, dying, or alive trees or snags with exfoliating bark. They eat a variety of nocturnal flying insects, so they don't stray far from streams associated with floodplain forests and impounded water bodies, such as ponds and wetlands. Indiana bats may fly up to 2-5 miles from upland roosts on a regular basis for their foraging habitat (USFWS Indiana Bat Project Review Fact Sheet NY Field Office, 2018).

As all tree clearing will occur during the winter months, there should be no impacts to this species.

Northern Long-eared Bat

The Northern long-eared bat is listed as a threatened species both federally and in New York State. This bat inhabits forested areas where they typically roost underneath bark and in cavities or crevices in live or dead trees that are not far from ponds, wetlands, streams, and other aquatic habitats. They eat a variety of nocturnal flying insects that commonly breed around water, such as caddisflies, other assorted flies, as well as moths and beetles. In the colder months, the northern long-eared bat returns to hibernacula which include caves or mines.

As all tree clearing will occur during the winter months, there should be no impacts to this species.

Small Whorled Pogonia

A perennial member of the orchid family, the small whorled pogonia is listed as a federally threatened species and is also listed as endangered in New York State. Although widely distributed, this species is rare and is found in 18 eastern states and Ontario, Canada. This orchid grows in older hardwood stands of beech, birch, maple, oak, and hickory that have an open understory. Sometimes it grows in stands of softwoods such as hemlock. It prefers acidic soils with a thick layer of dead leaves, often on slopes near small streams (USFWS, 2018.) Based on the forest composition in the areas of potential disturbance, there should be no impact to this species.

State-Listed Endangered and Threatened Species

The NYSDEC Natural Heritage Program ("NHP") was contacted on November 12, 2018 regarding the potential presence of state-listed endangered or threatened species previously recorded on the Project site. As indicated in the NHP letter report (provided in Appendix B), bald eagle *(Haliaeetus leucocephalus),* Shortnose sturgeon *(Acipenser brevirostrum),* Atlantic sturgeon *(Acipenser oxyrinchus)* and Indiana bat are potentially present within the Project site vicinity. While the Indiana bat is discussed above and the sturgeon species are discussed in Section 3.8 Water Resources and Ecology, the Bald eagle is discussed below in this section.

Bald eagle

Bald eagles are found in every state in the United States except Hawaii, as well as throughout Canada. Eagles prefer undisturbed areas near large lakes and reservoirs, marshes and swamps, or stretches along rivers where they can find open water and their primary food, fish. Historically, bald eagles nested in forests along the shorelines of oceans, lakes or rivers throughout most of North America, often moving south in winter to areas where water remained open. Prior to the 1900s, they used as many as 80 nest sites in New York, primarily in the northern and western parts of the state (NYSDEC Bald Eagle Fact Sheet[3]). The NHP letter

[3] NYSDEC. Bald Eagle Fact Sheet. Accessed on January 24, 2019 at: https://www.dec.ny.gov/animals/74052.html

indicates that there is a bald eagle nest within one mile of the nesting site. While the Applicant is unaware of any nests on the Project site or its contiguous properties, further consultation will be completed in order to determine if there are any potential impacts to this species associated with the Project and, if so, what steps could be taken to mitigate or eliminate these impacts entirely.

Other Wildlife

Wildlife species that are adaptive of highly disturbed and early successional plant communities will generally predominate within the upland portions of the Project site. Wildlife usage in the disturbed and early successional areas is expected to primarily include ground foraging species as there is little vertical diversity provided by these cover types. The only mammal observed during the site visit consisted of white tailed deer. Avian species such as bald eagle *(Haliaeetus leucocephalus)*, bobolink *(Dolichonyx oryzivorus)*, Canada warbler *(Cardellina canadensis)*, red-headed woodpecker *(Melanerpes erythrocephalus)*, and wood thrush *(Hylocichla mustelina)* might utilize forested portions of the Project site for breeding and foraging habitat but impacts from the Project are expected to be limited to disturbed portions of the Project site.

The successional northern hardwood forest provides potential wildlife habitat for a variety of species. No bird's nests were observed within the successional woodland communities during the November 2018 site visit.

During the November 2018 site visit, only two avian species were observed: Black-capped chickadee *(Poecile atricapillus)* and Canada Goose *(Branta canadensis).*

3.7.3 Potentially Significant Adverse Effects

The potential impacts of the Project on the existing ecological communities, wetlands and rare species and wildlife are each discussed in the following sections.

A. IMPACTS TO TERRESTRIAL ECOLOGICAL COMMUNITIES

The proposed Project may result in some impacts to developed areas of the existing power plant site and a small amount of successional northern hardwood forest. However, as the terrestrial upland communities present at the Project site are representative of vegetation that is generally

associated with a previously disturbed site and are demonstrably or apparently secure in New York State, no significant impacts to terrestrial communities are anticipated from the Project.

B. IMPACTS TO WETLANDS

The Project has been sited to avoid, to the greatest extent practicable, impacts on existing coastal and freshwater wetlands and their adjacent areas and to develop on previously disturbed portions of the site.

NYSDEC Regulated Wetlands

The proposed construction of the Project will not result in any direct impact to NYSDEC regulated freshwater or tidal wetlands as these resource areas are not present within approximately 2,000 feet of the Project site.

USACE Regulated Wetlands

The proposed construction of the Project by Danskammer Energy is also not anticipated to result in any significant direct impacts to USACE regulated tidal or freshwater wetlands. There are no tidal wetlands in the vicinity of the Project site and no new construction is planned within or immediately adjacent to the identified freshwater wetland. Indirect impacts to wetlands are also not anticipated provided that appropriate erosion and sedimentation controls are implemented during the construction of the Project. There is an ephemeral stream onsite flowing in a southeasterly direction before flowing into the Hudson River. To the extent that this stream is regulated by USACE, it is not expected be impacted directly or indirectly by construction or operation of the Project.

A. IMPACTS TO RARE SPECIES/WILDLIFE

The Indiana bat and Northern long-eared bat spend the winter hibernating in caves and mines but in the remainder of the year roost in live trees and dead trees. It may be necessary to conduct tree clearing to establish laydown areas. Construction activities, including any tree clearing and design of laydown areas, will be designed to minimize interference with breeding activities such that that significant impacts on the Indiana bat and Northern long-ear bat are not anticipated.

In accordance with the USFWS 4(d) Rule for streamlined consultation for any work to be done. During the bats' breeding season, they may be adversely affected if trees are cleared. There is additional roosting habitat (wooded areas) around the Project site for both species to utilize. The Indiana bat and Northern long-eared bat eat a variety of flying insects found along rivers or lakes and in uplands.

The Small whorled pogonia generally grows in areas with sparse to moderate ground cover and requires canopy breaks for small light gaps. This orchid grows in mixed-deciduous or mixed-deciduous/coniferous forests that are usually in second or third growth successional stages with acidic, moist soils. This species is rare and is found in 18 Eastern states. The small whorled pogonia has a low seedling establishment rate. Development has also decreased the amount of available habitat for deer, which in turn concentrates their numbers, and increases deer herbivory on these plants. According to the IPAC report, there is no critical habitat in the Project site for this plant, along with the lack of gently sloping ground on which they occur. Therefore, no impacts are likely to result to this species from the Project.

The bald eagle preferred habitat consists of seacoasts, wide rivers and large lakes and marshes, where there is abundance of fish. Their nests are usually located in mature stands of coniferous or hardwood trees as these allow for perching, roosting, and nesting. While the NHP has indicated that there is a bald eagle nest within one mile of the nesting site, Danskammer Energy is unaware of any nests on its properties, Further consultation will be completed in order to determine if there any potential impacts associated with the Project and, if so, what steps could be taken to avoid or mitigation these impacts.

Other Wildlife

Wildlife inhabiting areas proposed for development will be displaced during the Project construction and operation. The species of wildlife potentially impacted by the Project is unknown pending further studies, as discussed below.

3.7.4 Extent and Quality of Information Required for Evaluation

Additional information pertaining to ecological communities, wetlands and rare species/wildlife are proposed to be collected in order to further evaluate the potential impacts associated with the

Project. These additional studies, discussed in the following sections, will be presented in Exhibit 22 of the Article 10 Application.

A. ECOLOGICAL COMMUNITIES

A vegetative cover type survey will be required to ascertain the locations of all identified plant communities present on the site. A map depicting all of the identified communities, including wetlands, will also be provided in Exhibit 22 to represent the overall dominance of each identified community type within the Project site. In addition, plant species lists will be prepared for each of the ecological communities noted during the survey. This species survey will note, in particular, whether any protected native plant species listed as endangered, threatened, rare, or exploitably vulnerable (6 NYCRR Part 193.3) and also include any NYSDEC NHP rare plant communities that may exist on the proposed Project site.

Exhibit 22 will also provide an analysis of any temporary and permanent impacts of the construction and operation of the Project and interconnections on the vegetation identified, including a mapped depiction showing the areas to be removed or disturbed, along with a plan to identify the presence of invasive species and to prevent the introduction and/or spread of invasive species.

B. WETLANDS

A formal wetland delineation will be completed in the Project area (i.e., within 500 feet of areas to be disturbed by construction, including any new interconnections) during the growing season and will be provided in Exhibit 22 of the Article 10 Application. Based on this survey, the limits of permanent and temporary wetland impacts associated with the Project, if any, will be identified, along with a qualitative and descriptive functional assessment for all wetlands delineated, and an analysis of all off-site wetlands that may be hydrologically or ecologically influenced by Project development.

Where applicable, a description of the federal, state and locally regulated wetlands delineated, including its Cowardin classification, will be provided, along with a description of the vegetation, soils, and hydrology data collected for each of the wetland sites based on actual on-site wetland observations.

Descriptions of all proposed impact areas in terms of vegetation, wildlife and other important characteristics will also be provided in Exhibit 22. Reasonable avoidance measures will be identified and evaluated, with mitigation measures proposed including, where appropriate, alternative technologies and compensatory mitigation.

C. RARE SPECIES AND OTHER WILDLIFE

The studies to be performed and presented in Exhibit 22 will include a desktop impact assessment of the proposed work activities and Project facility operations on potentially present state and/or federally listed endangered or threatened species. Based on this additional information, potential direct and indirect impacts will be discussed. Subject to confirmation by the NYSDEC NHP and USFWS, no field studies related to listed species will need to be completed.

In addition, a list of wildlife noted on the Project site will be developed as part of the future ecological studies proposed for the Project site. This list will be developed based on direct observations of wildlife and their signs during the proposed field investigations associated with the ecological communities at the Project site, all as supplemented by publicly available resources.

Exhibit 22 will identify any state and federal endangered or threatened species on the Project site or that could be subject to impacts from Project facility construction, operation, or maintenance. As appropriate, an endangered and threatened species mitigation will be proposed.

D. AGRICULTURAL RESOURCES

Exhibit 22 will confirm that there will be no temporary or permanent impacts from the construction or operation of the Project that will impact agricultural resources.

3.7.5 Avoidance, Minimization and Mitigation Measures for Adverse Impacts

Exhibit 22 will also identify and analyze those measures to be taken to avoid and minimize, to the maximum extent possible, potential impacts to important ecological communities, wetlands, rare species and other wildlife. If adverse impacts are unavoidable, potential mitigation, such as wetlands restoration or creation, will be presented to offset impacts. Mitigation will be designed,

as appropriate, to address the concerns of NYSDEC and other stakeholders/agencies regarding identified impacts to state-listed endangered and threatened species on the site or in the vicinity of the site.

3.8 Water Resources and Aquatic Ecology

3.8.1 Introduction

This section presents background data and information pertaining to water resources and aquatic ecology and identifies the issues that will be addressed and analyzed in Exhibit 23 of the Article 10 Application. Exhibit 23 of the Article 10 Application will address groundwater and surface water resources at the Project site as they relate to the proposed Project. It also will address potential impacts and improvements, if any, on aquatic ecology during construction and operation.

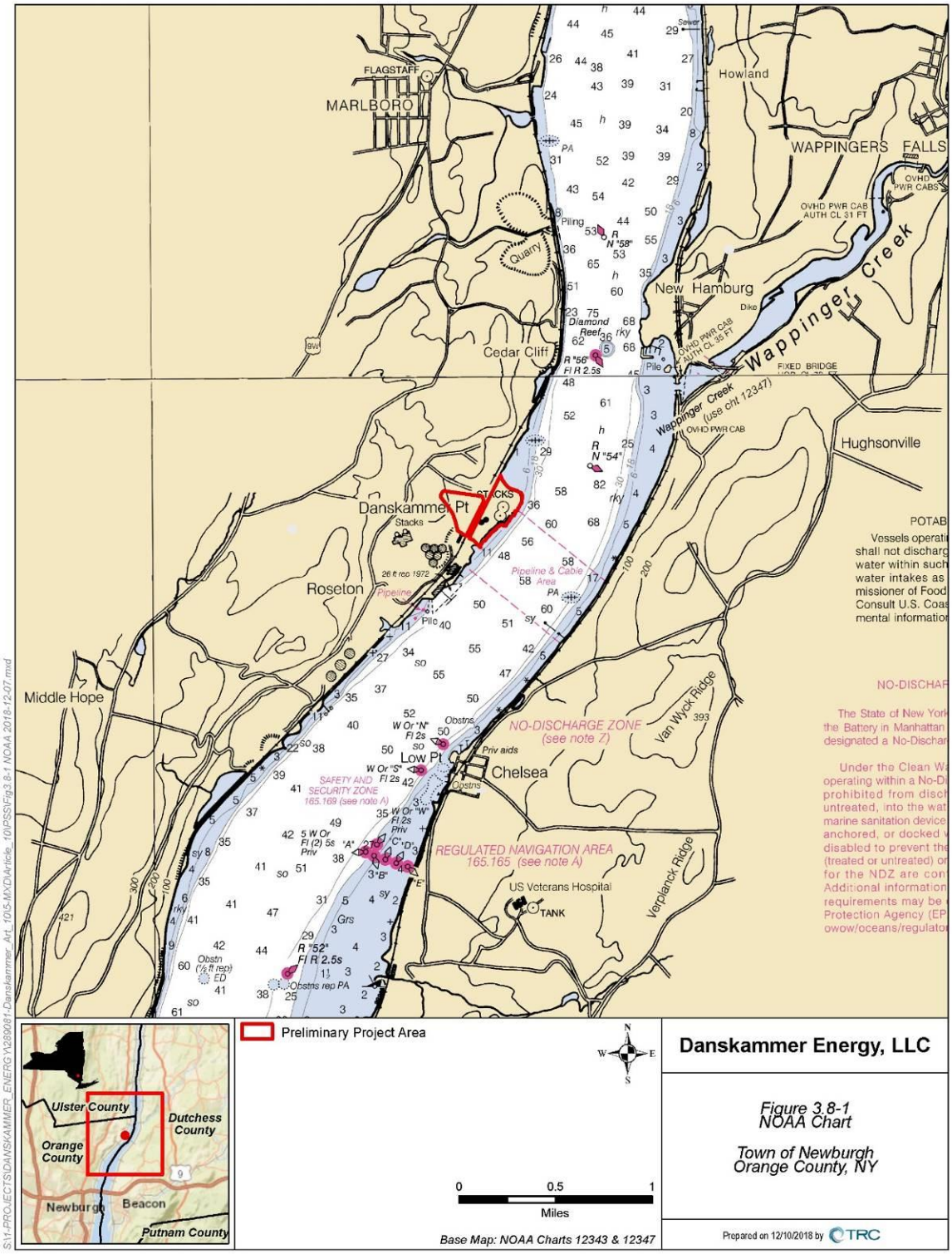
3.8.2 Surface Water Resources

The Project site is located immediately adjacent to and west of the Hudson River estuary at river mile 66 (see Figure 3.8-1). The Hudson River borders the eastern side of the Project site, and in that location, is about 4000 ft wide and 50 ft deep on average. The Project site is located in the northern portion of an area of the Hudson River known as Newburgh Bay. Based on topography, groundwater is anticipated to flow generally south-southeast towards the Hudson River.

The Hudson River in the vicinity of the Project site is classified by the New York State Department of Environmental Conservation ("NYSDEC") as Class A water, suitable for all uses, including drinking. There are no downstream water supply intakes within one mile and the nearest upstream water supply intake is at Poughkeepsie on the east shore, which will not be impacted by this Project.

The riverbed in the area of the Project site is composed of less than 50% silt and is classified as sandy loam.

Figure 3.8-1 NOAA Chart



3.8.3 Surface Water Quality

The Hudson River is rich with aquatic life, providing habitat for the early, sub-adult, and adult life stages of many aquatic species, including a number of game, commercial, and forage fish species. Among the fish species are striped bass, American shad, river herring, bay anchovy, Atlantic tomcod and the white perch. The Hudson River water at the Project site is classified as Class A. The best usages of Class A waters are: a source of water supply for drinking, culinary or food processing purposes; primary and secondary contact recreation; and fishing. The waters are also suitable for fish, shellfish and wildlife propagation and survival.

The Hudson River throughout much of its length is considered impaired water due to historic uses along the waterway. In the area of the Project site, fishing is impaired due to cadmium, polychlorinated biphenyls, temperature and total coliform. The drainage basin designated for the Hudson River in this area is referred to as the Breakneck Brook-Hudson River watershed area. The nearest U.S. Geological Survey ("USGS") streamflow and water quality monitoring station is number 01372058 (Hudson River below Poughkeepsie, NY) which is about four miles upriver. The USGS station tracks flow, temperature, turbidity and conductivity. The Riverkeeper organization also has a river monitoring station at Newburgh launch just downriver from the Project site that tracks Enterobacteriaceae Coliform (E-Coli bacteria) for swimmer awareness.

The construction and operation of the Project facility is expected to improve local Hudson River water quality. The existing Station withdraws Hudson River water at a shoreline intake structure and cooling water is discharged to the Hudson River through shoreline subsurface pipes on the south side of the existing plant. As presently designed, the proposed Project facility will use a dry cooling system through the installation of an air-cooled condenser ("ACC"), and it will no longer be necessary to withdraw water from the Hudson River. There would no longer be any risk of small aquatic life being carried into and through the cooling system during water withdrawals (entrainment) or trapped against cooling water intake screens or racks by the force of moving water (impingement). The temperature loading from the Project facility will also cease because the noncontact cooling water discharges from the turbines heat exchangers will be shutoff. Thus, it is anticipated that any potential impact to Hudson River water quality, along

with any potential to adversely impact aquatic resources, will be eliminated by the proposed Project.

3.8.4 Groundwater Resources

Regional Hydrology

The Project site is located in the Valley and Ridge physiographic province (Schuberth, 1968). According to the Geologic Map of New York State, the bedrock underlying the Project site consists of the Paleozoic-age Cambrian sandstone and quartzose dolostone with Ordovician shale and sandstone in upper part, and limestone/dolostone in lower part. The U.S Geological Service's report, Groundwater-Resources of Orange and Ulster Counties (1985), indicates that carbonate rock bedrock is present at the Project site. Unconsolidated sediments at the Project site include stratified clay and silt with no or thin layers of sand and gravel at land surface and below the water table. The USGS groundwater aquifer map for the Project site area shows no availability of groundwater.

Local Hydrology at the Project Site

According to historic groundwater monitoring reports for the Project site, groundwater ranges from approximately 5 to 90 feet below ground surface ("bgs"). The estimated groundwater levels and/or flow directions may vary due to seasonal fluctuations in precipitation, local use demands, geology, underground structures, and nearby dewatering operations.

Groundwater Monitoring

The existing Station on the Project site operates pursuant to a State Pollutant Discharge Elimination System ("SPDES") permit for treated process water, cooling water, and storm water discharges. Groundwater level is monitored monthly, and quarterly, groundwater is sampled for pH, conductivity, sulfite, total dissolved solids, aluminum, arsenic, cadmium, copper, iron, lead, manganese, mercury, nickel, and zinc. The water quality data are submitted to the NYSDEC water engineer and water permits groups.

On a contiguous parcel of property to the northwest of the Project site, Danskammer holds a Solid Waste Management Facility permit ("SWMF"), authorizing it to operate a landfill that was

historically used for the disposal of coal ash generated when the existing plant facility operated on coal, as was required by the federal government in the mid-1980s. As the coal-fired burners were converted to run on natural gas years ago, and the proposed Project facility will not be coal fired, Danskammer ultimately intends to close the landfill in accordance with all applicable laws and regulations. In the meantime, in accordance with its SWMF permit, Danskammer monitors the groundwater near the landfill quarterly through a monitoring well network. Operational monitoring consists of the analysis of routine parameters, three times per year, and baseline parameters once per year. The routine and baseline parameters, as well as the expanded parameter requirements include analysis primarily for metals but also some physical parameters and base neutral extractables.

Based on the evaluation of the SWMF groundwater data collected, no significant impact on groundwater quality as a result of operation of the SWMF has been detected.

The addition of the proposed Project facility to the Project site is also not anticipated to result in any significant impact on groundwater quality.

3.8.5 Stormwater Management

The Project site's existing drainage system collects and conveys stormwater runoff to outfalls emptying into the cooling system discharge canal. These outfalls are authorized under the Project site's existing SPDES permit. It is anticipated that the existing system, with potentially minor modifications, will be sufficient for the new construction associated with the Project.

Prior to commencement of construction operations, Danskammer Energy will issue a Notice of Intent for Stormwater Discharges from Construction Activity and will seek coverage under the SPDES General Permit. Best management practices, such as erosion control measures (silt fence, hay bales, etc.) will be utilized in order to avoid stormwater runoff to wetlands or waterbodies. The Article 10 Application will include a proposed Stormwater Pollution Prevention Plan ("SWPPP") in accordance with the New York State Standards and Specifications for Erosion and Sediment Control (NYS Standards) and the New York State Stormwater Management Design Manual. Copies of the SWPPP also will be provided to local agencies responsible for erosion and sediment control. The SWPPP also will address the need

for construction dewatering, as well as contingencies for properly managing potentially contaminated groundwater, if encountered.

3.8.6 Chemical and Petroleum Bulk Storage

The existing Station maintains both chemical and petroleum bulk storage tanks, which include fuel oil tanks, station transformers, lubricating oil tanks and waste oil tanks. The federal Spill Prevention Control and Countermeasures ("SPCC") rule provides requirements for oil spill prevention, preparedness, and response to prevent oil discharges to navigable waters and adjoining shorelines. The rule requires covered facilities to prepare, amend, and implement SPCC Plans. Accordingly, Danskammer has developed and implemented a SPCC Plan as well as a Facility Response Plan ("FRP") for the existing generating facility. The existing tanks are also properly registered with Orange County and the NYSDEC. In addition, the existing generating facility is currently permitted as a Major Oil Storage Facility ("MOSF") by the NYSDEC.

Danskammer Energy will comply with local state and federal registration requirements and modify, as necessary, the existing Spill Prevention Control and Countermeasure plan(s) for the new Project facility. Key elements of the plans will be presented in the Article 10 Application. Summaries of typical chemical usage, quantity and storage methods needed during construction and operation of the Project facility also will be provided in the Article 10 Application.

3.8.7 Aquatic Species and Invasive Species

Submerged aquatic vegetation ("SAV") are plants that are always under water. SAV beds cover varying amounts of area depending on where you are in the Hudson River. The most common native species of SAV in the Hudson River watershed is water celery (Vallisneria americana), but other species include clasping leaved pondweed (Potamogeton perfoliatus), and such non-native plants as curly pondweed (Potamogeton crispus) and Eurasian water milfoil (Myriophyllum spicatum) (NYSDEC 2014). A very common invasive species impacting SAV is water chestnut (Trapa natans), which can be seen in almost every freshwater, slow moving area of the Hudson River in the summertime (NYSDEC 2014). Water chestnut creates mats of leaves at the surface of the water, shading out native water celery below. Water chestnut does not input

oxygen into the water column like most other aquatic plants which results in reduced oxygen concentrations.

In terms of shellfish, oyster beds were prevalent historically in brackish areas of the Hudson River, including Haverstraw Bay and the Tappan Zee, but these areas have been decimated by overharvesting, habitat alteration, and pollution. In 1991, a small exotic bivalve, the zebra mussel *(Driessena polymorpha)*, was first identified in the freshwater areas of the Hudson (Strayer et al. 1996). This mussel, originally from central Europe, was accidentally introduced into the Great Lakes in the 1980s and subsequently spread throughout many waterways of the upper mid-west and northeast, including the Hudson River. Population growth of this organism is explosive as evidenced by the fact that the biomass of zebra mussels in freshwater areas of the Hudson exceeded that of all other heterotrophs within 17 months of first being detected (Strayer et al. 1999).

The distribution of benthic macroinvertebrates on a large scale is determined by salinity, with polychaete worms being most abundant in brackish water areas and oligochaete worms being dominant in freshwater areas. Studies in the freshwater portion of the estuary revealed that densities of benthic macroinvertebrates in main channel areas were near the high end of the normal range found in some other large rivers (Simpson et al. 1985). Collections were dominated by the common tubificid worm *(Limnodrilus hoffineisteri).* This pollution tolerant species favors fine, organically enriched substrates which are common in estuaries. Recent studies in the freshwater portion of the Hudson River indicate that the abundance of macroinvertebrates in deeper, areas of the Hudson declined while that in shallow water increased following the invasion of the area by the zebra mussel (Strayer et al. 1999). It has been suggested that the decline is due to a reduction in the flux of edible suspended particles to deep-water sediments as a result of the filtering capacity of the zebra mussel populations in shallow water and that the increase is due to the deposition of pseudofeces by zebra mussels in shallow water (Strayer et al. 1998).

The New York State Department of State ("NYSDOS") has designated and mapped certain coastal habitats as Significant Coastal Fish and Wildlife Habitats ("SCFWH"). To designate a SCFWH, the NYSDEC evaluates the significance of coastal fish and wildlife habitat areas and

makes recommendations to the DOS for designation. The Project site has two designated SCFWHs within its vicinity: Kingston-Poughkeepsie Deepwater and the Wappinger Creek SCFWHs. These habitats support migrating osprey in the Spring. They are also a valuable recreational resource, used by anglers fishing for anadromous and resident freshwater species. The closest of these features, Kingston-Poughkeepsie Deepwater, is located approximately 2,100 feet to the south of the Project. The proposed Project facility would have no impact on these habitat areas.

For fish species, the Hudson River contains a mixture of freshwater, diadromous (i.e., anadromous and catadromous, the latter spending most of their lives in fresh water, then migrating to the sea to breed), estuarine, and marine species, depending upon location. Hudson River finfish near the Project site include striped bass, American shad, river herring, bay anchovy, Atlantic tomcod and the white perch. To date, over 200 fish species have been collected in the greater Hudson and Mohawk River system. A large percentage of these were collected in the estuarine portion of this system. This group includes a relatively small number of species that are significant contributors to the Hudson's fish community and a much larger group of species that are infrequently encountered. The proposed Project facility would have no impact on these species.

3.8.8 Rare and Endangered Aquatic Species

The United States Fish and Wildlife Service ("USFWS") Information Planning and Conservation System ("IPAC") online resource compiles information on a county-wide basis. The USFWS was consulted on November 12, 2018 to determine if any federally listed species are potentially present within Orange County, where the proposed Project facility will be situated. As indicated in the IPAC report (provided in Appendix **B),** the Indiana bat *(Myotis sodalist),* Northern long-eared bat *(Myotis septentrionalis),* Dwarf Wedgemussel *(Alasmidonta heterodon),* and Small Whorled Pogonia *(Isotria medeoloides)* are potentially present in Orange County. The Dwarf Wedgemussel is describe below while the other species are described in Section 3.7.2 of this document.

Dwarf Wedgemussel

This small aquatic freshwater mussel is listed as an endangered species both federally and in New York State. This species rarely exceeds 1.5 inches in length and lives in freshwater streams and rivers. The dwarf wedge mussel is found at 17 sites in seven Atlantic coast drainages, located in New Hampshire, Vermont, Connecticut, New York, Maryland, Virginia and North Carolina. They require bottom substrates which include silt, sand and gravel for survival. The dwarf wedgemussels appear to select or are at least tolerant of relatively low levels of calcium in water (NYSDEC 2018). These mussels require a slow to moderate current, silt-free, and stable streambed with well oxygenated water that is free of pollutants (USFWS Dwarf mussel fact sheet, 2006). No disturbance of freshwater streams is anticipated as part of this Project so there should be no impacts to this species.

The NYSDEC Natural Heritage Program ("NYNHP") was contacted on November 12, 2018 regarding the potential presence of state-listed endangered or threatened species previously recorded on the Project site. As indicated in the NYNHP letter report (provided in Appendix B), Shortnose sturgeon *(Acipenser brevirostrum)* and Atlantic sturgeon *(Acipenser oxyrinchus)* are potentially present within the Project site vicinity. A brief description of the two sturgeon species is as follows:

Shortnose sturgeon

The shortnose sturgeon is anadramous, migrating from salt water to spawn in freshwater. In the Hudson River, it spawns from April-May. Adult sturgeon migrate upriver from their mid-Hudson overwintering areas to freshwater spawning sites north of Coxsackie. In New York State, the shortnose sturgeon is only found in the lower portion of the Hudson River from the southern tip of Manhattan (river mile 0) upriver to the Federal dam at Troy (river mile 152). A combination of human activities, from waste disposal to overfishing, have contributed to the species' decline (NYSDEC Shortnose sturgeon Fact Sheet).

Atlantic sturgeon

The Atlantic sturgeon is similar to the shortnose sturgeon in terms of its life cycle and abundance. During spawning, the Atlantic sturgeon can be found in the freshwater and brackish/salt water regions of the Hudson River north to Albany, but the species is usually

confined to the deeper parts of the river. The adults spend most of their time at sea and the juveniles spend the first few years of their lives in freshwater streams. Overfishing is the primary cause of their decline, although degradation of their habitat is also a factor (NYSDEC Shortnose sturgeon Fact Sheet).

The sturgeon species are also federally listed under the Endangered Species Act. Shortnose sturgeon and Atlantic sturgeon, on rare occasion, have been collected in the cooling water withdrawal systems of the existing Station. The existing facility has been operating under an approved Incidental Take Permit (#1269) that was issued by the National Marine Fisheries Service ("NMFS") on November 29, 2000, and which Danskammer is currently requesting be continued until the Project facility is constructed. Since the issuance of this permit, the NMFS is now known as National Oceanic and Atmospheric Administration ("NOAA") Fisheries.

The present design of the proposed Project eliminates the need for the existing Station's cooling water withdrawal systems through the use of a dry cooling system utilizing an air-cooled condenser ("ACC"). This will also eliminate the need to withdraw water from the Hudson River. As such, impacts to aquatic species arising from the operations of the proposed Project (such as entrainment or impingement) will be negated entirely and the existing incidental take permit for the above species will no longer be necessary.

During the construction stage, Danskammer Energy is evaluating the potential to use barges to bring equipment to the site as a means of reducing impacts to transportation. Temporary improvements along the shoreline may be necessary to allow for safe transport and handling. If this option is adopted, Danskammer Energy will evaluate whether there will be temporary impacts from these activities and, if so, develop mitigation measures as necessary in consultation with the NYSDEC, New York State Department of State and NOAA Fisheries.

3.8.9 Work in Navigable Waters

Limited dredging or other work in navigable waters may be required to support the delivery of new equipment or materials to the site. All proposed work in navigable waters will be described fully in the Article 10 Application, including, without limitation, a description of dredging procedures that will be implemented, dredging equipment specifications, dredging

methodologies, water quality monitoring procedures during dredging operations, storage, testing of contaminants, transport and disposal of dredge materials, and the source and characteristics of fill materials if backfilling will be required. Additionally, plans, with suitable controls and contingency provisions, will be presented to address the potential for fuel oil spills related to the removal of any fuel oil transfer equipment from the in-water location.

Since these work activities will be limited in duration, significant adverse impacts are not anticipated.

3.8.10 Potentially Significant Adverse Effects

The potential impacts of the Project on the existing aquatic resources are each discussed in the following sections.

A. IMPACTS TO SURFACE AND GROUND WATERS

Impacts to the surface waters will be largely limited to the construction stage of the Project and thus, temporary in nature. Soil disturbance will occur on the terrestrial portion of the Project during construction, and it is possible that in-water work may also be required during construction to facilitate the delivery of equipment and/or materials to the Project site. It is not anticipated that the Project will have any impacts on groundwater resources.

B. IMPACTS TO AQUATIC SPECIES

The dwarf wedgemussel favors clean, relatively shallow freshwater with little silt deposition for its habitat. Habitat for the dwarf wedgemussel is declining due to degradation, loss of habitat due to increased silt loads, and contaminants such as heavy metals, along with the loss of their fish hosts. No disturbance of freshwater streams is anticipated as part of this Project so there should be no impacts to this species.

The shortnose and Atlantic sturgeon occupy the Hudson River in the vicinity of the Project site at different times of the year. Both species are bottom feeders, with most of their prey being small insects and crustaceans. Currently, the Project facility removes water from the Hudson River as part of its cooling process. Since 2001, there have been no shortnose sturgeon collected as part of impingement monitoring at the Danskammer property, and over the same period there has

been only year (2005) when Atlantic sturgeon were collected. The proposed Project, with its change in the cooling process, will remove even this insignificant potential impact of entrainment and impingement of these species, as well as the potential impacts from the discharge of heated cooling water and the associated thermal plume. If heavy equipment is barged to the site and shoreline improvements are needed, Danskammer Energy will evaluate the potential for temporary impacts and propose mitigation measures in consultation with relevant state and federal agencies.

3.8.11 Extent and Quality of Information Required for Evaluation

Exhibit 23 of the Article 10 Application will include a study of facility impacts to surface water resources, groundwater resources, and associated aquatic ecologies. The study will involve a summary and mapping of existing conditions, an in-depth impact analysis of the facility, and a discussion outlining impact avoidance and mitigation measures undertaken by Danskammer Energy.

Additional information pertaining to aquatic resources are proposed to be collected in order to further evaluate the potential impacts associated with the Project. These additional studies are discussed in the following sections.

A. SURFACE AND GROUND WATER RESOURCES

Existing studies related to surface and ground water resources, including water quality, will be reviewed and summarized. Individual site maps will be provided in Exhibit 23 depicting depths to high groundwater, depth to bedrock, groundwater aquifers, and groundwater recharge areas for the entire Project site. Groundwater aquifer maps will also depict groundwater flow direction, groundwater quality, groundwater well locations, and associated exclusion zones where information is readily available. These maps will be based on information gathered from the NYSDEC Division of Water Resources, Bureau of Water Management, United States Geological Survey ("USGS") Office of Groundwater, U.S. Department of Agriculture ("USDA") Soil Conservation Service, Soil Survey of Orange County, the USDA Natural Resources Conservation Service ("NRCS") Web Soil Survey online resource, and information gathered through research and outreach by Danskammer Energy.

Exhibit 23 will also analyze potential impacts to public and private drinking water supplies, groundwater quality, and associated aquifers within one mile from the Project Area. Analyses will address impacts which could occur from Project construction including effects arising from anticipated dewatering areas (if necessary) and also operation of the facility during both nominal and extreme (drought) conditions.

Through use of data sets obtained from NYSDEC, ESRI, Orange County, and streams identified during the on-site wetland delineation effort, a map will be provided depicting surface waters located within the Project site. Contemporary locations of intermittent streams will also be included in the map when they are encountered by field staff during the on-site delineation effort, or when their locations are made known through publicly available resources. Where applicable, a description of New York State listed Water Classification and Standards water quality parameters, flow, and biological resource characteristics of such features will be provided.

B. AQUATIC SPECIES

Exhibit 23 will provide an inventory of aquatic species and aquatic invasive species within approximately one mile of the Project site. Information will be based on both publicly available data sets (when available) and on field data collected during on-site work. Descriptions of all proposed impact areas in terms of aquatic species will be provided.

C. RARE SPECIES AND OTHER WILDLIFE

The studies to be performed will include a desktop impact assessment of the proposed work activities and Project facility operations on potentially present state and/or federally listed endangered or threatened species. Based on this additional information, potential direct and indirect impacts will be discussed. Subject to confirmation by the NYSDEC, NYNHP, USFWS, and NOAA Fisheries, it is not anticipated that field studies related to listed species will be performed given absence of likelihood of impact.

3.8.12 Avoidance, Minimization and Mitigation Measures for Adverse Impacts

Discussions on those measures to be taken to avoid and minimize to the extent possible, potential impacts to important water resources and aquatic species will be provided. If adverse impacts are unavoidable, appropriate mitigation measures will be designed and analyzed. Such measures

will, among other things, address the concerns of NYSDEC and other stakeholders/agencies regarding identified impacts to state-listed endangered and threatened species on the site or in the vicinity of the site.

3.9 Visual Resources

3.9.1 Introduction

This section provides a brief description of the existing land uses and landscape character within a five-mile study area (the "Visual Study Area"), in addition to studies and GIS/3D methodologies for evaluating potential adverse visual impacts resulting from the proposed vertical footprint of the proposed combined cycle power generation facility ("Project"). These potential effects will be addressed in Exhibit 24 of the Article 10 Application.

3.9.2 Existing Conditions

The proposed Project is proposed to be located on the site of the existing Danskammer Generating Station ("Station"), which is currently zoned as Industrial. Predominant land uses contributing to the visual setting in the immediate vicinity of the Project site are the existing Station and closed landfill, with the Roseton Generating Station being located immediately to the southwest of the existing facility. As such, the Project will be consistent with development and visual patterns that currently exist in the immediate area.

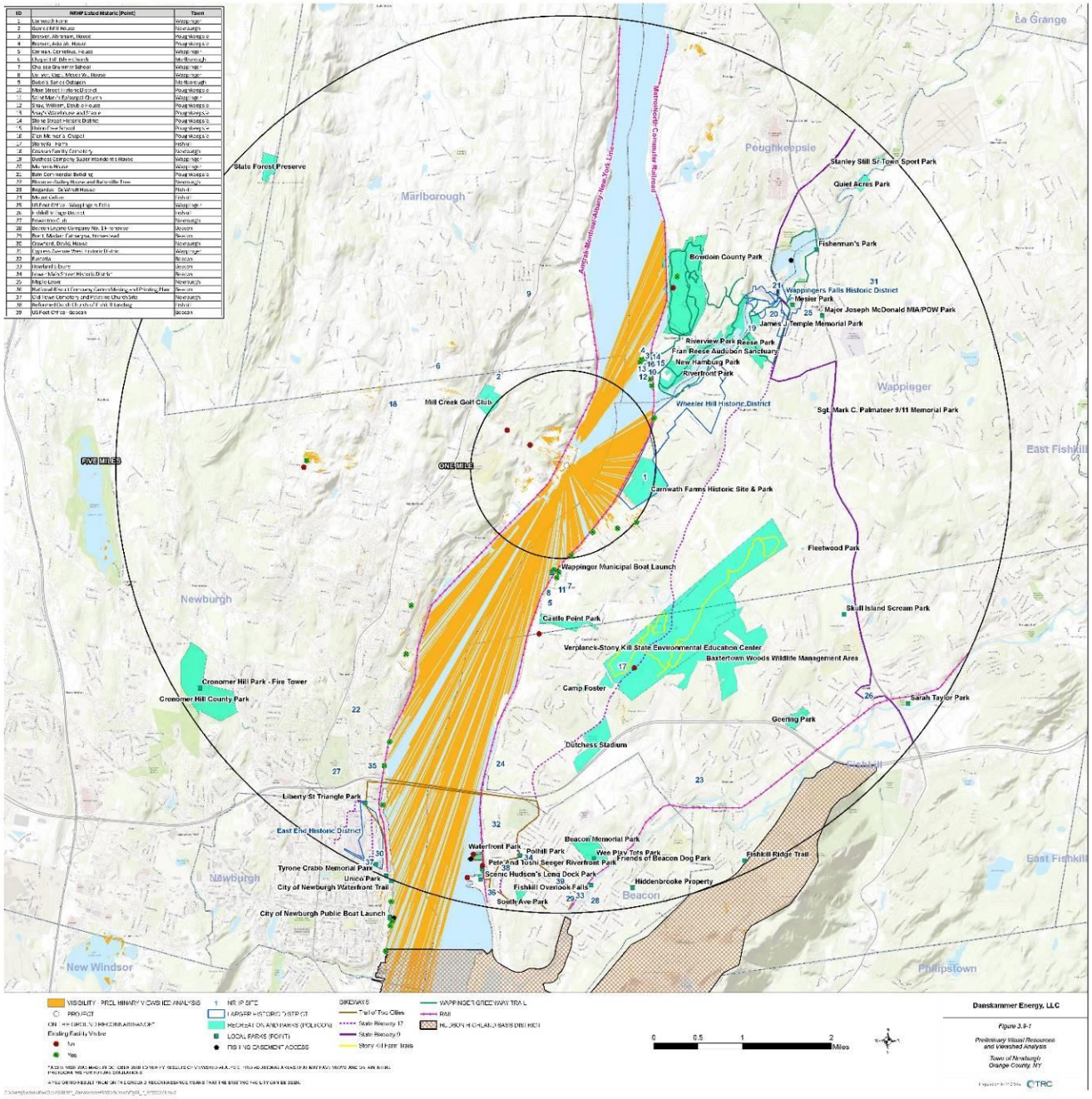
The Visual Study Area includes the following municipalities: Town of Newburgh, City of Newburgh, Town of Marlborough, Town of Plattekill, Town of Poughkeepsie, Town of Wappinger, Village of Wappinger Falls, City of Beacon, and the Town of Fishkill. Areas immediately to the east and south of the Project site are visually dominated by the waters of the Hudson River.

Other than the previous mentioned existing Station, the most prominent uses west of the Project site are residential, open space, transportation, and commercial. Due to an existing vegetative buffer and slopes, it is expected there will be little to no visibility of the Project directly west of the site as noted from a preliminary viewshed analysis (refer to Figure 3.9-1). The viewshed analysis shows the majority of visibility will be from the Hudson River and nearby shoreline locations as well as limited proximal inland areas where there are gaps between buildings or

vegetation that allow views. Five miles was chosen as a reasonable Visual Study Area based on the preliminary viewshed analysis results. The Visual Study Area will also explore a portion of the Hudson Highlands Scenic Area of Statewide Significance ("SASS") to the south, just outside of the five-mile Visual Study Area radius.

An initial site visit was made in October 2018 to verify the results of the preliminary viewshed analysis and find additional areas of visibility that may have views. Checkpoint locations that were field verified for views (or no views) are depicted in Figure 3.9-1. It should be noted that the confirmation of visibility during the site visit relied solely on whether the existing Danskammer Generating Station could be seen. It is reasonable to assume the use of the existing facility as a benchmark, as the Project is expected to be sited within 700 feet of the existing Danskammer Generating Station. The field visit verifies the accuracy of the viewshed analysis results. There is intermittent and select visibility to neighborhoods to the southwest and along the western shore of the Hudson River. The river is slightly more than a half-mile wide near the Project site. On the eastern side of the Hudson River, dominant uses are residential and open space and will have few inland views that are mostly limited to the shoreline and adjoining areas.

Figure 3.9-1. Viewshed Analysis



The Project will not be visible from Route 9W, which runs north-south to the west of the Project site. On the eastern side of the Hudson River, Route 9D parallels Route 9W and is located approximately 1.5 miles from the Project site at its closest point, where there is also no visibility expected. The Amtrak Montreal-Albany-New York Line and Metro North Rail Road both parallel the Hudson River shoreline across from the Project site, and the Amtrak Line is considered one of the "Top 10 Most Scenic Train Rides in the World". At points as noted in Figure 3.9-1, either rail line is expected to have views of the Project.

There are recreational resources, and thus areas of public access with potential visibility of the Project that are both water and land based. Recreational lands and facilities are tabulated in Table 3.9-1 (below) and mapped in Figure 3.9-1.

A preliminary review of National Register of Historic Places ("NRHP") and New York State Register of Historic Places ("SRHP") files maintained by National Park Service ("NPS") and the New York State Office of Parks, Recreation and Historic Preservation ("OPRHP"), respectively, was conducted. One hundred and sixty-eight (168) listed NRHP and SRHP historic properties have been previously recorded within the Visual Study Area. There are thirty-two (32) listed NRHP and SRHP historic places within a two-mile radius of the Project site. Furthermore, there are three (3) NRHP- and SRHP-listed historic places within one mile of the Project site. A full discussion is provided in Section 3.5.

Table 3.9-1. Potential Visual Resources in Study Area

Resource	Distance Zone (1 Mile Increment)	Town	County
Municipal, County, State Recreation			
Carnwath Farm Historic Site and Park	1	Wappinger	Dutchess
Mill Creek Golf Club	1	Newburgh	Orange
Wappinger Greenway Trail	1-4	Poughkeepsie, Wappinger	Dutchess
Castle Point Park	2	Fishkill,Wappinger	Dutchess
New Hamburg Park	2	Poughkeepsie	Dutchess
Riverfront Park	2	Poughkeepsie	Dutchess
Riverview Park	2	Poughkeepsie	Dutchess
Fran Reese Audubon Sanctuary	2-3	Poughkeepsie	Dutchess
Verplanck-Stony Kill State Environmental Education Center	2-3	Fishkill, Wappinger	Dutchess
Bowdoin County Park	2-4	Poughkeepsie	Dutchess
Baxtertown Woods Wildlife Management Area	3	Fishkill	Dutchess
Camp Foster	3	Fishkill	Dutchess
James J Temple Memorial Park	3	Wappinger	Dutchess
Reese Park	3	Wappinger	Dutchess
Fleetwood Park	3	Wappinger	Dutchess
Dutchess Stadium	3-4	Fishkill	Dutchess
Fisherman's Park	4	Wappinger	Dutchess
Geering Park	4	Fishkill	Dutchess
Major Joseph McDonald MIA/POW Park	4	Wappinger	Dutchess
Mesier Park	4	Wappinger	Dutchess
Sgt. Mark C. Palmateer 9/11 Memorial Park	4	Wappinger	Dutchess
Skull Island Scream Park	4	Fishkill	Dutchess
Beacon Memorial Park	5	Beacon	Dutchess
City of Newburgh Waterfront Trail	5	City of Newburgh	Orange
Cronomer Hill County Park	5	Newburgh	Orange
Cronomer Hill Park - Fire Tower	5	Newburgh	Orange
Fishkill Overlook Falls	5	Beacon	Dutchess

Resource	Distance Zone (1 Mile Increment)	Town	County
Fishkill Ridge Trail	5	Fishkill	Dutchess
Friends of Beacon Dog Park	5	Beacon	Dutchess
Hiddenbrooke Property	5	Beacon	Dutchess
Liberty St Triangle Park	5	City of Newburgh	Orange
Pete And Toshi Seeger Riverfront Park	5	Beacon	Dutchess
Polhill Park	5	Beacon	Dutchess
Quiet Acres Park	5	Wappinger	Dutchess
Sarah Taylor Park	5	Fishkill	Dutchess
Scenic Hudson's Long Dock Park	5	Beacon	Dutchess
South Ave Park	5	Beacon	Dutchess
Stanley Still Sr Town Sport Park	5	Poughkeepsie	Dutchess
Tyrone Crabb Memorial Park	5	Newburgh	Orange
Tyrone Crabb Memorial Park	5	City of Newburgh	Orange
Ulster State Forest Preserve	5	Plattekill	Ulster
Unico Park	5	City of Newburgh	Orange
Waterfront Park	5	Beacon	Dutchess
Wee Play Tots Park	5	Beacon	Dutchess
Scenic Rail			
Amtrak Montreal-Albany-New York Rail Line	1-5	Marlborough, City of Newburgh, Newburgh	Orange
Scenic Area of Statewide Significance			
Hudson Highlands	5+	Fishkill, City of Newburgh	Dutchess, Orange
Boat Launch			
Wappinger Municipal Boat Launch	2	Wappinger	Dutchess
City of Newburgh Public Boat Launch	5+	City of Newburgh	Orange
Fishing Easement or Access			
Wappinger Lake	4	Poughkeepsie	Dutchess
Fishing Access at Waterfront Park	5	Beacon	Dutchess
Fishing Access at City of Newburgh Waterfront Trail	5	City of Newburgh	Orange

Resource	Distance Zone (1 Mile Increment)	Town	County
Bikeways			
State Bikeway 17	2-5	Wappinger, Fishkill, City of Beacon, Newburgh, City of Newburgh	Dutchess, Orange
State Bikeway 9	3-5	Poughkeepsie, Wappinger, Fishkill	Dutchess
Stony Kill Farm Trails	3	Fishkill, Wappinger	Dutchess
Trail of Two Cities	4-5	City of Beacon, City of Newburgh, Fishkill	Dutchess, Orange
NRHP Listed Historic			
Carnwath Farm	1	Wappinger	Dutchess
Wheeler Hill Historic District	1	Wappinger	Dutchess
Gomez Mill House	2	Newburgh	Orange
Brower, Abraham, House	2	Poughkeepsie	Dutchess
Brower, Adolph, House	2	Poughkeepsie	Dutchess
Carman, Cornelius, House	2	Wappinger	Dutchess
Chapel Hill Bible Church	2	Marlborough	Ulster
Chelsea Grammar School	2	Wappinger	Dutchess
Collyer, Capt. Moses W., House	2	Wappinger	Dutchess
Dubois-Sarles Octagon	2	Marlborough	Ulster
Main Street Historic District	2	Poughkeepsie	Dutchess
Saint Mark's Episcopal Church	2	Wappinger	Dutchess
Shay, William, Double House	2	Poughkeepsie	Dutchess
Shay's Warehouse and Stable	2	Poughkeepsie	Dutchess
Stone Street Historic District	2	Poughkeepsie	Dutchess
Union Free School	2	Poughkeepsie	Dutchess
Zion Memorial Chapel	2	Poughkeepsie	Dutchess
Stony Kill Farm	2	Fishkill	Dutchess
Cosman Family Cemetery	3	Newburgh	Orange
Duchess Company Superintendent's House	3	Wappinger	Dutchess
Mulhern House	3	Wappinger	Dutchess
Wappingers Falls Historic District	3	Wappinger	Dutchess

Resource	Distance Zone (1 Mile Increment)	Town	County
Bain Commercial Building	4	Poughkeepsie	Dutchess
Bloomer-Dailey House and Balmville Tree	4	Newburgh	Orange
Bogardus--DeWindt House	4	Fishkill	Dutchess
Mount Gulian	4	Fishkill	Dutchess
US Post Office--Wappingers Falls	4	Wappinger	Dutchess
Fishkill Village District	4	Fishkill	Dutchess
Powelton Club	4	Newburgh	Orange
Beacon Engine Company No. 1 Firehouse	5	Beacon	Dutchess
Brett, Madam Catharyna, Homestead	5	Beacon	Dutchess
Crawford, David, House	5	Newburgh	Orange
Cypress Avenue West Historic District	5	Wappinger	Dutchess
Eustatia	5	Beacon	Dutchess
Howland Library	5	Beacon	Dutchess
Lower Main Street Historic District	5	Beacon	Dutchess
Maple Lawn	5	Newburgh	Orange
National Biscuit Company Carton Making and Printing Plant	5	Beacon	Dutchess
Old Town Cemetery and Palatine Church Site	5	Newburgh	Orange
Reformed Dutch Church of Fishkill Landing	5	Fishkill	Dutchess
US Post Office--Beacon	5	Beacon	Dutchess
East End Historic District	5	Newburgh	Orange

3.9.3 Potentially Significant Adverse Impacts

The proposed Project site will be located on property that is currently used for energy production and the generation of electric power, and therefore the project can be viewed as a continuation of the current land use of this area. Stack heights for the existing stacks at the Danskammer Generating Station are 220 feet and 240 feet above grade. Proposed new infrastructure includes

one (1) exhaust stack for the combined-cycle facility. Proposed stack height is anticipated to be equivalent or lower than the existing stacks. The introduction of new vertical elements and structures associated with the new power equipment will change the existing view.

3.9.4 Extent and Quality of Information Required for Evaluation

A visual impact analysis ("VIA") will be prepared for the Project and included in the Exhibit 24 of the Article 10 Application. The VIA will determine the extent and significance of the Project's visibility and will be performed according to the requirements as outlined in 16 NYCRR §1001.24. The VIA will address the following:

The Character and Quality of the Existing Landscape

Existing conditions and character of the landscape will be evaluated through the acquisition of Geographic Information System (GIS) data, review of town and county reports, topographic data, and site visits along with photographic documentation.

As part of evaluating existing conditions, Landscape Similarity Zones ("LSZ") will also be defined. LSZs are areas of similar landscape/aesthetic character based on patterns of landform, vegetation, water resources, land use, and user activity, and is helpful in providing a framework for assessment and understanding the visual environment.

Visual Resources Inventory

A visual resources inventory per 16 NYCRR §1001.24 will be performed to determine the existing publicly accessible sensitive resources that may be susceptible to visual impacts. Preliminary investigations of potential resources are provided in Table 3.9-1 and Figure 3.9-1. A final assessment of resources will be provided with the Article 10 Application.

Visibility of the Project Facility

To determine visibility of the project, a final GIS-based viewshed analysis will be performed and prepared by using ESRI ArcGIS Spatial Analyst software. For base elevation and ground objects (trees and buildings), the analysis will use Light Detection and Ranging ("LiDAR") data. LiDAR data is the best publicly available elevation data as it includes high resolution accurate ground elevations in addition to building heights and individual tree heights that capture physical visual impediments in the landscape. The results of the viewshed analysis are combined with the

visual resources inventory locations to predictively identify those resource areas that may potentially see all or some portion of the Project. A preliminary viewshed analysis is provided in Figure 3.9-1 and assists in understanding the extent of visibility at this time.

Other ancillary components such as access roads or transmission structures are not proposed for the Project.

Stakeholder Outreach

Per 16 NYCRR §1001.24(b)(4), Danskammer Energy will conduct an outreach program to municipal planning representatives, New York State Department of Public Service, New York State Department of Environmental Conservation, OPRHP, and other appropriate stakeholders. This mandatory outreach is to allow the stakeholders to comment and review work done prior to a final submittal and offers opportunity to suggest additional resource locations that warrant consideration and/or viewpoint locations for simulations. The outreach will be in the form of an interim visual impact report that is electronically mailed to stakeholders and municipalities where the visual resources inventory, the preliminary viewshed analysis results, landscape similarity and distance zones, suggested viewpoints for simulations, and a photolog of candidate simulation photographs are presented.

Appearance of the Project Facility Upon Completion

This will be accomplished by preparing photosimulations from selected vantage points. Photographs to be used in simulations will be acquired during leaf-off conditions. Several candidate locations for simulations will be chosen resulting from a number of preliminary investigations, with the ultimate focus on the visual resources inventory in combination with the predicted visibility of the viewshed analysis and on-the-ground site visits.

Lighting

The Article 10 Application will provide the following:

Project Facility Lighting upon completion: The Article 10 Application will provide lighting specifications for FAA lights on stacks and typical lights to be used at the new air cooled condensers, steam and combustion turbines, heat steam recovery generator and stack. Limiting stack lighting to the minimum allowed by the FAA to reduce nighttime visual impacts.

Illumination considerations such as the use of task lighting and full cut-off fixtures to avoid off-sight light trespass.

- Construction Lighting: The Article 10 Application will provide a discussion on security and safety lighting during construction, including considerations such as the use of task lighting and full cut-off fixtures to avoid off-sight light trespass. The lighting discussion will further evaluate the timing of use of certain lighting, for both construction and security related activities.
- Security Lighting: The Article 10 Application will provide a detailed description of security lighting activities associated with the Project facility, including additional considerations such as the use of task lighting and full-cutoff fixtures. The discussion will outline the plans for site lighting for security during the construction period and the security lighting for normal operations following the completion of construction, and cease of activities related to laydown and storage of construction materials at other places on the site.
- FAA Lighting: Aircraft Safety Lighting of the Stack (and other infrastructure as needed) will be in accordance with Federal Aviation Administration ("FAA") regulations, to minimize collision risk. The Article 10 Application will provide details associated with proposed FAA lighting for the Project facility. The Article 10 Application will include discussion of potential visibility from exterior lighting at air cooled condensers, steam and combustion turbines, heat steam recovery generator and stack. The Article 10 Application will document formal consultation with Department of Defense, and the National Telecommunications and Information Administration (which includes review of potential impacts to weather radar) as required or applicable.

The evaluation will further review the existing lighting and what additional levels of lighting will be needed on new facilities and if any existing lighting may be eliminated by the use of new lighting.

Nature and Degree of Visual Change from Construction

Visual changes will be ongoing throughout the construction phase and will be temporary. This will include transportation and assembly of the Project facility, and higher than normal truck traffic.

Nature and Degree of Visual Change and Operational Effect of the Project Facility

Visual and landscape characteristics of the Project will be described. Descriptions of how land characteristics including tree cover might preclude views, will be described as well. Existing conditions and the nature and degree of visual change will be summarized for each photographic

simulation. Attempts will be made to provide simulation vantage points from public areas with the most open views to the Project as possible.

Visual Impact Rating Evaluation

Per 16 NYCRR §1000.24(b)(7) of the Article 10 regulations, each set of existing and simulated views of the Project facility shall be compared and rated and the results of the visual impact assessment will be summarized. Documentation of the steps followed in the rating and assessment methodology shall be provided including results of rating impact panels and a description of the qualifications of the individuals serving on the panels.

Description of Visual Resources to be Affected

Local, state, and federal visual resources will be investigated per 16 NYCRR §1001.24. These areas include but are not limited to landmark landscapes; wild, scenic or recreational rivers, forest preserve lands, conservation easement lands, scenic byways, Scenic Areas of Statewide Significance; state parks; sites listed on National or State Registers of Historic Places; areas covered by scenic easements, public parks or recreation areas; locally designated historic or scenic districts and scenic overlooks; and high-use public areas. A partial list of resources is noted in Table 3.9-1. As noted above, during the stakeholder outreach program Danskammer Energy will be providing an interim report to local representatives and stakeholders so as to offer the opportunity to suggest additional visual resources to consider that may be important to the community.

Viewer groups and viewer exposure including residential areas and travel corridors such as the Amtrak Montreal-Albany-New York Line and Metro North Rail Road will also be described.

The Hudson Highlands SASS district is outside of the Visual Study Area, as it is located 5.6 miles to the south, but nevertheless will be addressed in the Article 10 Application.

3.9.5 Avoidance and Minimization Measures to Adverse Impacts

The proposed re-powering was chosen with the intention of limiting or avoiding potential overall adverse impacts to the area. The potential for cumulative visual impacts as a result from choosing a location other than the existing site has been greatly reduced, as the current site is

currently being utilized for electricity production and has been utilized for electricity production in the past.

The Article 10 Application will provide a description of design elements and any proposed mitigation measures.

3.9.6 Proposed Measures to Mitigate Unavoidable Impacts

Unavoidable visual impacts will occur due to heights of Project facility components such as the exhaust stack, the air-cooled condenser, and large building profiles. Concerted efforts will be made during the Project design effort to minimize the visibility of the proposed generating facilities including minimizing the Project facility's profile and size, to the maximum extent practicable and in consideration of engineering constraints to ensure safe and efficient operation of the proposed facility. Appropriate stack height is typically determined by air quality analysis. The Project facility's stack is the most visually prominent feature, and a primary way of minimizing stack height is to limit the height of nearby controlling structures that determine the stack height in accordance with Good Engineering Practice guidelines.

3.10 Traffic and Transportation

3.10.1 Introduction

Exhibit 25 of the Article 10 Application will address the proposed Project's impacts on traffic and transportation. This section of the PSS provides a preliminary identification of existing traffic and transportation related conditions at the Project site and surrounding areas. A summary of available traffic data has been provided, along with an analysis of the existing roadway network that is utilized to access the site. Potential impacts on transportation, including air and pedestrian traffic, have been provided, both during construction and operation of the facility. Additionally, avoidance measures and potential mitigation measures, if necessary, have been outlined. Finally, a summary of the extent and quality of the information required to address the requirements of Exhibit 25 of the Article 10 Application has been prepared.

3.10.2 Existing Conditions

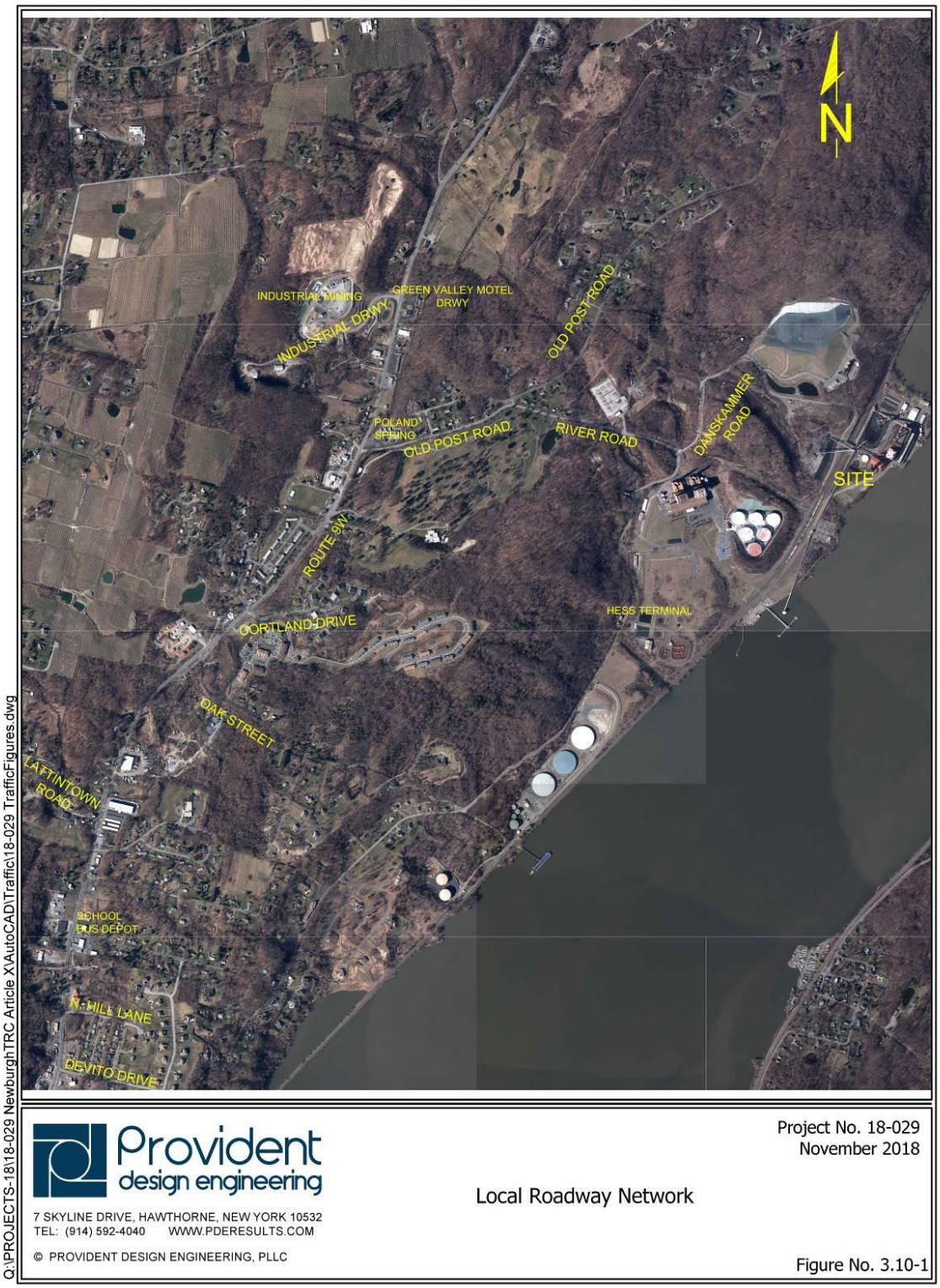
A. ROADWAY NETWORK

The Danskammer property, of which the Project site is a part, consists of approximately 180 acres in the Town of Newburgh and is located along Danskammer Road. Danskammer Road, which intersects River Road, serves as the main entrance to the existing Danskammer Generating Station ("Station"). The local roadway network in the vicinity of the Project site is illustrated in Figure 3.10-1.

Danskammer Road is 24+ feet wide and consists of one lane per direction, as do most of the roads in the area including Old Post Road (20-22 feet wide) and River Road (20-24 feet wide). The intersection of Danskammer Road and River Road is unsignalized, with Danskammer Road being the minor approach, leading into/out of the existing Station.

Roads from the Danskammer Generating Station ultimately connect to Route 9W, which consists of a State route with one lane per direction with shoulders as well as with turn lanes at certain intersections such as at Cortland Drive/Morris Drive. The travelway is approximately 24 feet wide with 12 foot shoulders on each side. When there are turn lanes, some of the shoulders are reduced to about 4 feet wide. There are various commercial and industrial properties within three miles of the Project site that generate truck traffic, including but not limited to, a Poland Spring warehouse facility, a school bus depot located along Route 9W, a Hess Corporation Terminal located to the south of the site as well as an industrial mining site located to the north as illustrated on Figure 3.10-1. There are also some residential uses within three miles of the Project site, including Orchard Hills, a multi-family residential development, as well as single-family homes, mainly to the south of the site but also some along Old Post Road and the adjacent side streets.

Figure 3.10-1. Local Roadway Network



Field observations of the roadway network, potential truck routes, and traffic operating conditions along Route 9 within three miles of the Project site have been performed. Traffic generally flows well, but there are some delays experienced at the signalized intersection of Route 9W and Cortland Drive/Morris Drive during the peak roadway hours.

Depending upon the point of origin, to reach the Project site, trucks will travel either northbound or southbound on Route 9W and then turn onto Old Post Road. The trucks would then turn onto River Road and then onto Danskammer Road to reach the Project site. These roadways can, and currently do, support trucks. Exhibit 25 of the Article 10 Application will include an evaluation of the adequacy of the road system, to accommodate the projected traffic during construction of the Project. There are no truck restrictions on Danskammer Road and River Road (except south of the Project site).

Road intersection and signals:

There are some local residential streets that have signage such as "Weight Limit 3 Tons" and/or "No Thru Truck Traffic" such as Fostertown Road, Old Balmville Road, Oak Street and Old Post Road. The Project will not have a significant impact on these roads.

The intersection of Route 9W with Oak Street is an unsignalized three-legged intersection. Route 9W consists of one lane in each direction and forms the north-south approaches. Oak Street consists of one lane in each direction and forms the west approach. The intersection of Route 9W and Morris Drive/Cortland Drive is signalized, with left-turn storage lanes on northbound and southbound Route 9W and on westbound Cortland Drive.

Further north is the intersection of Route 9W and Old Post Road that forms a three-legged unsignalized intersection. Route 9W consists of one lane in each direction and forms the north-south approaches, while Old Post Road consists of one lane in each direction and forms the west approach.

At the intersection of Route 9W and Green Valley Motel Driveway/Industrial Driveway, the two roads form a signalized four-legged intersection. Route 9W consists of one lane in each direction with left-turn storage lanes and forms the north-south approaches. Both the Green

Valley Motel Driveway and the Industrial Driveway consist of one lane in each direction and form the east-west approaches.

I-84 consists of 2-3 lanes per direction in the vicinity of the Project. I-84 has a full interchange with Route 9W.

Speed Limits:

Route 9W is under the jurisdiction of the New York State Department of Transportation ("NYSDOT") and has a speed limit of 55 miles per hour ("mph"). I-84 is also under State jurisdiction and has a speed limit of 55 mph. Danskammer Road, River Road, Old Post Road, Cortland Drive, Morris Drive, and Oak Street are all under the jurisdiction of Orange County and all have a speed limit of 30 mph.

B. EXISTING TRAFFIC VOLUMES

To obtain data regarding existing traffic volumes in the vicinity of the Project site, along Route 9W and other area roadways, traffic volume data provided by the NYSDOT and Orange County was reviewed for selected locations within three miles of the Project site.

The following Table summarizes the Annual Average Daily Traffic ("AADT") for various sections along I-84 and Route 9W as well as for some of the other key roadways in the area:

Table 3.10-1. Traffic Volumes Annual Average Daily Traffic (AADT)

Roadway	**AADT (Vehicles per Day)**
I-84, east of Route 9W	68,594
NYS Route 9W North of Devito Drive	19,515
NYS Route 9W South of Devito Drive	22,625
Old Post Road	439
Lattintown Road	2729
N. Hill Lane	303
Source: NYSDOT Traffic Data Viewer	

As illustrated in Table 3.10-1, I-84 and Route 9W have significantly more traffic than other roadways in the area.

C. AIRPORTS

Danskammer Energy has identified three airports within the vicinity of the Project:

- Hudson Valley Regional Airport, Wappingers Falls, New York (approximately 5 miles from the Project site)
- Stewart International Airport, New Windsor, New York (approximately 8 miles from the Project site)
- Stewart Air National Guard, Newburgh, New York (approximately 8 miles from the Project site)

Danskammer Energy sent a consultation letter to these facilities in December of 2018 which included a description of the proposed Project and location map. This letter requested that the operators of these facilities review and provide comment on the proposed construction.

D. RAILWAYS

The CSX Transportation ("CSX") railroad tracks transect the eastern portion of the Project site (west of the existing plant) in a northwest/southeast orientation. Existing pedestrian and vehicle safety controls are in place and there have been no safety incidents related to the railroad tracks during the operation or maintenance of the existing Danskammer Generating Station.

3.10.3 Potentially Significant Adverse Impacts

A. DURING CONSTRUCTION

Access to the Project site will be from River Road onto Danskammer Road. Danskammer Road essentially serves as the site driveway.

An approximate Project timeline has been provided in Section 1.7.5 of the Project Information portion of this PSS. The Project could have a construction period of approximately 30 months. During this construction period of the Project, there will be increased traffic along the adjacent roadway network due to the ingress and egress from the Project site of construction equipment and construction worker vehicles and deliveries of materials and fill. It is projected that Project-

generated traffic during construction would use regional roadways (i.e., Route 9W and I-84) to access the Project area.

As indicated in earlier sections of this PSS, the Project site will be designed to withstand a storm based on the 500 year return period in order to achieve a high level of flood protection. The Project will incorporate design features (e.g., existing grades for proposed facility equipment could be raised to the final design flood elevation through placement of fill or raised foundations) to protect the new facilities. If it is determined during design of the Project site to raise the grade elevation, it is anticipated that fill will need to be imported to the Project site. Use of trucks is a method employed to import fill in similar projects, and Danskammer Energy may utilize trucks for that purpose. Therefore, there is the possibility of additional truck traffic in the area resulting from the site elevation being raised in the area of the proposed Project. Danskammer Energy is also exploring other means of importing fill, and potentially construction materials, such as barge deliveries at the Project site and/or possibly other locations or the possible use of rail. Also, construction of the Project will not result in any adverse impacts to the CSX railroad line. A detailed description of the method of delivery and its effects on traffic and transportation will be included in Exhibit 25 of the Article 10 Application.

B. DURING OPERATION

No significant impacts to the local roadway network as a result of the operation of the proposed Project are anticipated. During operations, Project-related traffic will involve a very limited number of service vehicles, tank trucks, and employee vehicles. Parking for Project employees will be provided on the site. The operation of the Project will not result in any adverse impacts to the CSX railroad line based on past and current operations of the existing facility.

Proposed new infrastructure includes one (1) exhaust stack for the combined-cycle facility. Current stack heights at the existing Danskammer Generating Station are 220 feet and 240 feet above grade and the new stack height is anticipated to be equivalent or lower than the existing stacks. Therefore, no interference with existing airway network is anticipated.

3.10.4 Extent and Quality of Information Required for Evaluation

Exhibit 25 of the Article 10 Application will provide an analysis of the impacts of the Project facility on airports and airstrips, railroads, and buses in the vicinity of the Project site. This evaluation will also consider any potential impacts on military training and frequent military operations in the National Airspace System and Special Use Airspace designated by the Federal Aviation Administration.

A Traffic Study will be conducted to evaluate existing traffic volumes and assess roadway operating conditions in the vicinity of the Project. The Traffic Study will include a description of the pre-construction characteristics of the major roadways in the vicinity of the Project, including Route 9W. Existing data on traffic volumes will be obtained from the appropriate sources including the NYSDOT and Orange County. Traffic data collection efforts will include peak turning movement counts for a typical weekday morning and weekday afternoon at key intersections, as well as accident information logs obtained from local police agencies and/or the NYSDOT for these key intersections. Twenty-four hour traffic volume counts along Route 9W in the vicinity of the site will also be included.

The key intersections are:

- Danskammer Road and River Road (Unsignalized)
- River Road and Old Post Road (Unsignalized)
- Route 9W and Old Post Road (Unsignalized)
- Route 9W and Cortland Drive/Morris Drive (Signalized)
- Route 9W and Oak Street (Unsignalized)
- Route 9W and Industrial Driveway/Green Valley Motel Driveway (Signalized)

For each of the intersections identified above, and possibly others, a description of intersection geometry and traffic control devices by approach will be provided, along with a calculation of the Level of Service ("LOS"), giving detail for each turning movement. To assess future traffic conditions, an estimate of the annual rate of traffic growth in the vicinity of the Project will be developed, incorporating general growth as well as growth from planned land use changes. Besides general vehicle traffic, other characteristics, such as a review of transportation routes for the local school district buses, as well as routes for emergency service providers (police, fire

departments, hospitals and ambulance services) will be included in Exhibit 25 of the Article 10 Application.

Trip generation estimates will be developed for both future construction and operation conditions. These will include estimates for peak trip generation during both construction and times of normal operation. The likely hours of travel to and from the Project site and the number and type of equipment deliveries will also be presented. The potential Project-related impacts will then be assessed by evaluating estimated Project-generated vehicle trips and likely routes of travel in light of existing traffic conditions within the Project area. As fuel oil and water may be delivered to the site during operation and construction, the trip generation study will include an identification of approach and departure routes for the required transport vehicles to and from the Project site for a five mile distance.

The final stack height for the proposed Project facility will be determined in accordance with applicable air quality requirements. If the stack is higher than 200 feet, Danskammer Energy will initiate consultation with the Federal Aviation Administration (FAA) in accordance with 14 Code of Federal Regulations, part 77 pursuant to 49 U.S.C., section 44718. Exhibit 25 will provide a detailed description of consultation completed with the FAA as well as the previously identified airports with regard to the Project.

3.10.5 Avoidance and Minimization Measures to Adverse Impacts

Significant impacts to the local roadway network are not anticipated as a result of the operation of the proposed Project. Several mitigation measures, however, are available to minimize potential transportation impacts during construction of the proposed Project which include, but are not limited to the following:

- Scheduling of construction shifts so that the majority of construction related Project traffic occurs outside of peak commuting hours.
- Staggering of construction shifts start and finish times by trade.
- Scheduling, to the maximum extent possible, delivery of construction materials and heavy equipment outside of the peak commuting hours.
- Delivery of large Project components/equipment during off-peak periods, should this be determined to be necessary.

- Development of carpooling programs, if determined to be feasible.
- Encouragement of utilizing public transportation to the Project site, if feasible.
- Consideration of feasibility of utilizing barge or railroad to transport fill and other heavy materials.
- Installation of signs and signals at the road intersection near the construction site, and similar warning and preventative measures notifying public about the upcoming construction.

3.10.6 Proposed Measures to Mitigate Unavoidable Impacts

There will be a slight increase in traffic on the local roadways during construction of the proposed Project. Potential mitigation measures to reduce impacts are described above in 3.10.5. These measures will be utilized where possible to mitigate any unavoidable impacts. Additional mitigation measures, if required, will be identified and analyzed within Exhibit 25 of the Article 10 Application.

3.11 Communications

3.11.1 Introduction

This section provides an overview of the methodology that will be employed to assess the impact that the Project may have on various types of communications systems as listed within §1001.26 of the Article 10 regulations. The results from the investigation performed will be used to develop a plan to address any potentially significant adverse impacts.

3.11.2 Existing Conditions

The proposed Project will be located entirely on the existing 180-acre Danskammer Generating Station site property owned by Danskammer Energy. The proposed Project site is located at Danskammer Road in the Town of Newburgh, New York. There are several large industrial buildings and structures at the site including a steam plant, a fuel oil storage tank, and a wastewater treatment facility. The surrounding area is dominated by the Hudson River to the east and gently sloping hillsides to the west. Wireless systems, phone, cable, AM and FM radio are currently present on site.

a. Existing FCC Antennas

A review of the Federal Communications Commission (FCC) Antenna Structure Registration database indicates that there are 16 registered towers located within 5 mile-radius of the Project (see Table 3.11-1). These towers are utilized for a variety of communications uses including municipal communications and cellular phone services. From a preliminary review of the existing antennas and their location, the proposed Project is not expected to interfere with these communication systems. For Exhibit 26 of the Article 10 Application, a two mile radius will be utilized for the purposes of assessing potential impacts.

Table 3.11-1. FCC Registered Towers within 5 Mile-radius of Project Site

Registration #	Owner Name	Structure City
1048216	City School District of Newburgh NY	Newburgh, NY
1048219	City School District of Newburgh NY	Newburgh, NY
1048220	City School District of Newburgh NY	Newburgh, NY
1048221	City School District of Newburgh NY	Newburgh, NY
1209705	Cronomer Valley Fire District	Newburgh, NY
1222509	Central Hudson Gas and Electric Corporation	Newburgh Orange County, NY
1224519	American Towers LLC	Marlborough, NY
1224669	American Tower Corp/Broadcast Group	Marlboro-12542, NY
1228836	ACC New York License III LLC	Wappingers Falls, NY
1239498	Central Hudson Gas and Electric Corporation	Fishkill, NY
1239499	Central Hudson Gas and Electric Corporation	Fishkill, NY
1239542	Central Hudson Gas and Electric Corporation	Newburgh, NY
1259846	Cellco Partnership	Marlborough, NY
1272903	Global Tower, LLC through American Towers, LLC	Poughkeepsie, NY
1287491	AT&T Mobility Spectrum LLC	Newburgh, NY
1303353	New Cingular Wireless PCS, LLC	Newburgh, NY

b. Other Communications Infrastructure

Cable, phone and internet providers in the area of the Project site include Verizon and Time Warner Cable. With the Project site being located in the service areas of such providers, the potential exists for existing underground cable and fiber optic major transmission

telecommunication lines to be present in the immediate vicinity of the existing Danskammer Generating Station site.

In Exhibit 26 of its Article 10 Application, to fully assess the impact of construction and operation of the Project to communications within a two-mile radius, Danskammer Energy will provide an itemized list of all major communication infrastructure and receptors in close proximity to the proposed Project. Pursuant to §1001.26(a) and (b) of PSL Article 10, these will include AM/FM radio, television, telephone, microwave transmission, emergency services, municipal/school district services, public utility services, doppler/weather radar, air traffic control, armed forces, global positioning system(s) ("GPS"), LORAN (if any), and amateur radio licenses.

3.11.3 Potentially Significant Adverse Impacts

Due to the fact that proposed structures will be built wholly within the existing Danskammer Generating Station property, the proposed facility repowering is not expected to interfere with existing wireless communication systems located within the Project area. No off-site improvements to communication lines are anticipated to be necessary as it is expected that the proposed Project will interconnect to existing communication facilities that presently service the site.

In addition, the proposed Project will interconnect with Central Hudson's 115 kV transmission system through the existing Central Hudson 115 kV substation that is currently present on the existing Danskammer Generating Station property. The proposed Project will also use the existing natural gas transmission system for the delivery of natural gas. As such, no offsite interconnection will be required in support of the facility repowering or operation, and no adverse impacts on the communications system is anticipated due to interconnection of the proposed Project.

As a result, there are no significant adverse impacts on the communications systems anticipated. Confirmation will be sought from applicable communication system providers to verify that existing facilities that provide service to the site have capacity for the additional usage from the

new facilities during the period of overlap when the existing and new units will all be in place prior to the decommissioning of the existing units.

3.11.4 Evaluation of the Existing Data

As discussed above in Section 3.11.1, once the identification of all existing communications infrastructure within the vicinity of the Project is complete, Danskammer Energy will analyze effects of the proposed Project, if any, to surrounding infrastructure. Exhibit 26 of the Article 10 Application will include a section discussing any anticipated effects of the proposed Project on the communications systems.

To address potential impacts on federal government communication systems, a notification letter will be sent to the National Telecommunications and Information Administration ("NTIA"). The NTIA will review the proposed Project and identify any concerns with federal communication systems. The NTIA response letter will be included in the Article 10 Application, accompanied by a discussion of how to resolve any potential concerns identified by the NTIA. In addition, databases will be consulted and local utility providers will be contacted. Relevant databases are managed by the Federal Communications Commission ("FCC") and the NTIA. Local utility providers in the area, including AT&T, New Cingular, Time Warner Cable and Verizon, will also be contacted.

Geo-spatial information is also provided on the New York State Geographic Information System ("GIS") clearinghouse website regarding New York State Broadband Mapping. The data available includes high speed Internet service availability by provider company and internet technology service areas (DSL, cable modem). Danskammer will perform an analysis of this data as well.

3.11.5 Avoidance and Minimization Measures to Adverse Impacts

An evaluation will be completed of the design configuration of the proposed Project, and its required natural gas and electric interconnections, demonstrating that no adverse effects on the communications systems are expected. If there are any potential impacts to communications facilities surrounding the property identified, these will be avoided to the maximum extent practicable.

3.12 Recreational Resources

3.12.1 Introduction

This section describes the existing parks and recreational facilities within three miles of the Project site (the "Recreational Study Area") and potential impacts to these resources as a result of the proposed construction and operation of the proposed Facility. It is anticipated that potential impacts and studies identified for parks and recreational facilities will overlap the potential impacts studies discussed in Exhibit 3.1, Land Use, Exhibit 19, Noise and Vibration, Exhibit 24, Visual Impacts, and Exhibit 24, Effect on Transportation, of the Article 10 Application.

3.12.2 Existing Recreational Resources

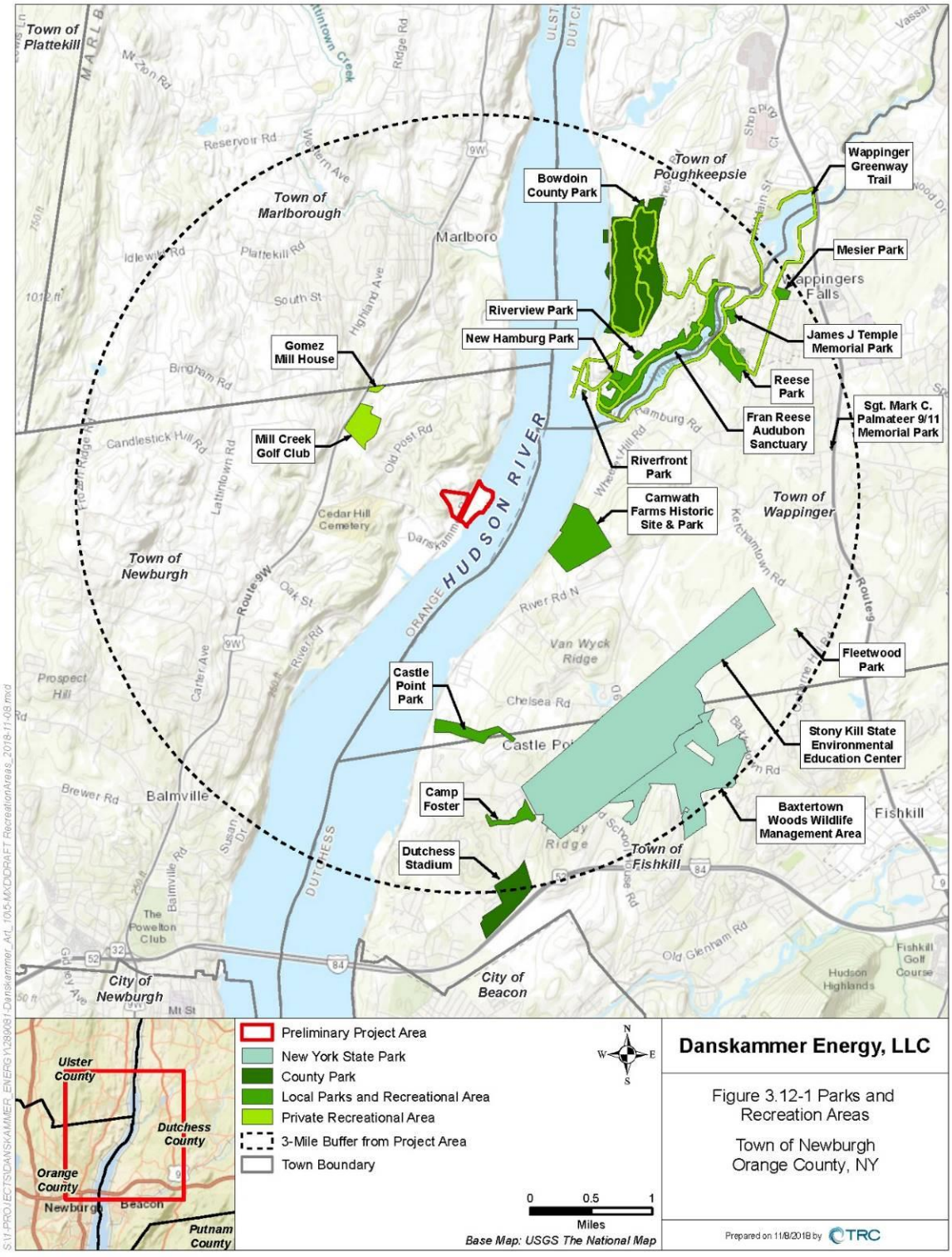
Dutchess County, Ulster County and Orange County offer state, county and local parkland opportunities with a multiplicity of recreational opportunities. The Hudson River separates Dutchess County from Ulster and Orange County. The Hudson River is also a scenic and recreational resource in the area. Several state, county and local recreational areas are located within the Recreational Study Area, including Bowdoin Park, Reese Park, and Castle Point Park, along with additional local parks located within Dutchess County and the Town of Wappinger, Village of Wappingers Falls, Town of Fishkill, and the Town of Newburgh. Each level within the parks system is operated under a separate governmental jurisdiction. Recreational areas within the Recreational Study Area are illustrated on Figure 3.12-1. The following provides a narrative description of the parks and recreation areas within the Recreational Study Area.

A. NEW YORK STATE PARKS

Baxtertown Woods Wildlife Management Area ("WMA") is under the jurisdiction of New York State and consists of approximately 248 acres of upland and wetland forest communities and is approximately 2.80 miles southeast of the Project site. This area is east of Route 9D and south of Baxtertown Road. Activities here include hunting, trapping, and wildlife viewing. This area is managed by DEC's Division of Fish and Wildlife for wildlife conservation and wildlife-associated recreation.

Stony Kill Farm Environmental Education Center is under the jurisdiction of the New York State Department of Environmental Conservation ("NYSDEC") and is approximately 2.2 miles southeast of the Project site. It encompasses approximately 759 acres and consists of a 19th century barn and farmhouse, an 18th century Dutch stone house, a greenhouse, workshop, pond, picnic area, Verplanck Garden, community garden, classroom used for education programs, and event space for other organizations. Other recreation includes cross country skiing, snowshoeing, wildlife viewing and hiking.

Figure 3.12-1: Parks and Recreation Areas



B. COUNTY PARKS

Dutchess County Parks

The Dutchess County Park System includes 6 operating facilities covering approximately 950 acres. County parkland facilities range from active parks, historical properties, campgrounds, bike paths, rail trails, and athletic facilities. The Dutchess County recreational properties located within the Recreational Study Area include Bowdoin Park and Dutchess Stadium.

Bowdoin Park is approximately 2.3 miles northeast of the Project site overlooking the Hudson River on Sheafe Road. This county park encompasses approximately 301 acres in Wappingers Falls. This park has open air pavilions, kitchen facilities that are available for rent, cross country skiing, a playground, and a water spray park in the summer months. This park is considered a passive park.

Dutchess Stadium is approximately 3.0 miles southeast of the Project site on Route NY-9D. This stadium is home to the Hudson Valley Renegades, a Penn League Single A baseball team, as well as many other community events. This stadium encompasses approximately 64 acres.

Ulster County Parks

The Ulster County Park System includes 2 facilities – Ulster County Pool and Ulster Landing County Park. County parkland facilities range from active parks, boat launch, and Ulster County Rail Trails and include activities such as wildlife viewing, bicycling, hiking, cross country skiing, and swimming. There are no Ulster County parks within the Recreational Study Area.

Orange County Parks

The Orange County Park System includes over 16 operating facilities covering approximately 3,400 acres. County parkland facilities range from active parks, two golf courses, skating rink, group and family picnic sites, dog park, arboretum, hiking trails, historical properties, campsites, museums, and baseball fields. There are no Orange County parks within the Recreational Study Area.

C. LOCAL PARKS AND RECREATIONAL AREAS

Town of Wappinger

Carnwath Farms Historic Site & Park is approximately 0.9 miles east of the Project site. This historic facility and park encompass approximately 98 acres. It is home to its 1850 pre-restoration mansion, 1873 carriage house, a 1927 cottage, Frances Reese Cultural Center, Carnwath Chapel, gift shop, and several walking and hiking trails.

Reese Park is approximately 2.5 miles northeast of the Project site and is adjacent to the boat launch for the Wappinger Creek Estuary, where it is used for kayaks, canoes, and fishing. This park encompasses approximately 36 acres in the Town of Wappinger and is maintained as a conservation area. This park is considered a passive park, in that it has no facilities or equipment.

Castle Point Park is approximately 1.8 miles south of the Project site. This park encompasses approximately 33 acres in the Town of Wappinger. The activities at this park include a baseball field, small pavilion, and playground.

Village of Wappingers Falls

Fleetwood Park is approximately 2.8 miles southeast of the Project site. This park encompasses approximately 0.30 acres at the end of Fleetwood Drive. The activities at this park include a small playground and basketball court.

James J. Temple Memorial Park is approximately 2.8 miles northeast of the Project site. This park encompasses approximately 5.3 acres. Activities at this park include a Little League baseball field, basketball court, playground, access to Wappinger Lake, and a multipurpose building.

Mesier Park is approximately 3.2 miles northeast of the Project site. This park is approximately 6 acres and is the location of the Mesier Homestead, built in the late 18th century. This park is approximately 6.1 acres and is the location of the Mesier Homestead, built in the late 18th century. This historical property is owned by the Village of Wappingers Falls and includes a museum and guided tours.

Sgt. Mark C. Palmateer 9/11 Memorial Park is approximately 3.1 miles east-northeast of the Project site on Sergeant Palmateer Way. This park encompasses approximately 0.3 acres and is considered a passive park.

Town of Fishkill

Camp Foster is approximately 2.5 miles south-southeast of the Project site, west of Route NY-9D, off Old Castle Point Road. This park encompasses approximately 17 acres in the Town of Fishkill. This park facility consists of a small pond, pavilion with fire place, tables and tower. It is a former Girl Scout Camp and is considered a passive park.

Town of Poughkeepsie

Fran Reese Audubon Sanctuary is approximately 1.7 miles northeast of the Project site on Main Street overlooking the Wappingers Creek Estuary. This park encompasses approximately 99 acres and is part of the Wappinger Greenway Trail which links Bowdoin County Park and Reese Park. This park is considered a passive park. Trails are owned by the National Audubon Society.

New Hamburg Park is approximately 1.6 miles northeast of the Project site off Main Street. This park encompasses approximately 4.8 acres. Activities at this park include a baseball field, basketball court, tennis courts and a sheltered picnic area.

Riverview Park is approximately 1.9 miles northeast of the Project site on Twin Road. This park encompasses approximately 2.2 acres. Activities here include a baseball field, basketball court, and playground.

Riverfront Park is approximately 1.4 miles northeast of the Project site on River Road. This park encompasses approximately 0.56 acres. This park is considered a passive park with a swing set and train play set.

D. PRIVATE RECREATIONAL AREAS

Gomez Mill House is approximately 1.2 miles northwest of the Project site on Mill House Road in the hamlet of Marlboro. The house is listed as a significant regional museum on the National

Register of Historic Places. The museum and historic site offers guided tours. This area encompasses approximately 3 acres.

Mill Creek Golf Club is approximately 1.2 miles west-northwest of the Project site off Route 9W in the Town of Newburgh. This area encompasses approximately 38.8 acres. The golf course offers a 9-hole course with a 22-tee driving range.

Wappinger Greenway Trail is approximately 1.6 miles northeast of the Project site with parking on Main Street in the Town of Poughkeepsie. This Greenway Trail is a 10.7-mile walking trail that connects New Hamburg Park, the Reese Audubon Sanctuary, Bowdoin County Park, and Reese Park. The trail links historic, cultural, natural and economic resources of local and regional significance.

3.12.3 Potential Recreational Impacts

Most of the parks and other recreational areas within the Recreational Study Area are located such that impacts from the construction and operation of the proposed Project facility will be negligible. Direct impacts to recreation areas, such as limiting access to or creating additional demand for recreational areas, are not likely to occur. Potential limited indirect impacts (i.e., increases in ambient sound levels, visual presence of construction workers and machinery) may not be noticeable to visitors using any of the aforementioned parks.

3.12.4 Proposed Studies

The Projects' Article 10 Application will identify the effect of the sound of the construction and operation of the Project on land uses with one mile of the Project site, as set forth in Section 3.4, Noise and Vibration, which would include any parks and recreational resources within that one-mile area; the effect of the sight of the construction or operation of the Project on recreational land uses within the Project viewshed, as set forth in Section 3.9, Visual Resources, which such viewshed analysis, covering a five-mile area, will document the Project's visibility from the recreational resources within the Recreational Study Area; and provide a description of any temporary access limitations to existing recreation areas as a result of construction at the Project site, as set forth in Section 3.10, Traffic and Transportation.

4.0 PROJECT ALTERNATIVES

4.1 Introduction

This Section outlines potential Project alternatives that will be subject to further study and evaluation in Exhibit 9 of the Article 10 Application. These alternatives include:

- "No Action" alternative;
- Alternative technology providers, sizes of equipment and configurations;
- Alternatives for locations, equipment layout, providers, cycles and arrangements;
- Alternative points of electrical interconnection and voltages of the new facility;

Danskammer Energy is a private facility applicant within the meaning of Article 10 and, therefore, may limit its consideration of alternative location sites to sites owned by, or under option, to it or its affiliates. No such alternative location sites exist.

As described more fully in Sections 1 and 2 of this Preliminary Scoping Statement ("PSS"), Danskammer Energy is proposing to repower its existing Danskammer Generating Station ("Station") located in the Town of Newburgh, Orange County, New York. The Project will result in a new modern energy center at the existing Station's site through the installation of a new, state-of-the art electric generator ("Project"). The new Project facility will provide a more efficient and cost effective facility to produce electricity while reducing existing environmental impacts on the surrounding communities and providing tax and other local benefits into the future. As designed, the repowered Project facility will interconnect with Central Hudson's 115 kilovolt ("kV") transmission system through an existing substation on the Project site. As such, no additional off-site electrical transmission system right-of-way will be required for the interconnection to Central Hudson's transmission system.

In accordance with 16 NYCRR §1001.9, Danskammer Energy has examined, and will continue to study, numerous alternative scenarios for repowering the existing Danskammer Generating Station. In addition to the "no action alternative", these include using various technologies and sizes of equipment; employing various locations for equipment layout and configurations; and various equipment electrical connection options. The chosen alternative will be based on the best use of the existing site, the needs of the existing New York Independent System Operator

("NYISO") system and Central Hudson connections, and the optimal environmental and community benefits. For purposes of the alternatives analysis, the existing site shall mean the 180 contiguous acres owned by Danskammer Energy on which the existing Danskammer Generating Station is situated.

4.2 Alternatives to Be Evaluated

4.2.1 "No Actioin" Alternative

The "no-action" alternative assumes that no new facility would be built and the existing facility will continue to operate in its current manner or in a revised operating mode as dictated by market demand. The facility would continue to dispatch any or all of the existing four generation units using "once through cooling water", while firing natural gas and/or ultra low sulfur diesel ("ULSD") under its existing operating permits. By contrast, the Project will eliminate the use of a "once-through" cooling system at the existing Station and the associated water withdrawal from the Hudson River. The new Project facility will also greatly improve generation efficiency as its heat rate will be among the lowest for combined cycle combustion turbine projects. The Project facility will include both the ability to start and ramp quickly and significant turn-down capability, allowing for efficiently meeting market demand now and in the future as renewable generation increases. Emissions from the Project on a per megawatt-hour basis are expected to be significantly lower than the existing Station facility, with carbon emissions from the Project as low as 50% of NYSDEC's recently proposed limits for existing power plants.

In particular, the alternatives analysis set forth in Exhibit 9 will evaluate the compatibility of the "no-action" alternative with the competitive market of NYISO, future retirements, and the environmental objectives of the State of New York and the local community. The evaluation will also determine if the existing Station is suitable for coordination with a market that is seeking to add a significant increase in renewable resources.

Lastly, the evaluation of the no action alternative will discuss why the proposed Project facility is better suited to promote public health and welfare including the recreational, cultural and other concurrent uses that the site may serve. As noted above, the Project's anticipated benefits, when compared against the "no-action" alternative include, among others, improved generation

efficiency, reduced air emissions on a per mega-watt basis, local benefits in the form of hundreds of construction jobs, continued property tax payments and related community benefits, and the elimination of the use of a "once-through" cooling system at the existing Station and any environmental impacts related to the associated water withdrawal from the Hudson River.

4.2.2 Alternative Technology Providers, Sizes of Equipment, Configurations and Renewable Energy Resources

The evaluation of this alternative considers the various technology providers and equipment sizes that could potentially be implemented to provide the same or similar capacity and energy from the existing site through various types of technologies and configurations. Danskammer has considered, and will continued to evaluate, various manufacturers and equipment platforms that include simple cycle, combined cycle, flexible cycles that are both simple and combined cycle operable, and hybrid configurations that could employ re-utilization of some portion of the existing steam turbine generators. The evaluation will consider the use of the existing site, all of the existing infrastructure in various arrangements, all of the existing interconnections and associated expected limitations of those systems. The evaluation will also consider the timing of the proposed facility versus other alternatives. Finally, this evaluation will examine what amount of renewable energy, if any, could be deployed on the site, including wind and solar energy, the energy production capacity of those resources and the specific local impacts arising from their use.

4.2.3 Alternatives for Locations, Equipment Layout, Cycles and Arrangements

This alternative will discuss the various locations on the existing site that may be suitable for the Project facility in any of the various arrangements that might be feasible. The evaluation will examine the layout and siting of both 1-on-1 and 2-on-1 combined cycle configurations with various Original Equipment Manufacturer ("OEM") equipment to determine optimal efficiency, best use of site space, and best match to the existing infrastructure and its limitations. The evaluation will also consider the best options for plant cooling system needs as well as the impacts of each option on the respective plant configuration based on equipment provider (gas turbine and steam turbine), configuration and cycle design. Finally, the evaluation will consider the options to provide the most efficient facility that is capable of both starting and ramping

quickly, and has significant turndown capability, allowing efficient and flexible response to market demands.

This part of the evaluation will further review the rationale for Danskammer Energy's technology choice and the configuration. This evaluation will also discuss how the particular technology will be deployed on the existing site to optimally use the existing infrastructure, with particular focus on minimizing land utilization, as well as utilization of the existing electrical and fuel connections. The facilities location analysis will examine various possible configurations of facility structures on the existing Station site, considering and balancing environmental and operational impacts associated with each configuration.

4.2.4 Alternative Points of Electrical Interconnection and Voltages of the New Facility

The evaluation will examine the possibility of connecting to 345 kV system connection points located on nearby properties off the existing site, as an alternative to the use of the existing 115 kV system on site. The analysis will examine the potential benefits of such an interconnection as well the impacts of that higher voltage facility to the local electrical system, the potential need for electrical and natural gas system upgrades, and the need for additional equipment at the site for interconnection to this system. It will also consider the potential impacts of interconnecting to the 345 kV system on the timing of the proposed in-service date as it relates to the needs of the region and the state as other New York generating facilities are planning to retire.

4.3 Basis for Evaluation

Exhibit 9 of the Article 10 Application will identify the advantages and disadvantages of each alternative examined. It will explain the reasons why the primary proposed design technology, layout of facilities, scale or magnitude, and timing are the best suited among the alternatives to promote the public welfare, including the recreational, cultural and other concurrent uses which the site may serve.

Exhibit 9 will further describe and evaluate the no action/no build alternative, including in such evaluation a statement of the reasons why the proposed Project facility is better suited to promote public health and welfare, including the recreational, cultural and other concurrent uses that the site may serve.

As set forth in Section 4.2.2 above, the alternatives analysis will also evaluate certain renewable energy supply source alternatives, including wind and solar energy. For each source and demand-reducing alternative identified, an evaluation of the comparative advantages and disadvantages of the proposed facility will be provided that considers:

(1) engineering feasibility;
(2) reliability and electric system effects;
(3) environmental impacts, including an assessment of climate change impacts(whether proposed energy use contributes to global temperature increase);
(4) economic considerations;
(5) environmental justice considerations;
(6) security, public safety and emergency planning considerations;
(7) public health considerations; and
(8) the objectives and capabilities of the applicant.

All of the analyses presented will be at a level of detail sufficient to permit a comparative assessment of the alternatives discussed. Exhibit 9 of the Article 10 Application will include a statement of the reasons why the proposed Project is best suited, among the alternative sources and measures evaluated, to promote public health and welfare, including the recreational, cultural, and other concurrent uses that the site and affected areas may serve.

Based on the alternative analyses performed to date, such reasons are expected to include, among others: redevelopment of an existing generation site; maximizing use of on-site infrastructure; generation of electricity more efficiently and cost-effectively; reduced air emissions on a per mega-watt basis through the use of state-of-the-art technology; the use of existing on-site interconnection facilities; the creation of hundreds of construction jobs; continued property tax and other benefits to the local community; and the elimination of the use of a “once-through” cooling system at the existing Station and any environmental impacts due to the associated water withdrawal from the Hudson River.

5.0 IDENTIFICATION OF DEMOGRAPHIC AND ECONOMIC ATTRIBUTES OF THE COMMUNITY

5.1 Introduction

The proposed Project has the potential to cause direct and indirect social and economic effects, including benefits, during construction as well as during operation. These potential effects will be addressed in Exhibit 27 of the Article 10 Application. Impacts to the socioeconomic environment due to construction of a facility are shorter in term, but typically have a greater impact than the impacts due to operation. This is primarily due to the influx of construction personnel and the secondary effects of capital spending and construction payroll. Socioeconomic impacts of the proposed Project will be evaluated in terms of demographics, economic status (i.e. income levels) and employment. Exhibit 28 of the Article 10 Application will address potential significant and disproportionate environmental impacts of the proposed Project on low-income and minority populations.

This section presents an overview of the existing socioeconomic characteristics including the demographic, economic and physical attributes, of the Project area, and the issues and information that will be presented in Exhibit 27 to the Article 10 Application, as well as an overview of the environmental justice evaluation that will be conducted in accordance with Article 10 and New York State Department of Environmental Conservation ("NYSDEC") Part 487 requirements and will be included in Exhibit 28 to the Article 10 Application.

5.2 Socioeconomics

5.2.1 Existing Demographic Characteristics

Existing data sources, such as U.S. Census data, were reviewed to assist in identifying the socioeconomic characteristics of the area. Population characteristics for the Town of Newburgh and Orange County are shown in Tables 5.1-1 and 5.1-2 on the following page. As shown below, both the Town of Newburgh and Orange County showed slight overall population gains between 2000 and 2010.

While both municipalities are predominantly white, there are growing minority populations in these areas. Between 2000 and 2010, both the Town and County experienced an increase in the

black, Asian and Hispanic populations. The Town of Newburgh has black and Hispanic populations that respectively make up 12.2% and 5% of the total population. Finally, for all of Orange County, blacks and Hispanics minority groups contribute 10.2% and 6.6% of the total population, respectively.

Table 5.1-1. Population Characteristics in Town of Newburgh

Race	Town of Newburgh		
	2000 Census Results	2010 Census Results	Percent Change
Total Population	27,568	29,801	2,233
Percent White	85.1%	76.5%	-9%
Percent Black	7.6%	12.2%	5%
Percent American Indian and Alaska Native	0.1%	0.3%	0%
Percent Asian and Pacific Islander	2.1%	3.0%	1%
Percent Other Race	9.6%	15.7%	6%
Percent Hispanic	3.1%	5.0%	2%
Percent of Two or More Races	2.1%	3.0%	1%

Table 5.1-2. Population Characteristics in Orange County

Race	Orange County		
	2000 Census Results	2010 Census Results	Percent Change
Total Population	341,367	372,813	31,446
Percent White	83.7%	77.2%	-7%
Percent Black	8.1%	10.2%	2%
Percent American Indian and Alaska Native	0.4%	0.5%	0%
Percent Asian and Pacific Islander	1.5%	2.4%	1%
Percent Other Race	11.6%	18.0%	6%
Percent Hispanic	4.1%	6.6%	3%
Percent of Two or More Races	2.2%	3.1%	1%

Source: United States Census Bureau: NY State Data Center and American Fact Finder, November 2018

5.2.2 Potential Socioeconomic Impacts

The proposed Project is not anticipated to have any direct adverse impact on population or income levels, and the proposed Project will not result in any displacements. The Project is anticipated to have positive impacts on the local economy, as described further below. An environmental justice evaluation will also be made, as detailed below in Section 5.3, to determine whether the proposed Project could result in disproportionately high and adverse human health or environmental effects on minority populations and low-income populations. The potential socioeconomic benefits include:

A. DIRECT, ON-SITE CONSTRUCTION WORK-FORCE IMPACTS

Direct socioeconomic benefits will be associated with construction and operation of the proposed Project. During construction, numerous construction jobs will be created, resulting in the employment of specialized craftspersons, equipment operators, truck drivers, laborers and electricians, among others. Estimates of the construction work-force will be provided in Exhibit 27 of the Article 10 Application and will include a breakdown of the anticipated on-site workforce by discipline for each quarter during the construction period, along with an estimate of the peak construction employment level. These estimates will be prepared based on Danskammer and its principals' experience with similar projects, and the operation of the existing plant, and will be customized to the Project. Employment benefits will continue throughout the full duration of construction activities.

B. DIRECT EFFECTS:

Direct effects of the Project include payroll and other expenditures. Local expenditures within the general area of Orange County will occur during the construction phase and are likely to include construction materials such as concrete, gravel, and re-bar. Estimates of direct spending will be developed by the Danskammer and will be provided in Exhibit 27 of the Article 10 Application.

C. INDIRECT AND INDUCED EFFECTS:

Indirect effects arise from business to business spending, rather through direct spending by Danskammer. Induced effects occur as money is recirculated through household spending

patterns, generating additional local economic activity. Estimates of indirect and induced effects will be modeled with a previously accepted software package such as the IMPLAN model or Bureau of Economic Affairs' RIMS II Economic Multipliers and will be presented in Exhibit 27 of the Article 10 Application. The selected model will be customized to reflect the direct costs as estimated by Danskammer. Danskammer will provide as much transparency with regards to the multipliers as possible.

D. POST-CONSTRUCTION DIRECT EFFECTS:

Annual expenditures for direct operations and maintenance ("O&M") expenses include parts, supplies, road maintenance, landscape services, fuel, vehicle maintenance, and tools, among others. Direct effects associated with O&M activities will be estimated by Danskammer based on the characteristics of the proposed Project and Danskammer's and its principals' experience with similar projects and the existing Danskammer Generation Station. These estimates will be presented in Exhibit 27 of the Article 10 Application.

E. POST CONSTRUCTION SECONDARY EMPLOYMENT IMPACTS:

Secondary (or indirect and induced) economic effects will result from O&M activities. Estimates of indirect and induced effects will be modeled with the RIMS II model and will be presented in Exhibit 27 of the Article 10 Application. The IMPLAN or RIMS II model will be customized to reflect the direct costs as estimated by Danskammer and will use local multipliers. Danskammer will provide as much transparency with regard to the multipliers as possible.

F. CONSTRUCTION AND OPERATION SCHOOL DISTRICT IMPACTS:

Danskammer will strive to hire local employees to fill temporary construction positions, as well as permanent operations jobs, to the extent possible. Further, families do not typically relocate for temporary construction jobs. As a result, there will be few, if any, new students enrolled in the area's schools as a result of construction, and thus no anticipated adverse impact to the school districts in the area.

G. CONSTRUCTION AND OPERATION IMPACTS OF MUNICIPAL, PUBLIC AUTHORITY, AND UTILITY SERVICES:

Danskammer will coordinate with the Town of Newburgh, Orange County, utilities and emergency services providers to ensure that public services and health and safety are not negatively impacted by the Project. The Orange County Sheriff's office, NY State Police, and local fire and ambulance departments have adequate resources to monitor any vehicular traffic from construction and operations activities on area roads, to address routine medical needs and to address any law enforcement issues that may occur. Project employees will be trained in fire safety and high voltage, as the employees for the existing plant are trained. It is anticipated that local fire and ambulance personnel would primarily be attending any injuries or medical situations at ground level. Danskammer will continue to coordinate with municipal officials and emergency services providers and provide an update to this information in Exhibit 27 of the Article 10 Application, including any training needs or equipment deficiencies that may be identified in order to address any contingency plans for emergency response.

H. DESIGNATED TAX JURISDICTION, TAX AND PAYMENT IMPACTS:

The following entities have tax assessment jurisdiction over the Project site:

- Orange County
- Town of Newburgh
- Marlborough School District

Danskammer anticipates entering into a Payment in Lieu of Taxes Agreement with the Orange County Industrial Development Authority ("OCIDA") for the Project, as it has done for the existing plant. Danskammer will continue to coordinate with local officials and provide an update in Exhibit 27 of the Article 10 Application based upon publicly available information.

I. SMART GROWTH PUBLIC INFRASTRUCTURE COMPLIANCE IMPACTS:

New York Environmental Conservation Law ("ECL") Article 6, Section 107 requires that the construction of new or expanded "public infrastructure" meet certain smart growth criteria. The Project is a privately funded, merchant energy project and as such is not subject to ECL §6-0107.

Nevertheless, the Article 10 Application will include a discussion of the Project's consistency with the criteria, as appropriate.

Exhibit 27 to the Article 10 Application will quantify the employment and secondary economic benefits of the Project through the use of IMPLAN or the Bureau of Economic Affairs' RIMS II Economic Multipliers. These models will generate figures that represent economy-wide impact of a change in economic activity in the Town of Newburgh and Orange County. In selecting the reasonable economic multipliers that will be used in the selected model to determine the economic impact of the Project, Danskammer Energy will prepare or obtain various estimates, or range of estimates, of local spending for construction materials and components for the Project as available, and a determination of what components and materials the region is capable of providing.

5.2.3 Extent and Quality of Information Required for Evaluation

Danskammer proposes to collect, evaluate and provide the following information to support and prepare the full socioeconomic evaluation of the Project, which will be included in Exhibit 27 of the Article 10 Application in accordance with §1001.27:

> (a) An estimate of the average construction work force, by discipline, for each quarter, during the period of construction; and an estimate of the peak construction employment level;
>
> (b) An estimate of the annual construction payroll, by trade, for each year of construction and an estimate of annual direct non-payroll expenditures likely to be made in the vicinity of the facility (materials, services, rentals, and similar categories) during the period of construction;
>
> (c) An estimate of the annual secondary employment and economic activity likely to be generated in the vicinity of the facility by the construction of the plant. This analysis shall state the basis of any economic multiplier factor or other assumption used;
>
> (d) An estimate of the number of jobs and the on-site payroll, by discipline, during a typical year once the plant is in operation, and an estimate of other expenditures likely to be made in the vicinity of the facility during a typical year of operation;
>
> (e) An estimate of the annual secondary employment and economic activity likely to be generated in the vicinity of the facility by its operation;
>
> (f) An estimate of incremental school district operating and infrastructure costs due to the construction and operation of the facility, this estimate to be made after consultation with the affected school districts;

(g) An estimate of incremental municipal, public authority, or utility operating and infrastructure costs that will be incurred for police, fire, emergency, water, sewer, solid waste disposal, highway maintenance and other municipal, public authority, or utility services during the construction and operation phases of the facility;

(h) An identification of all jurisdictions (including benefit assessment districts and user fee jurisdictions) that levy real property taxes or benefit assessments or user fees upon the facility site, its improvements and appurtenances and any entity from which payments in lieu of taxes will or may be negotiated;

(i) For each jurisdiction, an estimate of the incremental amount of annual taxes (and payments in lieu of taxes, benefit charges and user charges) it is projected would be levied against the post-construction facility site, its improvements and appurtenances;

(j) For each jurisdiction, a comparison of the fiscal costs to the jurisdiction that are expected to result from the construction and operation of the facility to the expected tax revenues (and payments in lieu of taxes, benefit charge revenues and user charge revenues) generated by the facility;

(k) An analysis of whether all contingency plans to be implemented in response to the occurrence of a fire emergency or a hazardous substance incident can be fulfilled by existing local emergency response capacity, and in that regard identifying any specific equipment or training deficiencies in local emergency response capacity; and,

(l) A detailed statement indicating how the proposed facility and interconnections are consistent with each of the state smart growth public infrastructure criteria specified in ECL 6-0107, or why compliance would be impracticable.

In describing the regional labor force in Exhibit 27 of the Article 10 Application, multiple sources of information will be utilized, and depending on the data source, for each category of information or information collected for a particular geographic area, the collection period may be presented on a monthly or quarterly basis. The citations for sources of economic and demographic information will include the period of data collection and its geographic region.

5.3 Environmental Justice Evaluation

5.3.1 Introduction

The intent of an environmental justice ("EJ") analysis is to determine whether the construction and operation of the proposed Project would have a significant adverse and disproportionate effect on an EJ area. The concept of performing an EJ analysis for the proposed Project is related to the issuance of Executive Order ("EO") 12898, entitled "Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations" (February 11, 1994). EO 12898 requires federal agencies to consider disproportionate adverse human health

and environmental impacts on minority and low-income populations. Per Public Service Law ("PSL") §164 and the Article 10 regulations, as part of the Article 10 Application, the applicant must submit:

- An identification and evaluation of significant and adverse disproportionate environmental impacts of the proposed Project facility, on an EJ area or overburdened community, if any, resulting from the Project facility's construction and operation;
- A cumulative impact analysis of air quality;
- A comprehensive demographic, economic, and physical description of the community within which the Project facility is located, compared and contrasted to the County and adjacent communities within the County; and
- A statement summarizing the final EJ analysis and the rationale used for conclusions made related to EJ issues.

The applicant must complete a limited set of EJ studies and analyses during the pre-application stage (i.e., define the EJ areas within the preliminary scoping statement) in order to submit the required evaluation of disproportionate environmental impacts with the application as required by PSL §164. In order to provide a framework for preparing the EJ analysis, the NYSDEC promulgated 6 NYCRR Part 487, Analyzing Environmental Justice Issues in Siting of Major Electric Generating Facilities Pursuant to Public Service Law Article 10. Part 487 applies only to applicants seeking a Certificate for construction and operation of an action requiring review under PSL Article 10.

The EJ assessment included within the Article 10 Application will follow the framework established by Part 487. Danskammer Energy will:

1. Determine the appropriate Impact Study Area ("ISA"), which is defined under Part 487 as the geographic area around the location of the proposed Project facility in which the population is likely to be impacted by at least one potentially significant adverse environmental impact resulting from the construction and/or operation of the proposed Project facility that is different in type, scope or magnitude compared to the population located in the broader geographic area surrounding the proposed Project facility.
    a. The ISA may be a half-mile radius around the proposed location of the Project facility, or a different radius, as appropriate, based on Project site-specific information regarding the nature, magnitude and scope of the environmental impacts involved, the range of those impacts on environmental resources and the geography of the area surrounding the proposed Project facility.

2. Confirm whether the ISA includes one or more EJ areas.
    a. Definition of an EJ area will be consistent with Part 487.5 - Determining Presence of an Environmental Justice Area, using reliable U.S. Census data or other generally accepted and reasonably available demographic data.
3. Identify appropriate adjacent communities (or "Comparison Areas") necessary to evaluate if there is a significant and adverse disproportionate environmental impact upon the EJ area.
4. Analyze the cumulative emissions impacts of the proposed Project facility and other relevant facilities/sources on air quality within a half-mile radius of the facility, or other radius as determined by Part 487 requirements.
    a. Danskammer Energy will address federal criteria pollutants and appropriate non-criteria pollutants, including mercury, for which there is emissions data readily available.
    b. Relevant sources include any facility with a compliant PSL Article 10 Application filed with the Siting Board within six miles of the EJ area, major air sources both operating and proposed with recently issued NYSDEC permit and located within six miles of the EJ area, and other appropriate air sources with the potential to impact the EJ area.
5. Describe and compare the specific demographic, economic and physical characteristics of the EJ area(s) to the Comparison Areas ("CAs").
    a. The CAs will include Orange County, in which the facility is proposed to be located.
    b. The CAs will also include adjacent communities, defined as the the geographic area contiguous to and surrounding the ISA of a radius equal to the radius of the ISA.

    The descriptions of the ISA and the CAs shall incorporate reasonably available data on population, racial and ethnic characteristics, income levels, physical/environmental conditions, and public health data, including publicly available data on asthma and cancer.
6. Utilize a generally accepted statistical methodology to assess existing environmental burdens affecting the EJ area.
    a. The existing burdens of the EJ area will be compared, along with project-related impacts, to the existing burdens of the CAs to evaluate adversity and disproportionality using appropriate statistical/spatial analysis.
    b. The methodology will provide a framework for the discussion of disproportionate or adverse impacts in the EJ areas and the determination of any mitigation measures, if necessary.

5.3.2 Preliminary Scoping Statement Requirements

The applicant must include in the PSS the following:

- A preliminary description of the size and location of the ISA based on the criteria set forth in Part 487.4; and

- whether or not one or more EJ areas are present within the ISA determined pursuant to subdivisions (b) and (c) of Part 487.5, and, if an EJ area(s) is present, the location and description of the EJ area(s).

Existing data sources will be reviewed to identify the socioeconomic characteristics of the Town of Newburgh and Orange County as a whole. Specific characteristics will include: total population; racial and ethnic background; number of persons below poverty level; and household income. For comparative purposes, similar statistics will be obtained for Orange County. Data sources will include the most recent decennial Census and American Community Survey data available from the U.S. Bureau of the Census.

The EJ evaluation will take into consideration the demographic, socioeconomic, physical/environmental, and public health characteristics of the ISA and CAs, as well as the area of potential direct and indirect impacts from the proposed Project, most notably air quality and noise impacts.

The following sections detail the PSS requirements and the proposed methodology to prepare the EJ analysis.

5.3.3 Environmental Justice and Comparison Areas

The first step in an EJ analysis is to identify an ISA, which is defined as the geographic area within a one-half mile radius (or greater) surrounding the location of the proposed major electric generating facility (proposed for EJ ISA purposes as the center point of the major air emission points from the facility). For the Danskammer Energy Center, Danskammer Energy proposes to use an ISA of 5 miles, due to the fact that the maximum and most significant air pollutant concentrations are anticipated to be within 5 miles of the facility, thus, extending the ISA beyond the minimum prescribed one-half mile. An area is considered an EJ area if US Census data shows there is a minority or low-income population above the EJ thresholds for minority population of 51.1% in an urban area and 33.8% in a rural area and for poverty of 23.59%. Figure 5.3-1 illustrates the block groups located within the 5-mile ISA that fall within or above minority and/or poverty thresholds. This ISA is then compared and contrasted with the CAs, defined as those communities located within a five mile radius of the ISA, or within ten miles from the proposed Project facility. Figures 5.3-2 and 5.3-3 show minority and poverty

percentages for all block groups within the ISA, as well as the CAs, respectively. In order to assess the populations of the ISA and CAs, Figures 5.3-4 and 5.3-5 show the total population and population density, respectively, of each block group. Figure 5.2-1 indicates that the communities of the City of Newburgh, City of Beacon, Town of Fishkill, Town of Newburgh, and Town of Plattekill are identified as EJ areas within the ISA.

For the identified EJ areas, an analysis will be conducted by Danskammer Energy to determine whether potentially disproportionate and adverse environmental impact(s) related to the proposed action are likely to affect them. The analysis will identify and map all potential adverse environmental impact(s), discerning where possible, varying levels of impact through air quality modeling isopleth maps of air quality concentrations, or other tools such as Geographic Information System ("GIS") mapping for other environmental impact categories relevant to assessing the impacts at the EJ area.

Figure 5.3-1. Environmental Justice Screening Area

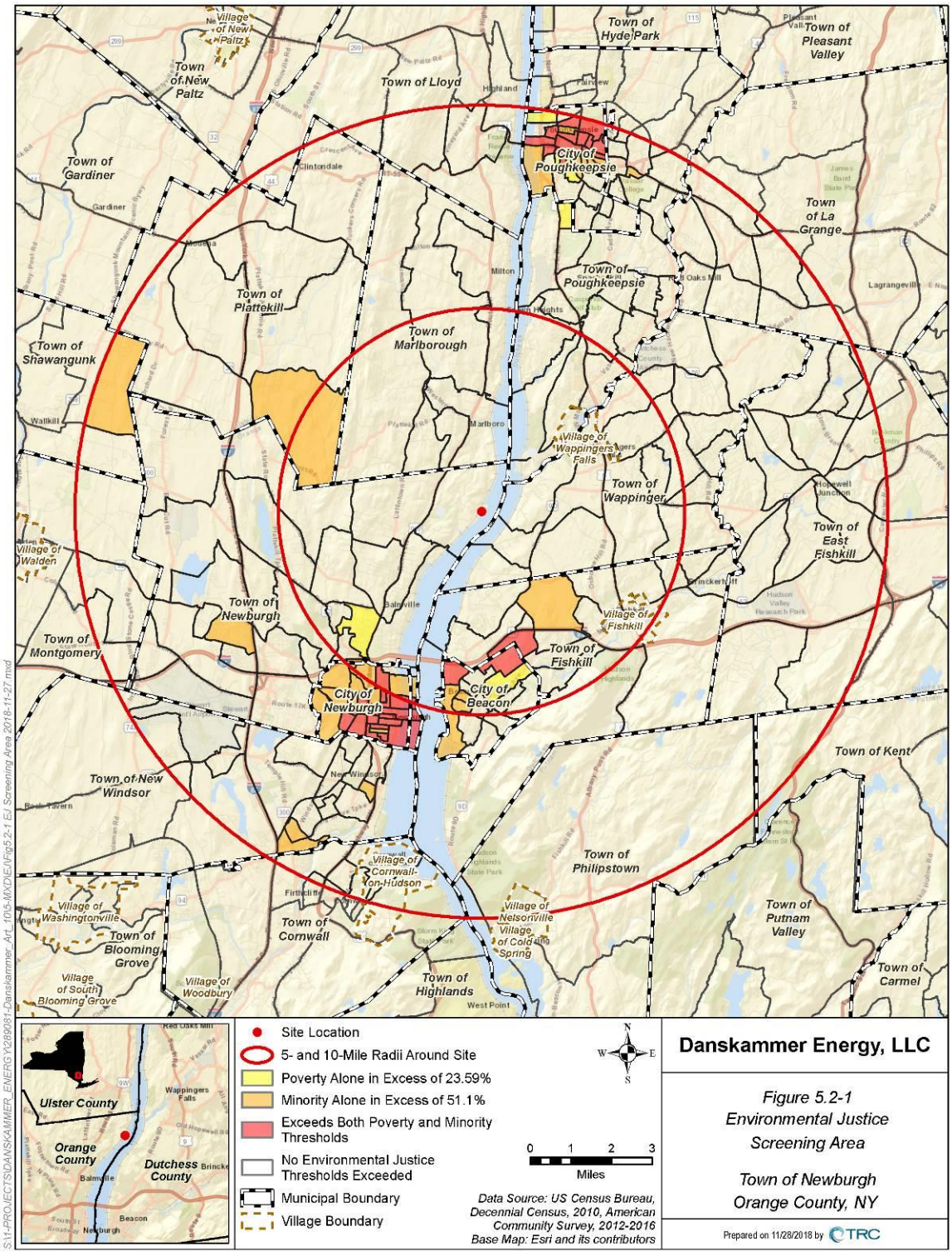


Figure 5.3-2. Environmental Justice Block Groups Minority Percentage

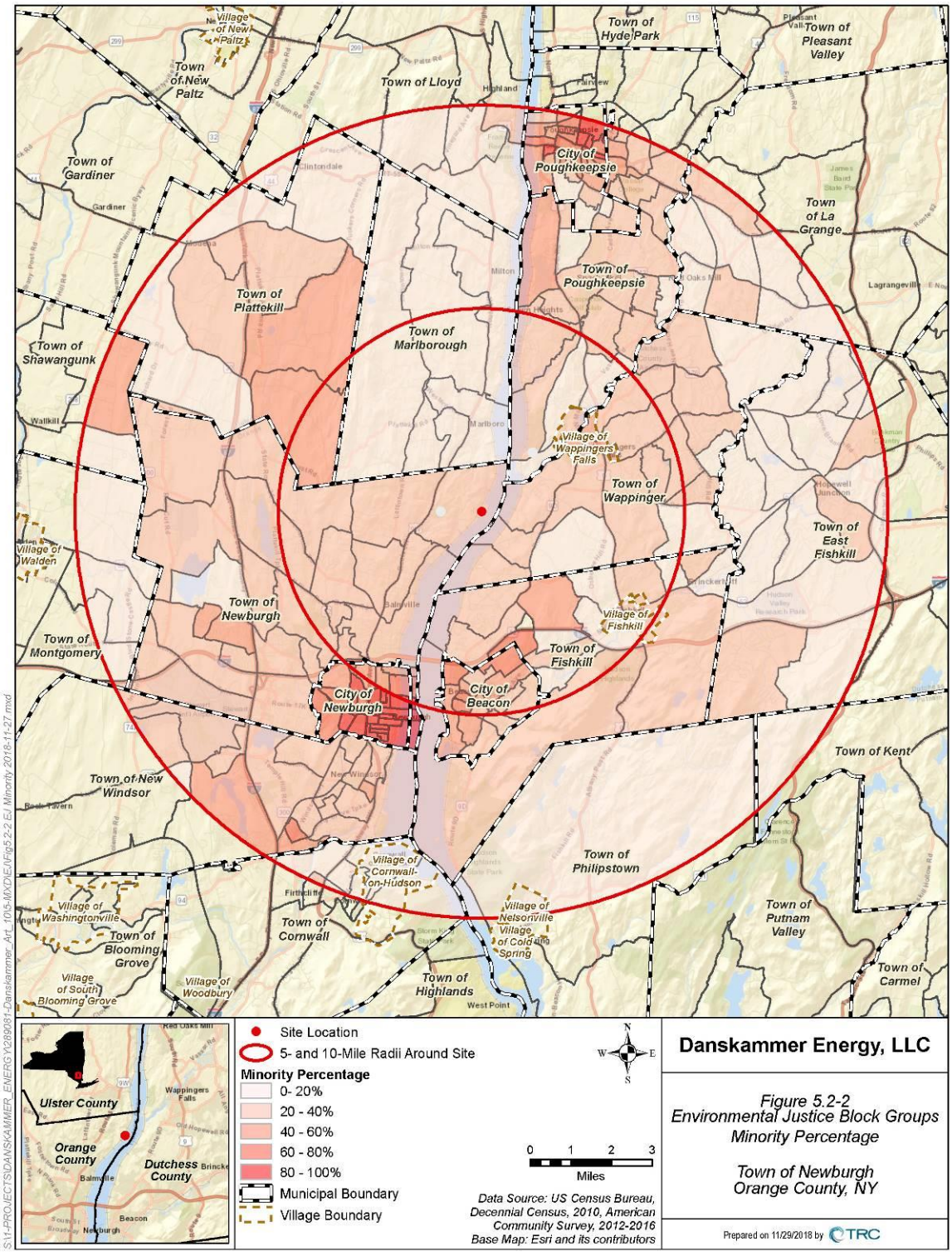


Figure 5.3-3. Environmental Justice Block Groups Poverty Percent

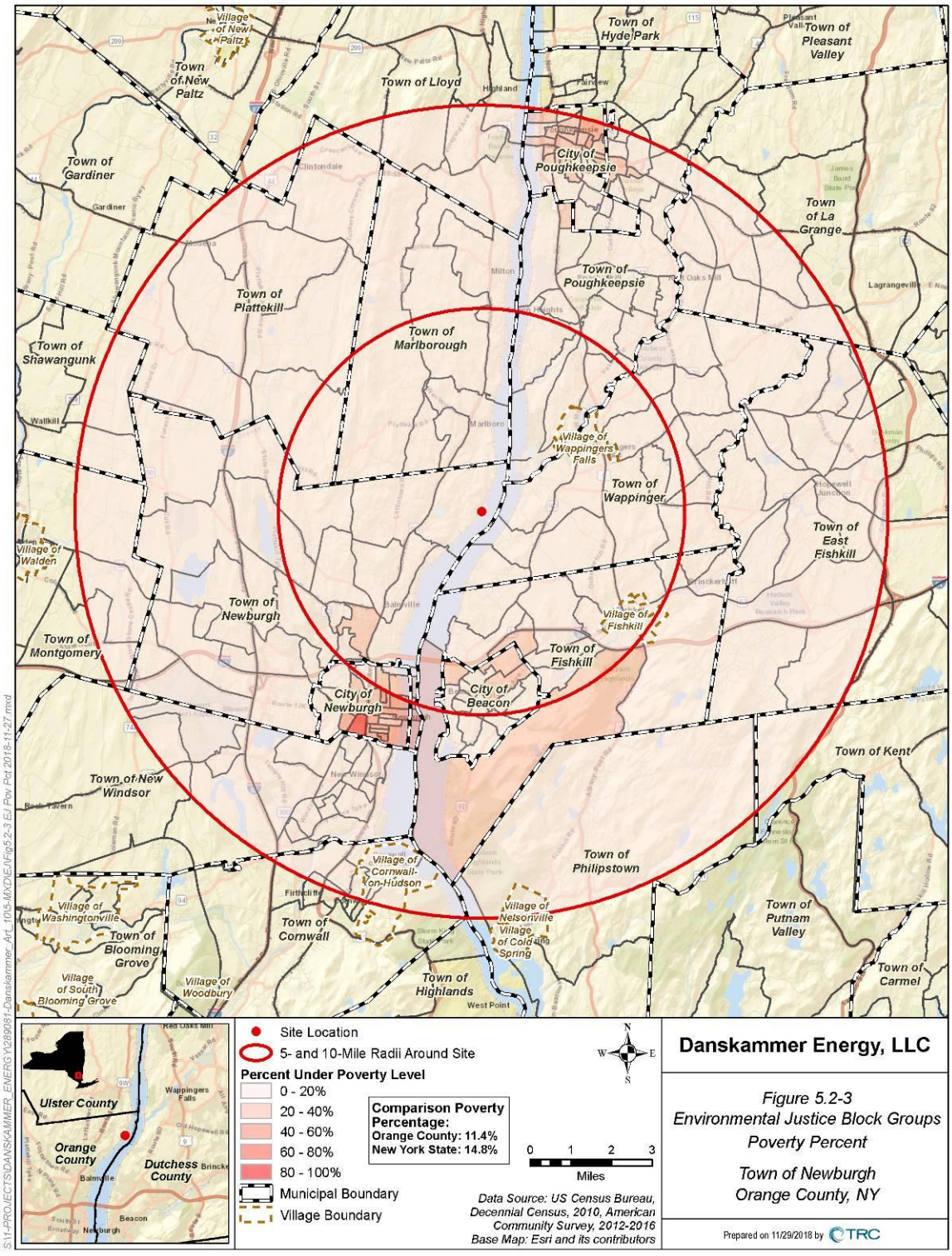


Figure 5.3-4. Environmental Justice Block Groups Total Population

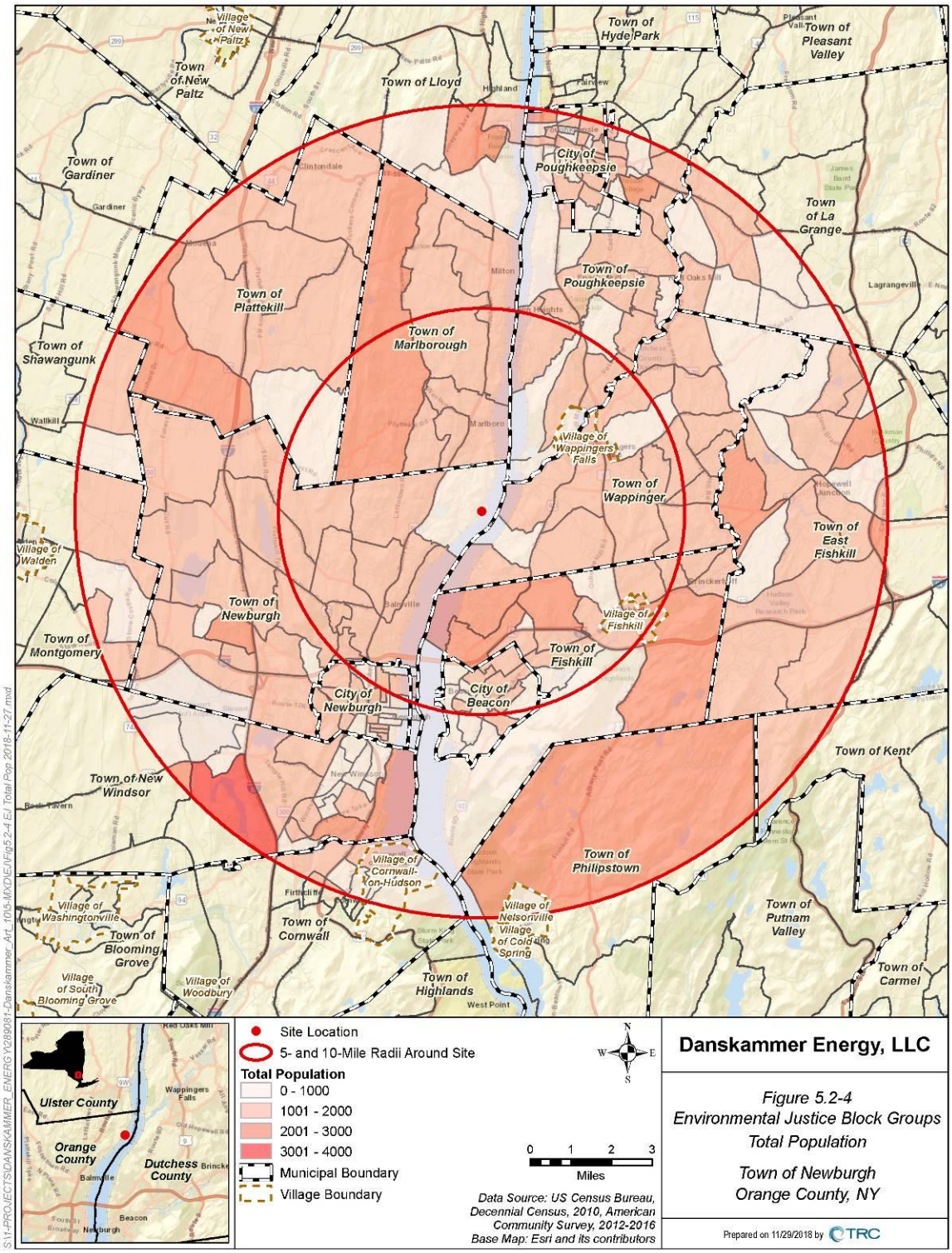
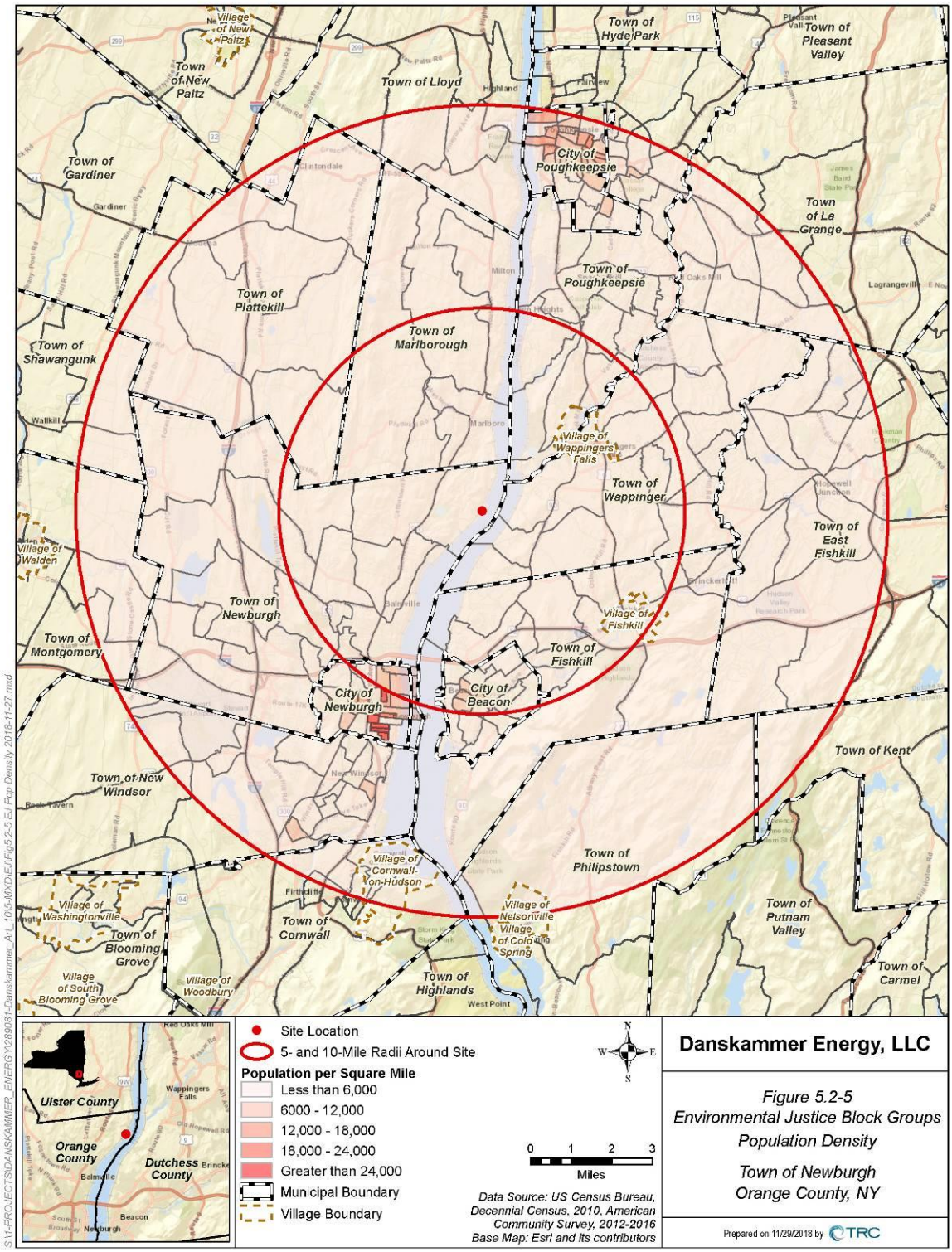


Figure 5.3-5. Environmental Justice Block Groups Population Density



5.3.4 Cumulative Impact Analysis of Air Quality

Part 487 stipulates that an applicant subject to Article 10 shall conduct a cumulative impact analysis of air quality in accordance with an air modeling protocol approved by the NYSDEC and consistent with the requirements of Section 487.7. Danskammer Energy proposes to perform such an analysis incorporating the air contaminant emissions of those pollutants for which the proposed action has a significant air quality impact, i.e., the maximum concentrations are above the recognized Prevention of Significant Deterioration ("PSD") Significant Impact Levels.

This analysis will be performed within a circular area extending from the location of the proposed Project facility to a radius of 10 miles (16 kilometers) and will be referred to as the EJ Air Impact Area ("EJAIA"). Danskammer Energy anticipates that the actual distances to maximum modeled impacts for the various criteria pollutants emitted by the Project facility will encompass an area smaller than the EJAIA. This analysis will examine the impacts from all criteria pollutants (except for ozone, which is formed in the atmosphere by the precursor pollutants of NOx and VOCs), mercury and other heavy metals, and several non-criteria (i.e., air toxic) pollutants. This analysis will take into account emissions from the proposed Project facility alone.

As discussed in detail in Section 3.2 Air Resources, the air quality impacts of the Project will be assessed using a comprehensive air quality dispersion modeling analysis. The USEPA air quality model – AERMOD – will be used to determine the air quality impact within the ISA and the CAs. The relative air quality impacts will be presented in graphical form as concentration contours overlain on a site aerial indicating the EJAIA. Modeling will be conducted in accordance with an air quality modeling protocol to be approved by the NYSDEC.

Danskammer Energy will examine impacts of the Project combined with (a) any additional Article 10 facilities that have submitted an Article 10 applications determined compliant by the Siting Board and that are located within the EJAIA plus six miles (10 km), (b) any major stationary source that is permitted, but has not yet commenced operations, and that is located within the EJAIA plus six miles (10 kilometers), and (c) any other permitted stationary source located within the EJAIA whose emissions meet or exceed the significant project thresholds in

Tables 4 and 6 of the NYCRR sections 231-13.4 and 231-13.6, shown as Tables 5.3-1 and 5.3-2 (located at the end of this chapter). The cumulative impact analysis, depending on NYSDEC's assessment of the Project site and its discretion, may also include an air emission source located contiguous to the Project and for which the necessary emissions data is reasonably available and acceptable to NYSDEC. The total cumulative impact on air quality from the proposed Project, reasonably available background air quality pollutant concentrations, and the other existing air emission sources described above will be assessed for impact to the EJAIA.

The impacts associated with the EJAIA will be used by Danskammer Energy in order to evaluate the potential significant and adverse impacts of the proposed Project on the ISA, and the potential significant and adverse disproportionate impacts of the proposed Project on the ISA as compared with the CAs.

5.3.5 Comprehensive Demographic, Economic and Physical Descriptions

The community character and environmental setting of the Impact Study Area and the Comparison Areas will be determined through evaluation of population data and physical/environmental conditions of each area. In order to prepare comprehensive physical descriptions for the ISA and the CAs, an assessment of the number and concentration of the following within a 10-mile radius of the proposed Project, using data obtained either from online sources such as the New York State GIS Clearinghouse or a specialty environmental database company (e.g. Environmental Data Resources, Inc – EDR) will be prepared.

- For industrial or municipal facilities permitted pursuant to Titles 7 or 8 of ECL Article 17 - GIS data on State Pollutant Discharge Elimination Systems ("SPDES") permit sites.
- For facilities registered pursuant to Title 10 of ECL Article 17 - GIS data on registered petroleum bulk storage aboveground and underground tank facilities (PBS AST and PBS UST sites).
- For facilities permitted pursuant to ECL Article 19 - GIS data on permitted air facilities (AIRS, US AIRS MINOR, and US AIRS (AFS)).
- For facilities permitted or registered pursuant to Titles 7 or 9 of ECL Article 27 - GIS data on registered solid waste management facilities and hazardous waste treatment storage and disposal facilities (SWF/LF and RCRA-TSD sites).
- For facilities required to file an annual report pursuant to ECL section 27-0907(6) - GIS data on registered large quantity generators of hazardous waste (RCRA-LQG sites).

- For sites regulated pursuant to Titles 13 or 14 of ECL Article 27, (inactive hazardous waste disposal sites and brownfield cleanup sites).
- For projects undertaken pursuant to Title 5 of ECL Article 56 (environmental restoration projects) - GIS data, as applicable, on National Priority List ("NPL"), Proposed NPL, CERCLIS, Inactive Hazardous Waste Disposal sites in New York State (State Hazardous Waste Sites or "SHWS"), Environmental Restoration Program sites, Brownfields sites, Open Dump Inventory sites, Toxic Release Inventory System ("TRIS") sites, Toxic Substances Control Act ("TSCA") sites, Risk Management Plan sites, Hazardous Substance Waste Disposal Site Inventory sites, and Manufactured Gas Plant sites.
- For facilities regulated pursuant to Title 23 of ECL Article 27 (vehicle dismantling facilities.
- For facilities registered pursuant to ECL Article 40 - GIS data on registered chemical bulk storage aboveground and underground tank facilities (CBS AST and CBS UST sites).
- For facilities subject to corrective action pursuant to ECL section 71-2727 - GIS data on solid or hazardous waste management facilities subject to Resource Conservation and Recovery Act corrective action.
- For sites participating in the Department's voluntary cleanup program - GIS data Voluntary Cleanup Program facilities ("VCP" sites); and
- For facilities licensed pursuant to Article 12 of the Navigation Law - GIS data on registered major oil storage facilities ("MOSF" sites).

An assessment of demographic and economic characteristics within the 10-mile radius will be prepared utilizing data from the U.S. Census. Additionally, an assessment will be prepared for public health data (e.g. asthma hospitalizations, cancer incidence rates) using procedures established in the New York State Department of Health ("NYSDOH") Document "Guidance for Health Outcome Data Review and Analysis Relating to NYSDEC Environmental Justice and Permitting".

Such comprehensive demographic, economic and physical descriptions for the ISA and CAs will also include reasonably available data on total population, population density, racial and ethnic characteristics, income levels, open space (including land dedicated to public parks, playgrounds, playing fields and waterfront access), historic and cultural resources and community or neighborhood character, visual resources, water quality, noise and traffic.

5.3.6 Evaluation of Significant and Adverse Environmental Impacts

Danskammer Energy will use generally accepted statistical methods (e.g., confidence intervals) to evaluate the physical conditions and public health data identified above for the ISA and each CA to evaluate whether and to what extent the ISA has significant and adverse disproportionate environmental impacts. In evaluating the significance of any adverse environmental and public health impacts of the proposed facility, Danskammer Energy will compare potential impacts against regulatory thresholds or standards, as applicable, and will consider the scope, magnitude, frequency, and duration of the impacts on the environment, public health, and quality of life in the ISA, including the nature of the impacts on sensitive populations (i.e., children and the elderly).

In the event that the evaluation indicates the proposed Project facility is likely to result in or contribute to any significant and adverse disproportionate environmental impact in the ISA during its construction or operation, Danskammer Energy will identify the specific measures it will take to avoid, offset or minimize each impact for the duration the Certificate is issued to the maximum extent practicable using verifiable measures.

5.3.7 Statement of Environmental Justice Issues

Danskammer Energy will prepare a Statement of Environmental Justice Issues consisting of a summary of the EJ analysis, including the evaluation of any significant and adverse disproportionate environmental impacts in the ISA. The statement will provide a detailed explanation of the rationale for any conclusions made related to EJ issues and will identify the individual studies and investigations relied upon in conducting each element of the EJ analysis and shall state why the proposed measures will, to the maximum extent practicable, avoid, minimize or offset any identified significant and adverse disproportionate impacts, with a description of how such measures can be verified.

Table 5.2-1. Significant Project Thresholds, Significant Net Emission Increase Thresholds, and Offset Ratios for PM Nonattainment Areas

Area/Contaminant Classification	Significant Project Threshold (tpy)[2]	Significant Net Emission Increase Threshold (tpy)	Offset Ratio
Moderate			
PM-10[1]	15	15	At least 1:1
No classification			
PM-2.5[1]	10	10	At least 1:1
PM-2.5 Precursors SO_2 NO_x	 40 40	 40 40	 At least 1:1 At least 1:1

[1] both filterable and condensable fractions are to be included (see definitions of PM-10 and PM-2.5 in Part 200 of this Title).
[2] project emission potential threshold.
Source: §231-13.4 Table 4

Table 5.2-2. Significant Project Thresholds and Significant Net Emission Increase Thresholds for Attainment and Unclassified Areas

Contaminant	Significant Project Threshold [1]/ Significant Net Emission Increase Threshold
Carbon monoxide	100 tpy
Nitrogen oxides	40 tpy
Sulfur dioxide	40 tpy
Particulate matter	25 tpy
Particulate matter: PM-10 emissions2	15 tpy
Particulate matter: PM-2.5 emissions2	10 tpy
Ozone: as VOCs or NOx	40 tpy
Lead (elemental)	0.6 tpy
Fluorides	3 tpy
Sulfuric acid mist	7 tpy
Hydrogen sulfide (H2S)	10 tpy
Total reduced sulfur (including H2S)	10 tpy
Reduced sulfur compounds (including H2S)	10 tpy
Greenhouse Gases	Any increase and 75,000 tpy3
Any other regulated NSR contaminant	Any increase

[1] project emission potential threshold.
[2] both filterable and condensable fractions are to be included
[3] measured as CO_2 equivalents.
Source: §231-13.4 Table 6

6.0 FEDERAL, STATE AND LOCAL REGULATIONS AND OTHER APPLICATIONS AND FILINGS

6.1 Introduction

This section presents a preliminary identification of the required state, federal and local permits, approvals, and consultations that will be required to be obtained or conducted by Danskammer Energy in support of the Project and background information pertaining to the local and state laws and regulations and other applications and filings that will be addressed in Exhibits 31, 32, and 33 of the Article 10 Application. Exhibits 31 and 32 of the Article 10 Application will address Local Laws and Ordinances and State Laws and Regulations, respectively, applicable to the proposed Danskammer Energy Center. Exhibit 33 will present a summary of other regulatory and/or governmental applications and filings, beyond the Article 10 Application, that are to be submitted in support of the proposed repowering. Additionally, pursuant to the Preliminary Scoping Statement ("PSS") requirements, as the existing Danskammer Generating Station ("Station") site is located in the designated New York State Coastal Zone, this section also will present a preliminary analysis of the Project's conformance with relevant provisions of the Coastal Zone Management Act. Exhibit 4 of the Article 10 Application will provide this analysis in further detail.

6.2 Required State, Federal and Local Permits, Approvals, and Consultations

As will be set forth in Exhibit 33 to the Article 10 Application, development and operation of the Project may require or involve the discretionary federal, state, and local regulatory agency notifications, actions, permits, and approvals identified in Table 6.2-1.

Table 6.2-1. Summary of Anticipated Major Environmental Permits and Approvals/Involved Agencies

Agency	Department	Permit/Approval	Agency Action
FEDERAL			
Federal	US Army Corps of Engineers ("USACE")	Section 10 of the Rivers and Harbors Act of 1899/ Section 404 Clean Water Act	Required for structures or work in waters of the United States, including navigable waters. Level of permitting (IP or NWP) will be based on impacts resulting from specific construction activities.
Federal	USACE / New York State Historic Preservation Office	Section 106 of the National Historic Preservation Act	Provides determination if the Project will have adverse effects on historic properties.
Federal	USACE / U.S. Fish and Wildlife Service	Section 7: Threatened and Endangered Species Review and Consultation	Provides a determination of whether Federally-regulated species or their habitats are potentially present onsite. "Determination of No Effect" required to support issuance of USACE permits.
Federal	USACE / National Ocean and Atmospheric Administration Fisheries	Section 7: Threatened and Endangered Species Review and Consultation	Provides a determination of whether Federally-regulated species or their habitats are potentially present onsite. "Determination of No Effect" required to support issuance of USACE permits.
Federal	Federal Aviation Administration ("FAA")	Determination of No Hazard to Air Navigation	Required pursuant to FAA Regulations, Part 77- Objects Affecting Navigable Airspace for construction cranes or other elevated structures exceeding 200 feet or to be used within proximity to an airport or heliport.
Federal	U.S. Coast Guard ("USCG")	USCG Department of Homeland Security Notification	USCG requires notification of all work within 50 feet of navigable waters and may impose security standards. Notification is required 1 month prior to the start of work.
Federal	US Environmental Protection Agency (USEPA)	Asbestos Abatement Project Notification	Appropriate state agency must be notified of any demolition or renovation project involving asbestos removal at least ten (10) working days prior to the beginning of project.

Agency	Department	Permit/Approval	Agency Action
STATE			
State	New York State Board on Electric Generation Siting and the Environment	Certificate of Environmental Compatibility and Public Need (New York State Public Service Law ("PSL") Article 10 Certificate)	Required for commencement of construction activities and operation of facility.
State	New York State Public Service Commission	Certificate of Public Convenience and Necessity (PSL §68 Certificate)	Required before construction and operation of an electric plant.
State	New York State Department of Public Service Office of Energy Efficiency and the Environment.	Water Quality Certification	In accordance with Section 401 of the Clean Water Act, applicants for a Federal license or permit for activities that may result in a discharge into waters of the United States must obtain a water quality certification from the state agency charged with water pollution control indicating that the proposed activity will not violate NY State water quality standards.
State	New York State Department of Environmental Conservation ("NYSDEC")	PSD Part 231 Air Permit	Required prior to operation of new or modified stationary source of air emissions.
State	NYSDEC	Part 201 Title V Air Permit	Required by the federal Clean Air Act prior to operation of new or modified source of air emissions.
State	NYSDEC	State Pollutant Discharge Elimination System Permit	Required for construction that will result in a disturbance of greater than one acre or the discharge of treated dewatering effluents. Notification is also required for the termination of permitted process wastewater or stormwater discharges.
State	NYSDEC	ECL Article 25 - Tidal Wetland Permit	Required for all work affecting tidal wetlands of New York State.
State	NYSDEC	ECL Article 15 - Protection of Waters	Required for any work below mean high water line on the protected streams.

Agency	Department	Permit/Approval	Agency Action
State	NYSDEC	Threatened and Endangered Species Inventory Review	Consultation letter must be sent to the New York Natural Heritage Program to determine if the project will impact any protected plant or animal species habitat. "Determination of No Effect" required to support issuance of NYSDEC permits.
State	NYSDEC	Hazardous Substance Bulk Storage Facility Registration	All stationary tanks storing hazardous substances at a facility must be registered with the Department per Part 596 regulations
State	New York State Department of State	Coastal Zone Consistency Determination	Required in support of issuance of NYSDEC and USACE permits and approvals to ensure consistency with designated uses of the coastal zone and applicable coastal zone policies.
State	New York State Office of Parks, Recreation and Historic Preservation	Section 106 Cultural and Historic Resources Review and Consultation – "Determination of No Effect" Parks, Recreation and Historic Preservation Law Section 14.09 Determination	Provides a determination of whether cultural and/or historic resources are potentially present on site. Required for issuance of state and federal permits.
State	NYS Department of Labor, Asbestos Control Bureau	Asbestos Project Notification	Per NYS Labor Law and Industrial Code Rule 56, an Asbestos Project Notification must be completed and sent to the Asbestos Control Bureau before beginning any project where asbestos could be released.
State	New York State Department of Transportation ("NYSDOT")	Highway Work Permits	Required for overhead or underground crossings of state highways, access roads from state highways, and temporary widening of intersections at state highways.
State	NYSDOT	Oversize/Overweight Vehicle Permit	Required for vehicles on state highways that exceed specified dimensions and/or weights.

Agency	Department	Permit/Approval	Agency Action
COUNTY			
Orange County	Department of Public Works	Permit for Work on a County Road	Required prior to work within a County Road Right-of-Way and all work requiring access from a County Road Right-of-Way.
Orange County	Department of Health	Application for Sewer Construction, Repair, Modification or Change of Use	Required for any change in projection of flow to be conveyed to County sewer facilities.
Orange County	Department of Health	Certificate of Rodent Free Inspection	Required prior to demolition of all residential, commercial and industrial buildings.
MUNICIPAL			
Town of Newburgh	Department of Code Compliance	Building Permit	Required for constructing new buildings.
		Clearing and Grading Permit	Required for clearing and grading as part of construction.
		Temporary Construction Office	Required when using transportable or wheeled offices.
		Floodplain Development Permit	Required for construction to be undertaken in areas of special flood hazard.
Town of Newburgh	Bureau of Fire Protection	Fire Inspection	Required for constructing new buildings.
Town of Newburgh	Highway Department	Right Of Way Permit	The Town of Newburgh requires a right of way permit for anyone planning to perform work within the Town's right-of-way, which includes the roadway, curb strip, and sidewalk.

6.3 Federal Permits and Approvals

An overview of the federal permits and approvals that will or may be required by the project are summarized below.

6.3.1 US Army Corps of Engineers

A. SECTION 10 OF THE RIVERS AND HARBORS ACT / SECTION 404 OF THE CLEAN WATER ACT

Section 10 of the Rivers and Harbors Act of 1899 authorizes the US Army Corps of Engineers ("USACE") to regulate structures and work in navigable waters of the United States, including any wharf, dolphin, riprap, revetment, or bulkhead; permanent mooring structures such as pilings; aerial or sub-aqueous power transmission lines; intake or outfall pipes; aids to navigation; permanent or semi-permanent obstacles or obstructions; dredging or disposal of dredged material, excavation, and filling; or modifications affecting the course, location, condition, or capacity of navigable waters of the United States. Further, the USACE regulates all wetlands (regardless of their size) that meet the federal criteria under Section 404 of the Clean Water Act. In New York State, Section 404 is administered by the USACE.

For several categories of construction and/or operational related discharges to navigable waters of the U.S., the USACE has developed Nationwide Permits to streamline the review and approval process, provided that certain impact thresholds are not exceeded.

Danskammer Energy will review its proposed development program with representatives of the USACE to identify if any construction and/or operational activities will be subject to USACE permitting and whether or not the activities could qualify for one or more Nationwide permits or if an Individual Permit will be required under either Section 10 of the Rivers and Harbors Act or Section 404 of the Clean Water Act.

B. SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT

Section 106 of the National Historic Preservation Act ("NHPA") of 1966, as amended through 2000, requires that federal or federally permitted projects "take into account the effect of the undertaking on any district, site, building, structure or object that is included in or eligible for inclusion in the National Register [of Historic Places]". According to regulations implementing the NHPA, these cultural resources are called historic properties [36 CFR Part 800, Section 800.16 (l) 1] or designated historic properties [33 CFR Part 325, Appendix C 1(a)]. These cultural resources may be prehistoric (pre-European Contact Period) or historic (more than 50

years old) and include archaeological sites and historic structures and districts. Historic properties can also be generically termed significant cultural resources.

Danskammer Energy will review its proposed Project design and determine if there are any impacts on the characteristics of any historical properties. If it is determined that federal permitting is required, adverse effects on historic properties will be identified and measures to avoid, minimize or mitigate these effects would be sought, in consultation with the state-counterpart, New York State Office of Parks, Recreation and Historic Preservation ("OPRHP") (see Section 6.4.3, below).

C. U.S. FISH AND WILDLIFE SERVICE

Section 7 of the Endangered Species Act of 1973, Threatened and Endangered Species Review and Consultation, requires federal agencies, through consultation with the United States Fish and Wildlife Service ("USFWS"), to ensure their activities are not likely to jeopardize the continued existence of listed species, or destroy or adversely modify their critical habitat. The USFWS was contacted in November of 2018 regarding the potential presence of federally listed endangered or threatened species previously recorded on the Project site or in the vicinity of the site. The USFWS identified four (4) threatened, endangered or candidate species: Indiana bat (*Myotis, sodalist*); Northern Long-eared bat (*Myotis septentrionalis*); Dwarf Wedgemussel (*Alamidonta heterodon*); and Small Whorled Pogonia (*Isotria medeoloides*). The complete report is provided in Appendix B. Danskammer Energy will assess potential impacts on these species and measures to avoid, minimize or mitigate these effects would be sought, in consultation with the USFWS.

D. NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION FISHERIES

In addition to USFWS, Section 7 the Endangered Species Act of 1973 also requires consultation and conference with the National Oceanic and Atmospheric Administration ("NOAA") Fisheries (formerly known as the National Marine Fisheries Service ("NMFS")) regarding any federally-regulated species or habitats potentially present at the Project site. In support of any federal permit approval the agencies must confirm that there are no significant adverse impacts from the proposed construction or operations.

The existing Danskammer Generating Station has been operating under an approved Incidental Take Permit (#1269) that was issued by the NMFS on November 29, 2000 for potential impacts to Shortnose sturgeon (*Acipenser brevirostrum*) and Atlantic sturgeon (*Acipenser oxyrinchus*). Shortnose sturgeon and Atlantic sturgeon, on rare occasion, have been collected in the cooling water withdrawal systems of the existing power plant. Danskammer Energy is currently requesting a continuance of the existing incidental take permit for operation of the existing Danskammer Generating Station, which will no longer be necessary if the Project moves forward as proposed. Danskammer Energy will still consult with NOAA Fisheries to identify listed species in the vicinity of the Project as required under §1001.23. Exhibit 23 to the Article 10 Application will assess potential impacts on these species related to the proposed Project and if needed, measures to avoid, minimize or mitigate these effects would be sought, in consultation with the NOAA.

6.3.2 Federal Aviation Administration

Certain developments are required to coordinate with the Federal Aviation Administration ("FAA") to ensure that the new structures do not constitute any hazard to air navigation. Developers are required to consult with the FAA and coordinate if any of the proposed is structures: 1) exceeding 200 feet in height; 2) located within 20,000 feet of a public airport or seaplane base with a runway exceeding 3,200 feet in length and the structure exceeds a slope of 100:1 from the nearest point of the nearest runway; 3) located within 10,000 feet of a public airport or seaplane base with a runway less than 3,200 feet in length and the structure exceeds a slope of 50:1; or 4) located within 5,000 feet of a heliport and exceeds a 25:1 horizontal slope. Should any proposed development meet or exceed these triggering thresholds, a "Notice of Proposed Construction or Alteration" must be submitted to the FAA for review and approval. FAA determination of "No Hazard to Air Navigation" is required pursuant to Part 77, Objects Affecting Navigable Airspace, for construction cranes exceeding 200 feet or to be used within proximity to an airport or heliport.

A review of available data indicate that three airports are located within approximately 10 miles of the Project site:

- Valley Regional Airport, Wappingers Falls, NY (approximately 5 miles from the Project site)
- Stewart International Airport, New Windsor, NY (approximately 8 miles from the Project site)
- Hudson Stewart Air National Guard, Newburgh, New York (approximately 8 miles from the Project site)

Upon confirmation of the final stack height for the combined cycle facility, Danskammer Energy will initiate consultation with the FAA through a submittal of a "Notice of Proposed Construction or Alteration".

6.3.3 US Coast Guard

The US Coast Guard ("USCG") Department of Homeland Security requires notification of all work within 50 feet of navigable waters. The Department may impose security standards to the Project's design, construction and operation. Danskammer Energy will provide necessary notifications to the USCG prior to beginning of work at the Project site.

6.3.4 US Environmental Protection Agency

Under the Asbestos Abatement Project Notification, the US Environmental Protection Agency ("USEPA") requires preparation of notification to the New York State Department of Labor ("NYSDOL"), Asbestos Control Bureau. The NYSDOL must be notified by the contractor of any demolition or renovation project involving asbestos removal at least ten (10) working days prior to the beginning of project (*see* state notification requirement below).

6.4 New York State Permits and Approvals

6.4.1 New York State Board on Electric Generation Siting and the Environment

The proposed Project is considered a 'major electric generating facility' (25 megawatts or more) and is regulated under Article 10 of the New York State Public Service Law ("PSL"), which was enacted in 2011. Article 10 requires the New York State Board on Electric Generation Siting and the Environment ("Siting Board") to issue a Certificate of Environmental Compatibility and Public Need ("Certificate") authorizing the construction and operation of major electric generating facilities. After the filing of this PSS, Danskammer Energy will move forward with the filing of the Article 10 Application before the Siting Board and will seek a Certificate.

6.4.2 New York State Public Service Commission

Danskammer Energy will also apply for a Certificate of Public Convenience and Necessity pursuant to Section 68 of the PSL, without duplicating the need and environmental compatibility issues which will be addressed by the Siting Board under the current Article 10 process. Danskammer Energy will also seek lightened regulation for the Project because it will own and operate the Danskammer Energy Center on a merchant basis and will participate in the wholesale markets.

6.4.3 New York State Department of Public Service Office of Energy Efficiency and the Environment

Pursuant to 16 NYCRR §1000.8(A), water quality certification is required in accordance with Section 401 of the Clean Water Act. Under the Article 10 regulations, the Director of the New York State Department of Public Service Office of Energy Efficiency and the Environment is the state agency designated to act as the permitting body for this section.

6.4.4 New York State Department of Environmental Conservation

A. PART 201 & PART 231/PREVENTION OF SIGNIFICANT DETERIORATION PERMIT & TITLE V AIR PERMIT

The New York State air operating permitting program is regulated under 6 NYCRR Part 201. The program is administered by New York Department of Environmental Conservation ("NYSDEC") Division of Air Resources. The two most common types of operating permits for air contaminant sources that are described in 6 NYCRR Part 201 include state facility permits and Clean Air Act Title V permits.

State facility permits are issued to facilities that are not considered to be major (as defined in the NYSDEC's regulations), but that meet the criteria of Subpart 201-5. These are generally large facilities with the following characteristics:

- Their actual emissions exceed 50 percent of the level that would make them major, but their potential to emit as defined in 6 NYCRR Part 200 does not place them in the major category
- They require the use of permit conditions to limit emissions below thresholds that would make them subject to certain state or federal requirements

- They have been granted variances under the department's air regulations, or
- They are new facilities that are subject to New Source Performance Standards (NSPS) or that emit hazardous air pollutants.

Title V facility permits are issued to facilities subject to Subpart 201-6. These include facilities that are determined to be major under the NYSDEC's regulations, or that are: 1) subject to New Source Performance Standards ("NSPS"); 2) subject to a standard or other requirement regulating hazardous air pollutants or 3) subject to federal acid rain program requirements.

The Prevention of Significant Deterioration ("PSD") program in New York State is administered by NYSDEC by delegation from the USEPA through the State air regulations under 6 NYCRR Part 231. Any fossil fuel fired steam electric plant with a heat input capacity greater than 250 mmBTU/hr with potential emissions greater than 100 tons per year of any regulated criteria pollutant, is considered a "major" source and is subject to the PSD regulations. Under the PSD regulations, the Project will be considered a major source.

Facilities subject to PSD must perform an air quality analysis (which includes atmospheric dispersion modeling) and a best available control technology ("BACT") demonstration for those pollutants that exceed the pollutant specific Significant Project Thresholds identified in the regulations.

Therefore, as required by the Clean Air Act and under NY State law and regulation, Danskammer Energy will submit an application to NYSDEC for a PSD Part 231 and Part 201 Title V Permit, as discussed in detail in Section 3.3, 'Air Resources'. Air Emissions of the Danskammer Energy Center will also be fully discussed in Exhibit 17 of the Article 10 Application.

B. STATE POLLUTANT DISCHARGE ELIMINATION SYSTEM (SPDES) PERMIT

Currently, the existing Danskammer Generating Station's steam units use a once-through cooling system, where cooling water is withdrawn from the Hudson River via shoreline intake structures. After passing through the existing plant's condensers, heated water is subsequently returned into the Hudson River under the terms and conditions of a State Pollutant Discharge Elimination System ("SPDES") permit issued by the NYSDEC on November 21, 2003 (Permit No. NY

0006262). The development of the proposed Danskammer Energy Center will require a modification to the station's existing SPDES permit, most notably to account for the elimination of the once-through cooling system associated with the existing Station's steam units. The Article 10 Application will demonstrate compliance with applicable local and state standards.

Stormwater Pollution Prevention Plan

Prior to site disturbance, the construction contractor will be responsible for the preparation and implementation of a Stormwater Pollution Prevention Plan ("SWPPP"). The SWPPP will be developed in accordance with requirements contained in the facility's SPDES permit and submitted for review and approval by the NYSDEC's Regional Water Manager. Copies of the SWPPP will also be provided to local agencies responsible for erosion and sediment control.

The SWPPP will conform to the New York Standards and Specifications for Erosion and Sediment Control. The SWPPP also will address the need for construction dewatering, as well as contingencies for properly managing potentially contaminated groundwater, if encountered.

C. TIDAL WETLANDS AND PROTECTION OF WATERS PERMIT

Tidal Wetlands - Article 25 of the ECL

It is the public policy of the State, as set forth in the Tidal Wetlands Act under Section 661 of Article 25 of the Environmental Conservation Law, to preserve and protect tidal wetlands, and to prevent their destruction, giving due consideration to the reasonable economic and social development of the State. The purpose of Section 661 is to implement that policy by establishing regulations that allow only those uses of tidal wetlands and areas adjacent thereto that are compatible with the preservation, protection and enhancement of the present and potential values of tidal wetlands (including but not limited to their value for marine food production, wildlife habitat, flood and hurricane and storm control, recreation, cleansing ecosystems, absorption of silt and organic material, education and research, and open space and aesthetic appreciation), that will protect the public health and welfare, and that will be consistent with the reasonable economic and social development of the State. The Tidal Wetlands Act regulates all tidally influenced wetlands as well as adjacent uplands potentially up to 300 feet

from the boundaries of tidal wetlands. The closest mapped tidal wetland is approximately 2,100 feet north of the Project site.

Protection of Waters - Article 15 of the ECL

Addressed in more detail in Section 3.8 of this PSS, NYSDEC protects waters of the state on the basis of their intended best use classification. A NYSDEC, ECL Article 15 permit, pursuant to 6 NYCRR Part 608 for the Protection of Waters is required for all work below the mean high water line for streams bearing the classification of "C(T)" or higher. Within these protected waters, the NYSDEC regulates activities that would result in the disturbance of protected streams and regulates dams, docks and moorings, and excavation and placement of fill in navigable waters. The Hudson River in the vicinity of the existing plant is classified as "A", with the best use of these waters being drinking water, recreation, fishing and shellfishing. As a consequence, these waters are subject to the jurisdiction of NYSDEC Protection of Waters Program.

NYSDEC/USACE Joint Application Process

Danskammer Energy will prepare an application for required authorizations under Article 25 and Article 15 if any of the proposed project activities will impact on-site tidal wetlands and protected waters, respectively. NYSDEC and the USACE have established a Joint Application Process for proposed activities affecting surface waters and wetlands where both federal and State jurisdictions may apply. Therefore, any NYSDEC Article 15 and 25 authorization request for the Project will be filed concurrently with Project authorization requests to the USACE under Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act of 1899.

D. THREATENED AND ENDANGERED SPECIES INVENTORY REVIEW

Under the State of New York Fish and Wildlife Law (ECL §11-0535), "the taking, importation, transportation, possession, or sale" of any endangered or threatened plant or animal species is regulated by the NYSDEC. As discussed in Sections 3.7 and 3.8 of the PSS, the NYSDEC Natural Heritage Program ("NYNHP") was contacted in November of 2018 regarding the potential presence of state-listed endangered or threatened species previously recorded on the Project site or in the vicinity of the site. A copy of this request is presented in Appendix B.

Potential impacts to any identified species as a result of the proposed Project will be addressed in the Article 10 Application.

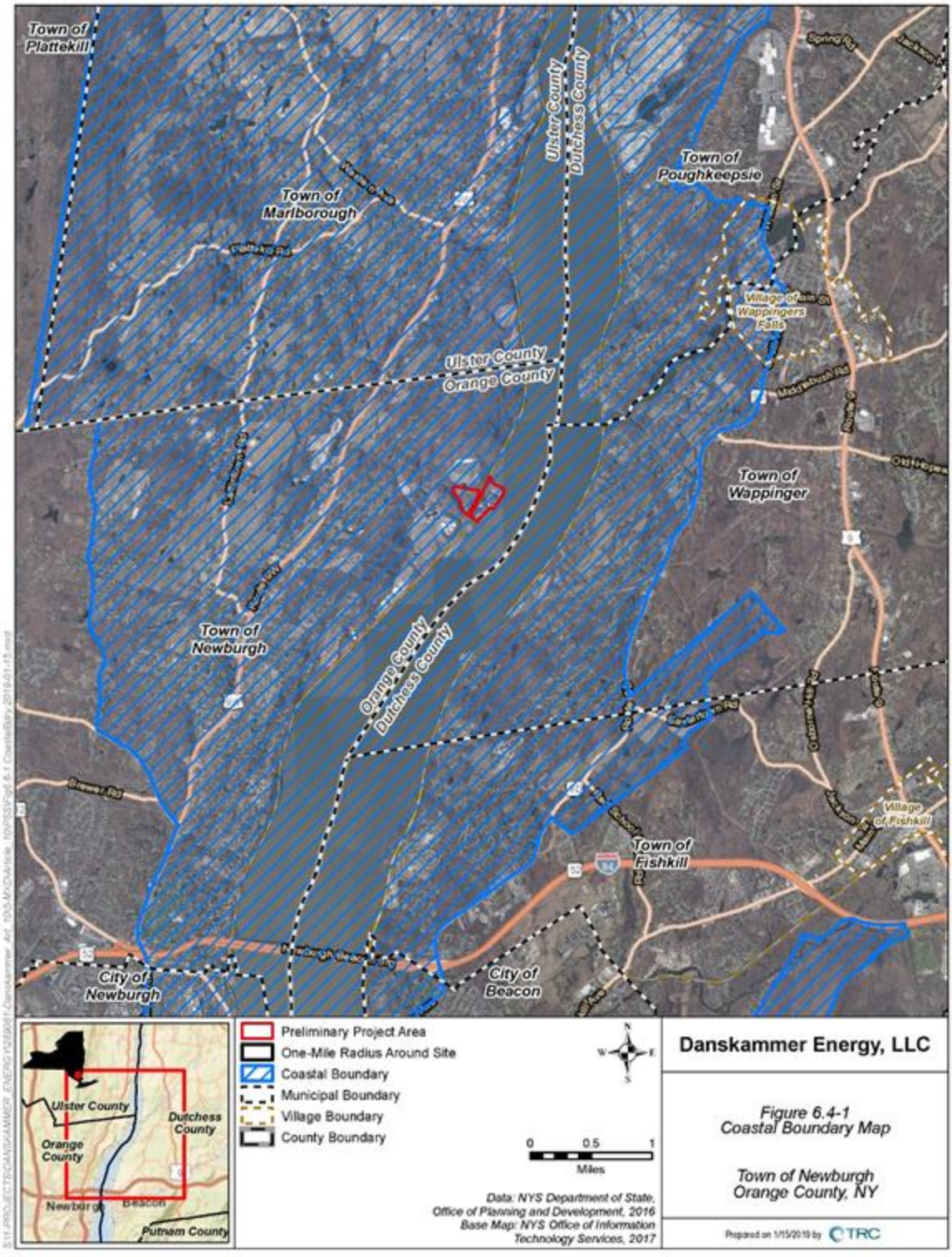
E. HAZARDOUS SUBSTANCE BULK STORAGE FACILITY REGISTRATION

As described in Chapter 2.0, Project Description, the proposed repowering will require modification of existing and development of new fuel oil storage tank(s) at the Danskammer Generating Station site. Under NYSDEC Part 596, Hazardous Substance Bulk Storage, all stationary storage tanks at a facility need to be registered with the NYSDEC by the Owner. If any additional storage tanks are necessary to complete the Project, Danskammer Energy will submit the required registration documentation.

6.4.5 New York State Department of State

The existing Danskammer Generating Station site is located within New York State's designated Coastal Management Zone (see Figure 6.4-1). Accordingly, the Danskammer Energy Center will need to be reviewed for consistency with the New York State Coastal Zone Management Program ("CMP") by the New York State Department of State ("NYSDOS"). A NYSDOS Coastal Zone Consistency Determination is required in support of issuance of NYSDEC and USACE permits and approvals to ensure consistency with designated uses of the coastal zone and applicable coastal zone policies. Danskammer Energy will prepare a Coastal Consistency Statement in order to obtain the NYSDOS determination. A preliminary analysis of the consistency of the Danskammer Energy Center with the enforceable policies of the New York State Coastal Zone Management Program is provided in Section 6.6, below.

Figure 6.4-1. New York Coastal Boundary



6.4.6 State Historic Preservation Act – Section 14.09

The OPRHP administers State Historic Preservation Act ("SHPA") in New York State. SHPA closely resembles NHPA and requires that state agencies consider the effect of their actions on properties listed on or determined eligible for listing on the State Register of Historic Places. Compliance with Section 106 of the NHPA satisfies the requirements of SHPA, set forth in Section 14.09 of the New York State Parks, Recreation and Historic Preservation Law.

Addressed in Section 3.5 of this PSS, Danskammer Energy will consult with the OPRHP regarding potential impacts to historic and prehistoric archeological resources. A "Determination of No Effect" must be issued by the OPRHP prior to the issuance of the Article 10 Certificate for the Project and before any Uniform Procedures Act ("UPA") permit approvals can be issued for the Project.

6.4.7 New York State Department of Labor

Per New York State ("NYS") Labor Law and Industrial Code Rule 56, the NYSDOL Asbestos Control Bureau requires an Asbestos Project Notification be completed and sent to the Asbestos Control Bureau before beginning any project where asbestos could be released.

6.4.8 New York State Department of Transportation

New York State Department of Transportation ("NYSDOT") Highway Work Permits may be necessary depending on how equipment is being brought onto the Project site. As Danskammer Energy finalizes delivery plans for Project components, details on the use of state highways are likely to change. Therefore, Danskammer Energy anticipates receiving necessary NYSDOT highway work permits immediately prior to that start of construction.

Special Hauling Permits for Oversize/Overweight Vehicles are required for loads that exceed legal dimensions or weights. Thus, transportation of the equipment related to the Project may require a variety of special hauling permits. The permits are typically obtained by the equipment vendor prior to construction and depend on the delivery routes. Delivery routes are selected, and may change, depending on the selected vendor as well as road conditions, access concerns and other factors that are best determined immediately prior to the start of shipments.

6.5 Compliance with Local Laws and Regulations

As will be set forth in detail in Exhibit 31 to the Article 10 Application, below is a list and description of all anticipated local laws and regulations potentially applicable to the construction, operation or maintenance of the proposed facility.

A preliminary assessment of the Project's ability to comply with the laws and regulations is provided and instances where regulations have the potential to be considered unduly restrictive and/or cannot be met are identified. Danskammer Energy is in discussions with the affected municipalities and will seek exemption(s) from these requirements as part of the Article 10 Application, as necessary. As indicated in the Danskammer Energy's Meeting Log filed with the Commission on January 31, 2019, Project Representatives have already met with executives from the Town of Newburgh and the Orange County.

6.5.1 Orange County

A preliminary list of applicable requirements set forth by Orange County are presented below.

A. PERMIT FOR WORK ON A COUNTY ROAD

As authorized by the Highway Law, Article 5, Section 102 of the Consolidated Laws of New York, a Work Permit from the Orange County Department of Public Works ("DPW") must be obtained prior to any construction that involves access from a County Road or that affects the County Road System. Orange County DPW has published policies and standards related to performing this work that includes such topics as drainage, geometric design, type and quality of workmanship, material used, and work performed within county road limits.

B. APPLICATION FOR SEWER CONSTRUCTION, REPAIR, MODIFICATION OR CHANGE OF USE

The Orange County DPW has established general guidelines, standard details and sanitary sewer specifications in accordance with Orange County Sewer Use Law as per Local Law No. 4 of 2008. All projects for new or modified building construction within Orange County Sewer District are required to submit an approvable Application for Sewer Construction, Repair, Modification and/or Change of Use.

C. CERTIFICATE OF RODENT FREE INSPECTION

The Orange County Sanitary Code of 2016, as set forth in Local Law No. 3 of 2017, allows the Commissioner of Health of the County of Orange to perform inspections for the purposes of determining if the facilities are free from rodent harborage and infestation. If a structure is scheduled for demolition, proper extermination is required prior to the demolition of the structure. The structure must be inspected post extermination and be deemed rodent free by the Orange County Commissioner of Health or his/her designee prior to the demolition.

It is anticipated that the proposed Project can be designed so as to comply with the general provisions and intent of the applicable laws and ordinances of Orange County identified above. A thorough analysis of each section listed above will be provided within the Article 10 Application along with a statement of compliance.

6.5.2 Town of Newburgh

As shown in Table 6.2-1 above, there are a number of permits and approvals that flow from the Code of the Town of Newburgh ("Code"). Applicable provisions of the Code are provided below in Table 6.5-1. It is anticipated that the proposed Project can be designed so as to comply with the majority of the provisions and the intent of the Code. Also, local procedural requirements are supplanted by Article 10, Section 1001.31, unless the Siting Board expressly authorizes the exercise of the procedural requirement by the local municipality or agency.

Table 6.5-1. Code of the Town of Newburgh[4] - List of Applicable Provisions

Chapter 66	**Blasting (If Blasting is expected)**
§66-1	Title
§66-2	Definitions
§66-3	Permit Required
§66-4	Insurance
§66-5	Fees
§66-6	Bond
§66-7	Storage of Explosives
§66-8	Hours
§66-9	Regulations and Restrictions
§66-10	Penalties for Offenses
Chapter 71	**Building Construction**
Article I	Purpose
Article 2	Enforcement Officer
Article 3	Building Permits and Certificates of Occupancy
Article 4	Electrical Inspections
Article 5	Penalties
Chapter 83	**Clearing and Grading**
§83-1	Title
§83-2	Purpose
§83-3	Compliance Required
§83-4	Conflict with Existing Regulations
§83-5	Definitions
§83-6	Activities Requiring a Permit
§83-7	Activities Exempt for Permit Requirements
§83-8	Permit Application Review; Issuance and Compliance Procedures
§83-9	Permit Application Materials
§83-10	Standards for Granting Permit
§83-11	Site Requirements
§83-12	Performance Guaranty
§83-13	Appeals
§83-14	Inspections and Enforcement; Penalties for Offenses

[4] Town of Newburgh, NY Code. Accessed on October 5, 2018: https://www.ecode360.com/NE0074

Chapter 100	**Environmental Quality Review**
§100-1	Purpose
§100-2	Definitions
§100-3	Compliance Required
§100-4	Environmental Assessment Form
§100-5	Preliminary Determinations
§100-6	Determination of Lead Agency
§100-7	SEQR Officer
§100-8	Federal Agency Involvement
§100-9	Fees
§100-10	Critical Areas
§100-11	Type 1 Actions
§100-12	Type 2 Actions
Chapter 107	**Fire Prevention (Store of Certain Materials Restricted)**
Article I	Purpose
Article II	Bureau of Fire Prevention
Article III	Enforcement Officer
Article IV	Standards
Article VI	Inspections
Article VII	Fire Investigations
Article VIII	Private Roadways and Fire Hydrants
Article IX	Sprinkler Systems
Article X	Notices of Violations and Orders
Article XI	Penalties
Chapter 109	**Flood Damage Protection**
Article I	Findings; Purpose; Objectives
Article II	Definitions
Article III	General Provisions
Article IV	Administration
Article V	Construction Standards
Article VI	Variance Procedure
Chapter 125	**Noise and Illumination Control**
§125-1	Title
§125-2	Statement of Policy and Purpose
§125-3	Definitions
§125-4	Prohibited Activities
§125-5	Maximum Sound Levels; Measurement Standards
§125-6	Noise from Motor Vehicles
§125-7	Measurement of Sound-Pressure Levels as Evidence
§125-8	Illumination Standards

§125-9	Exceptions
§125-10	Variances
§125-11	Relationship to Other Provisions
§125-12	Enforcement
§125-13	Penalties for Offenses
Chapter 148	**Sewers (Part 2 – Private Disposal)**
Article XIII	General Provisions
Article XIV	On-Site Wastewater Treatment
Article XV	Penalties
Chapter 157	**Stormwater Management**
§157-1	Purpose
§157-2	Objectives
§157-3	Definitions and Word Usage
§157-4	Applicability
§157-5	Contents of Stormwater Management Plan
§157-6	Design Standards
§157-7	Performance Standards
§157-8	Easements and Dedications
§157-9	Maintenance
§157-10	Performance Security
§157-11	Procedures and Fees
§157-12	Inspection and Enforcement; Penalties for Offenses
§157-13	Appeals
Chapter 179	**Water (179-44 – Location of Service Lines)**
Article I	Definitions
Article II	Jurisdiction
Article III	Water Department
Article IV	Application for Service
Article V	Installation of Services
Article VI	Meters
Article VII	Extension of Mains; Increase of Facilities
Article IX	Rules and Regulations
Article X	Prohibitions
Article XII	Penalties
Chapter 185	**Zoning**
Article III	Zoning Districts and Zoning Map [includes Overlay Districts]
§185-11	Utilization of Bulk Table
§185-12	Required Performance Standards
§185-14	Sign Regulation
§185-16	Fences and Walls

§185-21	Buffer Strips and Screening
§185-22	Environmentally Sensitive Areas
§185-39	Petroleum Bulk Storage
§185-46	Public Utilities
§185-49	Building Permits
§185-50	Certificate of Occupancy
Article IX	Site Plan Review

Lot Coverage:

The Project site is zoned as Industrial Business District (I) (see Figure 6.5-1). Table 6.5-2 below provides a summary of the use and bulk requirements for the I-District. The parcels upon which the Project are to be located generally do not comply with the lot dimensions below (e.g. minimum lot area, minimum lot width) and the existing Danskammer Generation Station accordingly exceeds the allowable maximum building coverage and surface coverages.

Rear Yard and Side Yard Set Backs:

The structures for the Project as currently sited would exceed the rear yard and side yard setback and height limitations. As the access road to the site is to the west, it is assumed for the purposes of this analysis that the rear yard is located adjacent to the Hudson River. As currently designed, the Project components will be located within 400 feet of the Hudson River in order to take advantage of the infrastructure in the existing facility.

The proposed Project facility will be located within 400 feet of the property line to the southwest (side yard). The adjoining property is also zoned as Industrial Business District and the nearest regularly occupied building is ~1,600 feet from the proposed Project facility. *See* Figure 6.5-1.

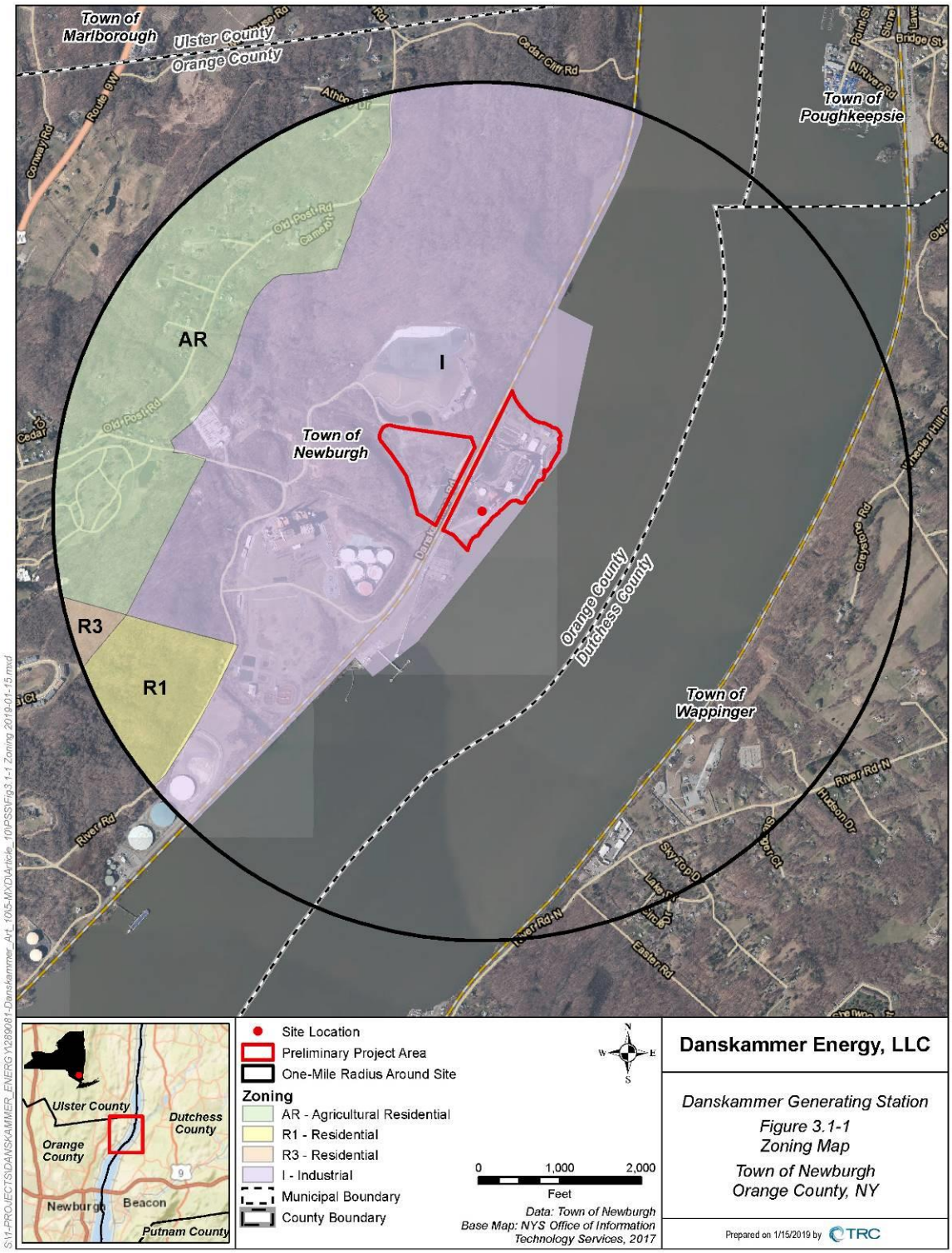
Building Height:

Two of the existing stacks are 220 feet above grade and the other two stacks are 240 feet above grade. Preliminary analysis suggests that the stack for the proposed Project's combined cycle unit will be comparable in height to the existing stacks, with the final proposed stack height being determined upon completion of final air quality modeling and could exceed this maximum height requirement.

Table 6.5-2. Summary of Town of Newburgh Use and Bulk Requirements for I-District

Dimension	Standard
Minimum Lot Area (acres)	100
Minimum Lot Width (feet)	2,000
Minimum Lot Depth (feet)	2,000
Minimum Front Yard (feet)	400
Minimum Rear Yard (feet)	400
Minimum 1 Side Yard (feet)	400
Minimum Both Side Yards (feet)	800
Maximum Lot Building Coverage (percent)	5%
Maximum Building Height (feet)	100
Maximum Lot Surface Coverage (percent)	10%

Figure 6.5-1: Zoning Map



Absent the Article 10 process, a variance from the Town of Newburgh would be required for the proposed Project. In view of existing technology, construction of the Project structures cannot comply with these bulk use requirements, and therefore can be considered unduly restrictive. The height of the stack is driven by air modeling analyses undertaken to ensure that the Project will comply with all air quality standards, which in turn protect public health and welfare. Therefore, Danskammer Energy may request the Siting Board to elect not to apply these provisions. Danskammer Energy is in discussions with the Town of Newburgh Code officials with respect to any concerns they may have with these provisions.

A thorough analysis of each section listed above will be provided within the Article 10 Application along with a statement of compliance.

6.6 Preliminary Consistency Assessment with Coastal Management Program Policies

The Project site is wholly located within the designated New York State Coastal Zone and therefore, the proposed activities at the station are subject to New York State's CMP policies. These policies establish a framework for managing waterfront resources in the public interest and are designed to maximize the benefits derived from economic development, environmental preservation, and public use of the waterfront, while minimizing the conflicts among these objectives. Figure 6.4-1 above depicts the limits of the NYSDOS coastal boundary in the area of Project. In accordance with the requirements outlined at 1000.5 (l)(2)(ix), for projects located within the Coastal Management Zone, the Preliminary Scoping Statement must provide a preliminary assessment of the project's consistency with the enforceable policies of the New York State Coastal Zone Management Program. Exhibit 4 to the Article 10 Application, regarding land use, will contain an analysis of conformance with the relevant provisions of the federal Coastal Zone Management Act ("CZMA") of 1972, and any proposed or adopted plans for inland waterways and local waterfront revitalization areas. Currently, there are no proposed or adopted Local Waterfront Revitalization Program ("LWRP") plans that cover the Project site.

The CZMA requires that federal actions within a state's coastal zone be consistent with that state's coastal zone management program. The NYSDOS administers the New York Waterfront Revitalization and Coastal Resources Act ("WRCRA") (Executive Law, Article 42) through its

CMP. A preliminary analysis of the consistency of the proposed repowering Project with the enforceable policies of the New York State CMP is provided below.

Development Policies (Policies 1-6)

The Project is consistent with the development policies as it proposes the redevelopment of a waterfront area with a compatible industrial use. The Project site is already the site of an industrial facility and in close proximity to other such operations, and as such will be compatible with existing uses. Visual analysis of the proposed Project facility as will be provided in Exhibit 24 to the Article 10 Application, but it is anticipated that visual impacts, if any, will be negligible.

The existing use is a water-dependent use as the "once-through" cooling process requires surface water for cooling purposes. The need for "once-through" cooling will be eliminated as the existing steam generators that utilize this cooling process are to be decommissioned. Therefore, the development of the Project will result in environmental benefits derived from the elimination of surface water withdrawals for cooling purposes, which will eliminate associated impacts to aquatic organisms. Although the Project will not be considered a water-dependent use, the advantages of repowering an existing electric generating facility and redeveloping an existing industrial use are numerous.

Fish and Wildlife Policies (Policies 7-10)

The policies under this portion of the CMP address the protection and preservation of significant coastal fish and wildlife habitats, protection of fish and wildlife resources from the introduction of hazardous wastes and other pollutants, expanding the recreational use of these resources, and the further development of commercial finfish, shellfish and crustacean resources in the coastal area. Potential significant adverse impacts to wildlife and aquatic resources are discussed in Sections 3.7 and 3.8, respectively. The Project will be designed and licensed in accordance with applicable federal, state, county and local regulations regarding the use and storage of hazardous wastes. Additionally, the Project site will continue to operate under a SPDES permit issued by NYSDEC as well as required air permits. No changes in access to recreational resources are anticipated from the proposed repowering. Based on the above, the project will be consistent with theses CMP policies.

Flooding and Erosion Hazards Policies (Policies 11-17)

The Federal Emergency Management Agency ("FEMA") Flood Insurance Rate Map ("FIRM") for Orange County (2009) indicates that Project will be located outside of the 100-year flood elevation and will be located on the edge of the 500-year return period. The Project will be designed to achieve a high level of flood protection, based on available state guidance on potential sea level rise. This is consistent with the CMP policies. Additionally, no disturbance is proposed to natural and/or man-made erosion protection features. Therefore, consistency with these policies can be achieved.

General Policy (Policy 18)

This policy indicates that major actions may be undertaken within the coastal area so long as they will not significantly impair valuable coastal waters and resources. Considerations including social, cultural, economic and environmental interests of the State and its citizens must be taken. Each of these interests will be analyzed in detail with the Article 10 Application. The Project is being proposed on previously disturbed portions of the existing generating facility, thereby eliminating potential environmental impacts associated with developing a power generating facility on a greenfield site within the coastal zone. The proposed Project will be in compliance with these policies.

Public Access Policies (Policies 19-20)

The existing facility is located on private property owned by Danskammer Energy. For safety and security measures, no public access to waterfront areas is offered from the existing generating station property. The landward entrance to the facility is controlled by a gate system. Numerous opportunities exist in the vicinity of the Project site for access to waterfront areas, including marinas, public parks and beaches. Documentation of these facilities is provided in Section 3.12, Recreational Resources. In order to protect the general welfare of the public and to provide adequate safety measures, public access is not recommended for the Project site. Due to the numerous waterfront access areas in the immediate vicinity of the Project property, compliance with these policies is achieved.

Recreation Policies (Policies 21-22)

The Project site contains an existing electric generating facility and the proposed use is a continuation of the same. Water dependent and water enhanced recreational uses are not compatible with the industrial use of the site. As indicated above, numerous opportunities are available in the immediate area of the Project site and are documented in Section 3.12. Further, for safety and security measures, public access is not recommended. Therefore, the Project will be consistent with these policies.

Historic and Scenic Resources Policies (Policies 23-25)

The proposed Project facility will be comparable and consistent with the existing facility structure. As described in detail in Sections 3.5, Cultural Resources and 3.9, Visual Resources, of this Preliminary Scoping Statement, as part of Exhibits 20 and 24 to the Article 10 Application, studies will be performed to thoroughly analyze any potential impacts to historic and scenic resources. Therefore, compliance can be achieved with these policies.

Agricultural Lands Policy (26)

As no agricultural lands are proposed to be disturbed as part of the Project, this policy is not applicable.

Energy and Ice Management Policies (Policies 27-29)

The review of the Project in accordance with Article 10 of the New York State Energy Law will include a determination of the public need for energy. It is anticipated that as part of this process the New York State Department of State will comment on its compliance with the State Energy Office Policies and planning reports. The existing electric generating facility is already sited in a coastal zone. With the proposed Project, ice management practices will not be required as the withdrawal of surface waters for cooling purposes will no longer be required. Therefore, compliance will be achieved with regards to the energy and ice management policies.

Water and Air Resources Policies (Policies 30-43)

Water and air resources are described in detail in Sections 3.8 and 3.3 of this PSS, respectively, and will be addressed fully in Exhibits 17 and 23 to the Article 10 Application. The Project will

operate in accordance with federal and New York State ambient air quality standards, and in accordance with the air approvals to be issued for the project by the NYSDEC (see air permitting requirements discussed in Section 6.4.2.a above). With regard to water, development of the proposed Danskammer Energy Center will require a modification to the site's existing SPDES permit, most notably to account for the elimination of the once-through cooling system associated with the existing steam units. Project operation in accordance with the modified SPDES permit will ensure that water resources are not impaired. Therefore, compliance with water and air resource policies will be achieved.

Wetland Policy (44)

The proposed Project has been sited to avoid, to the maximum extent practicable, impacts to wetland areas. Portions of the Project site that have been previously developed or disturbed have been chosen as the location for proposed Project facilities in order to eliminate or minimize any impacts to wetland areas. Therefore, compliance with this policy will be achieved.

7.0 ELECTRIC SYSTEM EFFECTS

7.1 Interconnection Request to NYISO

Danskammer Energy is proposing to repower its existing 532 megawatt ("MW") (nameplate capacity) generating facility (the "Danskammer Generating Station" or the "Station") located in the Town of Newburgh, Orange County, New York with a state-of-the-art natural gas fired combined cycle power generation facility (the "Danskammer Energy Center" or the "Project"). The Danskammer Energy Center facility will have a net baseload capacity of approximately 536 MW, with a maximum net generation capacity of 600 MW. The Project facility will have a gross capacity of approximately 636.4 MW, which represents the total combined capacity of the gross steam turbine generator nameplate capacity of 270 MW and the gross gas turbine generator nameplate capacity of 366.4 MW. The difference between the Project facility's gross nameplate capacity of 636.4 MW and its net maximum output of approximately 600 MW is the result of various limiting factors including: mechanical limitations of the plant equipment; the electrical grid and connection limitations; the ambient conditions; and the auxiliary loads supporting various plant equipment.

On January 25, 2019, Danskammer Energy submitted a Large Facility Interconnection Request to repower the existing Danskammer Generating Station site. The combustion turbine will connect to the existing Generator 1 bay on the 115 kV North Bus at Danskammer Energy; and, the steam turbine will connect to the existing Generator 4 bay on the 115 kV South Bus. Upon Project completion, all existing Danskammer Generating Station units will be retired.

Due to the nature of a repower application (using existing Point(s) of Interconnection ("POI") and gas supply piping), Danskammer Energy anticipates that the Interconnection Feasibility Study will be collectively waived and the New York Independent System Operator, Inc. ("NYISO") will provide Danskammer Energy Central Hudson (the Connecting Transmission Owner) an Interconnection System Reliability Impact Study ("SRIS") Agreement for the preparation of an SRIS in accordance with Section 30, Attachment X of the NYISO's Open Access Transmission Tariff ("OATT"). The SRIS agreement provides that Danskammer Energy is to compensate the NYISO and Central Hudson for the actual cost of the SRIS. The purpose of the SRIS is to evaluate the impact of the proposed interconnection on the reliability of the New

York State Transmission System. The SRIS considers base case conditions. The SRIS will provide:

- A short circuit analysis, a stability analysis, and a power flow analysis;
- Assumptions upon which analysis were based;
- Results of the analysis;
- Requirements or potential impediments to providing Energy Resource Interconnection Service;
- A list of facilities that are required as a result of the Interconnection Request and a non-binding good faith estimate of cost responsibility and a non-binding good faith estimated time to construct; and,
- At the applicant's option, the SRIS may include a preliminary evaluation of the Project facility under the Deliverability Interconnection Standard if the Project facility elected both Energy Resource Interconnection Service and Capacity Resource Interconnection Service in its Interconnection Request.

7.2 Article 10 Exhibit 5: Electric System Effects

Following the completion or waiver of the Interconnection Feasibility Study and completion of the SRIS, sufficient data will be available to address the requirements of §1001.5 of the Article 10 regulations. The results of the SRIS will be presented in Exhibit 5 of the Article 10 Application. Exhibit 5 will also address:

- An evaluation of impacts to transmission system reliability;
- A discussion of benefits and detriments on ancillary services and the electric transmission system;
- An analysis of reasonable alternatives that would mitigate adverse reliability impacts and maintain voltage, stability, thermal limitations, and short circuit capability at adequate levels, if necessary;
- An estimate of the increase or decrease in the total transfer capacity across each affected interface;
- A description of criteria, plans, and protocols for facility design, including construction, commissioning, and operation;
- Verification that the proposed Project is utilizing the best use of heat from the proposed facility for electric generation;
- Facility maintenance and management plans;
- Vegetation management practices for the exiting Danskammer Generating Station Site;

- Equipment availability and expected delivery dates for major components;
- A description of the proposed Project facility's blackstart capabilities (if any); and,
- An identification and demonstration of the degree of compliance with all relevant applicable reliability criteria of the Northeast Power Coordinating Council Inc., New York State Reliability Council, and Central Hudson (the local interconnecting transmission utility), including any criteria regarding blackstart and fuel switching capabilities.

At this point Danskammer Energy does not anticipate sharing any above ground facilities with other utilities.

8.0 ELECTRIC SYSTEM PRODUCTION MODELING

The applicant, Danskammer Energy, is proposing to repower its existing 532 megawatt (MW) (nameplate capacity) generating facility (the "Danskammer Generating Station" or the "Station") located in the Town of Newburgh, Orange County, New York with a state-of-the-art natural gas fired combined cycle power generation facility (the "Danskammer Energy Center" or the "Project"). The Danskammer Energy Center facility will have a net baseload capacity of approximately 536 MW, with a maximum net generation capacity of 600 MW. The Project facility will have a gross capacity of approximately 636.4 MW, which represents the total combined capacity of the gross steam turbine generator nameplate capacity of 270 MW and the gross gas turbine generator nameplate capacity of 366.4 MW. The difference between the Project facility's gross nameplate capacity of 636.4 MW and its net maximum output of approximately 600 MW is the result of various limiting factors including: mechanical limitations of the plant equipment; the electrical grid and connection limitations; the ambient conditions; and the auxiliary loads supporting various plant equipment.

Danskammer Energy will perform electric system production modeling to address the requirements outlined in §1001.8 of the Article 10 regulations. To that end, Danskammer Energy will consult with the New York State Department of Public Service and the New York State Department of Environmental Conservation to develop an acceptable input data set, including modeling of the proposed Project, to be used in the simulation analyses.

The analyses will be developed using either PROMOD or GE-MAPS and will consist of:

- Estimated statewide levels of SO2, NOx and CO2 emissions, both with, and without the proposed Project;
- Estimated minimum, maximum, and average annual spot prices representative of all NYISO Zones within the New York Control Area, both with and without the proposed Project;
- An estimated capacity factor for the proposed Project;
- Estimated annual and monthly, on peak, shoulder and off-peak MW output capability factors for the proposed Project;
- Estimated average annual and monthly production output for the proposed Project in MHhs;

- An estimated production curve for the proposed Project over an average year;
- An estimated production duration curve for the proposed Project over an average year; and,
- Estimated effects of the proposed Project on the energy dispatch of existing must-run resources, defined for this purpose as existing wind, hydroelectric and nuclear facilities, as well as co-generation facilities to the extent they are obligated to output their available energy because of their steam hosts.

Danskammer Energy will make digital copies of all inputs used in the simulations referenced above available upon request.

9.0 ELECTRIC AND MAGNETIC FIELDS

9.1 Introduction

Electric and magnetic fields ("EMF") are an invisible force surrounding electrical devices that are in use. EMF also occurs naturally, for example, during thunderstorms and in the earth's magnetic field, and are made up of electric and magnetic waves of energy radiating through the air. EMF is most commonly associated with power lines and substations and, according to the U.S. Environmental Protection Agency ("USEPA"), become weaker at a distance from the source.

The International Commission on Non-Ionizing Radiation Protection ("ICNIRP"), recognized by the World Health Organization ("WHO"), compiled a worldwide standards database, limiting exposure to EMF. However, according to the USEPA, no federal standards are imposed for EMF exposure in the U.S.

The New York State Public Service Commission ("NYSPSC"), in Opinion No. 78-13, issued June 1978, addressed health and safety issues and imposed interim operating standards for substation and transmission lines. The subsequent Statement of Interim Policy on Magnetic Fields of Major Electric Transmission Facilities ("Interim Policy"), September 1990, sets forth standards for electric and magnetic fields associated with substation and transmission lines.

9.2 Proposed Project

The applicant, Danskammer Energy, is proposing to repower its existing 532 megawatt ("MW") (nameplate capacity) generating facility (the "Danskammer Generating Station" or the "Station") located in the Town of Newburgh, Orange County, New York with a state-of-the-art natural gas fired combined cycle power generation facility (the "Danskammer Energy Center" or the "Project"). The Danskammer Energy Center facility will have a net baseload capacity of approximately 536 MW, with a maximum net generation capacity of 600 MW. The Project facility will have a gross capacity of approximately 636.4 MW, which represents the total combined capacity of the gross steam turbine generator nameplate capacity of 270 MW and the gross gas turbine generator nameplate capacity of 366.4 MW. The difference between the Project facility's gross nameplate capacity of 636.4 MW and its net maximum output of

approximately 600 MW is the result of various limiting factors including: mechanical limitations of the plant equipment; the electrical grid and connection limitations; the ambient conditions; and the auxiliary loads supporting various plant equipment.

Electrical interconnection will occur onsite at Central Hudson's existing 115 kV substation. This existing interconnection is entirely within Danskammer Energy's property and as discussed in Section 7, the new Project will utilize Points of Interconnection ("POI") already in place.

9.3 Proposed Evaluation Guidelines

Danskammer Energy will conduct an evaluation of the electric and magnetic field levels associated with the repowering and interconnection. The NYSPSC Interim Policy measures set forth for Article VII transmission circuits are the most applicable state standards available. The Interim Policy standards will be used as guidance for a basis of EMF evaluation of the Project. Guidance available through ICNIRP pertaining to worker health and safety will also be used.

As required by Exhibit 35 of the Article 10 regulations, a complete analysis of EMF will be conducted and consist of the following:

- "Base case" and "proposed" cross-sections for the power line providing the electrical interconnection between the proposed Project facility and Central Hudson's existing 115 kV substation;
- A set of aerial photos/drawings enhanced by showing the exact location of the power line and a stated measurement to the nearest residential or non-residential occupied building; and;
- An EMF study with calculation tables and field strength graphs.

Application of Danskammer Energy, LLC for a Certificate of Environmental Compatibility and Public Need Pursuant to Article 10 for Approval to Repower its Danskammer Generating Station Site Located in the Town of Newburgh, Orange County

Case 18-F-0325

Preliminary Scoping Statement

APPENDIX A

PUBLIC OUTREACH EFFORTS

Affidavit of Service for the Open House Invitation Documents

Case Number 18-F-0325

Application of Danskammer Energy, LLC for a Certificate of Environmental Compatibility and Public Need Pursuant to Article 10 for Approval to Repower its Danskammer Generating Station Site Located in the Town of Newburgh, Orange County.

AFFIDAVIT OF SERVICE

John Lacey of Mower, in Syracuse, New York, the undersigned being duly sworn deposes and says: I caused the document entitled 'Open House Invitation', copy of said document is attached, to be served, on December 3, 2018, via US Postal Service first class mail, to 7,289 addresses. I caused Dupli Envelope & Graphics to mail to 7,287 of these addresses and personally mailed to two addresses. The 7,289 addresses cover all physical mailing addresses within the project's three-mile study area as well as addresses on the captioned project Stakeholder List. A copy of said Stakeholder List and mailing report to which the document was sent is attached hereto.

Notice of the open house was sent electronically sent to 4 email addresses on the captioned project Stakeholder List. A copy of this email notice is attached hereto.

Further, I caused notice of the open house has been posted to the project website. A copy of this notice is attached hereto.

John Lacey

Sworn to me before this 5th day of February 2019.

Darlene A. Seamans

Notary Public
DARLENE A. SEAMANS
NOTARY PUBLIC-STATE OF NEW YORK
No. 01SE6011714
Qualified In Onondaga County
My Commission Expires 08-17-2022

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Danskammer Energy invites you to attend an informational Open House on the proposed re-powering of the Danskammer Energy Center. For your convenience, four open house sessions have been scheduled over two days in your area. We encourage all interested parties to attend a session and learn more about the project.

Details inside

Danskammer Energy lo invita a asistir a sus jornadas de puertas abiertas para obtener información sobre la propuesta de renovación del Danskammer Energy Center. Para su comodidad, se han programado cuatro sesiones de puertas abiertas en su área durante dos días. Invitamos a todas las partes interesadas a que asistan a una sesión y conozcan más sobre el proyecto.

Detalles adentro

********** 9999999 999999 0
NAME
NAME2
COMPANY
COMPANY2
ADDRESS3
ADDRESS2
ADDRESS
CITY, ST ZIP

Please join us and learn more about the

Danskammer Energy Center

You are cordially invited to attend an informational Open House on the proposed re-powering of the Danskammer Energy Center. To help ensure as many people as possible can attend, the project team has scheduled four informational open house meetings over two days. We encourage you to attend one of the sessions near you in order to learn more and get facts on the project directly from the project team in an up-close, one-on-one setting.

Session Agenda

All four Open House sessions will follow the same format. At each meeting, stations will be set up around the room, staffed by project experts who will provide information and answer questions about the project directly to attendees. Handouts with more information on the project will also be available. Subject matter experts will be available to discuss topics such as: environmental work and surveys, construction techniques, project siting and the regulatory approval process.

Meetings scheduled for:

Monday, December 17, 2018
Middle Hope Elementary School
62 Overlook Dr
Newburgh, NY 12550
11:00 am—1:00 pm
5:30 pm—7:30 pm

Tuesday, December 18, 2018
VFW Post 5913
Community Center
8 School Street
Wappingers Falls, NY 12590
11:00 am—1:00 pm
5:30 pm—7:30 pm

Acompáñenos y conozca más sobre el

Danskammer Energy Center

Lo invitamos a asistir a unas jornadas de puertas abiertas para obtener información sobre la propuesta de renovación del Danskammer Energy Center. Para garantizar la asistencia de la mayor cantidad de personas posible, el equipo de proyecto ha programado cuatro reuniones informativas durante dos días en su área. Lo invitamos a que asista a una de las sesiones para conocer mejor y obtener datos del proyecto directamente de parte del equipo de proyecto en un entorno cara a cara y cercano.

Temario de la sesión

Las cuatro sesiones de puertas abiertas seguirán el mismo formato. En cada reunión, se dispondrán estaciones alrededor de la sala atendidas por expertos del proyecto que brindarán información y responderán preguntas directamente a los asistentes. También habrá folletos con más información sobre el proyecto. Los expertos en la materia estarán a su disposición para analizar temas como trabajo y estudios ambientales, técnicas de construcción, emplazamiento del proyecto y el proceso reglamentario de aprobación.

Horarios de las reuniones:

Lunes 17 de Diciembre de 2018
Middle Hope Elementary School
62 Overlook Dr
Newburgh, NY 12550
11:00 am—1:00 pm
5:30 pm—7:30 pm

Martes 18 de Diciembre de 2018
VFW Post 5913
Community Center
8 School Street
Wappingers Falls, NY 12590
11:00 am—1:00 pm
5:30 pm—7:30 pm

John Lacey

From: Danskammer Energy Center <info@danskammerenergy.com>
Sent: Monday, December 3, 2018 4:39 PM
To: info@danskammerenergy.com
Subject: Danskammer Energy Center Open House

You Are Invited.
The community is invited to attend an informational Open House on the proposed re-powering of the Danskammer Energy Center. To help ensure as many people as possible can attend, the project team has scheduled four informational open house meetings over two days. We encourage you to attend one of the sessions near you in order to learn more and get facts on the project directly from the project team in an up-close, one-on-one setting.
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News

Stay up to date on the most recent developments related to the Danskammer Energy Center. This page contains news and information on the project, including project notices, public notices, information on outreach events and public meetings.

Open Houses:

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Casas Abiertas:

Lo invitamos a asistir a unas jornadas de puertas abiertas para obtener información sobre la propuesta de renovación del Danskammer Energy Center. Para garantizar la asistencia de la mayor cantidad de personas posible, el equipo de proyecto ha programado cuatro reuniones informativas durante dos días en su área. Lo invitamos a que asista a una de las sesiones para conocer mejor y obtener datos del proyecto directamente de parte del equipo de proyecto en un entorno cara a cara y cercano.

Temario de la session

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Regulatory Filings

- A copy of the Danskammer Energy Center Public Involvement Program Plan can be found here.
- A copy of the Danskammer Energy Center Meeting Log submitted to the Department of Public Service on 09/25/18 can be found here. here.

December 4, 2018

Robert Cuthill
Dupli Envelope & Graphics
6761 Thompson Road
Syracuse, NY 13211

Rich Randazzo
Mower
211 West Jefferson Street
Syracuse, NY 13202

Subject: Danskammer Mailing 12/3/18 Drop date

Rich,

As discussed, the Danskammer mailing dropped on December 3, 2018.

Please find the attached postal record showing the quantities for each group and the zip codes we mailed to. Total pieces mailed = 7287.

Thanks so much for your business and we look forward to working with you again soon.

Best,

Rob Cuthill
917-685-0400
www.duplionline.com

Stakeholders/Notification List

TOWN OF NEWBURGH (HOST COMMUNITY)

Gilbert J. Piaquadio, Town Supervisor
Town of Newburgh
1496 Route 300
Newburgh, NY 12550

Andrew Zarutskie, Town Clerk
Town of Newburgh
1496 Route 300
Newburgh, NY 12550

Gerald Canfield, Code Compliance Supervisor
Town of Newburgh
308 Gardnertown Road
Newburgh, NY 12550

John P. Ewasutyn, Chairman
Town of Newburgh Planning Board
308 Gardnertown Road
Newburgh, NY 12550

Scott Manley, Town Councilman &
Deputy Supervisor
Town of Newburgh Town Council
1496 Route 300
Newburgh, NY 12550

Kenneth Mennerich, Vice Chairperson
Town of Newburgh Planning Board
308 Gardnertown Road
Newburgh, NY 12550

ORANGE COUNTY AGENCIES

Steven M. Neuhaus, County Executive
Orange County
40 Matthews Street
Goshen, NY 10924

Annie Rabbitt, County Clerk
Orange County Parry Building
4 Glenmere Cove Road
Goshen, NY 10924

David E. Church, Planning Commissioner
1887 County Building
124 Main Street
Goshen, NY 10924

Kevin Sumner, District Manager
Orange County Soil and Water Conservation
District
225 Dolson Avenue, Suite 103
Middletown, NY 10940

Laurie Villasuso, Chief Operating Officer
Orange County IDA
4 Crotty Lane, Suite 100
New Windsor, NY 12553

L. Stephen Brescia, Chairman of the Legislature
Orange County Legislature
255 Main Street
Goshen, NY 10924

Michael D. Paduch, Minority Leader
Orange County Legislature
255 Main Street
Goshen, NY 10924

Michael Amo, Independence Party Leader
Orange County Legislature
255 Main Street
Goshen, NY 10924

Kate Bonelli, Majority Leader
Orange County Legislature
255 Main Street
Goshen, NY 10924

ULSTER COUNTY AGENCIES

Michael P. Hein, County Executive
6th Floor County Office Building
244 Fair Street
Kingston, NY 12401

Nina Postupack, County Clerk
Ulster County Office Building
244 Fair Street
Kingston, NY 12401

MUNICIPALITIES IN ULSTER COUNTY

TOWN OF MARLBOROUGH

Alphonso Lanzetta, Town Supervisor & Town Councilman
Town of Marlborough
21 Milton Turnpike
P.O. Box 305
Milton, NY 12547

Colleen Corcoran, Town Clerk
Town of Marlborough
21 Milton Turnpike
P.O. Box 305
Milton, NY 12547

DUTCHESS COUNTY AGENCIES

Marcus J. Molinaro, County Executive
22 Market St.
Poughkeepsie, NY 12601

Bradford Kendall, County Clerk
22 Market St.
Poughkeepsie, NY 12601

MUNICIPALITIES IN DUTCHESS COUNTY

TOWN OF WAPPINGER

Richard Thurston, Town Supervisor
Town of Wappinger
20 Middlebush Road
Wappingers Falls, NY 12590

Joseph P. Paoloni, Town Clerk
Town of Wappinger
20 Middlebush Road
Wappingers Falls, NY 12590

TOWN OF POUGHKEEPSIE

Jon J. Baisley, Town Supervisor
Town Hall
1 Overocker Road
Poughkeepsie, NY 12603

Felicia Salvatore, Town Clerk
Town Hall
1 Overocker Road
Poughkeepsie, NY 12603

TOWN OF FISHKILL

Robert LaColla, Supervisor
Town of Fishkill
807 Route 52
Fishkill, NY 12524

Becki Tompkins, Town Clerk
Town of Fishkill
807 Route 52
Fishkill, NY 12524

VILLAGE OF WAPPINGERS FALLS

Matt Alexander, Mayor
Village of Wappingers Falls
2582 South Avenue
Wappingers Falls, NY 12590

John Karge,Village Clerk
Village of Wappingers Falls
2582 South Avenue
Wappingers Falls, NY 12590

STATE AND REGIONAL AGENCIES

Kathleen Burgess, Secretary,
New York State Board on Electric Generation Siting and the Environment
Empire State Plaza
Agency Building 3
Albany, NY 12223

James Denn, Public Information Officer
New York State Department of Public Service
Empire State Plaza
Agency Building 3
Albany, NY 12223-1350

John Rhodes, Chairman
New York State Department of Public Service
Empire State Plaza
Agency Building 3
Albany, NY 12223-1350

Lorna Gillings, Outreach Contact
New York State Department of Public Service
Empire State Plaza
Agency Building 3
Albany, NY 12223-1350

Heather Behnke, Esq. Assistant Counsel
Office of General Counsel
New York State Department of Public Service
3 Empire State Plaza
Albany, NY 12223

Jay Goodman, Esq. Assistant Counsel
Office of General Counsel
New York State Department of Public Service
3 Empire State Plaza
Albany, NY 12223

Michael Higgins, Outreach Contact
NYS Department of Environmental Conservation
Division of Environmental Permits
625 Broadway, 4th Floor
Albany, NY 12233-1750

Basil Seggos, Commissioner
NYS Department of Environmental Conservation
625 Broadway
Albany, NY 12233

Kelly Turturro, Regional Director
NYS Department of Environmental Conservation, Region 3
21 South Putt Corners Road
New Paltz, NY 12561

Rose Harvey, Commissioner
NYS Office of Parks, Recreation & Historic Preservation
Peebles Island State Park
P.O. Box 189
Waterford, NY 12188-0189

Lucy R. Waletzky, Chair
OPRHP, Taconic Regional Office
PO Box 308
Staatsburg, NY 12580

Paul A. Karas, Acting Commissioner
NYS Department of Transportation
50 Wolf Road
Albany, NY 12232

Lance McMillan, P.E., Acting Regional Director
NYS Department of Transportation, Region 8
Eleanor Roosevelt Building
4 Burnett Boulevard
Poughkeepsie, NY 12603

Joanne M. Mahoney, Chair
New York State Thruway Authority
200 Southern Boulevard
P.O. Box 189
Albany, NY 12201-0189

Richard Ball, Commissioner
NYS Department of Agriculture and Markets
10B Airline Drive
Albany, NY 12235

Matthew Driscoll, Acting Executive Director
New York State Thruway Authority
200 Southern Boulevard
P.O. Box 189
Albany, NY 12201-0189

Richard L. Kaufmann, Board Chairman
NYS Energy Research and Development Authority
17 Columbia Circle
Albany, NY 12203-6399

Alicia Barton, President and Chief Executive Officer
NYS Energy Research and Development Authority
17 Columbia Circle
Albany, NY 12203-6399

Meghan Taylor, Director Mid-Hudson Region
Empire State Development Corporation
33 Airport Center Drive
Suite 201
New Windsor, NY 12553

Howard Zemsky, President and CEO of Empire State Development Corporation and Commissioner of NYS Department of Economic Development
625 Broadway
Albany, NY 12245

Rossana Rosado, Secretary of State
NYS Department of State
One Commerce Plaza
99 Washington Avenue
Albany, NY 12231-0001

Laura McLean, Outreach Contact
NYS Department of State
Division of Coastal Resources
41 State Street
Albany, NY 12231

Howard A. Zucker, Commissioner of Health
NYS Department of Health
Corning Tower
Empire State Plaza,
Albany, NY 12237

Barbara Underwood
NYS Attorney General
State Capital Building
Albany, NY 12224

Vincent Sapienza, Acting Commissioner
New York City Department of Environmental Protection
59-17 Junction Blvd.
Flushing, NY 11373

RoAnn Destito, Commissioner
NYS Office of General Services
41st Floor, Corning Tower
Empire State Plaza
Albany, NY 12242

Hudson River Valley Greenway Communities Council
Barnabas McHenry, Chairman
625 Broadway, 4th Floor
Albany, NY 12207

Department of Environmental Conservation,
Central Office
Division of Environmental Permits,
Major Projects Management
625 Broadway
Albany, NY 12233-1750

Governor's Office
Andrew Cuomo, Governor of NY
NY State Capitol Building
Albany, NY 12224

NYS Department of Health
Howard Zucker, Commissioner
Corning Tower
Empire State Plaza
Albany, NY 12237

New York Independent System Operator
Ave M. Bie, Board Chair
10 Krey Boulevard
Rensselear, NY 12144

Hudson River Estuarine Reserve
Betsy Blair, Reserve Manager
256 Norrie Point Way
PO Box 315
Staatsburg, NY 12580

FEDERAL AGENCIES

US Army Corps of Engineers
New York District
ATTN: Regulatory Branch, Room 1937
26 Federal Plaza
New York, NY 10278-0090

David Stilwell, Field Supervisor
US Fish and Wildlife Service (USFWS)
3817 Luker Road
Cortland, NY 13045

National Telecommunications and Information Administration (NTIA)
Herbert C. Hoover Building (HCHB)
1401 Constitution Avenue, N.W.
Washington, D.C. 20230

Steven J. Sample
Mission Evaluation Branch
US Department of Defense Siting Clearinghouse
3400 Defense Pentagon, Room 5C646
Washington, DC 10301

Jennifer Solomon, Eastern Region Regional Administrator
Federal Aviation Administration
1 Aviation Plaza
Jamaica, NY 11434

Bob Radliff, Executive Director
US Department of Interior, National Park Service – Canalway Heritage Corridor Administrator at Waterford, NY
P.O. Box 219
Waterford, NY 12188

National Park Service
Gay Vietzke, Regional Director, Northeast Region
U.S. Custom House
200 Chestnut Street, 5th Floor
Philadelphia, PA 19106

United States Coast Guard, District 1
Captain Michael Day, Sector Commander
212 Coast Guard Drive
Staten Island, NY 10305

National Marine Fisheries Service
Greater Atlantic Regional Fisheries Office
Michael Pentony, Regional Administrator
55 Great Republic Drive
Gloucester, MA 01930

U.S. EPA Region 2
Clean Water Division
Javier Laureano, Director
290 Broadway
New York, NY 10007-1866

LEGISLATIVE REPRESENTATIVES

Charles E. Schumer
Senator, State of New York
US Senate
Leo O'Brien Building
11A Clinton Avenue, Room 420
Albany, NY 12207

Kirsten E. Gillibrand
Senator, State of New York
US Senate
Leo W. O'Brien Building
11A Clinton Avenue, Room 821
Albany, NY 12207

Representative, 104th District
NYS Assembly
154 North Plank Road, Suite 2
Newburgh, NY 12550

Kieran Lalor, Representative, 105th District
NYS Assembly
North Hopewell Plaza, Suite #1
1075 Rt. 82
Hopewell Junction, NY 12533

Didi Barrett, Representative, 106th District
NYS Assembly
12 Raymond Avenue, Suite 105
Poughkeepsie, NY 12603

William J. Larkin, Jr.
Senator, 39th District
NYS Senate
1093 Little Britain Road
New Windsor, NY 12553

Sean Patrick Maloney
Congressman, District 18
US House of Representatives
123 Grand Street, 2nd Floor
Newburgh, NY 12550

Susan J. Serino
Senator, 41st District
NYS Senate
4254 Albany Post Road
Hyde Park, NY 12538

HIGHWAY DEPARTMENTS

Mark Hall, Highway Superintendent
Town of Newburgh Highway Department
90 Gardnertown Road
Newburgh, NY 12550

Erik Denega, Commissioner
Orange County Public Works Department
P.O. Box 509
Goshen, NY 10924

Robert H. Balkind, PE, Commissioner
Dutchess County Department of Public Works
626 Dutchess Turnpike
Poughkeepsie, NY 12603

Thomas Jackson, Commissioner
Ulster County Department of Public Works
313-317 Shamrock Lane
Kingston, NY 12401

SCHOOL DISTRICTS

Dr. Roberto Padilla, Superintendent
Newburgh Enlarged City School District
124 Grand Street
Newburgh, NY 12550

Michael M. Brooks, Superintendent of Schools
Marlboro Central School District
21 Milton Turnpike, Suite 100
Milton, NY 12547

Dr. Kathleen Farrell, Interim Superintendent of Schools
Poughkeepsie City School District
11 College Avenue
Poughkeepsie, NY 12603

Jose L. Carrion, Superintendent of Schools
Wappingers Central School District
PO Box 396
25 Corporate Park Drive
Hopewell Junction, NY 12533

EMERGENCY RESPONDERS

Terry Ahlers, Acting Chief
Newburgh Fire Department
22 Grand Street
Newburgh, NY 12550

Carl E. DuBois, Sheriff
Orange County Sheriff's Department
110 Wells Farm Road
Goshen, NY 10924

New York State Police, Troop T
1309 NY-300
Newburgh, NY 12550

Brendan Casey Commissioner
Orange County Office of Emergency Services
22 Wells Farm Road
Goshen, NY 10924

John P. Melville, Commissioner
NYS Division of Homeland Security and Emergency Services
1220 Washington Avenue, State Office Campus, Building 7A Suite 710
Albany, NY 12242

Gerald Canfield, Emergency Coordinator
Town of Newburgh
1496 Route 300
Newburgh, NY 12550

UTILITIES

Michael Mosher, President and CEO
Central Hudson Gas & Electric Corp.
284 South Avenue
Poughkeepsie, NY 12601

Carl A. Taylor, President
NYSEG
89 East Avenue
Rochester, NY 14649

Michael Bemis, Board Chair
New York Independent System Operator
10 Krey Boulevard
Rensselaer, NY 12144

Gil Quiniones, President and CEO
New York Power Authority
123 Main Street
White Plains, NY 10601-3170

Time Warner Cable
1279 New York 300
Newburgh, NY 12550

Verizon
52 Rt 17 K
Newburgh, NY 12550

PUBLIC INTEREST GROUPS / ADDITIONAL STAKEHOLDERS

Scenic Hudson
Hayley Carlock, Director of Environmental Advocacy
One Civic Center Plaza, Suite 200
Poughkeepsie, NY 12601

Riverkeeper, Inc.
Paul Gallay, President
20 Secor Road
Ossining, NY 10562

Hudson River Valley Greenway Communities Council
Scott Keller, Acting Executive Director
625 Broadway, 4th Floor
Albany, NY 12207

Hudson River Sloop Clearwater
724 Walcott Avenue
Beacon, NY 12508

Friends of Hudson
Christopher Reed, President
P.O. Box 326
Hudson, NY 12534

Dutchess Land Conservancy
Rebecca M. Seaman, Chairman – Board of Directors
P.O. Box 138
4289 Route 82
Millbrook, NY 12545

The Nature Conservancy
195 New Karner Road, Suite 200
Albany, NY 12205

Orange County Audubon Society
Ben Schneeberg, President
P.O. Box 1286
Warwick, NY 10990

Esopus Creek Conservancy, Inc.
Leeanne Thornton, Acting President
P.O. Box 589
Saugerties, NY 12477

Wallkill Valley Land Trust
Christine DeBoer, Executive Director
64 Huguenot Street
P.O. Box 208
New Paltz, NY 12561

Sierra Club Mid-Hudson Group
Bob Heinemann, Chair
P.O. Box 1012
Poughkeepsie, NY 12602

Hudson Highlands Land Trust
Nancy Berner, Chairman
20 Nazareth Way
P.O. Box 226
Garrison, NY 10524

Sustainable Hudson Valley
David Pell, Chairman
P.O. Box 1982
Poughkeepsie, NY 12601

Cedar Hill Cemetery and Mausoleum
5468 Route 9W North
Newburgh, NY 12550

Latinos Unidos of the Hudson Valley
PO Box 3281
Newburgh, NY 12550

Steve Olsen, Director
Dutchess County Department of Public Works – Parks Division
Bowdoin Park Office
855 Sheafe Road
Wappingers Falls, NY 12590

Stony Kill Foundation
79 Farmstead Lane
Wappingers Falls, NY 12590

MTA Metro-North Railroad
Catherine Rinaldi, President
420 Lexington Avenue
New York, New York, 10170

Amtrak
Richard Anderson, President and CEO
1 Massachusetts Avenue NW
Washington, DC 20001

Earthjustic
e
48 Wall Street, 19th Floor
New York, NY 10005

Ulster County Environmental Management Council
Kenneth S. Panza, Member-at-Large
33 Shotwell Road
Woodstock, NY 12498

Our Lady of Mercy
PO Box 730
Marlboro, NY 12542

AIRPORTS / HELIPORTS

Ed Harrison, General Manager
Stewart International Airport
1180 1st Street
New Windsor, NY 12553

Stewart Air National Guard
1 Maguire Way
Newburgh, NY 12550

Robert Balkind, Commissioner
Hudson Valley Regional Airport
263 New Hackensack Road
Wappingers Falls, NY 12590

HOST LANDOWNER

DANSKAMMER ENERGY, LLC
994 River Road
Newburgh, NY 12550

ADJACENT LANDOWNERS (within 2,500 feet of Preliminary Project Area)

Property Owner
2200 Atlantic Street, Suite 800
Stamford, CT 06902

Property Owner
17 Danskammer Road
Newburgh, NY 12550

Property Owner
P.O. Box 1357
New Britain, CT 06050

Property Owner
500 Water Street (C910)
Jacksonville, FL 32202

Property Owner
284 South Avenue
Poughkeepsie, NY 12602

Property Owner
500 Water Street
Jacksonville, FL 32202

Property Owner
P.O. Box 730
Marlboro, NY 12542

Property Owner
60 Old Post Road
Newburgh, NY 12550

Property Owner
95 Old Post Road
Marlboro, NY 12542

Property Owner
14 Camelot Drive
Marlboro, NY 12542

Property Owner
5 Camelot Drive
Marlboro, NY 12542

Property Owner
134 Old Post Road
Marlboro, NY 12542

Property Owner
120 Old Post Road
Marlboro, NY 12542

Property Owner
104 Old Post Road
Marlboro, NY 12542

Property Owner
141 Old Post Road
Marlboro, NY 12542

Property Owner
1 Christopher Way
Marlboro, NY 12542

Property Owner
117 Old Post Road
Marlboro, NY 12542

Property Owner
15 McDonald Drive
Marlboro, NY 12542

Property Owner
143 Old Post Road
Marlboro, NY 12542

Property Owner
5468 Route 9W North
Newburgh, NY 12550

Property Owner
89 Old Post Road
Marlboro, NY 12542

Property Owner
4 Camelot Drive
Marlboro, NY 12542

Property Owner
12 Camelot Drive
Marlboro, NY 12542

Property Owner
18 Camelot Drive
Marlboro, NY 12542

Property Owner
130 Old Post Road
Marlboro, NY 12542

Property Owner
114 Old Post Road
Marlboro, NY 12542

Property Owner
102 Old Post Road
Marlboro, NY 12542

Property Owner
128 Sunflower Circle
Wappingers Falls, NY 12590

Property Owner
P.O. Box 142
Marlboro, NY 12542

Property Owner
2 Christopher Way
Marlboro, NY 12542

Property Owner
7 McDonald Drive
Marlboro, NY 12542

Property Owner
1 McDonald Drive
Marlboro, NY 12542

Property Owner
153 Old Post Road
Marlboro, NY 12542

Property Owner
14 Curtin Lane
Marlboro, NY 12542

Property Owner
15 Curtin Lane
Marlboro, NY 12542

Property Owner
6 Curtin Lane
Marlboro, NY 12542

Property Owner
187 Old Post Road
Marlboro, NY 12542

Property Owner
108 Burnt Meadow Road
Gardiner, NY 12525

Property Owner
181 Old Post Road
Marlboro, NY 12542

Property Owner
500 Water Street
Jacksonville, FL 32202

Property Owner
16 Hilltop Circle
Fishkill, NY 12524

Property Owner
18 Curtin Lane
Marlboro, NY 12542

Property Owner
1 Flemming Drive
Newburgh, NY 12550

Property Owner
195 Old Post Road
Marlboro, NY 12542

Property Owner
P.O. Box 2026
Poughkeepsie, NY 12601

Property Owner
211 Old Post Road
Marlboro, NY 12542

Property Owner
43 South Street
Marlboro, NY 12542

DOCUMENT REPOSITORIES

Newburgh Town Hall
1496 Route 300
Newburgh, New York 12550

Marlborough Free Library 1251 Route 9W
Marlborough, NY 12542

Adriance Memorial Library 93 Market Street
Poughkeepsie, NY 12603

Newburgh Free Library
124 Grand St
Newburgh, NY 12550

STAKEHOLDER LIST ADDITIONS

Chief, Middle Hope Fire Department
Middle Hope Fire District
5172 Route 9W
Newburgh, NY 12551

Board of Fire Commissioners
Middle Hope Fire District
5172 Route 9W
Newburgh, NY 12551

Sandra Kissam
1261 Union Ave.
Newburgh, NY 12550

Robert Kaehler
27 West St.
Newburgh, New York 12550

Attn: Consistency Review Unit
Office of Planning and Development & Community Infrastructure
New York State Department of State
One Commerce Plaza-Suite 1010
99 Washington Avenue
Albany, New York 12231

EMAIL ADDRESSES

charrison2415@yahoo.com
rkaehler@perreca.com
Laura.McLean@dos.ny.gov
sandraks@frontiernet.net

Fact Sheets Regarding Danskammer Generating Station

DANSKAMMER
ENERGY, LLC

LEADING THE WAY TO A NEW ENERGY FUTURE

Danskammer Energy Center

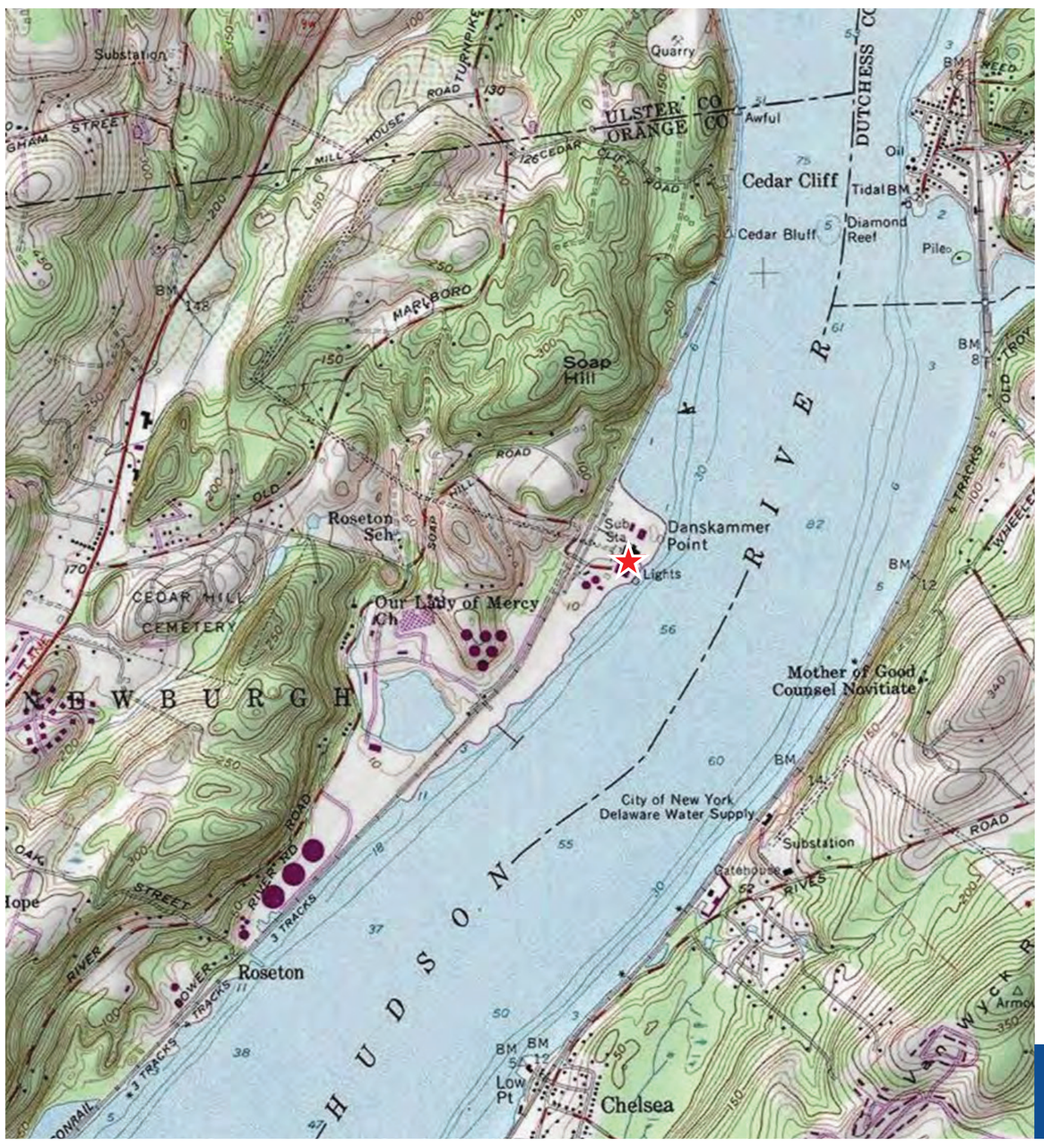
ENABLING RENEWABLE ENERGY IN NEW YORK STATE

ACHIEVING GREENHOUSE GAS REDUCTIONS

PRESERVING JOBS AND PROVIDING NEW REVENUE AND LOCAL GOVERNMENT

The Danskammer Generating Station has provided electricity to the Lower Hudson Valley and the New York State electric grid for more than 65 years. The facility has been an important part of the community and played a critical role in helping the state meet its energy demands.

Danskammer Energy, LLC, plans to repower and modernize operations at the Newburgh facility. The project includes specific upgrades designed to support New York State's renewable energy–focused electric grid and minimize impacts on local communities.



The Danskammer Energy Center will renew its 500 MW of capacity and will utilize existing gas and electrical infrastructure on site. **Danskammer Energy Center will generate enough power for more than half a million New York homes.**

Owned and operated by local, trusted partners who know New York and understand energy, it will support a revitalized New York State electric grid by providing needed, safe, reliable, efficient power to the region and lower power prices by displacing more costly electric generation.

(845) 428-9473 **www.danskammerenergy.com**

DANSKAMMER

ENERGY, LLC

LEADING THE WAY TO A NEW ENERGY FUTURE

ABOUT

- $400 million investment in the Hudson Valley
- More than 500 MW of generating capacity
- Will utilize existing infrastructure; no new electric or gas lines needed
- Owned and operated by local, trusted partners

ECONOMIC BENEFITS

- Maintain more than 30 existing, high-skilled jobs in Orange County and the Town of Newburgh
- At its peak, produce approximately 450 construction jobs for up to two and a half years
- More than $50 million in revenue over 20 years to local government
- $5 million payroll and $12 million spent on local services annually

ENVIRONMENTAL BENEFITS

- Eliminate use of Hudson River water for cooling
- Will displace less efficient generation and reduce emissions per megawatt hour produced
- Quick-start and fast ramping capabilities support New York State's renewable energy–focused electric grid

(845) 428-9473 www.danskammerenergy.com

LEADING THE WAY TO A NEW ENERGY FUTURE

PROJECT TIMELINE

Repowering plans anticipate opening the new Energy Center and closing the existing facility in the Spring of 2023, however, that is contingent on the Article 10 permitting process.

Key milestones in our project timeline include:

May 2018—Permitting process kicked off. It is anticipated permitting will take two and a half years.

January 2019—Applicants submit Preliminary Scoping Statement.

Summer 2019—Article 10 application submitted.

Fall of 2020—Completion of permitting process and beginning of construction. The new facility will be built within the existing Danskammer site and produce approximately 450 construction jobs for a period of up to two and a half years.

Spring 2023—Anticipated commissioning of new facility.

DANSKAMMER
ENERGY, LLC

LEADING THE WAY TO A NEW ENERGY FUTURE

ARTICLE 10 PROCESS TIMELINE

*See handout for greater detail

MAY 2018 — Public Involvement Program filed

DEC 2018 — Open houses held

JAN 2019 — Preliminary Scoping Statement filed

EARLY 2019 — Siting Board appointments made

SPRING/ SUMMER 2019 — Article 10 application filed

LATE 2019/ EARLY 2020 — Public hearings

MID-2020 — Decision made

FREQUENTLY ASKED QUESTIONS

What is the new Danskammer Energy Center?

Located on the site of an existing natural gas-fueled energy generating station in the Town of Newburgh, N.Y., the new Danskammer Energy Center will replace the existing facility with an updated, more efficient natural gas–fueled power generation facility that will provide both short-term and long-term environmental and economic benefits to Orange County. Owned and operated by local, trusted partners who know New York and understand energy, it will support a revitalized New York State electric grid by providing needed, safe, reliable, efficient power to the region.

How much energy will the Energy Center generate?

The new Danskammer Energy Center will generate approximately 535 MW of net electricity, enough power for more than a half million New York homes. The current Danskammer Generating Station has a generating nameplate capacity of around 530 MW.

Will you need new gas lines into the plant or power lines out of the plant?

There will be no new transmission lines or gas pipelines outside the Danskammer-owned property.

Since the existing facility currently runs on natural gas, the current gas lines coming into the plant and the electric lines leaving the plant will be used for the repowered facility.

Will the plant continue to use water from the Hudson River for cooling purposes?

One of the big advantages of repowering this plant is that the Energy Center's air-cooled condensing system will eliminate the use of cooling water from the Hudson River. The plant will run on a closed-loop steam system with minimal overall consumption of water.

By not drawing water from the Hudson, the already low risk of fish entrainment and impingement will be entirely eliminated and there will be no thermal impacts from the discharge of heated water.

FREQUENTLY ASKED QUESTIONS

Will the Energy Center be protected from flooding?

The new plant will be completely moved out of the flood zone and will be constructed to be protected from any future flooding risk.

Where will the power generated from the plant be used?

The power produced from this plant will enter New York's energy system and be distributed across the state's energy grid.

Who has proposed the Energy Center?

Owners, Tiger Infrastructure and Agate Power, have extensive experience in the power industry. The principals of Danskammer Energy have developed over 15,000 MW of renewable and conventional power generation facilities and managed over 17,500 MW of power capacity. We have recently been involved in the construction of new facilities in California, Texas, Ohio and North Carolina.

LEADING THE WAY TO A NEW ENERGY FUTURE

PLANNED STUDIES

In support of its Article 10 application, the Danskammer Energy Center plans to conduct the following studies for the Department of Public Service's review:

- Wetland delineation
- Traffic counts and analysis
- Noise monitoring and modeling
- Cultural resource consultations
- Visual simulations and analysis
- Air emission modeling
- Economic modeling

LEADING THE WAY TO A NEW ENERGY FUTURE

PHOTOS OF EXISTING GENERATION FACILITY

William Reid
Chief Executive Officer
Danskammer Energy
135 E. 57th Street, 15th Floor
New York, NY 10022
wreid@danskammerenergy.com

January 31, 2019

Honorable Kathleen H. Burgess
Secretary of the Commission
New York State Public Service Commission
Empire State Plaza
Agency Building 3
Albany, NY 12223-1350

Subject: Case 18-F-0325
Danskammer Energy, LLC
Danskammer Energy Center
Town of Newburgh, Orange County, New York
Bi-monthly Public Involvement Program Plan Tracking Report

Dear Ms. Burgess:

This letter and enclosure are provided as the Public Involvement Program Tracking Report for the Danskammer Energy Center, which proposes a repowering of Danskammer Energy's Danskammer Generating Station site. Submittal of this tracking report is consistent with the Public Involvement Program (PIP) Plan that was most recently submitted to the Commission on July 25, 2018.

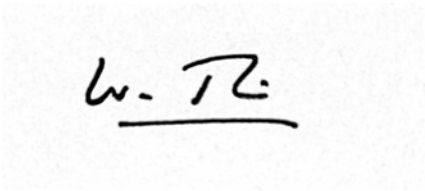
The proposed repowering of the Danskammer Generating Station site will result in a new modern energy center through the installation of new, state-of-the-art electric generators. The new energy center, which will be known as the "Danskammer Energy Center", will provide a more efficient and cost-effective facility to produce electricity while minimizing impacts on the surrounding communities and providing tax benefits into the future.

The enclosed meeting log summarizes the actions that have already been taken with regard to the Project's Public Involvement Program and the planned future activities. We have held more introductory project meetings with municipal officials and other stakeholders. We hosted Open Houses on December 17, 2018 at the Middle Hope Elementary School gym in the Town of Newburgh and December 18, 2018 at the VFW Hall on 8 School Street, in Wappingers Falls. Two sessions were held each day: 11:00 am to 1:00 pm and 5:30 pm to 7:30 pm, for a total of four sessions. We also made public presentations to both the City of Newburgh Mayor and City Council and the Town of Newburgh Supervisor and Town Council on January 28, 2019. Finally, on or about

February 8, 2019, we intend to file a Preliminary Scoping Statement (PSS) for the proposed repowering of the site.

If you have any additional questions or comments on the enclosed information or the Project, please feel free to contact me at 646-783-3717.

Sincerely,



William Reid
Chief Executive Officer, Danskammer Energy

Enclosure

cc: H. Taylor, Danskammer Energy
S. Murphy, TRC
M. Keller, TRC
B. Colella, Esq.

Danskammer Energy Center
Public Involvement Program - Meeting Log

Date of Meeting	Location of Meeting	Meeting Attendees	Purpose of Meeting	Follow-up Action Items	Comments
Completed Activities					
5/10/2018	NYSDPS Offices, Albany	*Project Representatives:* • Danskammer Energy • TRC • Barclay Damon *Stakeholder Participants:* • NYSDPS	Project Introductory Meeting	Submittal of draft PIP Plan (Completed 5/24/18)	
5/10/2018	Orange County IDA Offices, New Windsor	*Project Representatives:* • Danskammer Energy • Barclay Damon *Stakeholder Participants:* • Orange County IDA	Project Introductory Meeting		

5/29/2018	Town of Newburgh Offices, Town of Newburgh	*Project Representatives:*
		• Danskammer Energy
		  • William Reid
		  • Ed Hall
		Stakeholder Participants:
		• Gil Piaquadio – Town of Newburgh Supervisor
			Project Introductory Meeting		

Danskammer Energy Center
Public Involvement Program - Meeting Log

5/31/2018	Offices of Riverkeeper, Inc., Ossining	*Project Representatives:* • Danskammer Energy • Barclay Damon *Stakeholder Participants:* • Riverkeeper • Scenic Hudson	Project Introductory Meeting		
9/18/2018	Office of the Governor, NYC	*Project Representatives:* • Danskammer Energy • The Roffe Group *Stakeholder Participants:* • Representatives from the Office of Governor Cuomo	Project Introductory Meeting		
9/20/2018	Orange County Partnership	*Project Representatives:* • Danskammer Energy • The Roffe Group *Stakeholder Participants:* Maureen Halahan, CEO of the Orange County Partnership	Project Introductory Meeting		
9/27/2018	Office of the Orange County Executive	*Project Representatives:* • Danskammer Energy • The Roffe Group *Stakeholder Participants:* • County Executive • Deputy County Executive	Project Introductory Meeting		

Danskammer Energy Center
Public Involvement Program - Meeting Log

9/27/2018	Hudson Valley Building and Construction Trades Council	*Project Representatives:* • Danskammer Energy • The Roffe Group *Stakeholder Participants:* • President	Project Introductory Meeting		
9/27/2018	Construction Contractors Association Hudson Valley	*Project Representatives:* • Danskammer Energy • The Roffe Group *Stakeholder Participants:* • Executive Director	Project Introductory Meeting		
10/16/2018	Orange County Sheriff's Department	*Project Representatives:* • Danskammer Energy • The Roffe Group *Stakeholder Participants:* • Captain • Deputy Captain • Deputy Captain	Project Introductory Meeting / Discussion of PSS		
10/16/2018	Orange County Planning Department	*Project Representatives:* • Danskammer Energy • The Roffe Group *Stakeholder Participants:* • Commissioner	Project Introductory Meeting / Discussion of PSS		

10/16/2018	Orange County Office of Emergency Services	*Project Representatives:* • Danskammer Energy • The Roffe Group *Stakeholder Participants:* • Commissioner	Project Introductory Meeting / Discussion of PSS		
10/16/2018	Orange County Public Works Department	*Project Representatives:* • Danskammer Energy • The Roffe Group *Stakeholder Participants:* • Commissioner	Project Introductory Meeting / Discussion of PSS		
10/16/2018	Orange County Partnership	*Project Representatives:* • Danskammer Energy • The Roffe Group *Stakeholder Participants:* • Orange County Partnership Board	Presentation to the Board of the Orange County Partnership / Discussion of PSS		
11/8/2018	Offices of Riverkeeper	*Project Representatives:* • Danskammer Energy • Barclay Damon • Roffe Group *Stakeholder Participants:* • Riverkeeper • Scenic Hudson	Follow-up meeting and update on the project / Discussion of PSS		

11/27/2018	Town of Marlborough	*Project Representatives:* • Danskammer Energy • Roffe Group *Stakeholder Participants:* • Supervisor Lanzetta	Project Introductory Meeting / Discussion of PSS		
11/27/2018	Town of Poughkeepsie	*Project Representatives:* • Danskammer Energy • Roffe Group *Stakeholder Participants:* • Town Supervisor Baisley	Project Introductory Meeting / Discussion of PSS		
11/27/2018	Orange County Legislators	*Project Representatives:* • Danskammer Energy • Roffe Group *Stakeholder Participants:* • Chairman, Stephen Brescia • Majority Leader, Katie Bonelli • District 16, Leigh Benton • District 8, Barry Cheney	Project Introductory Meeting / Discussion of PSS		
11/29/2018	Town of Fishkill	*Project Representatives:* • Danskammer Energy • Roffe Group *Stakeholder Participants:* • Supervisor Bob LaColla	Project Introductory Meeting / Discussion of PSS		

11/29/2018	Town of Newburgh	*Project Representatives:* • Danskammer Energy • Roffe Group *Stakeholder Participants:* • Supervisor Piaquadio • Deputy Supervisor Manley • Town Attorney Mark Taylor • Town Engineer James Osborne • Code Compliance Supervisor Gerald Canfield	Follow-up meeting to discuss local code compliance		
12/10/2018	41st Senate District	*Project Representatives:* • Danskammer Energy • Roffe Group *Stakeholder Participants:* • Senator Sue Serino	Project Introductory Meeting / Discussion of PSS		
12/10/2018	106th Assembly District	*Project Representatives:* • Danskammer Energy • Roffe Group *Stakeholder Participants:* • Assemblywoman Didi Barrett	Project Introductory Meeting / Discussion of PSS		

Danskammer Energy Center
Public Involvement Program - Meeting Log

12/10/2018	105th Assembly District	*Project Representatives:* • Danskammer Energy • Roffe Group *Stakeholder Participants:* • Assemblyman Kieran Lalor	Project Introductory Meeting / Discussion of PSS		
12/12/2018	NYSDPS Offices, Albany	*Project Representatives:* • Danskammer Energy • TRC • Barclay Damon *Stakeholder Participants:* • NYSDPS • NYDOS	Follow-up meeting with DPS Staff		
12/17/2018	Middle Hope Elementary School, Town of Newburgh	*Project Representatives:* • Danskammer Energy • TRC • Barclay Damon • Roffe Group *Stakeholder Participants:* • Public at Large	Open Houses – 2 hour morning session and 2-hour evening session		
12/17/2018	VFW Community Center, Wappingers Falls	*Project Representatives:* • Danskammer Energy • TRC • Barclay Damon • Roffe Group *Stakeholder Participants:* • Public at Large	Open Houses – 2 hour morning session and 2-hour evening session.		

12/17/2018	Marlboro School District Offices	*Project Representatives:* • Danskammer Energy • Roffe Group *Stakeholder Participants:* • Michael Brooks, Superintendent • Patrick Witherow, Director of Business/Finance	Project Introductory Meeting / Discussion of PSS		
12/21/2018	Conference Call, Empire State Development	*Project Representatives:* • Danskammer Energy *Stakeholder Participants:* • Meghan Taylor, Mid-Hudson Regional Director	Project Introductory Meeting / Discussion of PSS		
1/10/2019	Town of Wappingers	*Project Representatives:* • Danskammer Energy • Roffe Group *Stakeholder Participants:* • Richard Thurston, Supervisor	Project Introductory Meeting / Discussion of PSS		
1/17/2019	Natural Resource Defense Council	*Project Representatives:* • Danskammer Energy • Roffe Group *Stakeholder Participants:* • Jackson Morris • Albert Butzel • Mark Izeman	Project Introductory Meeting / Discussion of PSS		

1/17/2019	New York League of Conservation Voters	*Project Representatives:* • Danskammer Energy • Roffe Group *Stakeholder Participants:* • Julie Tighe	Project Introductory Meeting / Discussion of PSS		
1/22/2019	42nd Senate District	*Project Representatives:* • Danskammer Energy • Roffe Group *Stakeholder Participants:* • Senator Metzger's Staff: Kyle Pero and Amanda Fallon	Project Introductory Meeting / Discussion of PSS		
1/22/2019	39th Senate District	*Project Representatives:* • Danskammer Energy • Roffe Group *Stakeholder Participants:* • Senator James Skoufis • Elijah Reichlin-Melnick	Project Introductory Meeting / Discussion of PSS		
1/22/2019	104th Assembly District	*Project Representatives:* • Danskammer Energy • Roffe Group *Stakeholder Participants:* • Assemblyman Jonathan Jacobson	Project Introductory Meeting / Discussion of PSS		

1/22/2019	Senate Energy Chair	*Project Representatives:* • Danskammer Energy • Roffe Group *Stakeholder Participants:* • Senator Kevin Parker • Josh Jones	Project Introductory Meeting / Discussion of PSS		
1/22/2019	Assembly Energy Chair	*Project Representatives:* • Danskammer Energy • Roffe Group *Stakeholder Participants:* • Assemblyman Michael Cusick • Sean Ewart	Project Introductory Meeting / Discussion of PSS		
1/23/2019	Orange County IDA-Conference Call	*Project Representatives:* • Danskammer Energy • Roffe Group *Stakeholder Participants:* • Laurie Villasuso, COO • Vincent Cozzolino, Managing Director	Follow-up conversation on the project		
1/28/2019	City of Newburgh	*Project Representatives:* • Danskammer Energy • Roffe Group • TRC • Mower *Stakeholder Participants:* • Mayor of the City of Newburgh • City Council	Public presentation to the City of Newburgh Mayor and City Council		

1/28/2019	Town of Newburgh	*Project Representatives:* • Danskammer Energy • Roffe Group • TRC *Stakeholder Participants:* • Supervisor of the Town of Newburgh • Town Board • Town Attorney • Town Clerk	Public presentation to the Town of Newburgh Supervisor and Town Council		

Danskammer Energy Center
Public Involvement Program - Meeting Log

Upcoming or Planned Activities					
2/5/19	NYSDEC Region 3 Offices in New Paltz, NY	*Project Representatives:* • Danskammer Energy • TRC *Stakeholder Participants:* • NYSDEC Region 3 Air Quality Staff from New Paltz • NYSDEC Air Quality Staff from Albany	Air Quality Pre-application meeting		

Application of Danskammer Energy, LLC for a Certificate of Environmental Compatibility and Public Need Pursuant to Article 10 for Approval to Repower its Danskammer Generating Station Site Located in the Town of Newburgh, Orange County

Case 18-F-0325

Preliminary Scoping Statement

APPENDIX B

U.S. FISH AND WILDLIFE SERVICE IPAC REPORT AND NEW YORK STATE NATURAL HERITAGE PROGRAM CONSULTATION

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New York Ecological Services Field Office
3817 Luker Road
Cortland, NY 13045-9385
Phone: (607) 753-9334 Fax: (607) 753-9699
http://www.fws.gov/northeast/nyfo/es/section7.htm

In Reply Refer To:
Consultation Code: 05E1NY00-2019-SLI-0343
Event Code: 05E1NY00-2019-E-01089
Project Name: Danskammer Energy Center

November 12, 2018

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 *et seq.*). This list can also be used to determine whether listed species may be present for projects without federal agency involvement. New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list.

Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the ESA, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC site at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list. If listed, proposed, or candidate species were identified as potentially occurring in the project area, coordination with our office is encouraged. Information on the steps involved with assessing potential impacts from projects can be found at: http://www.fws.gov/northeast/nyfo/es/section7.htm

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/

eagle_guidance.html). Additionally, wind energy projects should follow the Services wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the ESA. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New York Ecological Services Field Office
3817 Luker Road
Cortland, NY 13045-9385
(607) 753-9334

Project Summary

Consultation Code: 05E1NY00-2019-SLI-0343

Event Code: 05E1NY00-2019-E-01089

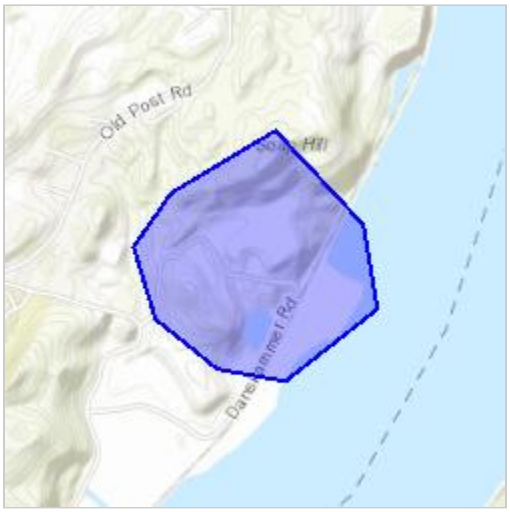
Project Name: Danskammer Energy Center

Project Type: POWER GENERATION

Project Description: Danskammer Energy, LLC ("Danskammer Energy") is proposing to repower its existing 532 megawatt (MW) Danskammer Generating Station (the "Station") located in the Town of Newburgh, Orange County, New York. The Energy Center will be located entirely on Danskammer Energy's property (the "Project Site") located on Danskammer Road in the Town of Newburgh, New York.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/41.57554897197372N73.96937180344142W



Counties: Orange, NY

Endangered Species Act Species

There is a total of 4 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Indiana Bat *Myotis sodalis* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Clams

NAME	STATUS
Dwarf Wedgemussel *Alasmidonta heterodon* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/784 Species survey guidelines: https://ecos.fws.gov/ipac/guideline/survey/population/363/office/52410.pdf	Endangered

Flowering Plants

NAME	STATUS
Small Whorled Pogonia *Isotria medeoloides*	Threatened

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/1890
Species survey guidelines:
https://ecos.fws.gov/ipac/guideline/survey/population/742/office/52410.pdf

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Fish and Wildlife, New York Natural Heritage Program
625 Broadway, Fifth Floor, Albany, NY 12233-4757
P: (518) 402-8935 | F: (518) 402-8925
www.dec.ny.gov

December 4, 2018

Sean Murphy
TRC Solutions
14 Gabriel Drive
Augusta, ME 04330

Re: Danskammer Energy Centre
County: Orange Town/City: Newburgh

Dear Mr. Murphy:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to the above project.

Enclosed is a report of rare or state-listed animals and plants, and significant natural communities that our database indicates occur in the vicinity of the project site.

For most sites, comprehensive field surveys have not been conducted; the enclosed report only includes records from our database. We cannot provide a definitive statement as to the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other sources may be required to fully assess impacts on biological resources.

Our database is continually growing as records are added and updated. If this proposed project is still under development one year from now, we recommend that you contact us again so that we may update this response with the most current information.

The presence of the plants and animals identified in the enclosed report may result in this project requiring additional review or permit conditions. For further guidance, and for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the NYS DEC Region 3 Office, Division of Environmental Permits at dep.r3@dec.ny.gov, (845) 256-3054.

Sincerely,

Heidi Krahling
Environmental Review Specialist
New York Natural Heritage Program

1321

The following state-listed animals have been documented at or in the vicinity of the project site.

The following list includes animals that are listed by NYS as Endangered, Threatened, or Special Concern; and/or that are federally listed or are candidates for federal listing.

For information about any permit considerations for the project, please contact the NYSDEC Region 3 Office, Department of Environmental Permits, at dep.r3@dec.ny.gov, (845) 256-3054.

The following species has been documented at the project site and nesting within one mile of the project site.

COMMON NAME	*SCIENTIFIC NAME*	*NY STATE LISTING*	*FEDERAL LISTING*	
Birds				
Bald Eagle *Breeding and Nonbreeding*	*Haliaeetus leucocephalus*	Threatened		5546 1432

The following species have been documented in the Hudson River and so could occur adjacent to the project site.

Fish				
Shortnose Sturgeon	*Acipenser brevirostrum*	Endangered	Endangered	1091
Atlantic Sturgeon	*Acipenser oxyrinchus*	No Open Season	Endangered	11464

The following species has been documented within 1.5 miles of the project site. Additional locations have been documented within 2.5 miles of the project site. Individual animals may travel 2.5 miles from documented locations. The main impact of concern is the cutting or removal of potential roost trees.

COMMON NAME	*SCIENTIFIC NAME*	*NY STATE LISTING*	*FEDERAL LISTING*	
Mammals				
Indiana Bat *Maternity colony*	*Myotis sodalis*	Endangered	Endangered	11287

This report only includes records from the NY Natural Heritage database.

If any rare plants or animals are documented during site visits, we request that information on the observations be provided to the New York Natural Heritage Program so that we may update our database.

Information about many of the listed animals in New York, including habitat, biology, identification, conservation, and management, are available online in Natural Heritage's Conservation Guides at www.guides.nynhp.org, and from NYSDEC at www.dec.ny.gov/animals/7494.html.