

EXHIBIT – 8.0

Draft Cricket Valley EIS Table Content/Scope of Technical Studies

Draft Cricket Valley EIS Table of Contents/Scope of Technical Studies

This narrative is intended to provide an outline of Cricket Valley Energy Center, LLC's (CVE) expectations with regard to the scope of issues to be assessed and documented in the State Environmental Quality Review (SEQR) Draft Environmental Impact Statement (DEIS) for the Cricket Valley Energy project. CVE has considered a broad range of environmental and community issues in its feasibility evaluation, and has incorporated measures in the siting and design of the project that significantly minimize the potential for impact. CVE understands the importance of fully describing each topic of interest, and plans to clearly present information for each topic regarding: the regulatory framework and guidance; existing conditions; site features considered and proposed; anticipated impacts; and, to the extent warranted, additional mitigation options. Although the specific details of the DEIS scope will be developed by the SEQR Lead Agency in consultation with interested parties at the local and state level, including the public, we believe it is useful to outline our planned approach along with the Environmental Assessment Form (EAF) in order to allow for early consideration by the range of participants in the scoping process.

CVE will be acquiring a 131.6-acre parcel as a result of the project. However, the proposed project activities will be located within an approximately 50-acre portion of the parcel that is bounded to the east by State Route 22; to the north by the existing Consolidated Edison (ConEd) 345 kilovolt (kV) transmission line right-of-way (adjacent to the existing Iroquois natural gas pipeline location); to the west by the MetroNorth commuter railroad line; and to the south by Rasco Materials and other industrially zoned property. Although general characterization will occur of the entire property and its surroundings, the DEIS will focus on the 50-acre development parcel (the "Project Site"); approximately 30 acres of the Project Site will be developed.

A draft table of contents for the DEIS is provided beginning on page 2. A scope of work for each technical area anticipated to be addressed is also presented, providing detail on anticipated studies. The technical areas addressed are:

- Earth Resources, including current site conditions; geology and seismology; topography and soils issues (page 6).
- Natural Resources, including wetlands, vegetation and protected species (page 8).
- Air Resources, including meteorology, modeling methodology and facility emissions and associated impacts (page 10).
- Water Resources, including surface water and groundwater resources, as well as details regarding the proposed water supply, wastewater discharge and stormwater management scenarios (page 13).
- Community Resources, including land use and zoning (page 16); visual and aesthetics (page 16); traffic and transportation (page 18); noise (page 20); electric and magnetic field effects (page 22); cultural (historic and archaeological) resources (page 22); and socioeconomics (page 23).

Proposed Cricket Valley EIS Table of Contents

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Earth Resources

The DEIS will assess potential impacts related to existing site conditions, soils, geology, and seismology following appropriate procedures described below and, where applicable, using the data provided in the following documents:

- Jacob, Klaus, Seismic Vulnerability of New York State: Code Implications for Buildings, Bridges and Municipal Landfill Facilities, National Center for Earthquake Engineering Research (NCEER), Buffalo, New York (April 1993).
- U.S. Geological Survey (USGS). 2008 United States National Seismic Hazard Maps (2008).
- Cadwell, D.H., Surficial Geologic Map of New York: Lower Hudson Sheet. New York State Museum (1991).
- United States Department of Agriculture, Natural Resources Conservation Service, Soil Survey of Dutchess County, New York (2001).

Site Conditions

The DEIS will include:

- A description of existing structures and current and historical development at the Project Site.
- A summary of the applicant's American Society for Testing and Materials (ASTM) Phase I Environmental Site Assessment for the project site and any resulting planned actions.
- A description of proposed demolition actions associated with site preparation activities, including discussion of anticipated waste disposal requirements.

Geology

The DEIS will include the following:

- A map delineating underlying bedrock types on the Project Site, and any area to be disturbed for off-site infrastructure or improvements required to support the project, including an evaluation for potential impacts due to project blasting, construction and operation, based on information to be obtained from available published maps and scientific literature, review of technical studies conducted on and in the vicinity of the project, and on-site field observations, test pits and/or borings.
- A description of the characteristics and suitability for construction purposes of each bedrock type identified above.
- A map delineating existing slopes (0 - 3%; 3 - 8%; 8 - 15%; 25 - 35%; 35% and over) on the Project Site and any area to be disturbed for off-site interconnections or improvements required to serve the project.
- A proposed site plan showing existing and proposed contours at 2-foot intervals for the Project Site and any area to be disturbed for off-site interconnections or improvements required to serve

the project at a scale sufficient to show all proposed buildings, structures, paved and vegetated areas, and construction areas.

- A preliminary calculation of the cut and fill necessary to construct the project, including separate calculations for topsoil, sub-soil and rock.
- A description and preliminary calculation of the amount of fill material to be brought in to the Project Site and any area to be disturbed for off-site interconnections or improvements required to serve the project.
- A description and preliminary calculation of the amount of cut material or spoil to be removed from the Project Site and any area to be disturbed for off-site interconnections or improvements required to serve the project.
- A description of excavation techniques to be employed.
- A delineation of temporary cut or fill storage areas to be employed.

Seismology

The DEIS will include the following:

- A description of the regional geology, tectonic setting and seismology of the project vicinity.
- An analysis of the expected impacts of blasting, project construction and operation of the project with respect to regional geology, if such can be determined.
- An analysis of the impacts of typical seismic activity experienced in the project area on the operation of the project.

Soils

The DEIS will include the following:

- A map delineating soil types on the Project Site, and any areas to be disturbed for off-site interconnections or improvements required to serve the project.
- A description of the characteristics and suitability for construction purposes of each soil type identified above, including a description of the recharge/infiltration capacity of each soil type, a discussion of any dewatering that may be necessary during construction, and whether the project will contain any facilities below grade that would require continuous dewatering.
- A map delineating depth to bedrock on the Project Site, and any area to be disturbed for off-site interconnections or improvements required to serve the project.
- A map delineating existing topography showing contours at 2-foot intervals on the Project Site, and any area to be disturbed for off-site interconnections or improvements required to serve the project.

Blasting

The DEIS will include the following:

- A preliminary plan describing all blasting operations including location, blasting contractor qualifications, charge sizes and limits, quantity of discrete blasts, hours of blasting operations, estimates of amounts of rock to be blasted, warning measures, measures to ensure safe transportation, storage and handling of explosives, use of blasting mats, a plan for a pre-blasting videotape condition survey of nearby buildings and improvements, and coordination with local safety officials.
- An assessment of potential impacts of blasting to environmental features, above-ground structures, and below-ground structures such as pipelines and wells.
- An identification and evaluation of reasonable mitigation measures regarding blasting impacts, including the use of alternative technologies and /or location of structures, and including a plan for securing compensation for damages that may occur due to blasting.

Natural Resources

The DEIS will address terrestrial resources on the Project Site. With regard to terrestrial resource impacts, the applicant will provide:

Wetlands

- To the extent applicable, the methodology for assessing the potential impacts to wetlands will follow the procedures and use predictive data provided in the following documents:
 - For identifying the appropriate vegetation, hydrology, and soils criteria which would define federal-jurisdictional wetlands, the U.S. Army Corps of Engineers (ACOE) Wetlands Delineation Manual (Environmental Laboratory, 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1. U.S. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi).
 - For identifying appropriate vegetation, hydrology, and soils criteria which would define state-jurisdictional wetlands, the New York State Department of Environmental Conservation (NYSDEC) Freshwater Wetlands Delineation Manual (July 1995).
 - For preparing functional assessments, the ACOE guide entitled "The Highway Methodology Workbook Supplement, Wetland Functions and Values, A Descriptive Approach" (November 1995).
 - For identifying appropriate mitigation for unavoidable impacts to federally regulated wetlands, Compensatory Mitigation for Losses of Aquatic Resources (33 Code of Federal Regulations [CFR] Part 332).
 - For identifying appropriate mitigation for unavoidable impacts to state-regulated wetlands, Freshwater Wetlands Regulation Guidelines on Compensatory Mitigation (NYSDEC, 1993. http://www.dec.ny.gov/docs/wildlife_pdf/wetlmit.pdf).

- An on-site identification and delineation of all federal and state regulated wetlands on-site and along all off-site interconnections or improvements required to serve the project.
- A description of the characteristics of all federal and state regulated wetlands identified above, including a description of the vegetation, soils, and hydrology data collected for each of the wetland sites identified, based on actual on-site wetland observations.
- A survey map of the location of all on-site federal and state regulated wetland boundaries identified above, as approved by NYSDEC.
- A qualitative and descriptive wetland functional assessment, including seasonal variations for all wetlands identified above for groundwater recharge/discharge; floodflow alteration; fish and shellfish habitat; sediment/toxicant retention; nutrient removal; sediment/shoreline stabilization; wildlife habitat; recreation; uniqueness/heritage; visual quality/aesthetics; and protected species habitat.
- An analysis of all wetlands within 100 feet of the Project Site and the wetlands identified above, observed in the field where accessible to examine their general characteristics and relationship, if any, to on-site, interconnection area or improvement area wetlands.
- An identification and evaluation of reasonable mitigation measures, including the use of alternative technologies and control of potential phosphorus and nitrogen sources from the project, regarding wetland impacts.

Vegetation

- A description of the ecological communities on the site, according to Edinger, et al., Ecological Communities of New York State, Second Edition (2002).
- A characterization of the Project Site and any areas to be disturbed for off-site interconnections or improvements required to serve the project, as to the type of plant communities present, the structure of those communities and the species composition of each community, based on systematic on-site surveys.
- A list of the species of flowering plants, ferns, and fern relatives occurring on the Project Site and areas to be disturbed, and the relative abundance of each.
- A delineation of the vegetative communities-cover type present at the Project Site and off-site areas to be disturbed on the basis of recent aerial photography and field observations, including an identification and delineation of any unusual habitats or natural communities that could support listed threatened or endangered species or species of special concern (based on agency correspondence).
- Documentation of the structure of these communities (canopy, understory and ground cover) by visual observation identifying the structure and composition of the plant communities identified based on dominant species, but all species observed being recorded for the purposes of site inventory.
- An estimate of the species and number of all trees 12 inches or greater in diameter at breast height within the Project Site.

- An analysis of the impact of the construction and operation of the project and all off-site interconnections or improvements required to serve the project, on the vegetation identified, including a delineation of vegetative areas to be removed or disturbed.
- An identification and evaluation of reasonable mitigation measures, including the use of alternative technologies, regarding vegetation impacts identified.

Wildlife

- A characterization of the Project Site and any off-site interconnections or improvements required to serve the project as to the wildlife, including mammals, birds, amphibians, and reptiles, and wildlife habitats, that occur in, on, or in the vicinity of the Project Site and areas to be disturbed, including an identification and delineation of unusual habitats or natural communities which could support listed species or species of special concern (based on updated agency correspondence and field surveys).
- A list of the species of mammals, birds, amphibians, and reptiles reasonably likely to occur in, on or in the vicinity of the Project Site and areas to be disturbed based on site observations and supplemented by publicly available sources.
- An analysis of the impact of the construction and operation, including air emissions, of the project and off-site interconnections or improvements required to serve the project on the wildlife, wildlife habitats, and wildlife travel corridors identified above.
- An identification and evaluation of reasonable mitigation measures, including the use of alternative technologies, regarding wildlife impacts identified.

Air Resources

The DEIS will include an examination of the impacts of criteria pollutants and regulated non-criteria pollutants from the project on air quality. The DEIS will include a description of the existing climate and meteorology of the project area; an assessment of existing and historical air quality conditions; an inventory of proposed emission sources associated with the project; and an assessment of project technology and design, emissions, and air quality impacts.

The assessment of the project's impact on air quality will follow the procedures outlined, and use data contained, in the following documents.

For performing air quality dispersion modeling:

- NYSDEC DAR-10: NYSDEC Guidelines on Dispersion Modeling Procedures for Air Quality Impact Analyses (May 2006);
- A project-specific Dispersion Modeling Protocol to be approved by the NYSDEC and the United States Environmental Protection Agency (USEPA);
- USEPA Guideline on Air Quality Models (November 2005); and
- USEPA Draft New Source Review Workshop Manual (October 1990).

For determining stack height:

- USEPA, Guidelines for Determination of Good Engineering Practice Stack Height (USEPA Technical Support Document for the Stack Height Regulations), Document Number EPA-450/4-80-023R (June 1995).

For impacts on soil and vegetation:

- USEPA, A Screening Procedure for the Impacts of Air Pollution Sources on Plants, Soils and Animals, Document Number EPA-450/2-81-078 (1981).

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 limitations and benchmarks:

- NYSDEC DAR-1: Guidelines for the Control of Toxic Ambient Air Contaminants (November 1997).

For greenhouse gas emissions:

- NYSDEC Guide for Assessing Energy Use and Greenhouse Gas Emissions in an Environmental Impact Statement (July 2009).

The air quality impact analysis for criteria pollutants will include:

- An assessment of existing climate data (average and extreme conditions) for the region surrounding the project, obtained from local climatological summaries, meteorological data sets from nearby stations, and/or other sources, as described in the Air Modeling Protocol, required to determine the normals and extremes of wind speed, temperature, and precipitation.
- 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, as described in the Air Modeling Protocol.
- An existing major source inventory within the largest significant impact area plus 50 kilometers (if applicable), using data to be obtained from the NYSDEC and agencies from other relevant states, the inventory of all sources used in the analysis to be an appendix to the application and verified by the source state or per DAR-10 requirements and the Dispersion Modeling Protocol.
- An assessment of the impacts from quantifiable emissions, including those generated from construction of the project.
- A control technology assessment for pollutants subject to Prevention of Significant Deterioration (PSD) review and Nonattainment New Source Review (NNSR) promulgated under 40 CFR 52.21 and 6 NYCRR 231, respectively, to determine the best available control technology (BACT) and lowest achievable emission rate (LAER) for the applicable pollutants.

- Pursuant to DAR-10, an assessment of optimal stack height taking into consideration Good Engineering Practice (GEP) stack height for the project, air quality related values, Federal Aviation Administration restrictions, and aesthetic or other considerations.
- An assessment of stack emissions of criteria and other regulated air pollutants, stack emissions being provided in hourly and annual estimates based on manufacturer's data, emission factors as published in USEPA Publication AP-42 (compilation of Air Pollutant Emission Factors, design control efficiencies, and other data or specifications related to the design of the project).
- A calculation of the number of nitrogen oxide (NO_x) and volatile organic compound (VOC) emission offsets to be obtained at the 1.15 to 1.0 ratio and how those offsets will be obtained in accordance with 6 NYCRR 231, and a discussion of the applicability and requirements of the "cap and trade" program pursuant to 6 NYCRR 227-3 and the federal Title IV acid rain program.
- An assessment of the potential impacts to ambient air quality that may result from stationary combustion source emissions from the project, the modeling to be done using the models and input meteorological data approved by the NYSDEC and USEPA in accordance with the Dispersion Modeling Protocol, a computer file output of dispersion modeling results to be provided to NYSDEC and USEPA.
- An assessment of the impacts to soils and vegetation that may result from stationary combustion source emissions of the project using USEPA screening criteria.
- An assessment of the air quality impacts of any significant economic growth resulting from development of the project in accordance with the Air Modeling Protocol.
- For those pollutants for which project impacts exceed USEPA's Significant Impact Levels, an assessment of the predicted cumulative air quality impacts from the dispersion modeling analyses to the Prevention of Significant Deterioration (PSD) increments and air quality standards.
- 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 defined sensitive receptors as identified in the Air Modeling Protocol.

The air quality impact analysis for regulated Non-Criteria Pollutants will include:

- A review of pertinent available data on non-criteria pollutants that may be emitted by natural gas-fired combustion turbines, including formaldehyde, ammonia, and any other non-criteria pollutants with emission factors such as those published by USEPA that may be identified after review of available emissions data.
- An assessment of the emission rates for non-criteria pollutants that may be emitted from the project exhaust stacks.
- An estimation of the potential ground level air concentrations (short-term and annual averages) of non-criteria pollutants due to the project, quantified using the models and approach as discussed in the Air Modeling Protocol.
- A comparison of the maximum predicted (ground level) air concentrations to benchmark air concentrations for both short- and long-term exposures. These benchmark air concentrations will

include NYSDEC short-term guideline concentrations (SGSs) and annual guideline concentrations (AGCs), and any other applicable health risk-based criteria referenced in DAR-1.

- If the maximum predicted ground level concentration of any non-criteria pollutant is estimated to exceed the respective SGC, AGC, or health risk-based benchmark air concentration, the applicant will consult with NYSDEC and NYSDOH to develop a protocol for performing a cumulative air quality impact analysis.
- An offsite-consequence analysis for ammonia that will be stored on-site for use in the proposed selective catalytic reduction (SCR) system, including an analysis of an accidental release scenario for ammonia performed to meet the requirements of USEPA's regulations implementing Section 112 (r) of the Clean Air Act.

The DEIS will include an assessment of greenhouse gas emissions per the NYSDEC Guide for Assessing Energy Use and Greenhouse Gas Emissions in an Environmental Impact Statement.

Water Resources

The DEIS will include a study of the water resource impacts of the construction and operation of the project. Regarding water resource impacts, CVE will provide:

Water Supply

- An estimate of the hourly and daily peak and the hourly and daily average water supply needs and consumptive water losses of the project, in gallons, for each day of a typical year, broken down by power production, domestic, and fire protection uses, with daily, monthly and annual totals.
- An estimate of the daily peak and daily average flow rate needs of the project in gallons per minute.
- A description of water conservation measures incorporated into the project design.
- 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 stating all factors used.
- A description of the water chemistry requirements for water to be supplied to the project, indicating any requirements that are more stringent than New York State standards for potable water, and describing any additional water treatment that will be necessary to obtain the desired water chemistry.
- An identification of alternatives considered and the water supply source or sources to be used by the project, including an analysis of the available capacity of the water supply source in terms of quantity, quality, and pressure and an analysis of the impacts of such water usage during both normal and drought periods on other users of the water supply source or aquifer (including potential impacts to wetlands or the Swamp River), and an identification of all infrastructure requirements or improvements necessary to serve the project.

- An evaluation of potential effects of the long-term use of the proposed water supply on nearby groundwater wells and on regional water supplies.
- CVE will complete a 72-hour pump test of the proposed bedrock wells to demonstrate adequate water yield and monitoring to evaluate potential impacts to wetlands, water bodies and off-site wells. A pumping test and aquifer test protocol will be developed for pre-approval prior to implementing the pump test. The protocol will show pumping well locations, monitoring well locations (including monitoring wells between any site contamination areas and pumping wells), conditions that would trigger extension of tests beyond 72 hours, discussion of the relationship and likely quality impacts of pumped wells relative to the proposed septic system, discharge locations for water pumped during the test, and surface water and wetland gauging sites. Agency personnel will be invited, in the protocol, to visit the site during the test to observe the flow test procedure. The protocol will describe the proposed analysis of on-site and off-site impacts including surface water bodies and nearby private wells, and any water supply quality concerns associated with any potential contaminant sources on the site.
- An identification of contingency plans in the event the proposed water supply becomes unavailable for either a short-term or long-term interruption.

Wastewater

- A water balance diagram for minimum, average and maximum water use operating conditions for the project that shows in detail all water sources, plant water uses, water treatment facilities, wastewater treatment facilities, and wastewater discharges.
- An identification and description of any process wastewater generated from the project, including an estimate of the hourly and daily peak and average volumes and effluent characteristics.
- An identification and evaluation of reasonable mitigation measures, including the use of alternative technologies, regarding wastewater generation and disposal impacts.
- A description of the proposed zero liquid discharge system and other proposed disposal methods for wastewater generated from the project, including a review of options explored.
- A discussion regarding disposal of solids resulting from the zero liquid discharge process, including potential for productive reuse, anticipated locations and methods of disposal, and status of agreements with applicable disposal facilities.

Groundwater

- A map of the Project Site showing the depth to seasonal high groundwater table in the following increments: zero to 1 foot, 1 to 5 feet, 5 foot increments thereafter.
- A discussion of the need and procedures planned for construction dewatering.
- A map based on publicly available information showing all areas within a 1 mile radius of the Project Site delineating all groundwater aquifers and groundwater recharge areas, and identifying groundwater flow direction, groundwater quality, and location, depth, yield and use of all public and private groundwater wells or other points of extraction of groundwater, and including delineation of well water and aquifer protection zones.

- As detailed in the pumping test and aquifer test protocol, results of short-term and long-term groundwater pumping tests, including an analysis and evaluation of all reasonably potential impacts created by the construction or operation of the project on groundwater quality and quantity in the project area, including potential short- and long-term impacts on public and private water supplies, the Swamp River, wetlands, and wellhead and aquifer protection zones.

Surface Waters

- An identification of the extent of all Waters of the State of New York and the United States within the Project Site.
- An identification of the extent of all Waters of the State of New York and the United States along and adjacent to all off-site interconnections or improvements required to serve the project.
- A description of the characteristics of all Waters of the State of New York and the United States identified above.
- An analysis of the impact of the construction and operation of project elements on the surface waters identified above.
- An identification and evaluation of reasonable mitigation measures, including the use of alternative technologies, regarding impacts on the Waters of the State of New York and the United States and the other surface waters identified above.

Construction/Operation Stormwater Runoff

- A description of all techniques that will be used to prevent stormwater contamination, and a conceptual site plan showing all intended structures and improvements to prevent stormwater contamination, including chemicals, fuel oil or other contaminants from storage facilities, product delivery, plant operation, plant maintenance, waste handling activities, and vehicles in parking lots or other areas.
- An identification and evaluation of reasonable mitigation measures, including the use of alternative technologies, regarding stormwater quality impacts.

Erosion Control

- A preliminary plan for the collection and treatment of stormwater runoff from the site during construction and operation, including: delineation of watershed boundaries and subbasins; existing flowpaths and proposed flowpath relocations; the location, type, and size of all existing and proposed storm drainage facilities; stormwater outfall and/or surface disposal locations and conditions; design flows and outfall velocities; proposed method of stabilizing outfall channels; the location, size and type of nearest upstream and downstream bridge or culvert affected by the project; location, size and structural details of stormwater detention facilities; preliminary hydraulic calculations for the 2-, 10- and 100-year storm frequencies for both existing and proposed conditions; delineation of affected floodways and flood hazard areas; a description of techniques that will be used to prevent or control stormwater-related soil erosion, runoff and subsequent sedimentation in areas that have been cleared and graded, both during construction and operation; an analysis of stormwater impacts; and an identification and evaluation of reasonable

mitigation measures regarding stormwater impacts, including the use of alternative technologies and subsurface disposal.

Community Resources

Land Use/Zoning

The DEIS will include a study of the land uses in the vicinity of the Project Site. The study will include:

- A map of all existing land uses on and within a 1-mile radius of the Project Site, including representation on an aerial photograph.
- A map of existing land use zones within a 1-mile radius of the Project Site, including a description of the permitted uses within each zone.
- A map of all publicly known proposed land uses within a 1-mile radius of the Project Site, gleaned from interviews with state and local planning officials, from the applicant's public involvement process, or from other sources.
- A qualitative assessment of the compatibility of the project with existing, potential and proposed land uses, and local and regional land use plans, within a 1-mile radius of the Project Site.
- After consultation with appropriate state and local agencies, an identification and analysis of the recreational land uses in the vicinity of the Project Site that might be affected by the sight or sound of the construction or operation of the project and any off-site improvements required. Where recreational resources exist, a description of the resource with available information about volume and type of use by season will be provided.
- An assessment of the project's compliance with local zoning requirements, setbacks, site development regulations and local code requirements applicable to the zone and scale and type of development.

Visual Resources and Aesthetics

The DEIS will include a visual impact assessment (VIA) to determine the extent and assess the significance of project visibility. The components of the VIA will include identification of visually sensitive resources, viewshed mapping, confirmatory visual assessment fieldwork, visual simulations, visual impact analysis, and proposed visual impact mitigation.

The methodologies, standards, and definitions for assessing visual resources will generally follow the procedures outlined in the following documents:

- NYSDEC, Assessing and Mitigating Visual Impacts, DEP-00-2, 2000.
- NYSDEC, D.E.C. Aesthetics Handbook, 1996.

- U.S. Forest Service, Landscape Aesthetics: A Handbook for Scenery Management, Agriculture Handbook Number 701, 1995.

The VIA will address the following issues:

- The character and visual quality of the existing landscape, including visibility of project operational characteristics, such as visible plumes from the stack and project lighting.
- Visibility of the project, including all roadways to be constructed, if any, and all gas, electric and other off-site interconnections or improvements required to serve the project, within a study area as determined by the viewshed analysis described below.
- Appearance of the project upon completion, including façade colors and textures.
- Lighting (including lumens, location and direction of lights for facility area and/or task use and safety, including stack requirements), and similar features.
- Representative views (photographic overlays) of the project, include side and rear views, indicating approximate elevations
- Nature and degree of visual change resulting from construction of the project, including all roadways to be constructed, if any, and all gas, electric and other types of off-site interconnections or improvements required to serve the project.
- Nature and degree of visual change resulting from operation of the project.
- Proposed mitigation and mitigation alternatives, including landscaping, lighting options for work areas and safety requirements, and lighting options for stack lighting as required by the Federal Aviation Administration (FAA).

The viewshed analysis component of the VIA will be conducted as follows:

- A viewshed map of the project study area will be presented on a 1:24,000 scale topographic base map. The viewshed study area is defined as the area within a 5-mile radius of the center of the Project Site. The viewshed map(s) will provide an indication of areas of potential visibility based only on topography and the top of the structure(s) with the highest peak elevation (the stacks). The potential screening affects of vegetation will also be shown. The map(s) will be divided into foreground, midground and background areas based on visibility distinction and distance zone criteria as defined by the references cited above. Visually sensitive sites, cultural and historic resources, and public vantage points within the viewshed study area will be included on the map(s) or an overlay. An overlay indicating landscape similarity zones will be included.
- The VIA will include a detailed description of the methodology used to develop the viewshed maps, including software, baseline information, and sources of data.
- The viewshed mapping will be used to determine the sensitive viewing areas and locations of viewer groups in the project vicinity. These will include recreational areas, residences, businesses, historic sites (listed or eligible), and travelers (interstate and other highway users).
- Viewpoints will be selected based on the following criteria:

- Representative or typical views from unobstructed or direct line-of-sight views;
 - Significance of viewpoints, especially historic sites, high public use areas, parks and scenic outlooks;
 - Level of viewer exposures, i.e., frequency of viewers or relative numbers, including residential areas, business centers, recreation areas, or high volume roadways;
 - Proposed land uses; and
 - Input from local public sources.
- Leaf-off simulations (photographic overlays) of the project, including all off-site improvements required to serve the project, will be prepared from the representative viewpoints established to demonstrate the post-construction appearance of the project. Representative viewpoints are anticipated to be from:
 - Residential areas off of Cricket Hill Road where the existing stacks on the site can be seen;
 - Route 22, at the 345 kV ConEd easement, where clearing provides the most direct view towards the site; and
 - The middle school/high school complex playing fields, where elements of the existing facility are visible through the treeline.

The visual simulations of the project from each of the viewpoints will be limited to the project as it would appear under typical operating conditions.

- Each set of existing and simulated views of the project will be compared and the change, if any, in visual character will be identified. Based on the likely viewers, and their likely visual sensitivity, the potential impact will be discussed. Where visual impacts from the proposed facility are identified, potential mitigation measures will be outlined, and the extent to which they effectively minimize such impact will be discussed.
- An overlay of a USGS map showing the photographic view locations and the results of computer visibility potential modeling will be provided.

Traffic and Transportation

The DEIS will include a study of the traffic and transportation impacts of the construction and operation of the project. The methodology for assessing the potential traffic and transportation impacts from traffic generated by the construction and operation of the project will generally follow the methodology provided in Transportation Research Board, National Research Council, Highway Capacity Manual, Special Report 209, Fourth Edition 2000.

The study will include a description of the pre-construction characteristics of the roadways in the vicinity of the project, including State Routes 22 and 55, and Cricket Hill Road. The study will rely upon primary data collected in 2008 for the Dover Knolls project. The description will include:

- A review of existing historical data on vehicle traffic and accidents obtained from the New York State Department of Transportation, Dutchess County, and the town of Dover.
- A review of local school bus routes and schedules.
- An identification of approach and departure routes to and from the Project Site for police, fire, ambulance and other emergency vehicles.
- A review of available load bearing and structural rating information for expected project traffic routes;
- The results of peak turning movement counts for typical weekday morning and weekday afternoon at the following intersections: Route 22/Cricket Hill Road; and Route 22/Route 55/Pleasant Ridge Road.
- The results of 24-hour traffic volume counts (vehicle classification counts), including a calculation of average daily traffic (ADT) for each intersection listed above.
- For each intersection listed above, documentation of the number of approach lanes, the lane widths, shoulder widths, traffic control devices by approaches, and sight distances.
- A calculation of Level of Service (LOS) for each intersection listed above, giving detail for each turning movement.
- An estimate of the annual rate of traffic growth in the vicinity of the project incorporating general growth and growth from planned land use changes, but not including projected traffic for the project, including the source and manner of calculation of the estimate.

The study will include an estimate of the trip generation and trip distribution characteristics of the project during both construction and operation. The estimate will include:

- A description of each major phase of construction, including duration of construction, daily shift periods and project totals.
- Identification of potential offsite laydown and construction worker parking areas to be used during the construction effort.
- For each major phase of construction, an estimate of the number and frequency of vehicle trips, including time of day and day of week arrival and departure distribution, by size and type of vehicle.
- An identification of approach and departure routes to and from the Project Site for vehicles carrying equipment or materials for construction of the project.
- For demolition activity, a separate estimate of the number and frequency of vehicle trips, including time of day and day of week arrival and departure distribution, and including a delineation of approach and departure routes, by size, weight and type of vehicle.
- An estimate of the number of employees per shift for each major phase of construction.

- A description of the potential use of rail shipments for construction deliveries, and if likely, the routes or rail recertification required to reach the Project Site.
- A description of the operation of the project, including the number of employees per shift, operating shift periods and seasonal and annual totals.
- An estimate of the number and frequency of vehicle trips generated during operation of the project, including time of day and day of week arrival and departure distribution, by size and type of vehicle.
- An identification of approach and departure routes to and from the Project Site for vehicles carrying chemicals or hazardous materials for operation of the project.

The study will include a conceptual site plan, drawn at an appropriate scale, depicting all Project Site driveway intersections, showing horizontal and vertical geometry, the number of approach lanes, the lane widths, shoulder widths, traffic control devices by approaches and sight distances.

The study will include an analysis and evaluation of the traffic and transportation impacts of the project, including:

- A comparison of projected future traffic conditions with and without the proposed project, including a calculation and comparison of the LOS for each intersection listed above, giving detail for each turning movement, the analysis to be conducted separately for the peak construction impacts of the project and for the typical operations of the completed project.
- An evaluation of the adequacy of the road system to accommodate the projected traffic, the analysis to be conducted separately for the peak construction impacts of the project and for the typical operations of the completed project.
- An identification and evaluation of reasonable mitigation measures regarding traffic and transportation impacts, including the use of alternative technologies, the construction of physical roadway improvements, and the installation of new traffic control devices.

Noise

The DEIS will assess impacts from noise generally following the procedures and using data provided in the following documents:

- NYSDEC, Assessing and Mitigating Noise Impacts (October 2000).
- USEPA, Office of Noise Abatement and Control, Protective Noise Levels. USEPA Report No. 550/9-79-100. 1978.

Noise source input data for the computer models used to predict noise impacts will be a combination of data acquired from equipment suppliers, data based on actual measurements of similar equipment at other facilities, and computations from published empirical equipment noise equations.

The DEIS will include:

- A map showing the location of the nearest noise receptors in relation to the Project Site, including the nearest residential and other sensitive receptor locations.
- Identification of selected monitoring locations:
 - Green Acres Conference Center, northwest of the Project Site;
 - Electric transmission corridor at Vincent Road, north of the Project Site;
 - Cricket Hill Road at Route 22, northwest of the Project Site;
 - East property line along Route 22; and
 - North Chippawalla Road, south of the Project Site.
- An evaluation of ambient pre-construction baseline noise conditions (long-term residual sound levels) – the residual noise level (L_{90}), peak noise level (L_{10}), and equivalent noise level (L_{eq}) at the nearest noise receptors, using actual measurement data recorded as a function of time and frequency using a Type I precision real time sound level meter (SLM) and octave band frequency spectrum analyzer.
- A description of the noise design goals for the project at the nearest noise receptors, including the nearest residential and other sensitive receptor locations, based on the NYSDEC guidance and town of Dover noise ordinance.
- An estimate of noise levels at the nearest noise receptors during major construction phases using a hemispherical free field noise prediction computer model that uses geometrical spreading, atmospheric and anomalous attenuation, on-site structural barrier effects, and effects of prominent terrain features to calculate the sound level decrease with increasing distance from the source. The model will account for the noise emissions from each source in each octave band that propagates to each point on a specified receptor grid, identifying the source and value of all data inputs used. The increase in daytime equivalent sound levels (L_{eq}) will be shown for the nearest noise receptors.
- An identification and evaluation of reasonable noise abatement measures for construction activities for each major construction phase.
- An estimate of noise levels at the nearest noise receptors during operation of the project using a hemispherical free field noise prediction computer model that uses geometrical spreading, atmospheric and anomalous attenuation, on-site structural barrier effects, and effects of prominent terrain features to calculate the sound level decrease with increasing distance from the source. The model will account for the noise emissions from each source in each octave band that propagates to each point on a specified receptor grid, identifying the source and value of all data inputs used. The increase in nighttime equivalent sound levels (L_{eq}) will be shown for the nearest noise receptor.

- An identification and evaluation of reasonable noise abatement measures, including the use of alternative technologies, for the final design and operation of the project during all operating scenarios.

Electric and Magnetic Fields

The DEIS will describe the electrical interconnection proposed for the project. It is anticipated that the interconnection will occur to the ConEd 345 kV transmission system located immediately adjacent to the Project Site's northern boundary. No new transmission facilities requiring an Article VII filing will be required.

- The DEIS will describe the interconnecting facilities including the overhead electric transmission conductors, and interconnecting substations.
- The DEIS will include an analysis of the levels of electric and magnetic fields (EMF) that will result at the edge of the right-of-way proposed for the new conductors between the proposed new combined CVE substation and ConEd substation. The DEIS will include an analysis with all input and output data showing that operation under summer normal, winter normal, and short term emergency loading conditions of the proposed interconnection will comply with:
 - The Public Service Commission's applicable electric field strength standards, as set forth in Opinion 78-13 (issued June 19, 1978); and
 - The applicable provisions of the Commission's Interim Policy Statement on Magnetic Fields (dated September 11, 1990).

Cultural Resources

Archaeological Resources

The DEIS will include either:

- Written confirmation from the OPRHP that archaeological investigation of the site and any interconnection is not warranted; or
- The results of studies performed to address recommendations made by OPRHP in response to the request for confirmation cited above.

The DEIS will include an Unanticipated Discoveries Plan that will identify the actions to be taken in the unexpected event that resources of cultural, historical or archaeological importance are encountered in the excavation process. This plan will include a provision for work stoppage upon the discovery of possible archaeological or human remains. In addition, the plan will specify that the methodology used to assess any discoveries will follow the most recent Standards for Cultural Resource Investigations and Curation of Archaeological Collections in New York State. Such an assessment, if warranted, will be conducted by a professional archaeologist, qualified according to the standards of the New York State Archaeological Council and the National Park Service 36 CFR 61.

In the event that significant cultural resources are identified, the Applicant will identify potential measures to avoid or minimize adverse effects to these resources. The OPRHP Coordinator will be consulted throughout the investigation and the Town of Dover and NYSDEC will be informed of the status and results of the investigations.

Historical Resources

The DEIS will include either:

- Written confirmation from the OPRHP that historical resource investigation associated with the site and any interconnection is not warranted; or
- The results of studies performed to address recommendations made by OPRHP in response to the request for confirmation cited above.

Socioeconomics

The DEIS will include a study of the socioeconomic impacts of the construction and operation of the project, including:

- An estimate of the number of temporary construction jobs that will be created, by discipline.
- 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.
- An estimate of the annual construction payroll, by trade, for each year of the project and an estimate of annual direct non-payroll expenditures likely to be made in the vicinity of the project (materials, services, rentals, etc.) during the period of construction.
- An estimate of the secondary employment and economic activity likely to be generated in the vicinity of the project by the construction of the plant. This analysis will state the basis for any economic multiplier factor or other assumption used and will include an order of magnitude comparison of the employment and economic activity likely to be generated in the town of Dover and Dutchess County with recent levels of employment and economic activity.
- 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 project during a typical year of operation.
- An estimate of the annual secondary employment and economic activity likely to be generated in the vicinity of the project by its operation.
- A comparison of the anticipated construction work force, by trade, with the construction work force available within commuting distance, assuming a continuation of recent construction work force employment levels, with the exception that the labor force demands of any unusually large project which has been publicly announced for construction in the vicinity of the Project Site during construction of the project will be addressed in the analysis.
- An estimate of the extent and duration of temporary construction worker in-migration.

- An identification of the amount and location of temporary housing expected to be used by any in-migrating construction workers.
- An estimate of incremental school operating and infrastructure costs that will be incurred by an affected school district due to the permanent operation of the project.
- An estimate of incremental school operating and infrastructure costs that will be incurred by any affected school district during the construction phase of the project.
- An estimate of incremental municipal or utility operating and infrastructure costs that will be incurred by the town of Dover, Dutchess County, and any other affected municipality of utility for police, fire, emergency, water, sewer, solid waste disposal and other municipal or utility services during the construction phase of the project.
- An estimate of incremental municipal or utility operating and infrastructure costs that will be incurred by the town of Dover, Dutchess County, and any other affected municipality of utility for police, fire, emergency, water, sewer, solid waste disposal and other municipal or utility services due to the permanent operation of the project.
- An identification of all jurisdictions that level real property taxes upon the Project Site, its improvements and appurtenances.
- For each taxing jurisdiction, an identification of the most recent tax rate, and total tax levy for the jurisdiction.
- For each taxing jurisdiction, an identification of the most recent assessed value levied against the Project Site, its improvements and appurtenances.
- For each taxing jurisdiction, an identification of the amount of the most recent annual taxes levied against the Project Site, its improvements and appurtenances.
- A discussion of anticipated tax and other benefits to the community.
- A description of all on-site equipment and systems to be provided to prevent or handle fire emergencies or hazardous substance incidents.
- A description of all contingency plans to be implemented in response to the occurrence of a fire emergency or a hazardous substance incident.
- No designated Environmental Justice community is located proximate to the Project Site; therefore, no associated analysis will be conducted except to the extent required for air permitting.