## State Environmental Quality Review (SEQR) FINDINGS STATEMENT September 26, 2012

Pursuant to Article 8 - State Environmental Quality Review Act (SEQR) of the Environmental Conservation Law and 6 NYCRR Part 617, the NYS Department of Environmental Conservation ("DEC" or "the <u>Department"</u>), as Lead Agency, makes the following findings.

Name of Action:	Cricket Valley Energy Center, 2241 State Route 22, Town of Dover, Dutchess County, New York
Project Sponsor:	Cricket Valley Energy Center, LLC

Acceptance date of final environmental impact statement: July 25, 2012

## **Summary Description of Action.**

The Cricket Valley Energy Center (CVE) will consist of a combined cycle natural gas powered 1,000 megawatt (MW) electric generating facility and interconnection substation. The CVE facility will generate approximately 1,000 MW of electricity, fueled only by natural gas. The CVE facility will use "combined cycle" generation technology, one of the most efficient technologies for producing electricity. The facility will be comprised of three combined-cycle units, each consisting of a combustion turbine generator (CTG), a Heat Recovery Steam Generator (HRSG) with supplemental duct firing, and a steam turbine generator (STG). Auxiliary equipment will include a low nitrogen oxide (NOx) natural gas-fired auxiliary boiler, needed to keep the HRSGs warm during periods of turbine shutdown and to provide sealing steam during startups, and four diesel-fired black start generators, each with a maximum power rating of 3 MW. The four black start generators will be used to re-start the facility in the event of a total power loss on the local or regional transmission grid. The project will be equipped with state-of-the-art emissions control technology, including dry low NOx (DLN) burners and selective catalytic reduction (SCR) technology to control emissions of NOx, and an oxidation catalyst to control carbon monoxide (CO) and volatile organic compounds (VOC) emissions. A continuous emissions monitoring system (CEMS) will be utilized to ensure and document facility compliance with applicable emissions standards. Water use will be minimized by the use of air cooled condensers (ACC). Process water supply will be provided from new on-site bedrock wells. A zero liquid discharge (ZLD) system will recycle and reuse process wastewater internally, reducing the need for process water and ensuring that no process wastewater will be discharged. The facility will employ best management practices (BMPs) for stormwater management, which will include a system that reflects existing drainage patterns and incorporates a wet extension detention pond, small bioretention facilities, and roof top rain capture to maintain pre-construction peak rates of discharge and minimize the potential for erosion and sedimentation.

There will be several storage tanks on-site, including a 1,000,000 gallon raw water storage tank, used to supply the facility's water needs and for fire protection; a 250,000 gallon demineralized water storage tank; and two 30,000 gallon aqueous ammonia storage tanks. A secondary safety containment area, designed to hold 110 percent of the entire volume of the tanks, will be provided around the ammonia storage tanks, consistent with New York State requirements. There also will be on-site storage of small quantities of ultra-low sulfur diesel (ULSD) fuel and lubricating oils. ULSD storage will be limited to the fire pump's integrated 650 gallon fuel tank and the four emergency black start generators, each with an integrated 1,000 gallon fuel tank. As required, all tanks, equipment and vessels containing ULSD fuel and/or lubricating oils will be located inside a concrete safety containment, sump or curbed dike area for spill control and management.

There will be two utility interconnections at the facility. The electricity generated from the facility will be transmitted via a 700 foot on-site overhead interconnect to the existing Consolidated Edison Company of New York (ConEd) 345 kilovolt electric transmission line located north of the Project Development Area. A new switchyard and substation, incorporating gas-insulated switchgear to minimize footprint requirements, will be built at the facility. Natural gas will be the sole fuel used for the CTGs and auxiliary boiler facility, transported via a new 500 foot, 12 inch gas pipeline from the Iroquois pipeline, just north of the Project Development Area.

## Location.

The project is located at the former Mica Products industrial site at 2241 NYS Route 22 in the Town of Dover, Dutchess County. The property totals approximately 193 acres, including 79 acres (west of the Metro-North rail line) within the Great Swamp Critical Environmental Area; a 57-acre Project Development Area east of the railroad line; and an additional 57 acres of industrial land to the south, formerly leased to Rasco Materials LLC (13 acres of which will be temporarily used during project construction). This property is bounded by NYS Route 22 to the east; to the south by residential properties; to the west by the Swamp River; and to the north by an existing ConEd electric transmission right-of-way. The project also includes a temporary 38.8-acre construction worker parking and laydown site located approximately 2.5 miles north of the Project Development Area. (See Attachment # 1, Current Project Property, and Attachment # 2, Remote Laydown Site).

DEC Project No.	Description of DEC Permits	Statutory and Regulatory Authority
3-1326-00275/00002	Freshwater Wetlands	ECL Article 24 and 6 NYCRR Part 663
3-1326-00275/00003	Water Quality Certification	Section 401 of the Clean Water Act and 6 NYCRR Part 608
3-1326-00275/00004	State Air Facility Permit	ECL Article 19 and 6 NYCRR Part 201
Implementing regulations pending	Water Withdrawal Reporting	ECL Article 15 Title 33
GP-0-10-001	SPDES General Permit for Stormwater Discharges from Construction Activities	ECL Article 17 Titles 7 & 8 and ECL Article 70

# **Agency Jurisdiction(s): Under the Environmental Conservation Law.**

# State Environmental Quality Review (SEQR) Process.

DEC has fulfilled its obligations as Lead Agency for SEQR review of the proposed action through coordination with Involved State and Local Agencies, preparation of a Draft and Final Environmental Impact Statement, issuance of public notices and receipt of and response to comments. As Lead Agency, DEC, through these Findings, will comment generally on the range of issues described in the DEIS and FEIS. DEC wishes to point out, however, that in accordance with §617.3 (b) of SEQR regulations, SEQR does not change the existing jurisdiction of agencies nor the jurisdiction between or among state and local agencies. SEQR provides all involved agencies with the authority, following the filing of an FEIS and written findings statement, to impose substantive conditions upon an action to ensure that the requirements of SEQR have been satisfied. For those issues that fall within the jurisdiction of an involved state or local agency, DEC will note that these agencies will ultimately be responsible to review these issues and make a final decision in accordance with that agency's authority. Otherwise these Findings are primarily aimed at supporting the regulatory decisions described in the above chart.

Attachment # 3 provides a chronology of SEQR milestones that have led to development of these findings. Principal documents related to this SEQR review have been made available on the DEC website at: http://www.dec.ny.gov/permits/64754.html, the Cricket Valley Energy

website at: http://www.cricketvalley.com/home.aspx. Additionally, all documents related to the SEQR process, including the Draft and Final DEIS Scopes, DEIS and FEIS were made available for public review at the following local repositories:

- NYS DEC, 625 Broadway 4th Floor, Albany, New York 12233-1750
- NYS DEC Region 3 Headquarters, 21 South Putt Corners Road, New Paltz, New York 12561, Contact: Daniel Whitehead (845) 256-3041.
- Town of Dover Town Hall, 126 East Duncan Hill Road, Dover Plains, New York 12522, Phone: (845) 832-6111, E-mail: WebMaster@TownofDoverNY.us
- Dover Plains Library, 1797 Route 22, Wingdale, New York 12522, Phone: (845) 832-6605, E-mail: library@doverlib.org
- Cricket Valley Energy Office, 5 Market Street, Dover Plains, New York 12522, Phone: (845) 877-0596, E-mail: info@cricketvalley.com
- Town of Dover website at: http://townofdoverny.us/index.cfm

# Facts and Conclusions in the EIS Relied Upon to Support the Decision.

In developing this SEQR Findings Statement, the DEC has reviewed and considered the following documents:

- Draft Environmental Impact Statement (DEIS), Cricket Valley Energy Center, accepted May 18, 2011.
- Final Environmental Impact Statement (FEIS), Cricket Valley Energy Center, issued July 25, 2012.
- Air State Facility application, March 26, 2010, with amendments.
- Freshwater Wetlands and Water Quality Certification application, January 21, 2010, with amendments.
- Acid Rain Permit Application, October 24, 2011.

# **Summary Findings.**

DEC is required to consider the relevant environmental impacts, facts and conclusions disclosed in the FEIS in its SEQR Findings Statement. Under Environmental Conservation Law section 8-0109, DEC is required to choose alternatives which, consistent with social, economic and other essential considerations, to the maximum extent practicable, minimize or avoid adverse

environmental effects, including effects revealed in the environmental impact statement process. The findings then set out the categories of resources affected by the project and any significant impacts that the project may have on them. Under each of these headings, DEC has set forth how such impacts have been avoided and if not avoided then mitigated to the maximum extent practicable. DEC has then balanced and weighed the residue of impacts against the public need and benefits of the project or social, economic and other essential considerations.

DEC finds that the project has been designed to avoid, or where not completely avoided, minimize and mitigate adverse environmental impacts revealed through the EIS process. DEC also finds that the social, economic and other essential considerations underlying the project are considerable even when balanced against the residue of impact in the preferred alternative. The following facts and conclusions are provided in support of DEC's issuance of a positive SEQR Findings Statement.

# 1. Public Need and Benefits.

### Certificate of Public Convenience and Necessity (PSL § 68).

The Project is subject to section 68 of the Public Service Law (PSL) which states that "[n]o... electric corporation shall begin construction of a[n]... electric plant without first having obtained the permission and approval of the commission." The Public Service Commission (PSC) is authorized to grant a CPCN pursuant to PSL § 68, after due hearing and upon a determination that the construction of the electric plant is necessary or convenient for the public service. PSC rules establish pertinent evidentiary requirements for a Certificate application (16 NYCRR § 21.3). The rules require a description of the plant to be constructed and of the manner in which the cost of such plant is to be financed, evidence that the proposed plant is in the public interest and economically feasible, and proof that the applicant is able to finance the project and render adequate service.

Among the many factors related to its public interest finding that the PSC may consider in granting a CPCN are the extent to which a project will meet the State's need for reliable electricity, is consistent with the State Energy Plan, and provides environmental benefits such as displacing older, less efficient generating facilities (see e.g., Petition of Calpine Eastern Corporation, Case 03-E-1581, Order issued June 21, 2004 [facility proposed to meet peak demand on Long Island]); Petition of AES ES Westover LLC, Case 10-E-0042, Order issued April 15, 2010 [finding the project would enhance the electric transmission system operation in the State, increase energy diversity and promote a cleaner, healthier environment]).

The DEIS and FEIS detail assertions CVE has made regarding the potential benefits that would be realized by the construction and operation of its facility, including displacement of older, less efficient and more polluting generation facilities and providing a reliable source of instate electric generation, both of which appear to serve the public interest. The PSC will consider these and other potential project benefits and conduct an independent evaluation of CVE's Certificate application and may consider the documents included in the Department's administrative record as part of its PSL § 68 review and will grant a CPCN if it determines that the Project is necessary and/or convenient for the public service.

#### *The Project will meet recently enacted CO*<sub>2</sub> *performance standards.*

The CVE Project is an example of a low-carbon intensity electric generation facility that will meet recently enacted carbon dioxide (CO<sub>2</sub>) Performance Standards for Major Electric Generating Facilities (6 NYCRR Part 251 effective July 12, 2012). Based on research the Department conducted in collaboration with the New York State Research and Energy Development Authority for the Part 251 rulemaking, the Department determined that modern natural gas-fired combined cycle combustion turbines have the lowest  $CO_2$  emissions profile among fossil fuel fired generation sources and, when firing natural gas solely, emit the lowest levels of  $CO_2$  of all surveyed types of fossil fuel combustion sources. The CVE Project is a modern natural gas-fired combined cycle combustion turbine that will utilize solely natural gas to generate electricity and not rely on distillate oil back up for electrical generation.

The CVE Project will be a  $CO_2$  budget source, subject to the  $CO_2$  Budget Trading Program (6 NYCRR Part 242). The Department enacted Part 242 to implement the Regional Greenhouse Gas Initiative (RGGI), a cooperative effort among States to reduce greenhouse gas emissions from electric power plants by means of a cap and trade system. Part 242 establishes New York's  $CO_2$  Budget Trading Program and sets the State's  $CO_2$  emissions cap. Emissions from new sources such as the CVE Project cannot cause the State to exceed its cap. Thus, the addition of the CVE facility to the New York Pool will not cause the State to exceed its  $CO_2$ emissions cap.

#### The Project will provide for the cleanup, rehabilitation and reuse of an inactive industrial site.

The Project provides an environmental and economic opportunity to rehabilitate an inactive industrial site, currently in disrepair, and return it to productive use, thereby resulting in new tax revenues and economic growth for Dutchess County and the Town of Dover, without a significant burden on the community or significant adverse impact to the environment.

#### The Project will restore previously degraded wetlands and preserve additional wetlands.

The Project will restore 0.6 acre of wetlands previously degraded by assorted nonhazardous fill material resulting from prior industrial activities. Additionally, 0.08 acres of wetland will be created and 2.4 acres of wetland adjacent area will be restored for wildlife habitat. The entire 79-acre portion of the Great Swamp west of the railroad track to be owned by the Project will remain undisturbed during construction and operation.

## The Project will result in local employment opportunities.

The Project is expected to employ up to 750 workers during the 36-month construction period, with the peak employment occurring for approximately five months. Once operational, the facility is expected to employ 28 full-time employees (FTE).

#### The Project will result in socioeconomic benefits.

In addition to direct employment opportunities, the Project will result in other local economic benefits, including: secondary employment (26 FTE), purchases of supplies and services, and tax revenues, without significantly impacting local community resources.

## 2. Air Resources

#### **Potential Impacts**

The Project is subject to both federal and state air pollution control laws and regulations and must demonstrate compliance with federal and State air quality standards and pollution control requirements.

The Project is located in Dutchess County New York, which is designated as an attainment or unclassifiable area for sulfur dioxide (SO<sub>2</sub>), carbon monoxide (CO), nitrogen dioxide (NO), particulate matter-10 microns (PM<sub>10</sub>) and particulate matter-2.5 microns (PM<sub>2.5</sub>) and as a Subpart 2/Moderate nonattainment area with respect to the 8-hour ozone National Ambient Air Quality standards (NAAQs) and NYAAQs (New York Ambient Air Quality standards). Facilities which emit certain pollutants in threshold amounts in areas which are designated attainment are subject to review under Prevention of Significant Deterioration (PSD) program. Facilities which emit certain pollutants in threshold amounts in areas which do not meet the NAAQs are subject to review pursuant to the Non Attainment New Source Review (NNSR) Program. It is typical for new major electric generating facilities such as the CVE Project to be subject to both PSD and NNSR review.

If the maximum annual emission of at least one criteria pollutant will exceed 100 tons per year (tpy), the project is considered major and is subject to PSD review for all pollutants for which the area is classified as attainment that exceed significant emission rates. In terms of nonattainment review, nitrogen oxides (NO<sub>X</sub>) and volatile organic compounds (VOC) are precursors to ozone formation. The major source thresholds in Dutchess County for these pollutants are 100 tpy of NOx and 50 tpy of Volatile Organic Compounds which if exceeded will subject the Project to NNSR review. Based on the foregoing, the Project will be classified as a new major source of air emissions under both the PSD and NNSR programs.

The Project will be a major source of NOx and VOC, both precursors to ozone, for which the Project area has a nonattainment designation. Consequently, the Project is required to apply Lowest Achievable Emission Rate (LAER) technology for these pollutants and obtain emissions offsets of these pollutants prior to DEC issuing an air permit. LAER is the most stringent emission limitation achieved in practice, or which can reasonably be expected to occur in practice for a category of emission sources taking into consideration each air contaminant which must be controlled, not to exceed the amount permitted under any applicable emission standard established under 6 NYCRR or 40 CFR (6 NYCRR 200.1(ak)). Pursuant to 6 NYCRR 231-5.2(b), the Project is also required to conduct an analysis of alternative sites, sizes, production processes and environmental control techniques to demonstrate that the benefits of the proposed

project significantly outweigh the environmental and social costs imposed as a result of its construction.

The Project will be a major source of emission of NO<sub>2</sub>, a criteria pollutant for which the area is classified as attainment. Accordingly, the Project is subject to PSD review and required to apply Best Available Control Technology (BACT) controls for NOx, CO, SO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, sulfuric acid (H2SO<sub>4</sub>), and greenhouse gases (GHG). BACT is defined as an emission limitation or equipment standard based on the maximum degree of reduction of each contaminant emitted from stationary air contamination source which the department determines is achievable for such source on a case-by-case basis considering: (1) process, fuels and raw material available and to be used; (2) engineering aspects of the application of various types of control technology which has been adequately demonstrated; (3) process and fuel changes; (4) respective costs of the application of all such control technologies, process changes, alternative fuels, etc.; and (5) applicable State and Federal emission standards (6 NYCRR 200.1(j)). In no event shall application of BACT result in emissions of any contaminant which will exceed the emissions allowed by any applicable standard established. LAER requirements are at least as stringent as BACT and satisfying a LAER emission limit for a particular pollutant typically satisfies BACT emission limits requirements.

In addition to the control technology requirements above, proposed new sources in attainment areas must perform a dispersion modeling analysis to demonstrate compliance with ambient air quality standards in addition to other impact analyses such as acidic deposition, impacts to soils and vegetation, indirect growth impacts, visibility impairment, and environmental justice, as required under PSD regulations.

In terms of the regulation of GHG emissions, the Project will be subject to the USEPA Tailoring Rule, which incorporates GHG emissions into the PSD permitting program. New facilities that are already subject to PSD review for another pollutant and emit greater than 75,000 tons of CO<sub>2</sub> equivalents must comply with BACT for GHG emissions. The Project must also comply with USEPA's Mandatory Reporting Rule (40 CFR Part 98) which requires reporting of GHG emissions data and other information. On the State side, the Project will be subject to 6 NYCRR Part 251 CO<sub>2</sub> Performance Standards for Electric Generating Facilities and 6 NYCRR Part 242 CO<sub>2</sub> Budget Trading Program, a mandatory cap-and-trade program to reduce GHG emissions as part of the Regional Greenhouse Gas Initiative.

#### Other Air Pollution Requirements.

The Project will be subject to other air pollution requirements including the following: New Source Performance Standards under 40 CFR Part 60; National Emission Standards for Hazardous Air Pollutants 40 CFR Parts 61 and 63; the federal Acid Rain program (Title IV Clean Air Act); the NOx Budget Program (6 NYCRR Part 237) and Clean Air Interstate Rule (6 NYCRR Parts 243, 244, and 245); the Acid Deposition Reduction SO<sub>2</sub> Budget Program (6 NYCRR Part 238); State permitting requirements (6 NYCRR Part 201); regulation of sulfur content in fuels (6 NYCRR Part 225); opacity and reasonably available control technology requirements (6 NYCRR Part 212, NYSDEC Policy DAR-1, and State published Annual Guideline Concentrations and Short-Term Guidance Concentrations).

#### Discussion and Findings Regarding Applicable Air Pollution Control Requirements.

The Department has reviewed the analyses presented in DEIS and FEIS (Section 4 Air Resources), including the updated analysis presented in the FEIS, and the information included in the original and revised air permit applications. The Department also noticed and solicited public comments on two draft Article 19 Air State Facility permits. Based on the Department's review of the DEIS, FEIS, and application materials, and its consideration of public comments, the Department has concluded that the Project will comply with all applicable State and federal air pollution laws and regulations. Significant findings which contributed to this determination are presented below.

#### Facility Level Emission Limits.

In addition to specific equipment emission limits discussed below, the Article 19 Air Facility permit will include the following emission limits: 191.9 ton per year (tpy) particulate matter (PM) facility limit; 191.9 tpy PM<sub>10</sub> facility limit; 191.9 tpy PM<sub>2.5</sub> facility limit; 569.9 tpy carbon monoxide facility limit; 46.9 tpy sulfur dioxide facility limit; 19.7 tpy hydrogen sulfide; 3,597,766 tpy carbon dioxide equivalent (CO<sub>2</sub>e) facility limit; 3,576,943 tpy CO<sub>2</sub>e limit on the combustion turbines; 7,605 Btu per kilowatt hour heat rate on the combustion turbines (based on Higher Heating Value (HHV) of the fuel); and start-up and shutdown conditions on the combustion turbines. These emission limits reflect and are consistent with the applicable requirements to which the CVE Project is subject. The Air Facility permit will contain conditions requiring CVE to monitor compliance with these emission limits through the use of continuous emission monitors or other DEC and EPA approved monitoring methods.

#### LAER/BACT.

CVE conducted a LAER analysis for NOx and VOC. Pollution control measures consistent with LAER, including selective catalytic reduction (SCR) and oxidation catalyst systems, are proposed for the Project (see DEIS Section 4.3, 4.3.3 LAER/BACT Analysis for NOx, 4.3.4 LAER/BACT Analysis for VOC, FEIS Section 4.3.2.2 Control Technology Assessment NOx Emissions). The combustion turbines will utilize a lean fuel technology and a low NOx burner to control NOx to a concentration of 9 ppmv at 15 percent 02 in turbine exhaust gas. Exhaust gases from the turbine and duct burner will exhaust through an SCR system to reduce NOx emission to 2.0 ppmv at 15 percent 02 with and without duct burning. These limits are consistent with most stringent level of control indicated in recent LAER determinations for natural gas-fired combined cycle projects.

The Project will also utilize an auxiliary boiler, diesel fire pump and emergency diesel black-start generators. The auxiliary boiler will utilize flue gas recirculation in combination with low-NOx burner technology to reduce the formation of NOx and limit emissions to 0.011 lb/MMBtu. This limit is consistent with recent LAER determinations. The diesel fire pump and emergency diesel black-start generators will utilize state-of-the-art combustion design, and in the case of the black-start generators SCR, to meet emission limitations under the NSPS for Stationary Compression Ignition Internal Combustion Engines 40 CFR 60 Subpart III. NOx emissions of 0.95 lb/MMBtu for the emergency fire pump and 0.70 lb/MMBtu for the black-start

generators will be included in the Air Facility permit. As discussed in Section 4.3.3 of the DEIS, these emission limits satisfy LAER and BACT.

To control VOC emissions the combustion turbines will utilize good combustion controls and exhaust through an oxidation catalyst, the only post-combustion control that can be practically implemented here. Emissions from the exhaust stack will be limited to 1.0 at 15 percent 02 at 15 percent 02 without duct burning and 2.0 at 15 percent 02 with duct burning. Combustion controls, including practices that promote high combustion temperatures, will be implemented to limit VOC emissions of the auxiliary boiler to .0015 lb/MMBtu. The diesel fire pump and the diesel black-start engines will meet the emission limitations under the NSPS for Stationary Compression Ignition Internal Combustion Engines 40 CFR 60 Subpart III and be limited to 0.035 lb/MM Btu and 0.033 lb/MMBtu, respectively. Add-on controls for VOC reduction are not considered technically feasible for diesel engines. These emission limits are consistent with recent LAER determinations in New York and other States.

In sum, Section 4.3 of the DEIS and Section 4.3 of the FEIS demonstrate the proposed emission control devices and strategies to be implemented by CVE represent the most stringent emission limitation achieved in practice, or which can reasonably be expected to occur in practice for a natural gas-fired combined cycle electric generating facility taking into consideration each air contaminant which must be controlled.

Finally, as required by 6 NYCRR Part 231, the Project has secured 322.11 tpy of NOx Emission Reduction Credits (ERCs) and 136 tpy of VOC ERCs, amounts equal to 115 percent of its maximum permitted annual emissions of these ozone precursors from locations that have been determined by DEC and USEPA to contribute to ozone nonattainment in Dutchess County. The Department published notice of these ERCs and their sources on December 14, 2011. The Project also conducted an analysis of alternative sites, facility sizes, and production methods consistent with 6 NYCRR 231-5.2(b) (DEIS Section 7).

A BACT analysis was performed for the pollutants subject to PSD review. BACT for NOx will be met using SCR as discussed above. CO emissions will be controlled with an oxidation catalyst system and good combustion practices (see DEIS Section 4.3.5 BACT Analysis for CO, FEIS Section 4.3.2.1 Control Technology Assessment CO Emissions). The combustion turbines will utilize good combustion controls and exhaust through an oxidation catalyst to reduce CO emissions. Emissions of CO from the exhaust stack will be limited to 2.0 ppmv at 15 percent 02 with and without duct burning. CO BACT for the auxiliary boiler is the utilization of good combustion practices to achieve an emission limit of 0.0037 lb/MMBtu and a potential emission rate of 5.06 tpy. Additional add-on controls to control CO emissions from the auxiliary boiler were not considered to be cost effective due to the limited annual hours of operation of this equipment. CO emissions from the fire pump and black-start generators will meet the Stationary Compression Ignition Internal Combustion Engines 40 CFR 60 Subpart III and be limited to 0.19 lb/MMBtu and 0.89 lb/MMBtu, respectively. See DEIS Section 4.3 and FEIS Section 4.3.2.

Good combustion practices and the exclusive use of natural gas satisfy BACT requirements for SO<sub>2</sub>,  $PM_{10}/PM_{2.5}$ , and  $H2SO_4$ ; no additional add-on pollution controls exist to control particulate matter (see DEIS Sections 4.3.6 BACT Analysis for Particulate Matter

 $PM_{10}/PM_{2.5}$ ; DEIS Sections 4.3.7 and 4.3.8 for BACT Analysis and Determination for Sulfur Dioxide and Sulfuric Acid; FEIS Section 4.3.1.2 Fine Particulate Matter and Section 4.3.1.3 PSD Permit [discussing inclusion of facility level PM emission limit in the Air Facility permit]). Emissions of  $PM_{10}$  and  $PM_{2.5}$  will be controlled through the combustion of exclusively natural gas in the combustion turbines and auxiliary boiler. Emissions of  $PM_{10}/PM_{2.5}$  from the exhaust stack will be 0.005 lb/MMBtu without duct burning and 0.006 lb/MMBtu with duct burning; the auxiliary boiler will emit at a limit of 0.0005 lb/MMBtu.  $PM_{10}$  and  $PM_{2.5}$  emissions from the fire pump and black-start generators will meet the Stationary Compression Ignition Internal Combustion Engines 40 CFR 60 Subpart III and be limited to 0.032 lb/MMBtu and 0.05 lb/MMBtu, respectively. The Air Permit also includes a total PM emission limit.

High efficiency combined-cycle turbines exclusively firing natural gas satisfy the BACT requirement for GHG (see DEIS Section 4.3.9 BACT Analysis for Greenhouse Gases; FEIS Section 4.3.1.4 Miscellaneous Regulatory Updates). Natural gas-fired combined cycle combustion turbines, when firing natural gas solely, emit the lowest levels of CO<sub>2</sub> of all surveyed types of combustion sources. Of the existing technologies the Department recently reviewed in connection with the Part 251 rulemaking, natural gas-fired combined cycle combustion turbines are the most efficient in converting fuel to energy and fire the least carbon intensive fossil fuel. At this time there are no additional controls to reduce GHG emissions. As noted above, the Project meets recently enacted 6 NYCRR Part 251 CO<sub>2</sub> Performance Standards for Major Electric Generating Facilities. Part 251 establishes carbon dioxide (CO<sub>2</sub>) emission standards for new major electric generating facilities (defined as facilities that have a generating capacity of at least 25 megawatts (MW)), and for increases in capacity of at least 25 MW at existing electric generating facilities.

In response to comments from the United States Environmental Protection Agency, the Department incorporated specific GHG emission limits in the draft air permit. The Project will also comply with 6 NYCRR Part 251 Emission Standards for New Major Electric Generating Facilities, adopted on July 12, 2012, which requires new facilities to meet  $CO_2$  emission limits (based on a 12 month rolling average) of either 925 lbs of  $CO_2$  per megawatt-hour of gross electrical output or 120 lb of  $CO_2$  per MMBtu of input.

The Project is subject to the USEPA Tailoring Rule which requires a BACT review for GHG emissions for new facilities that are already subject to PSD for another pollutant and emit greater than 75,000 tpy of CO<sub>2</sub> equivalents, including GHG emissions. The Project is also subject to the federal Mandatory Reporting Rule pursuant to 40 CFR Part 98 which requires electric generating facilities to report GHG emission data and other relevant information.

## Air Quality Impact Assessment.

The air quality modeling results demonstrate that the Project is in compliance with all national ambient and New York State air quality standards and would have an insignificant impact on air quality. Section 4.5 of the DEIS (Air Quality Impact Assessment) and Section 4.3.3 of the FEIS (Dispersion Modeling and Compliance Demonstration) include a detailed discussion of the air quality analyses performed to demonstrate that the Project will comply with the NAAQs, NYAAQs and PSD increments, in addition to other requirements.

The modeling was performed pursuant to a DEC-approved protocol. CVE identified the operating scenarios with the highest predicted impacts for each pollutant and averaging time and evaluated maximum predicted impacts from these scenarios relative to the Significant Impact Levels (SILs) to determine if cumulative modeling was necessary for any pollutant. CVE modeled peak Project impacts at levels below the SILs for annual NO<sub>2</sub>, CO, SO<sub>2</sub> and PM<sub>10</sub>, indicating that the Project will not cause or contribute significantly to any violation of the corresponding NAAQs or PSD increment.

CVE conducted additional cumulative modeling for the 1-hour NO<sub>2</sub> and PM<sub>2.5</sub> standards after initial modeling predicted impacts above the SIL for these pollutants. See DEIS Section 4.5.4. For PM<sub>2.5</sub>, the highest impacts across the study area are due to other facilities and would occur at receptor locations where the Project impacts are less than the SILs. Modeling at the one receptor location where the predicted Project impact are above the annual PM<sub>2.5</sub> SIL demonstrates that the Project complies with the NAAQs/NYSAAQs and PSD increments. The largest contribution from the CVE project to any of the predicted NO<sub>2</sub> exceedances is below the PM<sub>2.5</sub> SIL, indicating that these exceedances are not predicted to occur simultaneously with peak impacts from other sources. Section 4.3.3 of the FEIS expands on the discussion in the DEIS, addressing issues raised in public comments. In sum, the modeling results demonstrate that the maximum impacts of the Project with respect to the 1-hour NO<sub>2</sub> and PM<sub>2.5</sub> standards are less than the available PSD increment for both pollutants and that the project will not cause or contribute significantly to a violation of applicable air quality standards for either of these pollutants.

CVE conducted additional impact analyses, including a Source Specific Acidic Deposition Impacts analysis, which demonstrated that the Project would not contribute to acidic deposition on the surrounding area or greater distances and a soils and vegetation analysis which similarly demonstrated the Project would have no adverse impacts on soils and vegetation in the surrounding area. See DEIS Section 4.5.7. CVE will comply with other applicable air quality laws including National Emission Standards for Hazardous Air Pollutants, NO<sub>X</sub> Budget Programs and the Clean Air Interstate Rule, Acid Deposition Reduction SO<sub>2</sub> Budget Program, and other DEC regulatory requirements listed in Section 4.1.8 of the DEIS.

DEC regulations require the implementation of BMPs during construction, including measures to suppress dust emissions. Air emissions from construction equipment must meet USEPA standards for off-road vehicles. As a result, air quality impacts from construction activities are expected to be insignificant and temporary.

#### Other Air Pollution Requirements.

The Project will comply with applicable New Source Performance Standards in 40 CFR Part 60 (see DEIS Section 4.2.3.4, 4.1.3.4), National Emission Standards for Hazardous Air Pollutants (40 CFR Parts 61 and 63) (see DEIS Section 4.1.4), the federal Acid Rain Program (see DEIS Section 4.1.5), the NOx Budget Programs and Clean Air Interstate Rule (see DEIS Section 4.1.6), and the Acid Deposition Reduction SO<sub>2</sub> Program (see DEIS Section 4.1.7. In addition, the Project will comply with other DEC air pollution control requirements (see DEIS 4.1.8) including: ECL Article 19 permitting requirements (6 NYCRR Part 201); sulfur content in fuel requirements (6 NYCRR Part 225); opacity and reasonably available control technology requirements (6 NYCRR Part 227); and toxic pollutant assessment for non-criteria toxic pollutants (6 NYCRR Part 212, DEC Policy DAR-1, and State published Annual Guideline Concentrations and Short-Term Guidance Concentrations).

#### Discussion and Findings Regarding the Displacement Analysis

To evaluate the potential impacts of adding the CVE facility on a number of economic and emission related factors, CVE commissioned a Security Constrained Economic Dispatch Analysis (DEIS Appendix 1-A, "Economic Dispatch Analysis") utilizing GE Energy's Multi-Area Production Simulation (GE-MAPSTM) software application. The Analysis simulated the impacts that would occur as a result of adding CVE to the New York Pool on the regions surrounding Cricket Valley within the Eastern Interconnection for the years 2015-2020. The PSC, an involved agency, will review the Economic Dispatch Analysis as part of its assessment of public need in connection with CVE's Section 68 certificate application (see above).

According to the Economic Dispatch Analysis, the addition of the CVE facility to the New York Pool would increase energy production within the New York Pool, reduce imports from adjacent pools and reduce the Total Annual Load-Weighted Cost to Serve (M\$ per year) across the region (New York, New England, PJM, and Ontario). Overall the Analysis predicts positive impacts in terms of reducing the regional emissions of air pollutants. (See Appendix 1-A, Tables 3.3, 3.4, and 3.5, summarizing the total impact on emissions production within the New York, New England, Ontario, and PJM power pools as a result of adding Cricket Valley to the New York Pool). NOx and SO<sub>2</sub> emission would generally decrease across most power pools with the exception of the Ontario pool where a slight increase is indicated. CO<sub>2</sub> emissions would decrease across the power pools as a result of CVE, however, the total amount of CO<sub>2</sub> emitted in New York increases over the study period due to the increase in energy production in New York.

CVE asserts that the Economic Dispatch Analysis demonstrates that the Project's more efficient technology will displace the operation of existing, less efficient power plants and that due to its superior efficiency it will be dispatched ahead of higher emitting electric generators, causing such units to operate less efficiently and produce a net air quality benefit across the region. The PSC will have an opportunity to consider this information in connection with its review of the Section 68 Certificate application. Such benefits if realized would constitute a positive outcome from the addition of the CVE facility to the New York Pool. The Department, however, does not rely solely on the Economic Dispatch Analysis in its assessment of the Project's benefits. As these findings demonstrate, the Project will produce other tangible benefits from an environmental, social and economic perspective.

One important note: in making these findings the Department did not rely on the analysis contained in Section 4, Indian Point Unit 2 Retirement Sensitivity Results. This analysis is highly speculative and is not an appropriate basis for the Department's SEQRA findings. Entergy Indian Point 2 LLC and Entergy Indian Point 3 LLC respectively (collectively "Entergy"), operator of Entergy Indian Point Unit 2 and Entergy Indian Point Unit 3 (collectively the "Units"), submitted an application to the Nuclear Regulatory Commission Atomic Safety Licensing Board (ASLB) for a 20-year renewal of their operating license on April 7, 2008. This application remains pending before the ASLB and in light thereof it is premature for any agency to rely on statements based on speculation as to the Units long-term operation or contribution to the State's electric generation capacity and reliability. Moreover, Entergy's applications to the Department for a 401

Water Quality Certificate and State Pollutant Discharge Pollutant Elimination System permit are the subject of pending administrative hearings, the outcome of which cannot be predicted at this time. The ultimate resolution of these applications, however, could influence future proceedings in connection with the renewal of Entergy's operating license.

# 3. Seismology, Topography, Geology, Soils, and Agricultural Resources

## **Potential Impacts**

As referenced in Section 2.2.2 of the DEIS, the Multidisciplinary Center for Earthquake Engineering Research (MCEER, 2010) has mapped the site area as falling within Seismic Zone C, reflecting an area of intermediate seismic hazard within the four seismic zone ratings in the State of New York.

The Project Development Area is located on the western slope of a north-south trending ridge that separates the Swamp River and Ten Mile River. New York State Route 22, which forms the eastern Property boundary, sits approximately 40 feet higher than the rest of the site, and the entrance to the Project Development Area slopes down across this feature until it reaches the existing site buildings. The Project Development Area itself indicates relatively little topographic relief, although there is a gentle slope towards the west (and towards the Swamp River). Soils underlying the Project Development Area are a mix of gravelly or sandy silt loams. Excavation and grading will be performed and specific areas may require the removal of subsurface rock and rough grading for below-grade preparation. Due to the anticipated shallow bedrock within the construction area, there are numerous areas of surface and subsurface rock where mechanical equipment may be unable to rip or excavate the rock to allow construction of the underground utilities or foundations. Limited blasting may be required at these areas.

The Property includes existing dilapidated industrial buildings that will be demolished as a part of initial site preparation and construction activities. Studies have been conducted to identify the extent of lead-based paint, asbestos or other materials that would indicate the need for disposal in an approved landfill. If deemed non-hazardous and allowed by local permit, some demolition materials may be utilized as fill during Project construction.

The Project Development Area and former Rasco parcel include waste piles associated with previous industrial use that have impacted conditions of site soils and groundwater. Sufficient soil, groundwater and surface water sampling and laboratory analyses have been conducted to indicate that the study area – while including some constituents consistent with industrial sites – has only three discrete locations where concentrations of pollutants indicate the need for remediation, which will involve excavation and off-site disposal. Surface debris that also exists throughout the Property will be removed for proper disposal. Once those areas are addressed, existing soils and certain non-hazardous waste material are planned to be retained and used on-site pursuant to a Beneficial Use Determination from DEC.

The remote Laydown Site is relatively flat with a gentle slope to the south. Work at this site will result in temporary displacement of topsoil designated as prime farmland and a temporary interruption of agricultural activities. The site will be cleared and grubbed, and a

driveway will be cut through a narrow strip of wooded land located on the western edge adjacent to Route 22 (as shown in the preliminary SWPPP provided in Appendix 5-C of the FEIS). Standard excavation equipment and techniques will be used for these activities which will be conducted in accordance with the SWPPP. The temporary parking area surface will consist of coarse material, such as gravel, to help prevent channels and ruts and to minimize the potential for tracking soil onto public roadways.

### **Discussion and Findings**

The Project will be designed in accordance with the appropriate building code to address the seismic hazard rating. Project structures will be designed and constructed in accordance with the most recent seismic design provisions applicable to the area in order to minimize structural impacts in the event of a seismic event at magnitudes predicted for the area.

Before the start of below-grade preparation, all surface cover materials, including topsoil, will be removed, sorted, and stockpiled on site within designated erosion control areas. Any additional excavated materials will be temporarily stockpiled and disposed of, or used as fill. Excavation and grading will be performed in a way that optimizes good site drainage and runoff control. Following demolition and construction of the proposed structures and buildings associated with the Project, a final grading plan will be prepared. Under this plan, activities will include completion of all stormwater management systems, placing of fill to achieve final grade elevations, installation of landscaping, and wetlands restoration and creation.

Limited blasting may be necessary to allow for grading or excavation. The minimum amount of blasting material necessary to effectively remove the rock to the excavation depth will be used. Prior to construction, a detailed geotechnical survey will be conducted on the site to determine if or how often blasting will need to occur. If blasting is deemed necessary, all blasting operations and plans will adhere to applicable New York State and local statutes and regulations governing the use of explosives. These state regulations are contained in Title 12 of the New York State Codes, Rules and Regulations Part 39 and in Industrial Code Rule 53, and include such requirements as licensing of operators; magazine (explosive storage) certification; and procedures for conducting operations in a safe manner. All pertinent safety regulations and standards will be applied as required for safety and security for any blasting deemed necessary. Additional applicable safety regulations include:

- Code of Federal Regulations (CFR), Bureau of Alcohol, Tobacco, Firearms, and Explosives Title 27 and 49
- Article 16 of the Labor Law of New York State
- Town of Dover Code, Chapter 69
- Directive 495 Standards of the National Fire Protection Association
- OSHA standards, 29 CFR 1926.900-1926.914 and 1910.109

The impacts of blasting are expected to be minimal and generally confined to the Project Development Area. Appropriate precautions and notifications will be made to adjacent landowners, the Town of Dover Town Clerk, New York State Police, Dutchess County Sheriff's Office, and the Town of Dover Building Inspector, per the timelines set forth in Chapter 69-13 of the Town Code. A pre- and post-construction structural survey will be conducted on all existing structures within the blast areas' seismic influence zones. The seismic influence zone will be determined based on the final blasting plans.

Blasting operations will be carefully planned with full consideration for all forces and conditions involved. The contractor will coordinate any blasting activities with Iroquois Natural Gas Transmission System LP, Consolidated Edison Company of New York, Metro-North Railroad, the New York State Department of Transportation, and other utility companies as appropriate to ensure that the pipelines, utilities, and other infrastructure facilities are adequately protected and all applicable parties are aware of the blasting program and schedule. Mitigation for any potential adverse impacts to wildlife from the Project blasting activities will be coordinated with the DEC.

All building demolition, clearing, grading and construction and operation activities will be conducted in accordance with both the Stormwater Pollution Prevention Plan (SWPPP) and BMPs and all excavated materials within the Project Development Area will be stockpiled and maintained in accordance with the preliminary SWPPP, which has been developed in accordance with applicable regulations, to ensure minimal negative impacts to subsurface conditions and surrounding areas.

All construction phases and activities related to the Project will be controlled by the Construction BMP Plan. Prior to demolition and construction activities, erosion controls such as silt fences, geotextiles, crushed rock, hay bales, and settling tanks or ponds will be installed; these structures will be utilized to minimize surface erosion and to prevent ingress of sediment into the temporary and permanent drainage systems.

Should waste pile materials on the Property be planned for use as fill within the Project Development Area, a Beneficial Use Determination will be sought, with appropriate conditions, to document the benefits of the specific use proposed. Much of the proposed 30-acre construction area is already significantly impacted by the previously developed industrial facility and its associated waste disposal areas. The impacts of grading and blasting activities on the area's existing natural formations are anticipated to be minimal, and confined to the 30-acre construction area. No unique or protected geologic or topographic resources have been identified within the Project Development Area. The proposed alterations to the area's geologic and topographic properties are not anticipated to cause any change to the surrounding areas, or contribute to changes within the Great Swamp Critical Environmental Area (CEA).

Immediately following its use as a parking and storage area, all imported fill, lighting and fencing and any other installed items will be removed from the remote Laydown Site. In areas where topsoil was removed, soil decompaction will be conducted prior to soil replacement. The soil will be reseeded to maintain consistency with the adjoining field, and will be monitored to identify any agricultural impacts associated with the restoration and, if required, additional mitigation will be provided.

## 4. Wetland Resources

## **Potential Impacts**

Project construction will result in the permanent loss of 0.2 acre of an approximately 1.7acre emergent wetland dominated by reedgrass, with patches of dominant scrub/shrub vegetation, transitioning into a fringe of forested wetlands. This wetland is not United States Army Corps of Engineers (USACE) or DEC jurisdictional. Approximately 1.5 acres of the forested portion of this wetland will be converted into maintained scrub/shrub wetland, due to the construction and maintenance of overhead utility lines.

Construction activities will result in the permanent fill of 0.05 acre of USACE and DEC jurisdictional wetland (NYS Wetland DP-22). The area of wetland fill is currently significantly degraded by historical industrial activities that used this area to deposit non-hazardous industrial fill materials. Approximately 0.8 acres of regulatory Adjacent Area associated with Wetland DP-22 will be permanently lost due to facility construction. An additional 0.6 acres will be temporarily disturbed due to construction of Project elements, and another 0.4 acres will be temporarily disturbed as part of waste removal/restoration activities. On the former Rasco parcel, 1.4 acres of Adjacent Area associated with Wetland DP-22 will be temporarily disturbed due to waste excavation and temporary parking during construction.

Approximately 0.03 acres of fill is proposed for a USACE-jurisdictional wetland located on the former Rasco parcel, 0.36-acre emergent wetland dominated by reedgrass. Rip-rap will be placed along approximately 0.06 acre of USACE-jurisdictional intermittent stream for erosion protection.

#### **Discussion and Findings**

The 1.7 acre non-jurisdictional isolated wetland currently serves primarily to collect stormwater and subsequently recharge the groundwater table. Although 0.2 acres of this will be permanently lost, and 1.5 acres converted from forested wetland to scrub/shrub wetland, the installation of three bioretention ponds (totaling 1 acre) and a stormwater detention basin (totaling 1.25 acres) as part of the implementation of the stormwater management plan, will serve as a replacement for these lost functions. To further protect this wetland, areas between the Project footprint and the wetland will be replanted with native species.

The 0.05 acre area of Wetland DP-22 to be permanently filled has been altered through the historical deposit of tan or yellow mucky sawdust material, and is bordered by piles of white, chalky slag material, as well as general debris. The area has been heavily colonized by reedgrass, an invasive, nonnative species. As such, the wetland holds minimal value as wildlife habitat, and its primary function is the storage of stormwater and subsequent recharging of the groundwater table, as well as sediment retention. No encroachment on jurisdictional wetlands is planned as a part of the temporary use of approximately 13 acres of the former Rasco parcel for construction laydown and parking. Much of the grading and stabilization of waste piles, and the temporary construction use, in this area will occur within state-jurisdictional Adjacent Area. A wetland mitigation plan has been developed to compensate for both temporary disturbance to and permanent loss of freshwater wetlands, and permanent and temporary disturbances to DEC- regulated Adjacent Areas. That plan provides for the creation of 0.08 acres of wetland in Wetland DP-22 and the restoration and enhancement of 1.8 acres of regulated Adjacent Area contiguous to Wetland DP-22.

A Joint Application for Permit was submitted by the applicant to DEC and USACE. For those resources under jurisdiction by USACE, but not DEC, USACE is solely responsible to review and make approval for the proposed actions within those areas. The DEC permit provides a Water Quality Certification pursuant to Section 401 of the Clean Water Act for all of the proposed activities in wetlands described above, and for permanent fill of 0.03 acres of USACE-jurisdictional wetland, and rip-rap placed along approximately 0.06 acre of intermittent stream for erosion protection.

## 5. Upland Vegetative Communities

#### **Potential Impacts**

Most of the area to be used for Project construction has been previously developed or disturbed, although 4.8 acres of forested habitat will be permanently lost to facility construction, with an additional 2 acres of forested habitat proposed to be temporarily cleared during construction. Within the former Rasco parcel, where temporary use of approximately 13-acres is proposed during construction, disturbance of approximately 6 acres of waste pile material (with some shrubby and small diameter overgrowth), and approximately 2 acres containing small diameter trees is expected. No Project activities are proposed within the balance of the former Rasco parcel.

The 79 acres of land west of the Metro-North railroad bordering the Swamp River will be preserved from development in perpetuity. Most of this area is currently forested wetland. In addition, selective planting of tree/shrub species within an approximately 1.8 acre area between the limits of ground disturbance and Wetland 2 will be undertaken in all areas that are not currently densely vegetated.

### **Discussion and Findings**

The two acres of forested habitat proposed to be temporarily cleared within the Project Development Area during the construction effort will be restored to a scrub/shrub habitat or bioretention habitat. Work within these areas will utilize best management practices (e.g., construction mats) to limit disturbance and these areas will be restored, stabilized and revegetated upon completion of construction. The approximately 13 acres of the former Rasco parcel temporarily utilized during construction will be restored as open land, including grading, stabilization and planting of trees and other native vegetation. A permanent buffer of undisturbed forested land will be maintained to the south and east of the Project Development Area.

## 6. Wildlife Habitat

## **Potential Impacts**

During construction of the Project, wildlife currently utilizing the Project Development Area and the temporary construction work areas would be temporarily displaced. Impact to wildlife and wildlife habitat will primarily occur through vegetative clearing associated with the Project.

## **Discussion and Findings**

Since most of the Project Development Area occurs in a previously disturbed industrial area, most of the wildlife habitat to be disturbed is not significant residence or shelter/nesting/cover habitat. Although some wildlife may be temporarily displaced during construction of the Project, once the Project is operational, it is anticipated that wildlife will return to undeveloped portions of the Project Development Area. A significant amount of higher-quality habitat is located nearby, including elsewhere on the Property and within the Swamp River CEA west of the railroad track. Therefore, no significant habitat areas will be lost as a result of the Project.

Noise impacts from construction would be temporary and generally limited to daytime. Area wildlife that may be temporarily displaced by construction noise will utilize the adequate adjacent undisturbed habitat. The more consistent noise of construction during daylight hours is not anticipated to be detrimental to the value of the adjacent Great Swamp as wildlife habitat, and would be limited to the three-year construction period. Operation of the Project will result in a minor long-term increase of ambient noise levels in the vicinity, which is not expected to significantly alter wildlife behavior.

For security reasons and safety purposes, the Project will require minimum illumination during normal operation throughout the night. Low-impact, downward-facing lights have been selected to minimize light pollution in the surrounding areas. As a result, no significant disturbance to wildlife species would be expected to occur.

Perimeter fencing will be installed around the Project to prevent wildlife from entering the developed portions of the site. The perimeter fence will be 8 to 10 feet high. Larger and/or less mobile animals will be discouraged from crossing over the fence and will likely remain outside the developed portion of the site, as intended, and continue to utilize the existing undeveloped habitats.

# 7. Protected Species

## **Potential Impacts**

In conjunction with input provided by the United States Fish and Wildlife Service (USFWS) and the New York Natural Heritage Program (NYNHP), the Department has identified

the potential for impacts to four species: 1) the Federally-listed threatened and state-listed endangered bog turtle; 2) the Federally- and State-listed endangered Indiana bat; 3) the New England cottontail, a candidate species which is being considered by the USFWS for addition to the Federal List of Endangered and Threatened Wildlife and Plants, and a NYS Species of Special Concern, and 4) the timber rattlesnake, a state-listed threatened species. Potential adverse impacts to the bog turtle associated with residential and commercial development could include, but are not limited to, fragmentation of habitat and alterations to bog turtle dispersal routes; introduction of contaminated surface water runoff into the wetland from pesticides, herbicides; fertilizers, road deicers, etc.; alteration of wetland hydrology; introduction of nutrients from septic, systems; introduction of yard and other waste materials into wetlands; introduction of people, pets, and recreational vehicles into wetlands; and death/injury of bog turtles that wander onto lawns and roads. Potential for direct and indirect effects to Indiana bats include loss and/or fragmentation of roosting or foraging habitat and lighting which may deter Indiana bats from using areas. Potential adverse impacts to the New England cottontail may result from habitat fragmentation and degradation, succession of thicket and old-field habitat to forest, predation, competition with eastern cottontail and white-tailed deer, and spread of non-native, invasive plant species such as multiflora rose, honeysuckle, Russian olive and Asiatic bittersweet. Potential adverse impacts to the timber rattlesnake may result from development include loss of habitat and death/injury of timber rattlesnakes during foraging.

## b. Discussion and Findings

Existing records indicate the existence of bog turtle habitat near the Project Development Area. A Bog Turtle Survey was conducted and results included as Appendix 3-B of the FEIS. Limited potential bog turtle habitat was noted in two wetlands on the former Rasco parcel in Phase 1 habitat surveys. Subsequent Phase 2 bog turtle surveys conducted in the spring of 2012 did not detect any individuals. Potential direct impacts to bog turtles will be minimized as impact to bog turtle habitat will be avoided. Indirect impacts to protected species are expected to be insignificant. Proposed groundwater withdrawals will not have an appreciable effect on the hydrology of onsite or offsite wetlands, or the Swamp River, therefore, no degradation to potential offsite bog turtle habitat is expected to occur. Further, compliance with the Stormwater Pollution Prevention Plan (SWPPP) as required by the SPDES Stormwater General Permit for Construction Activities will limit the introduction of contaminated surface water runoff into nearby wetland areas. Species habitat suitability surveys were undertaken for Indiana bats, New England cottontail rabbits and timber rattlesnakes on the Project Development Area, former Rasco parcel, and remote Laydown site, and are included as Appendix 3C in the DEIS. Indiana bat roosting habitat on the site is limited and an abundance of more suitable habitat exists off-site in the Project vicinity. Tree removal will be conducted only between October 1 and March 31 to avoid direct effects to Indiana bats associated with tree clearing, as recommended by the USFWS. As stated above, low-impact, downward-facing lights have been selected to minimize light pollution in the surrounding areas, to minimize the potential for deterrence from use of habitat due to excessive lighting. Patches of potential New England cottontail habitat that occur on the sites are limited in size, making it unlikely that they would be utilized by this species, which requires habitat to be sufficiently large to provide year-round food and cover; therefore no significant loss of potentially suitable habitat is expected to occur. Two timber rattlesnake den sites are located approximately 1.5 miles to the northwest, and one is located approximately 1 mile to the west of the Project Development Area. The Phase 1 timber rattlesnake survey

determined that no potential dens or overwintering sites were observed and suitable foraging habitat is limited to the small areas of upland forest on the eastern side of the railroad track. Therefore, while timber rattlesnakes associated with the dens to the west and northwest may use portions of the sites for foraging, this unlikely occurrence would be limited to their active season of mid-May through mid-October. Abundant, more suitable foraging habitat occurs closer to the known den sites. In summary, no rare, threatened, or endangered species would be displaced from the Project Development Area, and seasonal restrictions on clearing will be imposed to avoid potential impact to potential Indiana bat roosting habitat. Potential impacts to protected species will be minimized by developing the Project in areas that have largely been previously disturbed by industrial activity. Additionally, measures to avoid and minimize impacts to protected species during Project construction have been developed in consultation with DEC Region 3 Fish and Wildlife staff and are included on project plans. A requirement to employ these measures is included as a permit condition in the DEC Article 24 permit. These measures include conformance with calendar restrictions for tree clearing, installation of temporary fencing to limit movement of protected species into the construction area, signage to indicate sensitive species areas, and education of construction crews regarding avoidance of protected species and procedures for incidental encounters with protected species.

## 8. Water Resources

## **Potential Impacts**

The Project proposes to use on-site bedrock wells to meet water needs. Up to 60 gallons per minute (gpm) of water is proposed to be extracted from the deep bedrock aquifer under normal operating conditions (with an expected withdrawal rate of 120 gpm during upset or emergency conditions).

A pumping test program demonstrated that the primary and backup wells have sufficient production to supply water at a continuous rate of 60 gpm (the anticipated peak summer water demand), and at a short-term supply rate of 120 gpm (the maximum amount required during unanticipated upset or emergency conditions). The pumping test confirmed that withdrawal from the primary well and extraction of up to 120 gpm from the deep bedrock aquifer would not have an adverse impact on private well water supplies in the areas surrounding the site, wetlands within and adjacent to the Property, or the Swamp River.

## **Discussion and Findings**

The Project plans to incorporate technologies to minimize water use to the greatest extent possible, including advanced dry cooling air cooled condensers, which utilize air instead of water for cooling, and a water treatment facility with a Zero Liquid Discharge system to recycle process water. These advanced technologies reduce water use by approximately 98 percent when compared to an equivalent water-cooled facility. With the implementation of these advanced design features, there will be no industrial wastewater discharge from the Project. As this Project will not discharge process wastewater, it is not subject to industrial wastewater discharge permitting requirements. It is anticipated that the Project will operate under a SPDES Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity. SWPPPs

for the Project Development Area, former Rasco parcel and remote Laydown Site have been developed and will be implemented, as required under the General Permit, to address potential impacts associated with stormwater drainage and runoff. The SWPPP will also mitigate potential stormwater quality impacts and prevent soil erosion and sedimentation resulting from stormwater runoff generated during the Project's operation.

Project water withdrawals to support operation will not result in significant adverse impacts to other groundwater users, onsite and offsite wetlands, or the Swamp River. In addition to a long-term pump test, a Site Water Budget Report was prepared and concludes that due to the Property's advantageous location within the watershed, the Property is capable of supporting the Project's proposed average water consumption under both average and drought conditions, with no permanent off-site drawdown impacts of any type. This conclusion is also conservative, in that it does not take into consideration the additional water that is expected to be generated from the proposed 3.4-acre rooftop rainwater capture system. That additional water, which is not part of the assessment, is estimated to supplement the water budget by an annual average of more than 7 gpm. The Project will be subject to DEC regulations currently under development for water withdrawal permits for facilities that have a capacity to withdraw 100,000 or more gallons per day (gpd). Once this regulation becomes effective, it will require the permittee to maintain records of water withdrawals and provide regular reports to DEC. This requirement will provide an ongoing assessment of actual water withdrawals that can be compared to estimates provided in the DEIS.

## 9. Land Use, Zoning and Community Character

### **Potential Impacts**

The majority of the Property, including the entirety of the former Rasco parcel, is located within the Town of Dover's Industrial/Manufacturing District (M). A small portion of the Property, west of the Swamp River, is located within the Resource Conservation District (RC), which encourages forestry, recreation and land conservation.

## **Discussion and Findings**

The Project is seeking a Special Use Permit from the Town of Dover Town Board for the proposed use in the Manufacturing District. No development will occur in the portion of the Property located within the RC district. The temporary use of the remote Laydown Site will be included in the Town of Dover Special Use Permit review process.

## **10.** Visual Resources and Aesthetics

### **Potential Impacts**

The Project will result in taller structures than currently exist at the site. The largest elements of the Project will be the turbine generator building (670 feet by 100 feet, and 75 feet

tall), the Heat Recovery Steam Generator (HRSG) enclosure (128 feet by 160 feet, and 113 feet tall), the three co-located stacks (19.5-foot outside diameter and 282.5 feet tall), and the air cooled condenser units (190 feet by 190 feet, and 113 feet tall). Visual simulations prepared for the DEIS indicate that the Project will not be visible from inventoried federal, state or local areas of visual importance according to criteria established in DEC's Visual Policy. Some project elements, particularly the new stacks, will be a new visual element visible at some locations above and through the tree line, particularly at higher elevations east of the Project. The facility, including its stacks, would not be visible at night, although Federal Aviation Administration (FAA) safety lighting on the stacks will be visible. Stack lighting will be similar to the FAA lighting one sees on communication towers.

#### **Discussion and Findings**

The Project Development Area possesses a number of qualities that will minimize visual impacts to its surroundings including its location within a valley, a substantial buffer of mature trees, and a hillside that will shield the majority of the Project structures from view. The Project will be located within a compact footprint, and with co-location of the three stacks, the magnitude of the Project's visual impact will be further minimized. Lighting will be minimized as reflected in the lighting plans presented in Appendix 6-C of the DEIS (for the Project) and Appendices 6-A and 6-B of the FEIS (for the former Rasco parcel and remote Laydown Site, respectively). Other lighting will be directed downwards and would not result in nighttime offsite visibility of the facility. Given the design attributes of the Project, the Property's natural buffer which will be preserved, the context and number of viewers, the duration of the view, the degree of discernible detail, and the scenic value of the setting, the overall visual impact of this Project is considered to be minimal.

## 11. Traffic

#### **Potential Impacts**

During peak construction periods, significant additional traffic will occur along local roadways. The addition of the former Rasco parcel to the Project Property described in the FEIS will act to reduce traffic impacts described in the DEIS that would have resulted from reliance only on the remote Laydown Site, located approximately 2.5 miles north of the Property, as the only parking area for construction-related parking. It is anticipated that the former Rasco parcel can accommodate approximately 600 construction worker vehicles, which will be adequate to serve the entire construction crew for more than 80 percent of the construction, overflow parking of approximately 125 vehicles may be required at the remote Laydown Site. A traffic analysis was prepared for the FEIS to assess a projection of traffic conditions during the peak construction period with the amended parking plan in place. During construction, with the addition of the former Rasco parcel, the traffic analysis indicates that the only location along Route 22 that does not operate at an acceptable Level of Service during peak construction is the Project driveway. Operational traffic associated with the Project will be minimal, and is not anticipated to affect existing Levels of Service along local roadways.

### **Discussion and Findings**

The New York State Department of Transportation (DOT) has been engaged to identify appropriate temporary measures to implement during construction to mitigate temporary impacts to Levels of Service at the Project driveway, and provide recommendations to mitigate any other impacts that agency finds in its ongoing review. Coordination with the Town of Dover will continue throughout the construction period to determine the need for any additional measures that the Town may require. Traffic analyses indicate that Levels of Service with the operational Project in place will continue to be at levels that are currently acceptable.

## 12. Noise

### **Potential Impacts**

A sound evaluation study was conducted to quantify and characterize the existing acoustic environment in the vicinity of the proposed Project. The range of construction activities was considered to identify the potential noise effect on the surroundings during the construction period. Modeling for the operational phase of the Project was also completed to demonstrate consistency with DEC policy and compliance with Town of Dover noise requirements. Results of noise modeling for Project construction activities indicate that excavation phase noise, which may include rock splitting, blasting, and pile-driving, may occasionally be noticeable at the nearest receptor properties. Construction-related sound at more distant residential properties is expected to be consistent with typical daytime background sounds. Results of the noise modeling for operation of the facility indicate that at all of the five measurement locations analyzed, the Project will not result in increased noise levels that would exceed the thresholds established in the DEC guidelines, therefore operation of the Project is not expected to produce a significant adverse acoustic impact at these nearest receptors. With the addition of the former Rasco parcel to the Property, Project noise modeling also indicates compliance with the most restrictive nighttime sound level limit (50 decibels [dBA]) of the Town of Dover Zoning Noise Standards at the north, south and east property lines, which are the three property lines nearest to residences. The Town of Dover Zoning Noise Standards will also be met at the Project's westernmost Property boundary. However, the Town of Dover Zoning Noise Standards will not be met at the Metro-North railroad line which extends through the Property, abutting the Project Development Area and to the east of the Swamp River. The Project will need to secure an amendment to the Town of Dover Zoning Code to permit the anticipated noise levels at the Metro-North property line.

### **Discussion and Findings**

The Project will seek an amendment to the Town of Dover Zoning Code to permit the anticipated noise levels at the Metro-North property line. The Metro-North railroad line is not a noise-sensitive receptor, and CVE will own the property on either side of this receptor. Therefore, with the passage of this proposed amendment, Project sound levels will not exceed either DEC guidance or the Town of Dover noise ordinance at any Property lines.

# 13. Electric and Magnetic Fields

## **Potential Impacts**

Maximum electric and magnetic field strengths expected to occur at the edge of the outer electric transmission line right-of-way were calculated and compared with the New York State Public Service Commission (NYSPSC) interim standards.

#### **Discussion and Findings**

The comparison indicates that the Project will be well below the NYSPSC electric field strength interim standards and magnetic field strength interim standards for electric transmission lines at the edge of the right-of-way. Consequently, anticipated Project impacts associated with electric and magnetic fields are considered to be insignificant.

## 14. Public Health and Safety

#### **Potential Impacts**

The potential for catastrophic explosion during purging of pipes, as occurred at a gas plant in Middletown, Connecticut, is not likely to occur at this Project, due to the fact that natural gas was used to purge pipes at the Middletown facility, contributing to the explosion at that facility. In response to the Middletown, Connecticut accident, the National Fire Protection Association (NFPA) issued the "Standard for Fire and Explosion Prevention During Cleaning and Purging of Flammable Gas Pipeline Systems." All cleaning of pipes will be performed with inert gases or compressed air, consistent with the new NFPA standard, and which Advanced Power states is their company policy.

Police service may be needed for limited traffic control during construction. Any increase in demand for police services at the facility during Project operation is expected to be minimal.

Because the Project will not result in a significant permanent population increase, no significant increase in use of the existing fire or emergency medical services is expected for the general population.

#### **Discussion and Findings**

An Emergency Response Plan will be prepared prior to construction mobilization and will be designed and written to assist the facility's management, employees and outside responding agencies through emergency response actions at the facility. The plan will be developed in consultation with town officials and local emergency responders, to address different types of potential emergencies; emergency resources (equipment or personnel); levels of emergency response; principles to be applied during a response; detailed measures for initial response, containment, rescue, first aid and evacuation; termination of an emergency; notification procedures; drills and training; and the process for updating and modifying emergency procedures. The Project will include comprehensive on-site systems for fire emergencies. Fire protection systems will comply with all applicable NFPA standards and recommended practices, as well as state and local codes. The fire protection systems will be designed and implemented by a qualified fire protection engineer, and reviewed by applicable federal, state, or local authorities. The systems will be designed to be automated, with the assumption that facility personnel will have minimal involvement for fire response. Project representatives have coordinated and will continue to coordinate with J.H. Ketcham Hose Company officials to ensure adequate resources are in place.

During construction, there will be continuous, on-site security staff to secure the site and construction materials. During operations, the Project will maintain a 24-hour, on-site staff. The operating staff will utilize security monitoring systems, complete perimeter fencing, electronic badged gates and doors, inspections, and other procedures to secure the site.

# 15. Cultural Resources

## **Potential Impacts**

Consultation with the New York State Office of Parks, Recreation and Historical Preservation (OPRHP) was initiated by the project sponsor in June 2009. No historic resources were identified in the vicinity of the Project Development Area. The Property is within an area identified as "archaeologically sensitive," but the Project Development Area has been substantially disturbed by previous industrial activities. In a letter dated September 25, 2009, OPRHP determined that the Project will have "No Effect" on cultural resources in or eligible for inclusion in the State and National Registers of Historic Places. In February 2012, the project sponsor again consulted with OPRHP regarding potential archaeological or cultural resources at the former Rasco parcel, located adjacent to the Project Development Area. In a letter dated February 29, 2012, OPRHP concurred with its earlier findings for the Project Development Area, indicating that the expanded use of the Property will continue to have No Effect on cultural resources.

In a letter dated July 22, 2010, the project sponsor initiated consultation with OPRHP regarding the remote Laydown Site. OPRHP requested that a Phase 1A archeological survey be prepared, which includes a literature review and sensitivity analysis. The Phase 1A survey, conducted in December 2010, indicated a low potential for the presence of historic cultural resources at the remote Laydown Site, but a moderate to high potential for the presence of prehistoric cultural resources. As a result, a Phase 1B field reconnaissance survey was completed at the remote Laydown Site, which included digging shovel test pits. Survey crews did not find evidence of either a prehistoric or a historic site within the remote Laydown Site and submitted its findings to OPRHP. In a letter dated July 6, 2011, based upon the results of the Phase 1B survey, OPHRP indicated that use of the remote Laydown Site will have "No Effect" upon cultural resources.

### **Discussion and Findings**

While the potential for adverse impacts to cultural resources has been minimized by utilizing a previously disturbed site, largely within the footprint of the previously developed area, the project sponsor has developed a construction methodology that establishes procedures to follow in the unanticipated event a cultural resource is discovered during the construction process (the Unanticipated Discoveries Plan provided in Appendix 6-G of the DEIS).

## 16. Socioeconomics

## **Potential Impacts**

Potential socioeconomic impacts are discussed in Section 6.2.7 of the FEIS. Project development and construction will require an estimated investment of approximately \$955 million, which will provide a significant benefit to the local, regional, and state economies. The investment in the plant, during both construction and operation, will also result in significant secondary economic benefits to the local, regional and state economy through purchase of construction and operational supplies and spending by the construction and operational workforce. The Project will also provide a long-term revenue source for the Town of Dover, Dutchess County and the Dover Union Free School District through an anticipated Payment in Lieu of Taxes (PILOT) agreement. The Project will have minimal impact on municipal services and not result in increased burden on municipal infrastructure.

It is expected that an annual average of 300 construction jobs will be created during the three-year construction of the Project, with up to 750 jobs during the five-month peak construction period. Project construction is estimated to generate and induce creation of 2,202 full-time equivalent (FTE) jobs, including 751 secondary jobs in Dutchess County in a wide variety of industries such as facility maintenance, security, food service, mining (sand and gravel), and construction supplies. DEIS Section 6.7.3.1.3 outlines the workforce availability in the general area, concluding that approximately 90 percent of the required construction labor force could be filled by the local labor market.

Once completed, operation of the facility will support approximately 28 permanent jobs directly and 26 secondary jobs, a total of 54 FTE jobs

## **Discussion and Findings**

The proposed PILOT agreement will be coordinated through the Dutchess County Industrial Development Agency (IDA). However, while the agreement will be coordinated with the IDA, the Town of Dover and Dover Union Free School District will negotiate the final payment and structure according to their jurisdictions. A third-party independent consultant has been retained by these parties to provide recommendations during this process.

It is anticipated that the required construction labor force for the project would be readily met with available workers within Dutchess County and the Hudson Valley region. As a result there would not be significant in-migration of construction workers. Accordingly, there would be minimal increase in demand for municipal services during construction.

The Project will not impose significant operating or infrastructure costs on the local economy. Since the Project does not involve the construction of new residences, its operation would not be expected to generate additional school children for the Dover Union Free School District. Should the 28 plant employees represent new households within the district, the anticipated additional school students would represent less than 1 percent of district enrollment, which could be accommodated due to the district's existing surplus capacity and declining enrollments.

# 17. Alternatives

The purpose of an alternatives assessment is to explore Project alternatives that either avoid or reduce identified environmental impacts. Alternatives evaluated include the "no action" alternative and site and technology alternative comparisons. The technology alternatives that were considered include alternative cooling and emissions control technologies. Facility design alternatives (including alternate facility sizes), fuel use alternatives, and alternative sources of water supply have also been addressed to support selection of the preferred alternative.

## "No-Action" Alternative.

The "no-action" alternative would result in no economic or environmental benefit to the Town of Dover, the region, or the State of New York as a whole.

Local benefits that would not be realized include:

- Reusing a dilapidated industrial site and converting it to a productive use;
- Stimulating economic growth without creating a significant burden on the community or significant adverse impact to the environment;
- Creating approximately 750 construction jobs and, post construction, 28 full-time positions;
- Increasing tax revenue;
- Purchasing local materials and indirectly creating additional secondary employment;
- Preserving approximately 79 acres of land along the Swamp River and bordering wetlands; and
- Restoring existing previously damaged wetlands and adjacent areas.

Regional benefits that would not be recognized include:

• Potential displacement of existing less efficient electric generators with higher emission rates of air pollution and GHG emissions.

Statewide benefits that would not be recognized include:

• Reducing regional GHG and off-setting other air pollutant emissions.

### Demand Side Management.

As an alternative to the Project, Demand Side Management (DSM) was considered. While DSM has potential to reduce energy consumption and optimize patterns of electricity usage through efficiency improvements, it would not replace the baseload electrical generating capacity that the Project would supply. The Project does not preclude DSM programs from being implemented at the state or local level.

## Alternate Project Sites.

Alternate sites in southeastern New York for the proposed Project were considered by the Project Sponsor. However, none of the sites met the major criteria required for such a project, which include proximity to natural gas and electric interconnects, zoning compatibility and a suitable parcel size and setting to buffer potential impacts of the Project. Also, none of the sites is owned or controlled by the Project Sponsor.

## Alternate Interconnections.

The electrical and natural gas interconnections for the Project will be immediately adjacent to and abut the ConEd 345-kV electric transmission system and Iroquois interstate natural gas pipeline. The interconnections are proposed to occur at their closest point with respect to the Project. As such, no further electrical or natural gas interconnection alternative routes were considered.

## Alternate Electric Generation Technologies.

Alternate electric generation technologies were evaluated, including renewable energy technologies, simple-cycle combustion technologies, and conventional boiler technologies. Wind and solar alternatives were not considered further as they did not meet the Project's purpose and need, to supply 1,000 MW of baseload electric power. Space requirements to generate 1,000 MW of power with wind or solar technology would take thousands of acres of land, greatly exceeding the available site area.

Simple cycle technology is valuable for meeting intermediate and peak electric demand. However, the superior efficiency of combined cycle turbines makes them more suitable for the Project's purpose and need, efficient generation of baseload electricity. In addition to being less energy efficient, conventional boiler technology requires considerably greater volumes of water and results in far greater emission levels per unit of electrical output.

## Alternate Cooling Technologies.

Alternate cooling technologies were evaluated, including once through cooling, evaporative (wet) cooling towers, and hybrid (wet and dry) cooling towers. Because the

proposed facility does not have access to a water supply sufficient to support these alternative cooling systems, air cooling was selected as the preferred condenser cooling alternative.

#### Alternative Emission Control Technologies.

With regard to air emissions, the combination of DLN combustors, SCR and oxidation catalyst systems, along with the exclusive use of natural gas as a sole fuel for the Project's turbines represents the most effective state-of-the-art methods to minimize air emissions.

#### Fuel Use Alternatives.

The Project proposes to utilize natural gas as the sole fuel for the Project's combustion turbines, HRSG duct burners and auxiliary boiler. Ultra-low sulfur diesel (ULSD) fuel will be used in the emergency fire pump and black-start generators. These are the cleanest fuels available for each respective equipment type given their intended use, and, as such, no alternative fuels were considered.

#### Water Supply Alternatives.

Alternate sources of water were considered for the Project. These included: municipal or other existing water supply sources, treated effluent from existing wastewater treatment plants, surface water from the Swamp River or from other potential sources, and groundwater. After an analysis of the hydrologic resources in the Project Development Area, it was determined that the use of bedrock wells was demonstrated to provide sufficient water for Project needs without adversely affecting other water users or water resources in the area.

## **18.** Other Environmental Impacts

Other potential environmental impacts associated with the Project include short-term and long-term impacts; unavoidable adverse effects; irreversible and irretrievable commitment of resources; growth-inducing aspects of the proposed Project; and the effect of the Project on the use and conservation of energy.

#### Reasonably Related Short-Term and Long-Term Impacts.

Most short-term impacts associated with Project construction will be insignificant due to the relatively isolated nature of the Property and BMPs to be employed during construction. The remote Laydown Site is also well-buffered and isolated from population centers. The most notable short-term impacts would be construction-related traffic during the peak construction period. Temporary peak traffic impacts will be managed through implementation of temporary roadway improvements, as directed by NYSDOT, active coordination with the Town of Dover throughout the construction process, and the use of manual control measures, as needed.

The Project's long-term impacts are deemed to be either positive and significant, or less than significant. No significant adverse long-term impact will result from the CVE Project.

Project-related impacts can be effectively minimized to levels that are less than significant or well within standards and guidelines established for the protection of public health and welfare.

Implementation of the Project will result in a positive long-term improvement to earth resources by restoring an inactive industrial site to a productive industrial use. With respect to natural resources, approximately 17 acres of the Project's 22-acre permanent footprint will occur on previously developed land; the remaining portions of the Project Development Area will remain undeveloped or allowed to re-vegetate. While there will be limited impacts to existing wetlands, a wetland restoration and creation plan will restore a previously degraded wetland, creating a greater diversity of habitat than that which currently exists. Restoration activities at the Property are anticipated to restore and protect higher quality habitat and wetland resources associated with the Swamp River than currently exist at the site. While it will be classified by the USEPA and DEC as a new major source of air emissions, air emissions will not result in significant adverse impacts and the Project will meet all state and federal air quality and emission standards. The Project's state-of- the-art design, coupled with the incorporation of advanced pollution control equipment and operational practices, will ensure that air emissions are minimized and will not result in any significant adverse environmental impacts.

No long-term adverse effects to water supplies will occur due to the Project. Water usage will be minimized through the use of Zero Liquid Discharge and other technologies, and site stormwater management will improve in post-construction conditions.

There will be a short-term increase in traffic associated with Project construction. This impact has been mitigated to the extent practical through temporary improvements at the Project driveway, and will be monitored throughout construction to determine the need for additional measures. Based upon the discrete number of permanent employees, long-term impacts on local traffic patterns will be insignificant.

While no effect to historic or archaeological resources is anticipated due to the Project, an Unanticipated Discovery Plan has been developed to protect such resources in the unlikely event that they are encountered during Project construction.

Both the net short- and long-term socioeconomic effects of the Project will be positive; the facility will not create a significant demand on public resources and infrastructure under normal operations and will contribute economically to the region.

No long-term effects associated with land use, zoning, noise, or electric and magnetic fields are expected.

## Unavoidable Adverse Effects.

Unavoidable adverse impacts include situations where:

• Reasonably practicable mitigation measures cannot be implemented to eliminate the impact;

• There are no reasonable alternatives to the proposed Project that would meet the purpose and need of the action, eliminate the impact and not cause other significant adverse impacts.

The Project will not result in a significant adverse environmental or community impact, with the exception of short-term peak construction-related traffic impacts and the altered viewscape from a limited number of vantage points. Project-related impacts can be effectively minimized to levels that are less than significant or well within standards and guidelines established for the protection of public health and welfare.

### Irreversible and Irretrievable Commitments of Resources.

The Project will require a limited number of irreversible and irretrievable commitments of earth resources, natural resources, air resources, and water resources, including the commitment of the natural gas fuel used to generate electricity. The majority of the 193.5-acre Property will remain undisturbed or will be improved through clean-up activities, with only approximately 5 acres of currently undeveloped land to be permanently developed for the Project footprint. The development will occur within an area zoned for industrial use, and will represent only a small increase in land use from existing conditions.

The Project will require a permanent commitment of landfill capacity through the disposal of demolition debris and, pending characterization analysis, annual disposal of crystallized solids associated with the Zero Liquid Discharge system. Landfill capacity will also be utilized for disposal of excavation and/or demolition debris that is not able to be integrated into the Project's construction fill and grading requirements.

Permanent fill of jurisdictional wetlands will be total 0.08 acre, and approximately 0.8 acres of regulatory Adjacent Area associated with Wetland DP-22 will be permanently lost due to facility construction. This will be mitigated through a wetland restoration and creation plan within the Project Development Area which will include creation of 0.08 acres of wetland in Wetland DP-22 and the restoration and enhancement of 1.8 acres of regulated Adjacent Area contiguous to Wetland DP-22. In addition, a restoration plan for the former Rasco parcel will improve conditions where temporary Adjacent Area disturbance will occur during Project construction by grading, stabilizing and re-vegetating locations where waste piles have historically been deposited.

Approximately 12.9 undeveloped acres of the Project Development Area will be disturbed. Of that amount, 5.1 acres will be permanently converted to built uses, while 5.3 acres of wooded vegetation and 1.5 acres of wetlands will be allowed to re-vegetate to shorter (shrub) vegetation. An additional 1 acre of forested land will be converted to stormwater bioretention facilities.

Although the Project will be a new major source of air emissions, it will purchase emissions offsets in greater quantities than its emission of these criteria pollutants. Further, operation of the Project is expected to displace the operation of older, less efficient and higher emitting electric generating facilities in the region, resulting in a net emissions reduction. While water demand will increase as a result of the Project, through the application of various technologies, consumptive water use has been significantly minimized.

### Growth-Inducing Aspects of the Proposed Action.

Construction and operation of the proposed Project will not result in major growthinducing impacts. The Project will represent a net benefit to the local community, providing productive reuse of an underutilized industrial parcel, meeting regional energy needs, adding employment opportunities during construction and operation, and contributing to the tax base, without significant impact to the community or environment. Development of the Project will provide an efficient, reliable, and competitive source of electric energy to address the need for additional electricity and improved system reliability to New York State. The Project is anticipated to require an average of 300 workers during the entire 36-month construction time frame, with a maximum of 750 workers during the five-month peak construction period, with a permanent operational work force of 28 employees. No significant in-migration is anticipated for either Project construction or operation. The Project will produce an increase in available jobs, particularly during the construction period, and positive contribution to the local tax base. Further, in addition to the construction and operational benefits resulting from direct and indirect Project expenditures, when operational, the Project will represent a long-term source of additional revenue for the Town of Dover, the Dover Union Free School District, and Dutchess County.

## Effect of the Proposed Action on the Use and Conservation of Energy.

The Project will have a positive impact on the current use of energy by combusting natural gas in the most efficient manner through use of state-of-the-art gas turbine generators. It will add baseload electrical generating capacity to meet regional needs and address energy demand and system reliability. The Project is a combined cycle electric generating facility, which is one of the most fuel-efficient methods of producing baseload electricity. The Project's high efficiency will require less fuel to produce equivalent amounts of electricity than other fossil-fuel based technologies. In addition, the sole use of natural gas for the combustion turbines is not only more cost efficient, it is also the cleanest fossil fuel available. By displacing the operation of older, less efficient generating plants, the Project will contribute to regional fuel savings, as less fuel will be required to generate the same amount of electricity.

# **CERTIFICATION OF FINDINGS TO APPROVE/FUND/UNDERTAKE**

Name of Action:	Cricket Valley Energy Center
	Cricket Valley Energy Center, LLC

Project Number: 3-1326-00275

Having considered the Draft and Final EIS, and having considered the preceding written facts and conclusions relied upon to meet the requirements of 6 NYCRR 617.9, this Statement of Findings certifies that:

1. The requirements of 6NYCRR Part 617 have been met;

2. Consistent with the social, economic and other essential considerations from among the reasonable alternatives thereto, the action approved is one which minimizes or avoids adverse environmental effects to the maximum extent practicable; including effects disclosed in the environmental impact statement, and;

3. Consistent with social, economic and other essential considerations, to the maximum extent practicable, adverse environmental effects revealed in the environmental impact statement process will be minimized of avoided by incorporating as conditions to the decision those mitigative measures which were identified as practicable.

4. Consistent with the applicable policies of Article 42 of the Executive Law, as implemented by 19 NYCRR 600.5, this action will achieve a balance between the protection of the environment and the need to accommodate social and economic considerations.

New York State Department of Environmental Conservation 625 Broadway, Albany, New York 12233-1750

S/

Signature of Responsible Official

Chief, Major Projects Management Section Title of Responsible Official Christopher M. Hogan Name of Responsible Official

September 26, 2012 Date

cc: Other Involved agencies, interested parties, and the applicant: Refer to project service lists





## Attachment # 3

State Environmental Quality Review (SEQR) Process

Cricket Valley Energy Center 2241 State Route 22 Town of Dover Dutchess County, New York

- November 19, 2009 The Town of Dover Town Board distributed a letter to Involved Agencies stating its intention to act as Lead Agency for SEQR review, including a copy of the Full Environmental Assessment Form (EAF) prepared for the project.
- December 16, 2009 DEC submitted a letter to Town of Dover Town Board declaring its intention to act as Lead Agency, based upon significant resources of regional and statewide importance associated with the project proposal.
- April 12, 2010 The DEC Commissioner designated DEC as Lead Agency for SEQR review of this action. This decision is available online at: http://www.dec.ny.gov/permits/65820.html.
- May 3, 2010 DEC, as Lead Agency, issued a Positive Declaration and Draft Scoping Document for the Draft Environmental Impact Statement (DEIS).
- June 5 & 9, 2010 DEC conducted Public Scoping Sessions to accept verbal and/or written comments on the Draft Scope.
- July 16, 2010 DEC issued the Final Scoping Document for the DEIS.
- May 18, 2011 DEC accepted the DEIS as complete for public review. Comments on the DEIS were accepted by DEC until August 5, 2011.
- June 28, 2011 DEC conducted a Public Hearing to accept verbal and/or written comments on the DEIS in afternoon and evening sessions, at the Dover High-Middle School Auditorium.
- July 9, 2011 An additional Saturday hearing was sponsored by the Town of Dover following requests for a weekend hearing. All comments made at this hearing were incorporated into the DEIS and have been responded to as part of the FEIS.
- July 25, 2912DEC as the Lead Agency for the SEQR Review of this action, filed the<br/>Final Environmental Impact Statement (FEIS).