

Cricket Valley Energy



Town of Dover Special Use Permit Application

Project Overview

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PROJECT DESCRIPTION

The Cricket Valley Energy (CVE) Project will be a state-of-the-art electric generating facility that will provide needed electricity to the New York State power grid and will provide long-term local and regional economic and environmental benefits.

The CVE Facility will convert natural gas into electricity using what is known as the “combined-cycle” generating process. The Facility will generate approximately 1,000 megawatts (MW) of electricity, which will be distributed to the local and regional grid via the high-voltage transmission lines which are next to the Project site.

PROJECT LOCATION

The CVE location was carefully selected due to existing electric and natural gas infrastructure, current industrial zoning, and topography and tree cover that provide a substantial natural buffer to the surrounding community. The property consists of five (5) parcels totaling 193.5 acres and is located at 2241 Route 22, Dover, Dutchess County, New York (the “Property”). CVE holds a long-term option to purchase the Property. The Property is within the Town of Dover’s Industrial/Manufacturing Land Use District (M), which permits industrial and related uses. A site location map is attached as Exhibit A1 and a Zoning Map is included as Exhibit A4.

Immediately to the north of Property is an existing Consolidated Edison Company of New York (“ConEd”) electric transmission right-of-way, which also abuts an Iroquois Gas Transmission Company (“Iroquois”) natural gas pipeline which will provide fuel to the Facility. In addition, the Property is bounded to the east by New York State Route 22; to the south by Rural-zoned property; and to the west generally by the Swamp River. A Metro-North railroad track transects the Property in a north-south direction.

CVE proposes to construct the Facility on a 57-acre parcel (the “Project Development Area”) which is located to the west of Route 22, south of the ConEd right-of-way, and east of the Metro-North rail line. A Facility location map is attached as Exhibit A1 and an Artist’s Rendering of the proposed Facility is included as Exhibit A8. This portion of the Property has a long history of industrial use dating to the 1940s and consists of numerous dilapidated or collapsed buildings and structures, some of which were destroyed by fire in 1996. The Project Development Area, which includes substantial solid waste from historical operations, has also been identified by Dutchess County as the Mica Products Critical Environmental Area (CEA), due to the need for clean-up associated with former uses. CVE has conducted a Phase II Environmental Site Assessment and is working with New York State Department of Environmental Conservation (NYSDEC) to address clean-up objectives for the site. CVE will work closely with the Town of Dover, Dutchess County and the NYSDEC to restore this portion of the Property and place it back into productive and tax paying use.

For more information on the Phase II ESA and proposed clean-up activities, please see *FEIS Section 2 – Earth Resources*.

Approximately 79 acres of the 193-acre site lie west of a Metro-North railroad track and are currently undeveloped. This portion of the Property has been designated as part of the Great Swamp Critical Environmental Area (CEA) for its natural resource value. It contains a NYSDEC-mapped wetland system associated with the Swamp River, which flows northward past the Property to its confluence with the Ten Mile River, just south of Dover Plains. This portion of the Property is not proposed for any Project development activity, and CVE is in discussions with local conservation groups to place this land into a permanent conservation trust.

For more information on the Property's environmental resources, including wetlands and endangered species assessments, please see *FEIS Section 3 – Natural Resources*.

The remaining 57 acres of the Property are referred to as the "Former Rasco Parcel". The location of the Former Rasco Parcel is shown in Exhibit B1. This portion of the Property was not part of the original proposed development, but has been acquired by CVE to serve as a temporary parking and storage area during construction. The temporary use of the Former Rasco Parcel is intended to reduce the impacts and traffic associated with the originally proposed 40-acre parking area, located 2.5 miles north of the Property off Route 22 (the "Remote Laydown Site"). (The Former Rasco Parcel also enables CVE to further minimize offsite impacts by providing additional buffer to the south.) The Remote Laydown Site is still expected to be used during construction, though at a reduced level. A map of the Remote Laydown Site is included as Exhibit C1.

For more information on the proposed parking plan, see the Traffic section below.

PROJECT ELECTRIC AND NATURAL GAS INTERCONNECTIONS

There will be two utility interconnections at the Facility, one to connect to the electrical grid and one to connect to the natural gas fuel supply (see Exhibit A14). The electricity generated from the Facility will be transmitted via a 700-foot, on-site, overhead interconnect to the existing ConEd 345 kilovolt (kV) electric transmission line located adjacent to the Property to the north. To minimize the Project footprint and avoid wetland intrusion, a more expensive state-of-the-art gas insulated switchgear (GIS) substation design has been selected. The Project's interconnection point will be located within the Project site, which is approximately 14.5 miles east of the Pleasant Valley substation and 3 miles west of the NY-Connecticut border. Electrically, the Project is located south of the often-congested Leeds-Pleasant Valley transmission corridor, so the Project will provide additional flexibility and reliability for the local and regional transmission grid.

Clean-burning natural gas fuel for the Facility will be transported via a new 500-foot, 12-inch pipeline lateral from the adjacent Iroquois pipeline. Natural gas will be provided to the Project through a combination of firm and interruptible natural gas transportation contracts to meet Facility requirements. It is intended that the arrangement will minimize gas supply costs and provide high levels of reliability and operational flexibility.

PROJECT TECHNOLOGY

The Project will be comprised of three combined-cycle units, each consisting of a combustion turbine generator, a heat recovery steam generator with supplemental duct firing, and a steam turbine generator. The process of using both the power generated in a combustion turbine generator as well as that generated by a steam turbine generator is commonly referred to as “combined cycle” generation, and is one of the most efficient technologies for producing electricity.

Since a combined cycle plant uses less fuel than a conventional fossil-fueled power plant, the savings in fuel and, therefore, energy costs are significant. Another benefit of combined cycle technology is that, because less fuel is consumed, environmental emissions are less than those of traditional fossil fuel technologies per megawatt-hour of power generated.

GE will supply the Project with GE’s latest 7FA.05 gas turbine technology and highly efficient steam turbines, the latter of which would be manufactured at GE’s facility in Schenectady, NY. In addition to GE’s world class quality in manufacturing, CVE will utilize GE’s continual field services to maintain optimal Facility performance.

The CVE Project’s configuration (three independent 1x1 units) will create strong operational flexibility for reduced start times and load-following response. The Facility is expected to have an annual availability of 93 percent or greater, while achieving summer peak availability of 98 percent or greater. These features allow the Project to serve as a dependable baseload generator to help maintain the reliable operation of the power grid.

LOW IMPACT DESIGN

Low-impact design will preserve and protect the environmental quality of the Property and will respect the rural character of Dover and the surrounding communities. The developed footprint of an existing industrial site will be utilized and surrounding trees and topography will be preserved to the greatest extent possible.

The size of the Facility has been carefully planned to efficiently utilize the nearby interconnections while minimizing disturbance of natural resources. The Project will minimize impacts to surrounding habitat and wetlands by siting the Project east of the railroad tracks, reducing the size of the Facility’s footprint through use of a GIS substation, and incorporating sustainable stormwater design features such as native landscaping and bio-retention areas. In addition, assessments by NYSDEC and the US Fish & Wildlife Service have identified no endangered species’ habitat on the Property (see *FEIS Section 3 – Natural Resources*).

The Facility will incorporate the latest technology in air-cooled condensers which will minimize water use. Process water will be provided by new, on-site, deep bedrock wells. After discussion with local environmental groups regarding water consumption, the CVE team has incorporated a Zero Liquid Discharge system, which will recycle and reuse water internally, reducing the need for process water and ensuring that no process wastewater will be discharged.

The Facility will employ best management practices for storm water management, which will include a system that reflects existing drainage patterns and incorporates a detention pond, bio-retention facilities, and roof top rain capture to maintain peak rates of discharge and minimize the potential for erosion and sedimentation.

Additional detail on the Project's water consumption, proposed water sources, and stormwater management facilities can be found in *FEIS Section 5 – Water Resources*.

PERMIT AND APPROVAL PROCESS

A comprehensive environmental review of the CVE Project was provided in the Draft Environmental Impact Statement ("DEIS"), which was prepared in accordance with the State Environmental Quality Review Act (SEQRA) and submitted to NYSDEC in early 2011. The DEIS demonstrates that the CVE Facility will have no significant adverse impact on the environment, and will improve the environment by reducing air pollutant emissions by displacing older, higher emitting generators and locally by cleaning up a very disturbed and dilapidated industrial site.

The NYSDEC assumed Lead Agency status for the Project with the Town of Dover being an Involved Agency. On May 25, 2011, the NYSDEC issued a public notice determining that the DEIS was complete, that draft air and wetlands permits were available and inviting public comment. Public hearings on the DEIS were held at the Dover Middle School Auditorium on June 28, 2011 and at Dover Town Hall on July 9, 2011. The written public comment period was extended and closed on August 5, 2011. Public comments were compiled and additional analyses were undertaken to confirm that the Project will not cause any significant adverse environmental impacts. These additional analyses were presented in the Final Environmental Impact Statement (FEIS), which also includes a response to every public comment and was issued in July 2012.

COMMUNITY OUTREACH & LOCAL BENEFITS

CVE has conducted an extensive public outreach program designed to inform the local community of the proposed Project and address the community's concerns. In June 2009, CVE established a Project web site (www.cricketvalley.com) to provide the public with Project information. The website is regularly updated with CVE permit filings, meeting announcements, presentations, and outreach materials. The website contains a comprehensive and easily accessible list of all major CVE filings. In addition, the CVE development team maintains an email list, which is used to inform interested parties of upcoming meetings and events.

CVE has maintained an office at 5 Market Street in Dover Plains since October 2009. The community outreach office has been used for community Open Houses in December 2009 and July 2011, and serves as a meeting place to listen and respond to public inquiries. CVE has also published a series of newsletters, which are mailed to every household in Dover. The newsletters, which were first published in April 2010, discuss recent Project news and inform residents of upcoming events and meetings.

In January 2010, CVE also established local Advisory Working Groups to allow residents, environmental groups and other interested parties to be involved in the development process and hear from CVE experts on the latest Project developments. To date, the topics discussed have included air and water impacts and traffic congestion that may result from the Project. In direct response to concerns expressed by the community, CVE has completed redesigns of the Project – which now incorporate a rooftop water collection system and a zero liquid discharge water system to address concerns about water quality and volume, and new parking plans to minimize potential traffic congestion during construction of the Project. Working Group materials are available on the CVE website at www.cricketvalley.com/get-involved.

In addition, CVE is discussing with the Town of Dover components of a formal community benefits package and a payment in lieu of tax agreement (PILOT), which will bring substantial revenues to the Town of Dover, the Dover Union Free School District, and Dutchess County for up to 30 years. The Project will be the largest taxpayer in Dover by a significant margin.

CVE continues to support the advancement of Dover’s youth through a scholarship, awarded annually to a graduating Dover High School Senior pursuing an advanced degree in engineering or environmental science.

CREATING JOBS

Project development and construction will require an estimated investment by CVE of approximately \$955 million, which will provide significant benefits to the local, regional, and state economies. In the short-term, it is expected that an 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. This equates to over 1,000 “worker-years” of construction employment, benefiting one of the hardest-hit economic groups in New York State.

Construction of the facility will require approximately 36 months. Building demolition and site clean-up will be a component of early-stage project construction. Construction is currently proposed to start in mid-2013, with a proposed commercial operation date for the facility in mid-2016.

The job creation benefits from construction activity will be substantial, with indirect job creation and induced (multiplier) job creation occurring across many local and regional businesses. A socioeconomic model described in the Project’s *DEIS Section 6.7* estimates that a total of 1,451 construction industry and construction related (FTE) jobs will be supported as a result of direct project construction expenditures over the three-year construction period. In addition to the direct construction employment impacts from Project expenditures, the indirect and induced economic activity resulting from Project construction will support another 751 jobs in Dutchess County in a wide variety of industries. The direct and indirect benefits of Project construction in Dutchess County are estimated at \$224.3 million.

The majority of the construction labor force demand is anticipated to be satisfied from workers within the Harlem/Hudson Valley region. The number of available workers from within the various

construction trades is more than enough to satisfy the average required workforce for the proposed Project as shown in the Project's DEIS (Section 6.7). In total, workers from within the local labor market would be anticipated to account for approximately 90 percent of the overall labor force.

Once completed, operation of the Facility will support approximately 28 well-paying professional jobs in Dover, along with millions of dollars in taxes to benefit the town, county, school district and state. The investment in the plant, during both construction and operation, will also result in significant secondary economic benefits. As payments to suppliers and worker wages are spent and recirculated in the area economy, additional jobs, income and revenue will be created in a variety of industries, such as lodging, eating and drinking establishments, retail stores, wholesalers, and service providers. Annual operation of the Project is estimated to result in an increase in regional economic activity of \$21.8 million.

LAND USE COMPATIBILITY

The Property is an appropriate location for a combined-cycle generating facility due to the adjacent energy infrastructure, industrial zoning, and substantial natural buffer to the surrounding community. The Project also incorporates numerous designs and technologies that will make the Facility the right fit for the Town of Dover.

Land Use Districts

The Project will comply with, and be consistent with, all land use districts and overlay districts, as defined by the Code of the Town of Dover (Town Code).

Specifically, the Property lies within the following land use and overlay districts: (1) Industrial/Manufacturing Land Use District (see Exhibit A4); (2) Resource Conservation Land Use District (see Exhibit A4); (3) Floodplain Overlay District (see Exhibit A6); (4) Stream Corridor Overlay District (see Exhibit A7); and (5) Aquifer Overlay District (see Exhibit A5). (Additional details regarding the Project's conformance with zoning requirements are presented in the accompanying *Conformance Assessment*.)

Industrial/Manufacturing Land Use District

As noted above, the Property is comprised of five (5) parcels totaling 193.5 acres, and is primarily located within the Town of Dover Industrial/Manufacturing (M) Land Use District. The Project is consistent with the "M" use district as the Property sits in relative isolation, and existing topographic and tree buffers will be maintained. A small portion of the Property extends west of the Swamp River and is located within the Resource Conservation District; however, this land is inaccessible and will not be disturbed by Project activities. CVE is also in discussions with local conservation groups to place this land into a permanent conservation trust.

Floodplain Overlay District

While a small portion of the Property is located within the revised 100-year FEMA floodplain, the affected area is located entirely west of the Metro-North railroad track where no Project development activity will occur (see Exhibit A6). The proposed use of the Property, and specifically the location of the

proposed development outside the boundaries of this district, ensures conformance with the requirements of the district.

Stream Corridor Overlay District

The Stream Corridor Overlay District includes all land lying within 150 feet of the mean high water line of Ten Mile or Swamp Rivers. While a small portion of the Property is located within 150 feet of the mean high water line of the Swamp River, the affected area is located entirely west of the Metro-North railroad track where no Project development activity will occur (see Exhibit A7). The proposed use of the Property, and specifically the location of the proposed development outside the boundaries of this district, ensures conformance with the requirements of the Stream Corridor Overlay district.

Aquifer Overlay District

The CVE Property is located entirely within Dover's Principal Aquifer Zone (PAZ), and more specifically, within the Valley Bottom Aquifer System (see Exhibit A5).

To ensure that the purity and quality of town's drinking water supply will not be affected, a long-term pump test program, as approved by the NYSDEC, was implemented (see *DEIS Section 5.4.4* for a detailed discussion of the pump test and approved protocol). This pump test was designed to monitor neighboring wells, adjacent wetlands, and the Swamp River to ensure CVE's water consumption would have no adverse impact. As discussed in *DEIS Section 5.4.4.5*, the Project's main well can be operated indefinitely at its design rate (60 gpm) and, when tested at maximum water needs (120 gpm), it did not produce any discernible effects on any of the monitored off-site wells, nor any of the on-site wetlands.

The section of the Swamp River abutting the CVE Property has been identified by stream gauging to experience the most robust stream gain of the entire river. The *Site Water Budget Report* (DEIS Appendix 5-C), prepared by The Chazen Companies, concludes that, due to this advantageous location within the watershed, the Property is fully 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.

Facility Sound Levels

Noise modeling analysis has demonstrated that when operational, the Project will meet the requirements of the NYSDEC and Town Code at all non-industrial property lines (see *DEIS – Section 6.4*; *DEIS – Appendix 6-E*; and *FEIS – Section 6.3.4* for detailed information).

Operational Sound Levels

The Project will comply with the most restrictive night-time sound level limit (50 dBA) of the Town Code Noise Standards at the north, south, and east Property lines, which are the Property lines nearest to residential receptors.

The Project's sound levels are predicted to exceed the Town Code Noise Standards at the western Property line abutting the Metro-North railroad line; however, the Metro-North railroad line is not a

noise-sensitive receptor, and CVE will own approximately 1,000 feet of additional property on the other side of the railroad line. At the westerly boundaries of that property beyond the railroad line, the Project will comply with the Town of Dover Zoning Noise Standards (see Exhibit A22).

CVE is requesting a minor amendment to the Town of Dover Zoning Code to permit the anticipated noise levels at the Property boundary abutting the railroad line without negatively impacting community character and residential uses. The proposed amendment, which was submitted to the Town of Dover Town Board on January 25, 2012 (a copy of which is attached as Exhibit A22), remains consistent with zoning and planning requirements which protect the quality of life for non-industrial properties, including residential properties, but will permit an economically beneficial use to be developed on appropriately zoned property.

Further, the construction management firm chosen by CVE will be contractually obligated to meet all Town of Dover Noise Standards pertaining to construction of the Project, and is required to include a “noise guarantee” in the construction of the plant. The noise guarantee will include baseline monitoring during commissioning and start-up of the plant. Once the facility is fully operational, CVE will measure the actual Project operational sound levels at nearby residents and Property lines. These measurements and the associated report will be conducted by a third party licensed acoustical engineer in accordance with industry practices and any applicable state and local regulatory requirements.

Based upon CVE’s *Baseline Sound Study and Environmental Sound Evaluation*, included as *Appendix 6-E* to the DEIS, sound levels produced by the operation of the proposed Project were evaluated at a number of locations, including the Middle/High School. Sound levels at the Middle/High School are expected to be below 35 dBA (as shown in Exhibit A22) at the exterior of the nearest building. Inside the buildings, Project sound levels would be reduced still further. 30 dBA is equivalent to a quiet office or library.

For more information on project sound levels please see *Section 6.4* of the DEIS and *Section 6.3.4* of the FEIS.

Construction Sound Levels

Estimates for Project-related construction sound levels were included in the DEIS within Table 6.4-2. “Worst case” estimates of construction sound levels at all residential receptors are 61 dBA or lower. Construction activities which produce significant noise levels, such as excavation or commissioning, will be limited to daylight hours when background sound in the surrounding area increases significantly due to traffic activity on Route 22. Construction-related sound at more distant residential properties, as well as the Dover Middle/High School complex, is expected to be consistent with typical daytime background sounds. At the school complex, sound produced by the construction and operation of the power plant will likely be unnoticed (outdoors or indoors), and will have no adverse impact on sound exposure experienced by students or faculty.

Construction noise is prohibited between the hours of 9 p.m. and 7 a.m. except in case of an urgent necessity in the interest of public safety. Examples of activities that will be required at night include:

- Concrete pours, which must be continuous for structural integrity, and which would not be anticipated to be particularly noisy;
- Transfer of materials from the remote Laydown Site to the CVE Property, timed to avoid the evening commuter period and no later than 9:00 p.m., which would involve trucking noise;
- Hauling of heavy loads (such as the turbines), which per NYSDOT regulation must occur during late night hours to minimize effect on existing roadway use; and
- Construction finish work, as necessary, during later construction phases, which would predominantly occur indoors and would therefore not produce significant noise levels.

Due to some anticipated shallow bedrock within the construction area, limited blasting may be necessary during construction to reach competent bedrock suitable for foundations and support structures. A detailed geotechnical survey will be conducted to determine if, or how often, blasting will need to occur. If deemed necessary, a detailed safety plan will be developed and a comprehensive public outreach plan will be implemented, as detailed in Section 2.3.2 of the DEIS.

Appropriate 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. Although the Town Code requires that only adjacent landowners within 300 feet of the blast site be notified within 24 hours of blasting, CVE has committed to notify homeowners within 1,000 feet of the blasting site 5 business days prior to blasting as detailed in Section 2.3.2 of the DEIS. CVE will work with the Town of Dover if a more comprehensive outreach plan is required.

For more specific detail on blasting plans, please see *DEIS – Section 2.3.2*.

Dust

There will be no dust associated with the operation of CVE Facility.

During construction, CVE and its contractors will incorporate Construction Best Management Practices (BMPs) to identify methods and controls to minimize and prevent potential impacts to the surrounding environment. The BMPs will also incorporate requirements and commitments set forth in the Project's Stormwater Pollution Prevention Plan (SWPPP).

Prior to construction, stabilized construction entrances will be installed at points of entry and egress from the site to reduce the tracking of soil onto public roadways. Construction traffic must enter and exit the site at the stabilized construction entrance. The intent is to trap dust and mud that would otherwise be carried off-site by construction traffic. For more information, please reference Section 4.1.1 (*Stabilized Construction Entrance*) of the Project's SWPPP included as Exhibit A20, B8, and C9.

Water trucks will be used as needed during construction to reduce dust generated on the site. Dust control must be provided by the general contractor to a degree that is in compliance with the applicable local and state dust control requirements. For more information, please reference Section 4.1.2 (*Dust Control*) of the Project's SWPPP included as Exhibit A20, B8, and C9.

Air Emissions

The CVE Project will minimize its air emissions by utilizing highly efficient combined cycle generation technology and using only clean-burning natural gas to power the combustion turbines. In addition, the Project has incorporated Lowest Achievable Emission Rates (LAER) / Best Available Control Technology (BACT) design features and will represent the lowest emitting power plant of its kind ever constructed.

The Facility will be equipped with state-of-the-art emissions control technology, including dry low-NO_x burners and selective catalytic reduction technology to control emissions of nitrogen oxides (NO_x), and an oxidation catalyst to control carbon monoxide and volatile organic compounds emissions. A continuous emissions monitoring system will be utilized to ensure and document facility compliance with applicable emissions limitations.

Further, as quantified in the Project's DEIS, CVE's highly efficient production of energy is expected to displace the operation of older, less efficient and higher emitting power plants, and improve regional air quality by a net reduction in regional emissions of air pollutants and greenhouse gases. These emission reductions are confirmed by the Project's Security Constrained Economic Dispatch (SCED) Analysis, presented in the Project's *DEIS at Appendix 1-A – SCED Analysis*.

CVE's findings in regards to air quality have been reviewed by Dr. Bruce Egan, an air-quality consultant who was hired by the Town of Dover Town Board to conduct an independent analysis of the Project's *DEIS Section 4 – Air Resources*. Dr. Egan's report concludes by stating, "I find that the demonstrations for compliance follow regulatory procedures and are complete and seem to be without errors." This is consistent with the findings of the NYSDEC and the USEPA who have together approved the Project's air permit application and issued a Draft Air Permit.

Additional detail on CVE's air emissions can be found in *FEIS Section 4 – Air Resources*.

Solid Waste

Operational Solid Waste

During both construction and operation of the CVE Facility, all waste materials will be collected and placed in containers prior to being disposed of off-site. Solid waste will be transported off-site by licensed haulers and will be disposed of at licensed facilities. There will be no solid or liquid waste materials discharged with stormwater.

As noted above, CVE has incorporated a zero liquid discharge system into the Project design to reduce water consumption and eliminate process wastewater discharge. A by-product of this process, after the water is recycled, is dewatered crystal solids (e.g., "salt cakes"). CVE has identified potential options for handling these crystal solids. For instance, the Project could transport the material to a licensed third party for a marketable by-product, such as road salt. If an agreement with a third party processing facility cannot be reached, the Project will transport the material to a licensed off-site solid waste management facility.

Demolition Debris

To characterize the scope of demolition activities that are expected to occur at the Property, CVE commissioned a pre-demolition survey, which was described in detail in *FEIS – Section 2.3.3*. The surveys were conducted by Professional Service Industries, Inc. (PSI) whose findings are presented in the FEIS. All of the materials identified in the survey, including asbestos containing material (ACM), lead-based paint, and other hazardous materials will be removed according to applicable federal, state, and local guidelines.

As described in *FEIS – Section 2.3.4.2 – Demolition Activities*, buildings will be demolished using conventional demolition methodology, such as a crane with drop ball working in conjunction with grapple/shear equipped excavators and track loaders. The final building demolition methods will be chosen based on actual demolition work scope specification and other approved methods to safely collapse or dismantle structures. Demolition debris will be prepared for disposal by segregating metals from brick and concrete. In general, the intent is to remove all solid waste material such as miscellaneous trash, Formica debris, and building materials, with the exception of the inert waste piles (e.g., limestone slag and fire brick) and inert building materials (e.g., concrete and brick). CVE is proposing to beneficially reuse the inert limestone slag and clean concrete and brick as construction fill, subject to approval from the NYSDEC. The Demolition Plan is included here as Exhibit A11.

Site Remediation

As detailed in the FEIS, Section 2.3.2, a Phase II Environmental Site Assessment was completed for the Property to determine potential contamination of soil, groundwater, and surface water at the Property due to various tenant operations that have occurred over approximately 70 years. In addition, the Phase II ESA was used to estimate the extent of waste piles deposited on the site by the various tenants that have occupied the site since 1942. These tenants include:

- AMCO Magnesium Corporation, ca. 1942 to 1966, which was engaged in the extraction of magnesium from limestone mined from a local quarry;
- Mica Products Corporation, ca. 1966 to 1980, which applied plastic laminates onto a variety of furniture products;
- Poly Tech Recycling Corporation, ca. early 1990s to 1996, a tire shredding and recycling operation;
- Carbon Activation U.S. Inc., 1994 to ca. 1998, a business that recycled activated carbon used as an industrial filter medium;
- TT Materials, 1993 to ca. 2005, which recycled petroleum-contaminated soil (PCS);
- RASCO Materials, LLC, 2005 to 2012, which continued the same PCS recycling operation until early 2012.

Based upon the Phase II ESA results, three soil sampling locations were identified for which contaminant levels indicate the potential need for remediation (see *FEIS Figure 2-6*):

- AOC-12: An area conservatively estimated at 100 cubic yards with oil staining and odors on soil, and an oily sheen on groundwater.
- AOC-15: An area conservatively estimated at 100 cubic yards, containing arsenic at a concentration above the NYSDEC's industrial criteria, restricted use (ICRU) Soil Cleanup Objective of 16 milligrams per kilogram (mg/kg), associated with an area of discolored soil.
- AOC-25: An area conservatively estimated at 370 cubic yards of petroleum-contaminated soils, and benzo(a)pyrene at a concentration above the ICRU of 1.1 mg/kg.

The amount of contaminated soil at each of these locations is manageable and small in comparison to the proposed redevelopment. Excavation and off-site disposal by licensed contractors is considered the most appropriate means of remediation. Under a specific Health & Safety Plan developed for these activities, the materials will be removed (with appropriate protection measures), and appropriate approvals will be obtained for disposal of the material at either a solid waste landfill or treatment and recycling facility. The limits of contamination will be confirmed by post-excavation sampling of the sidewalls and bottom of the excavations and laboratory analysis for relevant parameters.

In addition to the contaminated material, various piles of debris material located throughout the Property will be removed and disposed of properly off-site, including the debris related to the Mica Products operations which has been tested and shown to be non-hazardous. After completing removal of the contaminated materials and debris, a report of the remediation activities will be prepared and submitted to NYSDEC. For further detail on site remediation, see *FEIS – Section 2.3.4 – Demolition and Clean-Up Strategies* and the Demolition Plan included as Exhibit A11.

Project Visibility

Viewshed Analysis

The visual analysis included in *DEIS – Section 6.2* indicates that, although the Project will be visible from certain locations, the Property possesses a number of qualities that will minimize visual impacts to the surroundings, including: the Project's 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 has been purposefully located within a compact footprint, including co-locating the three stacks to minimize their visual impact on surroundings. As described in *DEIS – Section 6.2* and *FEIS – Section 6.2.2*, the visual impact was assessed by NYSDEC as minimal, 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.

Areas of potential visibility within a 5-mile radius were determined based on computer modeling that considered both topography and vegetation (see *DEIS Figures 6.2-1 and 6.2-2* included as Exhibit A24). Within these areas, types of viewers and land uses were considered, leading to selection of vantage points from which photographic simulations were prepared. Representative simulations both under

current conditions and with the proposed Project in place were included as *Figures 6.2-6 through 6.2-13 of the DEIS*.

A visual impact assessment can be conducted using photo simulations (such as those included in the Projects DEIS) or physical field representations of future structures (such as a balloon or crane test at the site). The Project elected to conduct photo simulations from representative vantage points near the site to provide a more accurate reflection of what the proposed Project will actually look like. However, CVE will work with the Town Board to complement this analysis and to meet the Town Code's requirements.

Facility Lighting

Lighting, both for normal operation and emergency or temporary shutdown, will be provided throughout the facility. The project's proposed lighting design will minimize offsite impacts, while providing sufficient lighting to ensure worker safety during routine operations and maintenance. Site lighting has been designed to meet the standards of the Illuminating Engineering Society Lighting Handbook and the Town Code.

Details of the Lighting Plan intended to eliminate off-site glare are provided in DEIS Section 1.5.1.4.2 – *Lighting*, DEIS Section 6.2.3 – *Visual Characteristics of the Project*, and DEIS Appendix 6-C – *Exterior Illumination & Glare Mitigation Plan*. In addition, CVE has developed a Lighting Plan for both temporary construction parking and storage areas. These are included as FEIS Appendix 6-A – *Former Rasco Parcel Lighting Plan* and FEIS Appendix 6-B – *Remote Laydown Site Lighting Plan*. Detailed drawings of the lighting plans are included as Exhibits A18, B7, and C8 to this submittal.

The main entrance and internal roadway lighting will consist of 400 watt high-pressure sodium fixtures mounted at approximately 30 feet above grade. These fixtures will include full cut-off optics to reduce unwanted glare and fugitive light (e.g., light emitted beyond the Property boundary). Fixtures will be controlled by light sensing switches and directed inwards toward the Facility. Entry door and truck access doorway lighting are anticipated to consist of 70 watt and 100 watt high-pressure sodium wall lighting fixtures, respectively. These fixtures will also include full cut-off optics to reduce unwanted glare and fugitive light. The doorway fixtures, controlled by photovoltaic cells, will be located above the doors and directed downward.

The Facility, including its stacks, would not be visible at night, although FAA safety lighting on the stacks would be visible. Stack lighting will be similar to the FAA lighting seen on communication towers (pulsing red lights). Other lighting will be directed downwards and would not result in nighttime off-site visibility of the Facility.

CVE is working with the FAA to minimize the need for stack lighting to the extent possible while still meeting FAA safety requirements. This includes the possible installation of a HARRIER™ Visual Warning System, which would utilize radar to detect flying objects in or around the Facility. When the Visual Warning System is tripped, the stack lighting would turn on; otherwise, the stack lighting would remain off to reduce visual impacts.

Facility Landscaping

A key design goal of the Project is to maintain as much of the Property's existing vegetation as possible. The Property has substantial wooded vegetation to the west of the railroad track; none of that vegetation will be removed, and no work is proposed on that portion of the Property. Although small amounts of clearing will be required around the project footprint, a significant amount of wooded buffer will be maintained around the Project Development Area, including an approximately 300-foot buffer along Route 22.

Four areas are planned for landscaping or forest restoration, as shown on the Landscaping Plan provided in Exhibit A17 (for the Project site) and B6 (for the Former Rasco Parcel). Landscaping is planned at the plant entrance, near the front of the administration building, and near the associated visitor parking area.

Traffic and Site Accessibility

The Project has been designed to minimize potential traffic impacts and maintain public safety.

The CVE Property is bounded to the east by New York State Route 22, a two-lane, undivided state highway which operates with a current average daily traffic of approximately 6,900 vehicles. As a state highway, there is no pedestrian traffic. The posted speed limit at the CVE Property is fifty-five (55) miles per hour with average lane and shoulder widths of twelve (12) feet and six (6) feet respectively.

Operational Traffic

The CVE Facility will be accessed via the Property's existing driveway on the west side of NYS Route 22, which will be widened as part of the Project improvements (see Exhibit D2 – *Highway Improvement Plans*). As described in *DEIS – Section 6.3* and *FEIS – Section 6.2.3*, once operational, the Project will result in minimal additional vehicle trips each day, estimated at 28 daily round trips, which will be an insignificant addition given the current traffic on NYS Route 22.

A traffic study of the cumulative impacts of the CVE Project, additional projects (including Dover Knolls) and population growth in Dover demonstrated that following construction of the plant, all intersections will operate at an acceptable level of service. These findings were discussed in detail in Section 6.3 of the DEIS.

Construction Traffic

As noted above, it is expected that an 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. This will generate an estimated 733 additional vehicle trips during peak construction, which includes both construction workers and construction vehicles.

To alleviate traffic impacts, CVE has acquired an additional 57 acres of land for temporary construction worker parking (Former Rasco Parcel). It is anticipated that the Former Rasco Parcel can accommodate approximately 580 construction worker vehicles, which will be adequate to serve the entire construction

crew for more than 80 percent of the construction period (approximately 31 of 36 months). During the five months of peak construction, anticipated to occur in mid-2014, overflow parking may be required at the Remote Laydown Site.

To reflect the addition of the Former Rasco Parcel, an updated traffic analysis was prepared (see *FEIS Appendix 6-C*) to assess a projection of traffic conditions during the peak construction period with the amended parking plan in place. The peak construction year traffic and the operation year have been revised to 2014 and 2016 respectively.

CVE will work with the New York State Department of Transportation (NYSDOT) to identify appropriate temporary measures to implement during construction to mitigate traffic impacts at the Project driveway. CVE's recommendations for review by NYSDOT currently reflect:

- A temporary traffic signal at the Project driveway for use during construction; and
- Roadway improvements at the Project driveway, including temporary widening of NYS Route 22 (including a northbound left turn lane and southbound right turn lane into the Property). These temporary lanes will include clarification of traffic patterns through use of land and median striping to reduce potential traffic conflicts.

See Exhibit D2 for the proposed Highway Improvement Plans at each site.

CVE will work closely with the Town of Dover to determine the need for any additional measures such as providing manual traffic control during the peak morning and evening hours. In addition, while the normal daily hours of construction and material/equipment truck traffic are planned to be between 7:00 AM to 4:00 PM and typically from Monday through Friday, CVE will work with the Town and Dover Union Free School District to adjust the construction start time to avoid school bus schedules.

Project Accessibility to Emergency Vehicles

As described in Section 1.3.6 of the Project's FEIS, the Project will be accessed by the existing driveway off of Route 22. Major improvements to the driveway will include widening and grading to improve stormwater flow. A ring road will be constructed inside the secured area to provide access to the various equipment areas and to allow emergency response equipment to access all areas of the Project Development Area. An alternate secured entrance will be located south of the administrative and warehouse building.

Prior to commencement of construction, a comprehensive security plan will be developed and implemented that will address both construction and operational phases of the Project, as described in Section 1.3.9 of the FEIS. The plan will include perimeter fencing that secures the complete operations of the facility and the Iroquois fuel gas metering station. A chain link fence, a single sliding gate and surveillance equipment will be used to permit only authorized access to the Project service driveway, structures and operations. The gate will be locked at all times, with access provided by Project personnel. The control room will have surveillance views of the gate, and the ability to open the gate.

The continuously staffed control room will include equipment for communications with local fire and rescue teams, emergency services, the Dutchess County Sheriff's Office, and the New York State Police. In addition, the J.H. Ketcham Hose Company will have the ability to fully access the Property in the event of an emergency.

The Project has coordinated with the J.H. Ketcham Hose Company and prepared a detailed *Site Maneuvering Plan* to ensure that all on-site areas are accessible by their equipment both during construction and operation. The *Site Maneuvering Plan*, which is included as Exhibit A15 for Project operations and B11 for construction, is designed to accommodate a 42.5' fire truck.

On-Site Parking and Maneuvering

As noted above, an internal traffic maneuvering plan has been completed for the Facility and is included as Exhibit A15. The maneuvering plan is designed to accommodate a 42.5' fire truck as well as the largest anticipated delivery truck (50').

In addition to the maneuvering plan, the Project has developed a detailed Site Signage and Striping Plan (See Exhibit A16). The Site Signage and Striping Plan has been designed to meet all Town Code and NYSDOT requirements and includes specifications on Signage, Striping, Paving, Curbing, Pedestrian Ramps, Layout, and General Construction techniques. See Exhibit A16 for further detail.

Water Resources

CVE recognizes the importance of the Great Swamp, the Swamp River and the Harlem Valley watershed to the community. Since its first Town Meeting in April 2009, the Project has made considerable efforts to re-engineer its facility to minimize water use, including the addition of a Zero Liquid Discharge system to internally recycle process wastewater, and a rooftop rainwater capture system to supplement the water supply. Through these efforts, the Project will be one of the most water-efficient power plants in the region, as further described in *DEIS – Section 5 – Water Resources*.

Wetland Delineation

CVE has delineated, and both NYSDEC and the US Army Corps of Engineers (USACE) have confirmed the presence of, jurisdictional wetlands on the Property. The following table summarizes the jurisdictional wetland resources within the approximately 57-acre Project Development Area and approximately 57-acre Former Rasco Parcel.

Wetland Resource	Parcel Location	State Jurisdictional?	Federally Jurisdictional?	Wetland Jurisdictional Area (Acres)
1	PDA	No	No	--
2	PDA	Yes	Yes	8.68
3A	PDA	No	No	--
3B	PDA	No	Yes	0.41
Drainage Swale	PDA	No	Yes	0.04

Wetland Resource	Parcel Location	State Jurisdictional?	Federally Jurisdictional?	Wetland Jurisdictional Area (Acres)
A (US 5)	FRP	No	No	--
B (US 6)	FRP	No	No	--
C (US 7)	FRP	No	No	--
D (US 8)	FRP	Yes	Yes	6.08
E (US 9)	FRP	No	No	--
F (US 4)	PDA & FRP	No	Yes	0.36 (0.03 acres in PDA)

PDA = Project Development Area

FRP = Former Rasco Parcel

The Project is required to obtain an Article 24 Wetlands Permit prior to construction, and has submitted a joint wetland permit application to NYSDEC and USACE for review and approval (see Exhibit A25). Avoidance of impact to wetlands has been, and will continue to be, an important focus of the Project design. For more information on Project wetlands, see *DEIS Section 3.3.1 – Wetland and Adjacent Area Impacts* and *FEIS Section 3.3.5 – Summary of Proposed Wetland Impacts and Mitigation*.

Water Source and Aquifer Protection

The Project proposes to use on-site, bedrock wells to meet water needs. As discussed above (see Aquifer Overlay District section) and in *DEIS Section 5.4.4.5*, the pumping test program approved by NYSDEC confirmed the Project will have no significant impacts on offsite wells, wetland areas, or the Swamp River due to the Project's water withdrawal (see *DEIS Appendix 5-E Well Test Report*).

The section of the Swamp River abutting the CVE Property has been identified by stream gauging to experience the most robust stream gain of the entire river. The *Site Water Budget Report* (DEIS Appendix 5-C), prepared by The Chazen Companies, concludes that, due to this advantageous location within the watershed, the Property is fully 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. It should be noted that this conclusion is conservative, as it does not take into consideration the additional water that is expected to be generated from CVE's 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.

In addition, CVE has committed to install a stream gauging station downstream of the Project on the Swamp River to monitor flow. During public meetings with local residents and local environmental groups, attendees concluded that the Route 22 bridge, where a USGS stream gauging station had been previously sited, would be the most advantageous location for gauging to occur.

Water Discharge and Site Drainage

The Project includes a Zero Liquid Discharge system so that no process wastewater will be discharged from the Facility. This will ensure that the Project does not affect nearby drainage or sewer facilities.

As noted in Section 5.1 of the FEIS, a Stormwater Pollution Prevention Plan (SWPPP) utilizing Best Management Practices has been developed. The design incorporates control of stormwater discharge from the Project Development Area with three bio-retention facilities and one stormwater management basin. These facilities have been designed to provide quantity controls by attenuating stormwater runoff and releasing runoff to off-site locations at a rate equal to or less than that which existed prior to development of the Property. For all design points and design storms the peak rate of runoff will not be increased. As a result, the Project will not have a significant impact on the adjacent or downstream properties or receiving water courses.

For more detailed information on the Project's drainage and stormwater controls, please see the Preliminary SWPPPs presented as Exhibit A20, B8, and C9; and the Erosion and Sediment Control Plans presented as Exhibits A21, B9, and C8.

Finally, restoration of wetlands on the Property, including the former Rasco parcel, which have been significantly degraded by past industrial activities, will improve water quality.

Safety, Security, and Municipal Services

CVE places safety as its highest priority. Combined-cycle, natural gas facilities must conform to stringent federal and state safety regulations for construction and operations. In addition, to ensure safety throughout the Project's development, CVE will issue a Comprehensive Site and Safety Plan (CSSP), which will include both an Emergency Response Plan, included as Exhibit E1, and a Spill Prevention Control and Countermeasure (SPCC) Plan, included as Exhibit E2. The CSSP, which is being coordinated with local law enforcement and fire departments, details safety procedures, training, and testing that must be completed before workers can enter the CVE Property. Failure to adhere to all safety regulations will result in immediate dismissal.

Perimeter fencing will secure the site, and authorized staff will be on site 24 hours per day, 7 days per week, and 365 days per year. All vehicle and personnel traffic will be controlled through a single main gate via the main control room building, with surveillance in and around the Facility.

The plant will be equipped with state-of-the-art control systems designed to automatically shut down the Facility and the fuel supply at the first sign of an irregularity. Additionally, the plant will have top-of-the-line fire detection, alarm and suppression mechanisms developed in consultation with Town of Dover fire and emergency officials.

Emergency Response Plan

An Emergency Response Plan will be prepared prior to construction 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. CVE representatives have coordinated and will continue to coordinate with J.H. Ketcham Hose Company officials to ensure adequate resources are in place.

Prior to the mobilization phase of the Project, CVE and its primary contractor will conduct the following activities, as detailed in the Emergency Response Plan:

- Interview occupational medical clinics in the Dover vicinity and select appropriate facilities based upon quality of care and commitment to injury management principles.
- Identify the local provider of emergency medical response and assess response times and capabilities of that responder. The assessment will include the responder's capabilities to rescue from heights, and cranes and aerial lifts would be provided during construction if such capabilities are not in place.
- Survey area hospitals to identify an alternative to the occupational health clinic if injury were to occur outside of normal operating hours of that clinic. The location of the nearest trauma center will also be identified.
- Contact all local law enforcement agencies and host a site visit to familiarize staff with the Project and coordinate any on-site training as deemed necessary.

For more information, please see the Emergency Response Plan included as Exhibit E1.

Site Suitability

As noted above, the CVE property was chosen due to its industrial zoning and the ability to re-use an existing, abandoned industrial site, its proximity to an existing high-voltage electric transmission line and existing high pressure natural gas pipeline, and its existing buffer of trees and topography.

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), which permits industrial and related uses in isolated and well-buffered locations. The Project will maintain the existing buffers of trees and topography to the greatest extent possible. This includes the commitment to preserve 79 acres of land west of the railroad track (which will remain completely undisturbed), 57 acres of land to the south of the Project (the Former Rasco Parcel), and up to a 300' of buffer between the Project and Route 22.

The Project has been designed to be compatible with the Project Development Area's environmental resources and surrounding land uses. The 57-acre Project Development Area has been limited to the portion of the 193-acre Property that has largely been altered due to past industrial uses.

As described in Section 3 of the FEIS, to the greatest extent possible, the Project design has incorporated the following goals:

- Avoidance of jurisdictional wetland impacts and NYSDEC-jurisdictional wetland Adjacent Area impacts;
- Use of the existing developed footprint;
- Minimal clearing of forested areas;

- Avoidance of substantial earth movement; and
- Consideration of the needs of functional equipment orientation to facilitate construction and operations in an efficient and safe manner posing the least potential adverse impact.

Based on discussions with NYSDEC and the Town of Dover, the Project design improvements included:

- Shifting the Project footprint, reducing building size, and relocating buildings to avoid wetland impacts;
- Reducing slopes near wetland areas to minimize grading effects;
- Reconfiguring the stormwater detention basin; and
- Incorporating bioretention facilities to control stormwater runoff to a rate equal to or less than pre-development site conditions.

The use of a previously developed industrial property and the limited extent of new impacts avoid or minimize the potential for impacts to surrounding or nearby land uses. Since its initial exploration of the Project, CVE has completed studies, met with community members, including local environmental organizations and conservation groups, and taken steps to affirm or revise its approach in order to ensure its consistency with the existing land use, the goals of the Town of Dover Master Plan, and the Town Code. Most recently, CVE acquired an option to purchase the former Rasco parcel to help meet these goals.

CONCLUSIONS

The Project has been designed to ensure it is consistent with all land uses in the Town and will be an industrial use appropriately sited in the Town's Industrial/Manufacturing (M) district. The Project will replace an existing industrial use, predominantly using the same disturbed footprint which currently consists of dilapidated or partially destroyed buildings. The Project will demolish the existing buildings, clean up the site, and install a modern industrial facility meeting all state and federal environmental laws and regulations. The Project represents a substantial improvement over existing conditions at the site and will be well buffered from surrounding areas. Furthermore, the Project will generate substantial tax revenues for the Town, create up to 750 construction jobs, 28 high-paying permanent jobs, and enhance the aesthetic character of the site.

CVE believes the Project is consistent with Dover's core community goal of balancing its traditions and natural resources with responsible economic growth, and that the efforts made during the development process will allow for applicable findings and the grant of a Special Permit. CVE respectfully requests that the Dover Town Board grant its Special Use Permit and approve the Project's Site Plan, subject to such conditions as the Town Board may reasonably impose.