CPV Valley Energy Center

Final Scoping Document

For

SEQR Environmental Impact Statement

14 October 2008

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1.0 INTRODUCTION

CPV Valley, LLC. (CPV) is proposing to construct a natural gas combined-cycle electric generating facility on a 122 acre parcel located in the Town of Wawayanda, New York. The facility will generate up to 630 Megawatts of electricity for the regional electric power transmission grid through an interconnection with the New York Power Authority's (NYPA) transmission lines north of the development site. Alternative routing will be evaluated in the draft Environmental Impact Statement. The development site proper is an industrially zoned property bounded by Route 6, I-84 and Route 17M.

Natural gas will be supplied to the facility via a lateral from the Millennium Pipeline located approximately seven (7) miles west of the site. Alternative routes will be evaluated in the DEIS. The CPV Valley Energy Center will have the capability of operating on ultra-low sulfur oil up to a maximum of 720 equivalent full load hours of operation each year. The CPV Valley Energy Center will utilize advanced air dry cooling to reduce water consumption. Process water for the facility may be provided by the City of Middletown wastewater treatment plant, the local groundwater supply, and/or other potential water supply sources.

The CPV Valley Energy Center is classified as a Type 1 action under the State Environmental Quality Review (SEQRA) Act pursuant to Article 8 of the Environmental Conservation Law (ECL 8-0101 et seq.) and associated implementing regulations 6 NYCRRR Part 617. A full Environmental Assessment Form (EAF) was circulated to involved parties by the Town of Wawayanda Planning Board on May 9, 2008. Concurrent with the circulation of the EAF, the Planning Board indicated its desire to serve in the capacity of Lead Agency for the SEQR review of the CPV Valley Energy Center. Following conclusion of the 30 day agency coordination period, the Planning Board on June 11 assumed Lead Agency status for the SEQR review.

On June 25, the Planning Board in its capacity as Lead Agency issued a Positive Declaration indicating that an Environmental Impact Statement (EIS) would be required for the CPV Valley Energy Center.

This Draft Scoping Document identifies and describes the scope of environmental studies to be conducted to analyze the potential environmental impacts of the Project. This document is being distributed by the Wawayanda Planning Board, as SEQRA lead agency, to the public and to all interested and involved agencies for review and comment. Following public and agency comment, the Wawayanda Planning Board will issue a Final Scoping Document.

As part of the SEQRA scoping process, the Planning Board will hold a public scoping meeting to receive input on environmental impact considerations for the CPV Valley Energy Center development. Written comments can also be provided to the Planning Board at the following address:

Town of Wawayanda Planning Board
P.O. Box 296
Slate Hill, New York 10973

2.0 DESCRIPTION OF THE PROPOSED ACTION

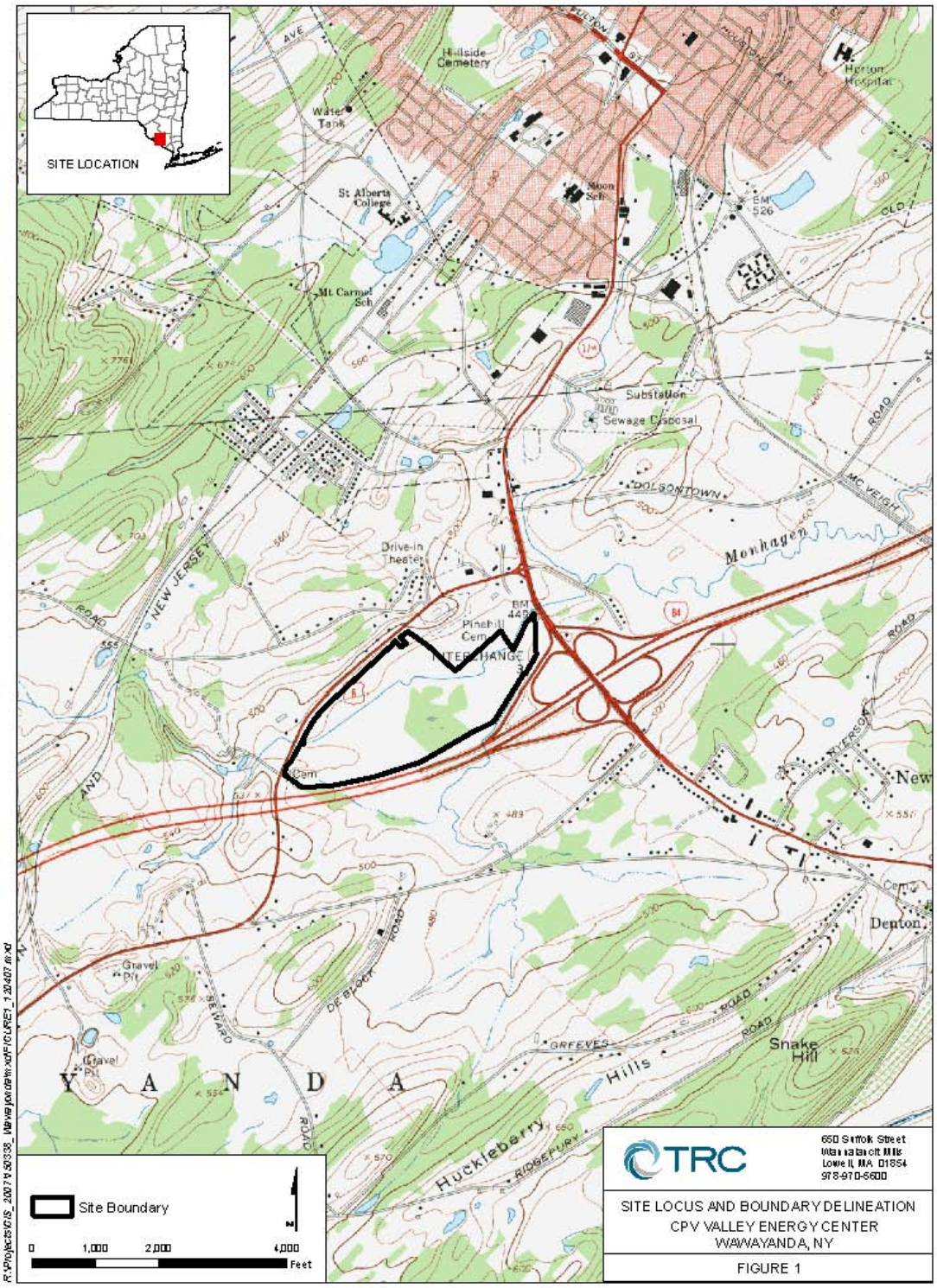
The proposed CPV Valley Energy Center would occupy approximately 30 acres within a larger 122-arce parcel (Project Site) located in the northeast portion of the Town of Wawayanda proximate to the boundary with the City of Middletown. The 122-acre site is bounded by Interstate Route 84 to the south; Route 17M on the east and Route 6 to the north and west.

The Project Site is currently undeveloped land consisting of tracts used for agricultural purposes, including the growing of hay and corn crops, and wooded areas. NYS DEC Class "B" stream, Carpenter Creek, traverses the northern extent of the site running in an east to west direction. Portions of the site have been identified as wetland areas. Topography generally slopes gently from Route 6 on the north to Interstate 84 on the south. Figure 1 shows the site boundary on the United States Geological Survey (USGS) map for the general area.

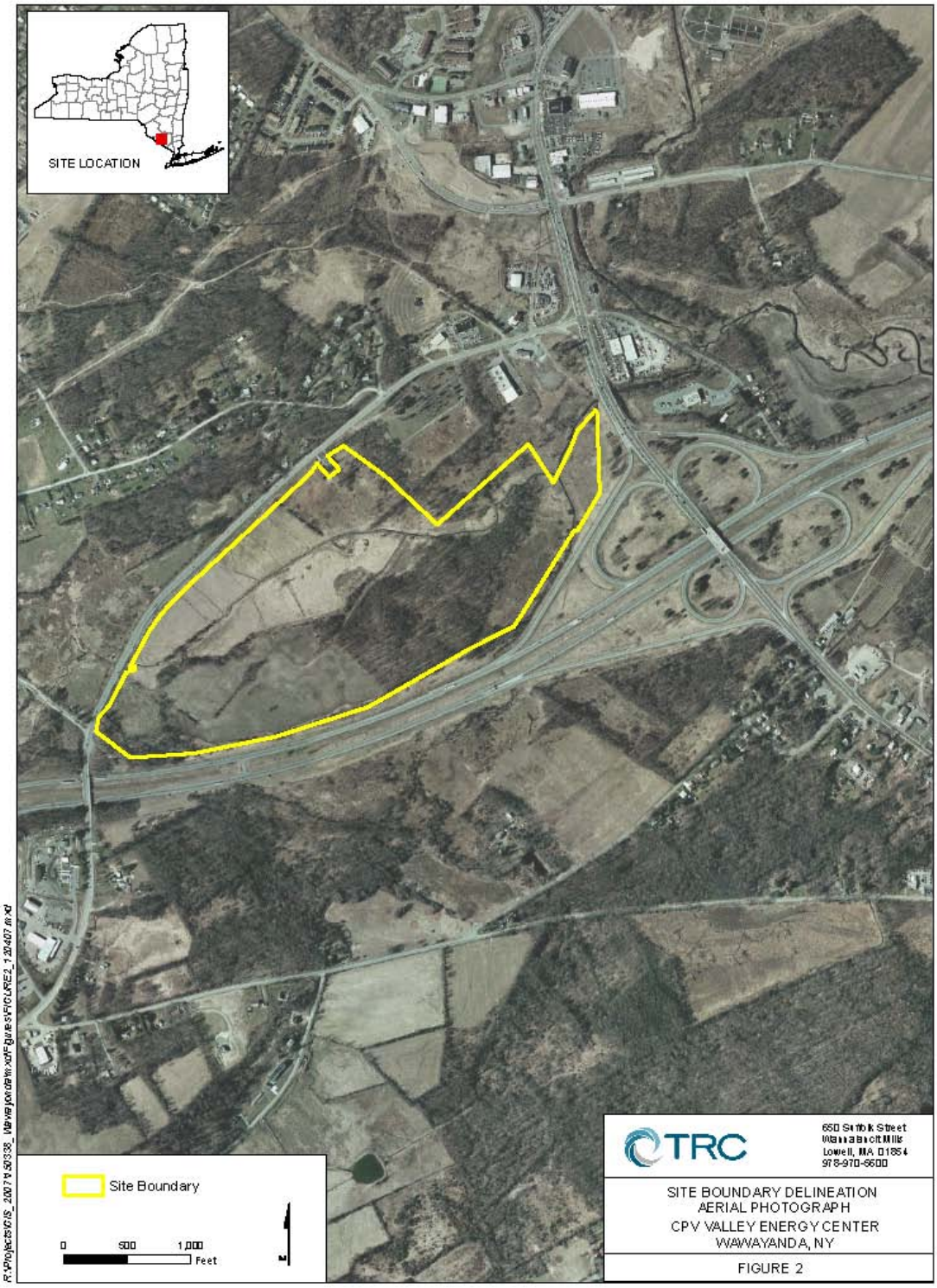
The Project Site is located within the Town of Wawayanda's Manufacturing- Industrial (M-I) District, which permits electric generating facilities by special use permit issued by the Town Planning Board. The land uses adjacent to the CPV Valley Energy Center site to the east and northeast are mainly light industrial and commercial. An affordable housing complex is currently under construction and a small number of single family residences abut the site along Route 6 to the north. Figure 2 provides an aerial photograph of the project area.

As proposed, the CPV Valley Energy Center would utilize F class gas turbine technology from manufacturers such as, General Electric and Siemens Westinghouse, and would be permitted for full year operation (24 hours per day, 365 days per year). Natural gas would be utilized as the primary fuel with provisions to use ultra low-sulfur distillate fuel oil for up to the equivalent of 720 hours annually at full load as the back-up fuel for the combustion turbines. The Project would be constructed in a 2-on-1 configuration with two combustion turbines, two heat recovery steam generators (HRSG), and a single steam turbine. The two HRSGs will be equipped with natural gas-fired duct burners. The facility will have the capability to generate up to 630 MW of electricity. Air-cooled condensing will be employed to (i) minimize water usage, (ii) reduce water treatment costs, and (iii) eliminate cooling tower plume impacts. Selective catalytic reduction (SCR) technology and an oxidation catalyst system will be utilized to control emissions of oxides of nitrogen (NO_x) and carbon monoxide (CO), respectively. Figure 3 provides a concept layout for the proposed facility. The air cooled condenser at 115 feet in height represents the tallest facility building structure. The two exhaust stacks approximately 250 to 285 feet in height represent the tallest structures associated with the project.

Natural gas for the facility will be provided via a lateral from the Millennium Pipeline located approximately seven (7) miles west of the site. Electricity generated by the CPV Valley Energy Center would be transmitted to the NYPA transmission grid located approximately 0.3 miles to the north of the Project Site. The 345 kv electrical interconnect from the CPV Valley Energy Center would consist of an overhead wire configuration from the on-site facility substation east to Route 17M. From the eastern boundary of the development site to the NYPA transmission grid, the electrical interconnect will consist of underground lines.


SITE LOCATION
Hillside Cemetery
Water Tank
St Alberta College
Mt Carmel Sch
Substation
Sewage Disposal
Drive-in Theater
Pinehill Cem
INTERCHANGE
Monhagen
NEW JERSEY
ROAD
DOLSONTOWN
MC VEIGH
RIVERSIDE
Denton
Gravel Pit
Gravel Pit
SEWARD
DE BLOCK
GREEVES
RIDGEBURY
Huckleberry Hills
Snake Hill
Y A N D A
Site Boundary
0 1,000 2,000 4,000 Feet
TRC
650 Suffolk Street
Wannalancit Mills
Lowell, MA 01854
978-970-5600
SITE LOCUS AND BOUNDARY DELINEATION
CPV VALLEY ENERGY CENTER
WAWAYANDA, NY
FIGURE 1
R:\Projects\GIS_2007\450335_Wawayanda\mxd\FIGURE1_120407.mxd

** provide full size figure for final scope.



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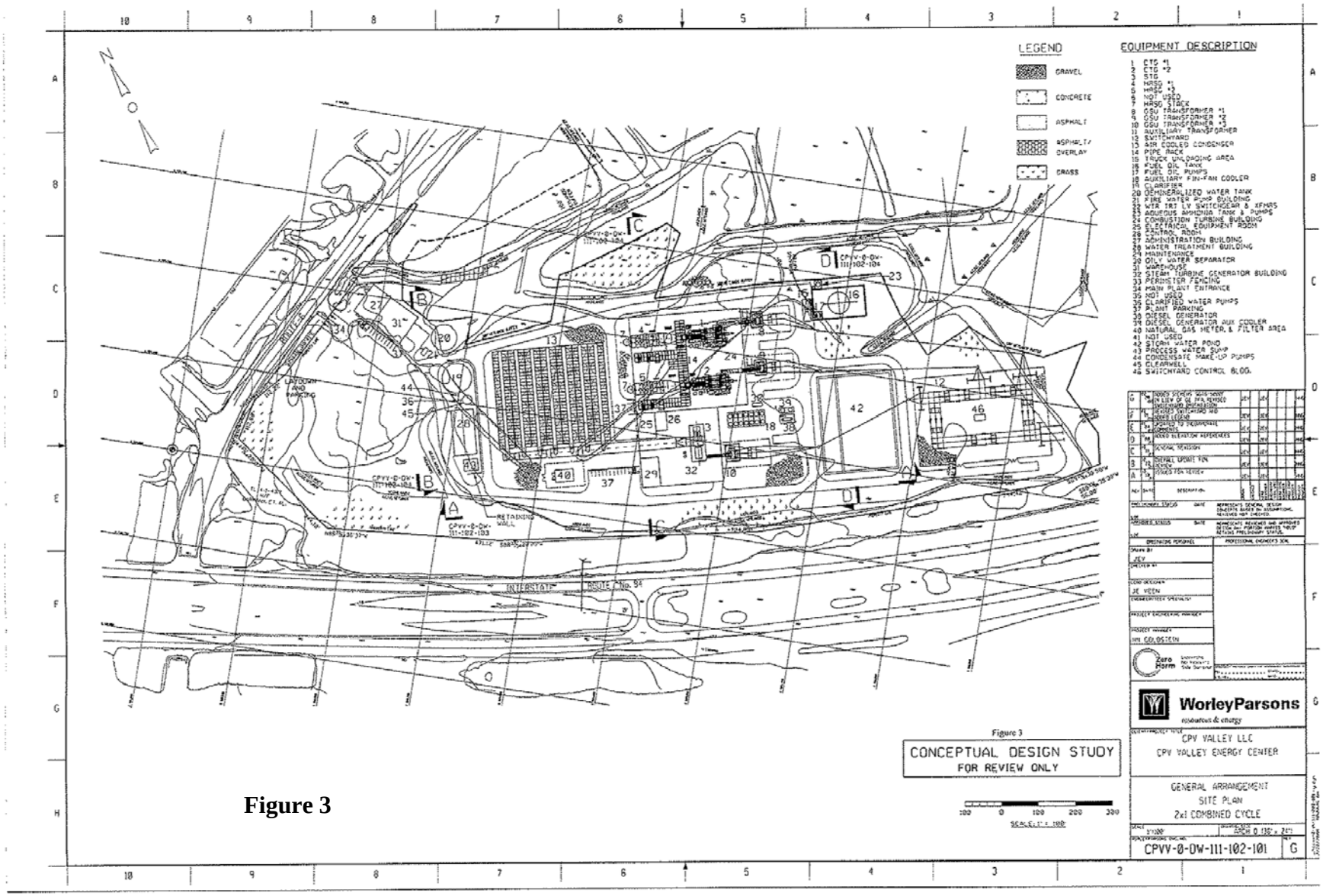

Figure 3

The underground segment of the electrical interconnection likely will utilize available area within the New York State Department of Transportation (NYSDOT) Route 17M right-of-way. Alternative routes will be identified and addressed in the DEIS.

To ensure reliable operation there is a limited need to operate on ultra low sulfur distillate when natural gas service is interrupted. Therefore, the Project will include a 965,000-gallon fuel storage tank and associated off-loading facilities, transfer piping, and pump systems. The storage tank will be contained within a lined retention basin with a capacity of 110% of the storage tank to contain any potential tank leak. In addition, all piping outside of the basin will be double walled and the containment facilities will be equipped monitoring technology for early detection and mitigation of a potential leak. Fuel transport to the tanks will be via tanker truck, and the fuel off-loading facilities would be capable of handling two trucks simultaneously.

Potable water will be brought to the Project Site area via a lateral from the Town public supply main extension along Route 6. Approximately 5,000 gallons per day (gpd) of potable water will be required. The Project will require approximately 295,000 gpd of gray water during operations, which may be provided by gray water from the Middletown Wastewater Treatment Plant via an underground pipeline to be constructed along Route 17M.

The target in service date for the CPV Valley Energy Center is second quarter 2012. During the approximately 24 month construction period, workers peak at around will 400. The CPV Valley Energy Center will employ a total of 25 to 30 full-time employees across three shifts once operational.

3.0 SUMMARY OF DISCRETIONARY APPROVALS AND INVOLVED/ INTERESTED AGENCIES

Development and operation of the CPV Valley Energy Center may require or involve the following federal, state and local regulatory agency notifications, actions, permits, and approvals.

United States Environmental Protection Agency (USEPA)

- Prevention of Significant Deterioration Permit
- Pm 2-5 New Sources Review (NSR)

Federal Aviation Administration

- Notice of Proposed Construction

United States Army Corps of Engineers

- Nationwide Wetlands Permit
- Section 404 Clean Water Act Individual Permit

New York Public Service Commission

- Section 68 Certificate of Public Convenience and Necessity

New York Power Authority (NYPA)

- NYPA Electrical Interconnect Approval

New York State Department of Environmental Conservation (NYSDEC)

- Part 201 Title V Facility Permit
- Part 231 Permit
- Part 237 (Acid Deposition Reduction NOx Budget Trading Program) Permit
- Part 238 (Acid Deposition Reduction SO2 Budget Trading Program) Permit
- Part 243 (CAIR NOx Ozone Season Trading Program) Permit
- Part 244 (CAIR NOx Annual Trading Program) Permit
- Part 245 (CAIR SO2 Trading Program) Permit
- Impact of U.S. Federal Court of Appeals : State of North Carolina U.S. EPA July 11, 2008
- Title IV Acid Rain Permit
- SPDES Permit for Storm Water Discharges Associated with Industrial Activities and Process Wastewater Discharge
- SPDES General Permit For Stormwater Discharges From Construction Activities
- Wetlands Permit
- Section 401 Water Quality Certificate
- 6 NYCRR 596, Registration of Hazardous Substance Bulk Storage Tanks
- 6 NYCRR 610, Major Oil Storage Facility License.

New York Department of Transportation Highway Permit

- Highway Work Permit for access and utilities

Orange County Department of Health

- Sanitary Code Approval for Water and Sewer
- Approval for Hazardous Materials Storage

Orange County Planning Department

- Advisory Recommendation

Town of Wawayanda Planning Board

- Special Use Permit Approval for Electric Generating Facility
- Site Plan Approval

Town of Wawayanda Zoning Board of Appeals

- Area Variances

City of Middletown

- Cooling Water Supply

Orange County Industrial Development Agency

Town of Wawayanda Town Board

New York State Department of Agriculture and Markets

Federal Energy Regulatory Commission

New York State Thruway Authority

Middletown Central School District

Minisink Valley Central School District

New York State Office of Parks, Recreation and Historic Preservation

Other Permits include Building Permit (state or local), and Town and County Highway Permits

For interconnection with the Millennium Pipeline, a natural gas pipeline lateral would be constructed that may require either Federal Energy Regulatory Commission (FERC) or New York State Public Service commission approval. Copies of those applications will be included as an appendix if this information is available at time of DEIS submission.

4.0 PROPOSED DRAFT ENVIRONMETNAL IMPACT STATEMENT (EIS) SCOPE OF WORK

As set forth in the Positive Declaration for the CPV Valley Energy Center, the Town of Wawayanda Planning Board, as the SEQRA lead agency, has determined that the size and scope of the proposed action may result in one or more significant adverse environmental impacts, thus, a Draft Environmental Impact Statement (DEIS) must be prepared. The DEIS will assemble relevant and material facts, evaluate reasonable alternatives, and will be written in plain language that can be easily read and understood by the public. Highly

technical material will be summarized and, if it must be included in its entirety, referenced in the DEIS and included as an Appendix.

The DEIS will be written in the third person without use of the terms I, we, and our. Narrative discussions will be accompanied to the greatest extent possible by illustrative tables and graphics. All graphics will clearly identify the project area, and footnotes will be used to cite references. All assertions will be supported by evidence, while opinions of the applicant that are unsupported by evidence will be identified as such.

Full scale Site Plans are to be included with the DEIS as an appendix and reduced copies of such Plans will be included in the text of the DEIS.

A. Cover Page and Table of Contents

The DEIS will include all elements required by 6 NYCRR 617.9. Table 1 attached provides an initial Table of Contents for the DEIS. DEIS Cover Sheet listing names, addresses and phone numbers of individuals or organizations that prepared any portion of the DEIS, title of project, location of the project (streets, town, county, state), DEIS identification, location, name and address of the Lead Agency as well as the name and telephone number of the person at the lead agency who can provide further information, and relevant dates (i.e. date of DEIS submittal, provision for future insertion of date of acceptance of DEIS by the Lead Agency, date, time, and place of the public hearing, final date for acceptance of written comments).

A list of all abbreviations and acronyms will be provided.

Environmental impact issues for which the applicant submitted plans, data, all SEQR documents (including Full Environmental Assessment Form, Positive Declaration/Circulation Notice, Final Scoping Document, technical letters from involved and interested agencies) proposed mitigation measures, and correspondence prior to the Planning Board's Positive Declaration, will be resubmitted in the DEIS as an Appendix. Summaries of the materials or reference to them will be included in the DEIS to provide a complete record of all environmental review issues and their consideration.

B. Executive Summary

All of the information presented in the Executive Summary will be provided in greater detail and substance in the Existing Setting, Potential Environmental Impacts, and Proposed Mitigation Measures Sections as appropriate. Section 4.2 will be presented in a brief and succinct format, and should not constitute an exhaustive narrative discussion that will be provided elsewhere.

The Executive Summary will contain a brief description of the proposed action, including all project components including Site location (streets, Town, County, Tax ID numbers), total site acreage, easements affecting the site, existing zoning, existing access, existing site character and vegetative conditions, a list of abutting properties, any known plans for development on abutting parcels, either in progress or before a Planning Board including the gas map level review and detailed electric interconnections routes.

C. Project Purpose and Need

The DEIS will contain a description of the existing area electric system demands and expected future growth in demand from information assembled for New York State including the State Energy Plan. The need for and desirability of future generation capacity will be discussed along with the regulatory requirements for the location of the generation facilities.

D. Description of the Proposed Action and Project

The following information relative to the description of the proposed CPV Valley Energy Center will be provided within the DEIS:

(a) A general description of the Project area including current land cover and use, topography, existing road networks, surface waters, tax map boundaries of development site and adjacent land parcels, parcel acreages, and any easements or restrictions that could affect the proposed Project.

(b) Site plan drawings of the Project layout showing locations of the proposed electric generating equipment, access roads, substation and related electric transmission facilities, staging and storage areas, parking areas, operations and maintenance facilities, lighting, fences, and gates. Each of these Project components will be portrayed relative to the locations of adjacent land parcels, private buildings, and public roads.

(c) The DEIS will provide a description of the proposed gas and electric interconnections.

Regarding the required transmission interconnection, the DEIS will provide a description of the proposed electric transmission line, including an overview of the proposed overhead and underground transmission line designs and associated facilities as well as a general discussion of potential reinforcements to the electrical system that may be required, as known at the time of the submittal of the DEIS. The DEIS will assess environmental impacts associated with the Project's electric interconnect to the existing NYPA transmission system.

The DEIS will provide an overview and assessment description of the natural gas lateral that will serve the CPV Valley Energy Center including graphics depicting corridor routings for the gas transmission main information available for gas routing will be provided when available . The proposed and alternate routing will analyzed.

(d) The water supply and wastewater infrastructure associated with the CPV Valley Energy Center will be analyzed in the DEIS. Both potable water and process supply needs will be quantified, routing identified and impacts assessed. Wastewater discharges and associated waste disposal will be described.

E. Scope of Environmental Impact Assessments

Table 2 provides a listing of the environmental impacts that the Town of Wawayanda Planning Board identified as having the potential for a significant adverse impact based on review of the EAF and agency correspondence received during the Lead Agency determination process. A description of the evaluation scope of the potential environmental impacts follows.

4.1 Land Use, Zoning, and Public Policy

The land use, zoning and public policy assessments will include identification and mapping of existing land use conditions and zoning designations, consistency with local land use plans and policies, impact analysis, and proposed mitigation, if applicable. The analysis will evaluate impacts within a primary study area which includes all parcels within 1 mile of project site boundaries and any recent parcels within 1.5 miles of the project boundary as well as any other parcels identified by the Lead Agency or it's consultants and where appropriate for potential sensitive land uses, a secondary study area (five mile radius).

4.1.1 Land Use

1. The DEIS will include a study of the existing land uses within the primary study area identified above of the Project site. The land use assessment will include:

   (a) A map of existing land uses within the primary and secondary study areas.

   (b) Aerial orthophotographs of the site and primary study area, indicating the current conditions of land uses in the area.

Table 1: SEQRA EAF Project Impact/Significance Classification
Town of Wawayanda Planning Board

SEQRA Part 2 Number	Potential Large Impact (Column 2)
1.	Physical Change to Project Site
3.	Protected Water Body
5.	Surface or Groundwater Quality or Quantity
6.	Drainage Flow Patterns or Surface Water Runoff
7.	Air Quality
8.	Threatened or Endangered Species
10.	Agricultural Land Resources
11.	Aesthetic Resources
12.	Cultural Resources
13.	Open Space/Recreational Opportunities
15.	Transportation
16.	Community Source of Fuel/Energy
17.	Odor/Noise/Vibration
19.	Community Character
20.	Public Controversy

(c) A map(s) of known planned future land uses within the primary study area in the year the proposed Project would be expected to be in operation. Information would be obtained through correspondence and/or interviews with state and local planning officials and from other sources.

(d) A qualitative and quantitative assessment of the compatibility of the Project with existing and known planned land uses within the primary study area. The qualitative assessment will evaluate the probable effects of the proposed Project on the use of those areas for the current and known planned uses.

(e) A qualitative and quantitative assessment of the compatibility of the proposed seven-mile lateral pipeline corridor analysis for natural gas service, the proposed route and alternative routes for the electrical interconnect (power line), and the route and alternate routes for the "grey" water supply from the City of Middletown Wastewater Treatment Plant; with existing, potential and proposed land uses within the primary study area, which shall include all routings

(f) There will be a discussion of future development potential on the site.

Source: Town of Wawayanda Planning Board

2. Secondary Study Area

An identification and analysis of the recreational (including State, Federal and County bike and pedestrian/hiking trails) and cultural (including schools, hospitals) land uses within the secondary study area, including the historic sites, state parks, county parks and nature preserves, golf courses, and town and village parks that might be affected by the construction or operation of the Project and interconnections, including a summary describing the nature of the probable environmental impact due to Project construction and operation on recreational uses and identification of how the impact is minimized.

4.1.2 Zoning

1. The DEIS will provide a map depicting existing zoning districts within the primary study area including the watershed protection zoning.

2. The DEIS will provide a discussion of zoning requirements, setbacks, site development details and local code requirements applicable to the zone and the type and scale of the CPV Valley Energy Center development. The DEIS will discuss the Project's consistency with criteria relevant to issuance of local approvals such as site plan and special permits approvals. The DEIS will also discuss any variances required for the Project and the relevant standards for approval of such variances.

3. The DEIS will provide a discussion of compliance with the following sections of the Town of Wawayanda Zoning Law:

    - § 195-9 – Applicability of regulations
    - § 195-16 – Parking, loading, access and traffic standards
    - § 195-19 – General commercial and industrial standards
    - § 195-20 – Landscaping, screening, ridge development and buffer regulations
    - § 195-21 – Water Supply Protection
    - § 195-66 – Special Use Review Criteria

4.1.3 Public Policy

1. The DEIS will provide a qualitative assessment of the compatibility of the Project with applicable local and regional land use plans, including the Wawayanda Comprehensive Land Use Plan, applicable County Planning documents *Comprehensive Plan Strategies for Quality Communities, Orange County Open Space Plan, Orange County Farmland Protection Plan, Economic Trends and Impacts in Orange County Agriculture*. There should also be an analysis of New York State Agricultural District Policies in this section.

2. For the primary and secondary study area, the DEIS will include a map of existing economic development zones, agricultural districts, Wild, Scenic and Recreation Corridors, Scenic Areas of Statewide Significance, National Natural Landmarks and critical environmental areas designated pursuant to SEQRA. The Project's relationship to and/or potential impacts on these designated areas will be evaluated.

4.2 Community Facilities

This section will assess the probable impacts of the Project on community facilities and services. The section will identify local community service demands anticipated for the Project, as well as those service providers that are currently responsible for providing services to the Project site. Each town function will be examined for possible impact on town service and capital outlay demands resulting from this Project. Particular attention and focus will be paid to transportation/highway and emergency services, including police protection, fire, and emergency medical services. Each of the primary service providers of town services will be contacted to determine their capacity to serve the proposed Project. For each relevant community service, when necessary, an analysis will be performed to assess potential impacts of the Project and to develop suitable mitigation measures. Where the capacity to serve the proposed Project is increased for such providers, a discussion will be provided addressing how anticipated service needs will be met. Where there the Project does impact either a service provided by the town or requires additional capital outlays (equipment or physical facilities), a fiscal estimate of the added cost to the town shall be determined.

4.3 Cultural Resources

The DEIS will include an assessment of the probable impacts on archaeological and historic cultural resources of the construction and operation of the Project. The methodology for assessing the potential impacts on cultural resources will be in accordance with standards and methods contained in *Standards for Cultural Resource Investigations and the Curation of Archaeological Collections in New York State*, published by the New York Archaeological Council in 1994.

The DEIS will include a summary of the nature of the probable environmental impact on historic and cultural resources identified and identify how those impacts are avoided or minimized. The New York State Office of Parks, Recreation and Historic Preservation ("OPRHP") Coordinator will be consulted throughout the investigation. *The NYS Phase 1 Archeological Report Format Requirements* (April 2005) will be utilized.

4.3.1 Archaeological Resources

1. Regarding archaeological resources, the assessment will include:

   (a) Phase IA studies and, if required as determined through consultation with OPRHP, Phase IB studies for the Area of Potential Effect ("APE") for the Project site and areas to be used for infrastructure interconnections, including a description of the methodology used for such studies. Consultation with Town of Wawayanda Historian will be undertaken in the Phase 1A & 1B analysis.

   (b) Where warranted based on Phase I study results, Phase II archaeological field investigations will be conducted to assess the boundaries, integrity and significance of cultural resources identified in Phase I studies. Phase II studies will be designed to obtain detailed information on the integrity, limits, structure, function, and cultural/historic context of an archaeological site, as feasible, sufficient to evaluate its potential State and National Register eligibility. The need for and scope of work for such investigations will be determined by the Project archaeologists in consultation with OPRHP.

2. All archaeological materials recovered during the Project cultural resources investigation will be cleaned, catalogued, inventoried and curated according to New York Archaeological Council standards. To the extent possible, recovered artifacts will be identified as to material, temporal or cultural/chronological associations, style and function. TRC project team archaeologists will provide temporary storage for artifacts until a permanent curatorial facility is identified.

3. The DEIS will include an Unanticipated Discovery Plan that will identify the actions to be taken in the unexpected event that resources of cultural, historical, or archaeological importance are encountered during the CPV Valley Energy Center construction activity. The plan will specify that the methodology used to assess any discoveries will follow the

most recent *Standards for Cultural Resource Investigations and Curation of Archaeological Collections in New York State*.

4.3.2 Historic Resources

1. The analysis of potential impacts to Historic Resources will include:

   (a) A review of the files maintained by the OPRHP and other appropriate databases to identify sites, districts or structures listed on the State or National Register of Historic Places within a two-mile radius of the Project site.

   (b) Field identification of locally designated historic sites, districts or structures within a two-mile radius of the Project site. Consultation with Town of Wawayanda Historian will be undertaken.

   (c) Potential visual impacts to significant historic structures within the Project viewshed that are individually listed on the State or National Register of Historic Places, will be characterized as part of the visual resources study, as described in Section 4 below, entitled "Visual Resources."

4.3.3 Cemetery

Research regarding the cemeteries on the project site and adjoining properties shall be undertaken. Impacts to cemeteries will be identified and mitigation measures proposed. Compliance with Wawayanda Cemetery ordinance must be documented. Issues regarding access, visual impact, and noise shall be addressed.

4.4 Visual Resources

The DEIS will include a visual impact assessment ("VIA") to determine the extent of the Project's impact on visual resources, and assess the significance of these impacts. The components of the VIA will include identification of visually sensitive resources, viewshed mapping, confirmatory visual assessment fieldwork, visual simulations (photographic overlays), and proposed visual impact mitigation. The methodologies, standards and definitions for assessing visual resources will follow procedures outlined in the NYSDEC Program Policy, NYSDEC, *Assessing and Mitigating Visual Impacts*, DEP-00-2, 7/31/2000.

1. The VIA will address the following issues:

   (a) The character and visual quality of the existing landscape.

   (b) Visibility of the Project, including visibility of operational characteristics, such as potential for visible plumes from the exhaust stacks.

   (c) Visibility of aboveground interconnections.

(d) Appearance of the Project upon completion, including building/structure size, architectural design, facade and roofing colors and texture.

(e) Exterior lighting and similar features.

(f) Representative views (photographic simulations) and architectural scale renderings of the Project, indicating proposed elevations.

(g) Nature and degree of visual change resulting from construction of the Project and aboveground interconnections.

(h) Nature and degree of visual change resulting from operation of the Project.

(i) Proposed mitigation and mitigation alternatives based on an assessment of mitigation strategies listed in NYSDEC's program policy noted above, including landscaping, architectural design and visual offsets.

(j) A description of visual resources listed in the NYSDEC Visual Resources Policy that could be impacted by the Project.

2. The VIA will be based on the major physical features of the plant (i.e., turbine structures/building, air cooled condensers and stack). The VIA will be conducted as follows:

(a) Visually sensitive resources of statewide concern will be identified within a five-mile radius of the proposed Project site. Visually sensitive resources of State concern are defined in NYSDEC's *Assessing and Mitigating Visual Impacts* and include, but are not limited to, the following: historic buildings and sites; parks and other public recreation areas; designated scenic districts and roads; and scenic vistas and overlooks. Visually sensitive resources of local concern will be determined in consultation with the Lead Agency. These areas will include publicly accessible areas that are of local concern and can include views from highways, local roadways, sidewalks, public buildings, future public spaces identified in local plans, and other areas identified by the Lead Agency.

(b) The inventory of visually sensitive resources will be mapped on a viewshed map that shows theoretical visibility to the Project. The viewshed map will identify ½ mile, three mile, and five mile radii to the project site. The viewshed map base will be a USGS quadrangle map and will identify Project and municipal boundaries, major roads and other identifying features.

(c) Identified visually sensitive resources shown to have theoretical visibility to the project site in the view shed map will be evaluated in the field to determine if the proposed Project will actually be visible and to assess the relative importance of views that may include the proposed plant. The field investigations will make note of viewer context, and the extent of potential Project visibility (i.e., partial or full view). Photographs will be taken to document existing views toward the proposed Project for use in developing photo simulations of the proposed facility. Most photographs

will be taken when there are clear atmospheric conditions during daylight hours, in "leaf-off" condition with no snow on the ground. "Leaf-on" condition photographs can be used to augment leaf-off photographs if such photographs more fully disclose the Project's impacts on visual resources. Most photographs will be taken with a full-frame digital camera using a 50mm lens. Other photographs may use a telephoto or wide-angle lens, or be constructed as panoramas if such photographs better disclose the Project's impact on visual resources. For a select number of representative viewpoints, nighttime photographs will also be taken.

3. Day-time and night-time photographic simulations of the Project will be prepared from representative viewpoints, selected as part of the field investigation performed as part of 2(c) above, and in consultation with the Lead Agency. The purpose of the photo simulations will be to demonstrate the post-construction appearance of the Project. The photographic simulations from the viewpoints selected will be focused on the Project as it would appear under reasonable worst-case operating conditions. At least one photosimulation will show the plant operating with visible exhaust from the stacks and any other visible plumes. Text will accompany this photosimulation that describes the atmospheric conditions that must exist to make the exhaust visible along with an estimate of the approximate number of daylight hours such conditions will exist over the course of the year. If such conditions are more than 12% of daylight operations, then all photosimulations will show visible stack exhaust. Night-time photographic simulations will be prepared for smaller number of representative viewpoints the purpose of which will be to show the project's nighttime illumination. To illustrate the strobe effect of the stack lighting, a short animation will be prepared from one of the viewpoints used for nighttime photographic simulation that demonstrates the intensity and strobe interval of the project's proposed lighting.

4. Each set of existing and simulated views of the Project will be compared and any change in visual character will be identified. Based upon likely viewers, and their likely visual sensitivity, potential impacts and their significance will be discussed. Should significant visual impacts from the proposed Project be identified, potential mitigation measures will be outlined, and the extent to which they effectively minimize such impacts will be discussed.

5. Should material mitigation measures be necessary, additional photo simulations will be prepared that demonstrate the effectiveness of the mitigation measures.

4.5 Socioeconomics and Environmental Justice

Impacts to the socioeconomic environment due to construction of an electric generating facility are shorter in term, than the impacts due to operation. During construction, there is an influx of construction personnel and the secondary effects of capital spending and construction payroll. Socioeconomic impacts of the Project will be evaluated in terms of demographics, economic status (i.e., income levels) and employment. Potential Project impacts on low-income and minority populations will also be addressed as part of an Environmental Justice Analysis.

The DEIS will provide the following information regarding socioeconomics and environmental justice:

4.5.1 Socioeconomics and Fiscal Impact Analysis

Regarding potential socioeconomic effects of the Project, the DEIS will provide:

Construction Economic Impacts
Costing of Potential Externalities from Operation of the Project

1. The emissions, visual impacts, proximity of the project, any relevant traffic, noise, odors generated on nearby residential and non-residential properties (with receptors and locations to be agreed upon), shall be analyzed with respect to any potential the externality cost implications.

An analysis of the value loss (costs) of any of the externalities shall be researched, where the relevant conducted technical analyses and findings show potential significant offsite environmental and quality of life impacts. The valuation of any losses shall be analyzed based upon the relevant and applicable literature in the field of property values and environmental externalities associated with such type power plants. Offsite impacts that are within governmental acceptable standards, but where the literature indicates potential externality costs will be covered, as well as where there are no accepted publicly accepted standards.

2. Evaluation should be specifically undertaken regarding any impacts on insurability and costs of insurance for new and existing residential and non-residential properties in proximity to the project site, due to increased risk from operation of the plant, including the necessary transport of hazardous materials or wastes to and from the site.

1. An estimate of the annual on-site employment, secondary employment and economic activity likely to be generated in the vicinity of the Project by the operation of the proposed facility. This analysis will state the basis of any economic multiplier factor or other assumption used.

2. An analysis will be provided for the construction period of the potential beneficial and disruptive effects on local households, properties, businesses, and other entities and institutions of this activity. The consulting teams for the Town Planning Board and the project developer will identify prospective receptor locations based upon: workers at the site who need services; vehicular traffic associated with construction; visual, noise odors or other externalities potentially emanating from the site. Issues of community and visitors perceptions will also be considered as part of the potential effects of the construction activity.

As part of this analysis, tabular and graphic materials on significant receptor entities will be provided, including name, address, and type of entity.

Fiscal Impact Analysis

A comprehensive qualitative and quantitative analysis of state, county, municipal, the applicable school district - Minisink Valley - and special district fiscal impacts will be provided, including:

1. The effects on public service functions costs for all key functions from current costs, at all levels of government from Orange County down, with an analysis of any significant factors that could impact public services with respect to personnel, equipment and facilities.

Tabular materials covering trends in expenditures by major function for Orange County, Town of Wawayanda, the Minisink Valley Central School District and any special districts with jurisdiction over the applicable project sites will be provided, based upon online information from the NYS Office of the State Comptroller (OSC), the State Education department, local budgetary documents, annual reports submitted to the OSC and other relevant sources.

Methodology utilized to cover the above analysis will include interviews with key local government officials and staff, including applicable fire companies or departments and emergency service providers and special district supervisors.

2. Effects on revenues by types of revenues from current levels – property taxes, income taxes, sales and excise taxes, user fees and federal and state aid of all kinds, including aid the applicable school district, shall be shown for Orange County, the Town of Wawayanda, the Minisink Valley CSD and any relevant special districts. If the property is currently receiving and agricultural exemption, there should be a discussion of the revenue implications for terminating the exemption program.

Tabular materials covering trends in revenues by major function for the Town of Wawayanda, the school district and applicable special districts will be provided, based upon online information from the NYS Office of the State Comptroller, and/or local sources.

As part of the potential revenue impact analysis for the Minisink Valley School District, the current State School Aid formulas for foundation aid, transportation aid, and BOCES shall be run/analyzed to assess the effects of the added property wealth from development of the Project on the current levels of State School Aid. The applicant should work directly with the School District to identify a methodology to account for additional property wealth, a major factor in the calculation of State Aid.

3. Financing issues, including identification of any proposed public bonding, and subsidies, (tax credits, PILOTS and etc) that will affect state, county, town and applicable school district revenues and cost of government services will be identified, discussed and quantified to the extent possible.

If a payment in lieu of property taxes (PILOT) is being contemplated and to be negotiated by a public agency/authority and the developer, the estimated PILOT annually and in aggregate will be shown and compared to the potential annual and aggregate property taxes that would be paid to applicable taxing jurisdictions, if the Project was taxed at its assessed value. If no PILOT

amount can be estimated under current or prospective negotiations, potential PILOT amounts shall be shown based upon other valued projects and PILOTs executed in Orange County and/or other nearby counties.

4. The net fiscal effects of the impact of the project on public expenditures and revenues, under any applicable important assumptions, will be shown for Orange County, Town of Wawayanda, the school district and any relevant special districts.

A separate Fiscal Impact Analysis Appendix will be provided the DEIS to include the above information and analysis.

1. The Applicant shall describe the financial resources available for facility decommissioning and site restoration in the event the project is not completed. The Applicant shall also describe the financial resources available for facility decommissioning of the operating plant at the end of its useful life and return of the property to the conditions and/or land use controls/zoning designation in place at that future time.

Costing of Potential Externalities from Operation of the Project

The emissions, visual impacts, proximity of the project, any relevant traffic, noise, odors generated on nearby residential and non-residential properties (with receptors and locations to be agreed upon), shall be analyzed with respect to any potential the externality cost implications.

An analysis of the value loss (costs) of any of the externalities shall be researched, where the relevant conducted technical analyses and findings show potential significant offsite environmental and quality of life impacts. The valuation of any losses shall be analyzed based upon the relevant and applicable literature in the field of property values and environmental externalities associated with such type power plants. Offsite impacts that are within governmental acceptable standards, but where the literature indicates potential externality costs will be covered, as well as where there are no accepted publicly accepted standards.

4.5.2 Fiscal Impact Analysis

A comprehensive qualitative and quantitative analysis of county, town, school district (Minisink Valley), and special districts fiscal impacts of the Project will be provided. The information provided should be based on the assumption that the Project is complete. Where appropriate, the Applicant may provide information on a phase-in basis consistent with the development and building of the Energy Center. Information for the fiscal impact analysis is needed as follows:

1. The effects on public service costs of the Project on the governmental functions of the county, the town, the school district, and relevant special districts will be determined. This analysis will cover both current operating costs and potential impacts on equipment and capital outlay expenditures. Any significant factors that could impact public services with respect to personnel, equipment and facilities will be identified.

The analysis will provide a quantitative determination of the added costs, if any, to the local governments identified above. These costs should be broken down into ongoing costs and one-time costs.

To provide an expenditure perspective for the town of Waywanda and its special districts in reviewing the impact of the Project on town functions, expenditure data will be provided for the latest three years for each of the major functional areas of the town and for each of the relevant special districts.

Among the methodologies utilized to conduct the above analysis will be interviews with key local government officials and staff, including applicable fire companies or departments and emergency service providers and special district supervisors. Other methodologies and approaches may also be used by the Applicant to determine the impact of the Project on local government services. Information and findings of expenditure impacts on local governments of any comparable projects should also be included.

2. Base level information is required on the 122 acre site to be used for the Project. Information is required on each of the parcels that will compose the Project Site. For each parcel, information will be provided on its current property use, the acreage, assessed value, the property taxes currently paid (county, town, school district, and special districts), and any exemptions. Such other information on the Project site that is important to an understanding of the Project and its effect on local governmental revenues and expenditures will also be included.

3. Cost estimates are required in order to determine an overall value of the Project for use in estimating the expected property tax payments and the impact on school state aid. The cost estimates should include both the construction costs and the land value. If breakdowns exist of component parts of the facility or within the 122 land acreage, this information should also be provided in terms of more detailed cost or land value breakdowns. Phased construction costs for each year of the build-out should be included.

4. Effects of the Project on revenues by types of revenues from current levels – property taxes, income taxes, sales and excise taxes, user fees and federal and state aid of all kinds, including aid the applicable school district, shall be shown for Orange County, the Town of Wawayanda, the Minisink Valley School District, and any relevant special districts. The additional property tax revenues to be generated by the Project should take into consideration property taxes currently being paid on the parcels in the Project site.

To provide a revenue perspective for the town of Waywanda (including special districts) and the Minisink School District in reviewing the revenue estimates of the proposed CPV Valley Energy Center Project, revenue data by source of revenue shall be provided for the latest three year period for the town and school district.

As part of the potential revenue impact analysis for the Minisink Valley School District, a determination will be made of the effect of the added property wealth of the Project on state school aid for foundation aid, transportation aid, and BOCES aid. For purposes of the school aid impact calculations, existing formulas will be used but with the added property wealth from the Project included in the base data. A comparison will be made of the existing aid received with the school aid that would be received with the Project information included

5. Financing issues, including identification of any proposed public bonding, and subsidies, (tax credits, PILOTS, etc) that will affect state, county, town and applicable school district revenues and cost of government services will be identified, discussed and quantified to the extent possible.

If a payment in lieu of property taxes (PILOT) is contemplated, and to be negotiated by a public agency/authority and the developer, the estimated PILOT to each of the respective local governments annually and in aggregate will be shown. These estimates will be compared to the potential annual and aggregate property taxes that would be paid to applicable taxing jurisdictions, if the Project was taxed at its assessed value. If no PILOT amount can be estimated under current or prospective negotiations, potential PILOT amounts shall be shown based upon other valued projects and PILOTs executed in Orange County and/or other nearby counties.

6. The net fiscal effects of the impact of the Project on public expenditures and revenues will be shown for Orange County, town of Wawayanda, the Minisink School District, and any relevant special districts.

On March 19, 2003, the NYSDEC published *"CP-29: Environmental Justice and Permitting."* The policy sets forth guidance for incorporating environmental justice (EJ) concerns into the NYSDEC environmental permit review process. The NYSDEC programs that are subject to review for environmental justice impact, as they relate to the proposed Project are:

- Air Pollution Control - 6 NYCRR Part 201
- State Pollutant Discharge Elimination System (SPDES) - 6 NYCRR Parts 750 through 758

The NYSDEC Policy establishes that upon receipt of an application for a permit covered by the NYSDEC policy, the NYSDEC Division of Environmental Permits will conduct a preliminary screen to identify whether the proposed action is in or near potential environmental justice areas and determine whether potential adverse environmental impacts related to the proposed action are likely to affect potential environmental justice areas. Following the completion of the preliminary screening process, the NYSDEC Division of Environment Permits staff provides permit applicants with the NYSDEC findings relevant to environmental justice issues associated with the Project and whether detailed studies will be required to address potential impacts to identified communities of concern. The NYSDEC employs a two-step methodology for conducting the preliminary screening analysis:

Step 1: Identify potential adverse environmental impacts and area to be affected. NYSDEC staff in the Division of Environmental Permits and the affected environmental quality divisions will identify potential adverse environmental impacts associated with the proposed action. Environmental quality program staff will identify the area to be affected by the potential adverse environmental impacts (i.e., the screening area).

Step 2: Determine whether potential adverse environmental impacts are likely to affect a potential environmental justice area. An integrated geographic and demographic information

program will be used to determine whether potential adverse environmental impacts from the proposed action are likely to affect a potential environmental justice area.

If an Environmental Justice Analysis is determined to be required, the following tasks will be performed and summarized in the DEIS:

Review of technical guidance and examples received from USEPA and NYSDEC, including USEPA's Environmental Justice NEPA Compliance Analysis and USEPA Region 2's Draft Interim Policy on Identifying EJ Areas and the NYSDEC environmental justice policy, "CP-29: Environmental Justice and Permitting", and the "Final Report of the New York State Department of Environmental Conservation Disproportionate Adverse Environmental Impact Analysis Work Group" issued in July 2004 and *"New York State Department of Health, Guidance for Health Outcome Data Review and Analysis, Relating to NYSDEC Environmental Justice and Permitting."*

1. The DEIS will present a summary overview of these documents.

2. Performance of a socioeconomic analysis of the screening area. The analysis will include a description and map for each census tract whose geographic center is within a two-mile radius of the Project summarizing the following parameters: population, percent minority vs. percent non-Hispanic white and household income based on the latest available Census data. The results of this socioeconomic analysis will be summarized in a table and compared to socioeconomic characteristics of designated reference communities - Orange County and New York State.

3. For the identified community of concern, if applicable, an analysis will be conducted to determine whether a potential disproportionate and adverse environmental impact(s) related to the proposed action are likely to affect the identified community of concern. The analysis will identify and map potential adverse environmental impact(s), discerning where possible, varying levels of impact through air quality modeling isopleth maps or other tools such as Geographic Information System (GIS) mapping for other environmental impact categories.

4. NYSDEC issued a September 12, 2008; Draft Scoping Document comment letter, which included a map prepared by NYSDEC that identifies environmental justice areas near the Project Site. <u>This NYSDEC map has been attached and made part of the Draft Scoping Document</u>. The Applicant shall perform an environmental justice analysis with respect to potential impacts on these communities.

   The Applicant shall also prepare an enhanced public participation plan, following the guidelines of CP-29. Upon approval of the public participation plan, the applicant shall implement the public participation plan in order to develop the environmental justice analysis.

5. The DEIS will collect data from the workforce housing project located northwest of the project site and will include this data in any analysis in this section.

6. The enhanced public participation plan will be summarized and the plan included as an appendix.

4.6 Traffic and Transportation

The DEIS will include a study of the probable traffic and transportation impacts resulting from the operation of the CPV Valley Energy Center. The methodology for assessing the potential impacts from traffic generated by the construction and operation of the Project will follow the instructions provided in Transportation Research Board, National Research Council, Highway Capacity Manual, HCM 2000.

1. The Traffic Study will include a description of the pre-construction characteristics (i.e. existing conditions) of the roadways in the vicinity of the Project. The description will include:

   (a) The results of peak period turning movement counts for a typical weekday morning (7:00 am to 9:00 am) and weekday afternoon (4:00 pm to 6:00 pm) and Saturday to be conducted at the following intersections: Traffic counts will be performed to determine peak hour traffic.

   - Route 17M at County Road 108/Dolsontown Road
   - Route 17M at Route 6/Sunrise Park Road
   - Route 6 at Kirbytown Road
   - Route 6 at Site Driveway including analysis with and without proposed traffic signal at warehouse site.
   - Route 6 at County Road 56
   - Route 17M at Route I-84 Interchange Ramps (six locations)
   - Route 6 at Route 284 Interchange

   (b) The results of hourly volumes and vehicle classification counts along Route 6 by placing an Automatic Traffic Recorder machine along the roadway for a period of a minimum of 7 days.

   (c) For each intersection listed in paragraph 1(a) above, description of intersection geometry and traffic control devices by approaches.

   (d) A calculation of the existing operational Level of Service ("LOS") for each intersection listed above, giving detail for each turning movement.

   (e) An estimate of the annual rate of traffic growth in the vicinity of the Project incorporating: 1) general background growth due to regional traffic volume increases as obtained from the New York State Department Of Transportation (NYSDOT) and 2) growth from publicly announced land developments with planned completion dates prior to or concurrent with the proposed Project.

(f) A review of accident data from the NYSDOT (and local sources if available) for each study intersections and the roadway sections identified in (a) above for the most recent 3-year period available. The results of this traffic operations safety review will be tabulated and summarized in the DEIS.

(g) The EIS should explore the potential for employees to use public transit to access the site. Is there service along Route 6 or Route 17M? If so, where are the stops located? How will transit riders connect from the stop to the site?

2. The Traffic Study will include a site plan, drawn at an appropriate scale, depicting Project site driveway intersections, the number of approach lanes and traffic control devices by approaches.

3. The Traffic Study will include an estimate of the trip generation characteristics of the Project during both construction and operation. The estimate will include:

(a) A description of the construction and operation of the Project, including the number of employees per shift.

(b) An estimate of the number of peak hour vehicle trips generated during construction including truck traffic and operation of the Project, and a description of the expected arrival and departure distribution patterns of the site-related traffic.

4. The Traffic Study will include an analysis and evaluation of the traffic and transportation impacts of the Project, including:

(a) A comparison of projected future peak hour traffic conditions with and without the proposed Project, including a calculation and comparison of the LOS for each intersection listed in paragraph 1(a) above (which includes the site access drive), giving detail for each turning movement. The analysis will be conducted for the construction and operational phases of the Project. The traffic volumes established as a result of the turning movement counts identified in 1(a) above will be used for the analysis, adjusted to future levels using the procedure described in 1(e) above.

(b) An evaluation of the adequacy of the road system to accommodate the projected traffic associated with typical operations of the completed Project.

(c) An identification and evaluation of reasonable mitigation measures regarding traffic and transportation impacts, if needed, including the construction of physical roadway improvements, and the installation of new traffic control devices.

(d) Identification of procedures to be used for the delivery of large equipment modules to the facility site.

5. Analysis of site driveway location evaluation of 4-way intersection with Route 6 and the warehouse site to the west of the project.

6. The project is skirted by NYS Bike route 17, an official established State DOT designated project. Given this, the DEIS should evaluate:

(a) Safe bike and pedestrian travel to the project site (can workers bike or walk safely from Middletown to a job at the plant?)

(b) Establish lower level trees and brush buffers (say 10' above road surface) around the plant, so as to mitigate biking in an "industrial looking" area (security fences, etc.)

(c) Improve the road shoulder treatment / with DOT cooperation

(d) If possible, add a small stop-off point, perhaps a picnic table or two / also used by the plant's staff. Information about the plant and services found in Middletown may also be interesting to bike-route users.

4.7 Air Quality

The DEIS will examine the probable impacts of criteria pollutants and other U.S. EPA/NYSDEC regulated pollutants (“Study”) and non-criteria pollutants ("Non-Criteria Pollutant Study") from the Project on air quality. The components of the air quality analysis will include identification of project area climate and air quality conditions, an inventory of proposed emission sources at the proposed CPV Valley Energy Center, and an assessment of Project technology and design, emissions, impacts, and compliance with applicable standards. The components of the Non-Criteria Pollutant Study will include identification of emission constituents and an assessment of Project impacts. The primary study area shall be five miles. All school facilities, including the Truman Moon facility, located within the five mile radius shall be designated as sensitive receptors.

The methodologies, standards, and definitions for assessing air quality will follow procedures outlined, and use data contained, in the following documents:

For performing air quality dispersion modeling:

NYSDEC DAR-10: Guidelines on Dispersion modeling procedures for Air Quality Impact Analysis (May 9, 2006).

NYSDEC, Air Guide 36, Emission Inventory Development for Cumulative Air Quality Impacts Analysis (June 1995), if necessary.

Air Modeling Protocol to be established to the satisfaction of the USEPA and NYSDEC specifically for this Project (hereinafter Air Modeling Protocol).

United States Environmental Protection Agency ("USEPA"), Draft New Source Review Workshop Manual (October 1990).

USEPA, Guidelines on Air Quality Models, Appendix W of 40 CFR Part 51.

For determining Good Engineering Practice stack height and creditable stack height for modeling:

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

For performing visibility impact modeling:

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

For non-criteria pollutant ambient air guidelines and benchmarks:

> NYSDEC.DAR-1.AGC/SGC Tables. Division of Air Resources, Bureau of Stationary Sources, December 22, 2003.

For assessing fine particulate matter ($PM_{2.5}$) emissions:

> NYSDEC Policy, CP-33: Assessing and Mitigating Impacts of Fine Particulate Matter Emissions, December 29, 2003; is cited for use; however, it should be noted that the NYSDEC Policy CP-33 document was issued before the $PM_{2.5}$ 24-hour standard was changed from 65 ug/m^3 to 35 ug/m^3.

4.7.1 Criteria and Other Regulated Pollutants

1. The air quality Study will include:

   (a) An assessment of meteorological data sets of nearby airports to determine the availability and data quality of meteorological data for modeling purposes. The Project will obtain NYSDEC and USEPA approval for the meteorological data to be used in the Part 201 and Prevention of Significant Deterioration (PSD) applications.

   (b) An assessment of existing air quality levels and air quality trends for criteria pollutants in the region surrounding the Project, including air quality levels and trends taken from regional air quality summaries and air quality trend reports. Monitors in Orange County and other nearby Counties will be used to determine background ambient air pollutant levels.

   (c) An assessment of the impacts from quantifiable criteria pollutant emissions.

   (d) A control technology assessment for pollutants subject to major Nonattainment New Source Review (NNSR) promulgated under 6 NYCRR 231 to determine the lowest achievable emission rate (LAER) for the applicable pollutants.

(e) A control technology assessment for pollutants subject to PSD requirements will be conducted to determine Best Available Control Technology (BACT) for the applicable pollutants.

(f) If the Project's hazardous air pollutant ("HAP") emissions exceed the associated major source thresholds of 10 tons per year for an individual HAP or 25 tons per year for total HAP, then an assessment of Maximum Achievable Control Technology ("MACT") and associated requirements will be conducted. If the Proposed Project is determined **not** to be a major source of HAPs, analysis of design and operational alternatives to reduce HAPs emissions from the stack and fugitive emissions will be performed. This analysis shall factor technical feasibility, cost, and increased HAPs removal.

(g) The requirements of New Source Performance Standards of 40 CFR Part 60 will be addressed.

(h) Pursuant to DAR-10, an assessment of an optimal stack height taking into consideration Good Engineering Practice (GEP) stack height for the Project and air quality related values, visual impacts, and other considerations. The USEPA Building Profile Input Program (BPIP) will be used to determine directionally dependent-building dimensions for use in air quality modeling.

(i) An assessment of stack emissions of criteria pollutants, stack emissions being provided in hourly and annual estimates based on manufacturer's data, available emission factors, design control efficiencies, and other data or regulatory specifications related to the design of the Project. Stack emissions estimates must include the Prevention of Significant Deterioration (PSD) increments. State emission estimated will include the Prevention of Significant Deterioration (PSD) increments.

(j) A calculation of the number and type of emission offsets that will be required pursuant to requirements in 6 NYCRR 231. The final $PM_{2.5}$ New Source Review became effective on July 15, 2008 and will be implemented until the DEC modifies 6 NYCRR Part 231. This section shall reflect final PM 2.5 New Service Review (NSR) and Commissioners Policy 33: Assessing and mitigating impacts of fine particulate matter.

(k) An assessment of the potential impacts to ambient air quality that may result from criteria pollutant emissions from the Project, the modeling to be done in accordance with the NYSDEC's DAR-10 and USEPA Guideline on Air Quality Models (Revised). A computer input (including meteorological data) and output files of the dispersion modeling results shall to be provided to NYSDEC and USEPA. The maximum criteria pollutant specific impacts of the Project will be displayed in graphical format on a map of the surrounding community. A wind rose of the meteorological data will be provided.

(l) A comparison of the predicted air quality impacts from the dispersion modeling analysis to the Significant Impact Levels (SILs) and to the New York Ambient Air

Quality Standards (NYAAQS) and National Ambient Air Quality Standards (NAAQS).

(m) A cumulative source impact analysis will be performed for criteria pollutants for which the Project has impacts above SILs. The additional sources to be analyzed to determine whether the Project, in conjunction with existing and proposed major sources, will comply with applicable NAAQS and/or NYAAQS, will be selected in accordance with applicable guidance including that provided in DAR-10. The inventory, if necessary, will be included as an appendix to the air permit application and verified per Air Guide 36 requirements and the Air Modeling Protocol. All significant sources within five miles of project shall be included in the cumulative source impact analysis; including, but not limited to: Revere, Balchem, O&R, Reynolds, Gempak, Metal Yard Landfills, Quarry's, and Elvee Farm. If not identified as major sources they will not be included in the analysis.

(n) Start-up and shut-down conditions will be addressed by the Project's air quality modeling. Potential impacts from ancillary emission sources will be considered.

(o) An analysis be performed of the air quality impacts (e.g., particulates, VOCs) associated with duct burners shall be performed. This analysis shall include a comparison of particulate and VOCS emissions with and without the duct burners for all operating conditions.

(p) An air quality impact analysis must be performed for all pollutants emitted during the construction period.

(q) Project related air quality impacts during construction are expected to include fugitive dust emissions from ground excavation, cut-and-fill operations, and removal of debris. Fugitive dust emissions will depend on such factors as soil properties, meteorology, and construction practices. The EIS should include an analysis of fugitive dust and use of fugitive dust control measures including the following measures recommended by the New York State Department of Transportation:

- Water or other wetting agents on areas of exposed soils on a scheduled basis;
- Covered trucks for soils and other dry materials;
- Limited storage of soils on the construction site;

Final grading and landscaping of exposed areas as soon as possible.

2. The air quality study shall also demonstrate compliance with the following:

(a) The Project will be subject to the NYSDEC NO_x Budget Rule [6 NYCRR 227-3], a NO_x allowance program designed to limit statewide NO_x emissions during the ozone season (May – September). As a new budget source, which will begin operation after May 1, 1999; the Project will receive each year a quantity of NO_x allowances from the New York State Budget Source Holding Account. In the event that there are not sufficient

allowances in the New Budget Source Holding Account to cover the source's actual emissions, then the Project will secure additional allowances in the marketplace.

(b) The Project will be subject to the state's Acid Deposition Control Act. The Act requires that the Project's contribution to the New York State total deposition of sulfates and nitrates be quantified. Acid deposition impacts from the Project will be evaluated in accordance with NYSDEC guidance.

(c) The PSD regulations require that additional impact analyses be conducted to consider the effects on visibility, on soils and vegetation, and the potential for the impact of secondary economic/population growth. PSD regulations also require analysis of air quality impacts on sensitive vegetation types with significant commercial or recreational value or sensitive types of soil. Evaluation of impacts with sensitive vegetation will be performed by comparison of predicted Project impacts with screening levels presented in the EPA document: "A Screening Procedure for the Impacts of Air Pollution Sources on Plants, Soils, and Animals."

These procedures specify that predicted concentrations used for the analysis account for Project impacts added to ambient background concentrations. While most vegetation screening levels are equivalent to or exceed NAAQS and/or PSD increments, SO_2 are not. For SO_2, 3-hour and annual averaging periods, sensitive vegetation screening levels are more stringent than comparable NAAQS standards. Additionally, there is a 10-hour screening level for SO_2 sensitive vegetation levels with maximum predicted impacts from the Project should be performed.

(d) New York Air Toxics Program

The NYSDEC Air Guide 1 (which is inclusive of NYSDOH guidelines) provides guidelines for the control of toxic ambient contaminants. Air Guide 1 requires each project to provide an assessment of the ambient air quality impacts of air toxics emissions. The predicted impacts are then compared to the applicable short-term and annual guideline concentrations (SGC and AGC) identified in Air Guide 1.

In addition, the NYSDOH requires a health-based assessment of predicted impacts for emissions of air toxics. Specifically, NYSDOH requires an assessment of Project impacts with respect to health-based threshold limits published in the following references:

- EPS's Integrated Risk Assessment System;
- EPA's Annual Health Effects Summary Tables;
- EPA's National Center for Environmental Assessment
- United States Department of Health and Human Services, Agency for Toxic Substances and Disease Registry.

(e) The Project includes duct burning and will be subject to New Source Performance Standards. Depending on the size of the duct burners, New Source Performance Standards [40 CFR Subpart Da or Db] applies. Subpart Da limits apply if the duct burners have a heat input greater than 250 MMBtu/hr. No_x is limited to 0.15lb/MMBtu and 1.6lb/Mw-hr gross energy input. Particulate matter is limited to 0.03lb/MMBtu, and SO2 is limited to 0.20lb/MMBtu. If subpart Db applies (i.e. heat input less than 250 MMBtu), then NO_x emissions must be below 0.2lb MMBtu.

4.7.2 Non-Criteria Pollutants

1. The Non-Criteria Pollutant Study will include:

(a) A review of pertinent available data provided in USEPA AP-42 on non-criteria pollutants that may be emitted by combustion sources at the project and identification of emission factors for those pollutants. The specific source of each emission factor will be clearly identified and referenced in the DEIS. Emissions from non-combustion sources shall be included in the analysis.

(b) An assessment of the emission rates for non-criteria pollutants that may be emitted from the combustion sources at the Project. All emission rate calculation methodologies will be described in detail, with appropriate equations and examples provided. These descriptions will either accompany or specifically be cited in, any corresponding tabulated emissions data presented in the application.

(c) An estimation of the maximum potential ground level air concentrations (short-term and annual averages) of non-criteria pollutants due to the Project, quantified using the models and approach as approved by the NYSDEC.

(d) A comparison of the maximum predicted air concentrations of non-criteria pollutants to NYSDEC Short-term and Annual Guideline Concentrations (SGCs and AGCs).

4.7.3 Other Air Related Analyses

1. The DEIS will provide a general visibility impairment analysis for scenic vistas, and State parks using VISCREEN or other appropriate model. The DEIS will also provide a stack plume visibility analysis to assess the extent and frequency of any visible condensed water vapor plumes created by the proposed Project. The visibility impairment analysis should include State parks in the assessment.

2. The DEIS will include an assessment based on publicly available information associated with the emission of greenhouse gases including carbon dioxide. The assessment will include: a) an estimate of the proposed Project's annual and life cycle emissions of carbon dioxide and/or other significant green house gases; b) a comparison of projected Project emissions with New York State, emissions; and c) a conclusion as to the probable importance of the proposed Project's emissions relevant to parts a and b above. In addition, requirements associated with

regulations proposed by NYSDEC for a carbon dioxide cap and trade program will be discussed.

3. The DEIS will include an analysis of an accidental release scenario for aqueous ammonia for the facility operation.

4.8 Noise

The DEIS will include a technical noise assessment of the potential noise impacts associated with the construction and operation of the Project.

The noise assessment to be conducted will incorporate the following:

1. A map showing the location of the nearest sensitive noise receptors (e.g., residences) in relation to the Project site will be provided. This map shall include two residences to the north on Rt. 6 new "workforce" housing construction southeast of cemetery and business center under construction to the west.

2. Existing ambient noise levels will be determined at the noise sensitive areas identified near the site through an ambient field noise monitoring program. The program will consist of short-term (20-minute) measurements conducted during the day and late at night (e.g., 12 am to 5 am) using a Type 1 precision sound level meter ("SLM"). Additionally, continuous measurements will be made at a nearby residential receptor over a 24-hour period with a Type 2 or better sound level meter. The meter and calibrator will have been calibrated by a certified laboratory within one year of the measurement program.

   The microphones mounted will be mounted at a height of approximately 5 feet above grade. Field calibration of the SLM will be conducted periodically during the noise monitoring program. Monitoring will be conducted during meteorological conditions that include no precipitation and light winds (e.g., generally 5 miles per hour or less at night).

   The DEIS will utilize NYSDEC approved parameters to assess noise impacts associated with the Project. The L_{eq}, which is a single value of sound that includes all of the varying sound energy in a given duration, is the equivalent noise level over a specified period of time (i.e., 1-hour). Statistical sound levels provide A-weighted sound levels exceeded a specific percentage of the time. Thus, the L_{90}, which is often considered the background or residual noise level, is the sound level exceeded 90 percent of the time. The L_{10}, which considers measurement of intrusive sounds such as aircraft overflight, is the sound level exceeded 10 percent of the time. All three parameters, L_{90}, L_{10} and L_{eq}, will be measured and recorded at each location for both the short-term and 24-hour monitoring.

3. A description of the noise standards and guidelines applicable to the Project will be provided. There are no State or Federal noise standards directly applicable to the Project. However, the NYSDEC noise guideline policy will be described and applied for the project and compliance with Town of Wawayanda noise standards will also be evaluated.

4. For purposes of determining potential significant noise impacts, Project-related noise impacts will be assessed in accordance with the NYSDEC noise policy. NYSDEC issued a program guidance document entitled "Assessing and Mitigating Noise Impacts" in October, 2000. The NYSDEC guidance recommends that for non-industrial (e.g., residential) settings, the addition of any noise source should probably not exceed ambient noise levels by more than 6 dBA at any given receptor. Therefore, for purposes of evaluating noise impacts for the Project, an increase in the late night Leq noise levels of 6 dBA or more will be considered a significant impact. Compliance with the Town of Wawayanda 65 dBA noise level standard at a point 100 feet from the property line will be assessed.

5. Project noise levels during operation will be calculated through use of the CadnaA, a noise prediction model. Noise level data for major noise producing sources associated with the Project will either be obtained from equipment vendors or, if not readily available, the data will be developed following accepted industry procedures found in Edison Electric Institute's "Electric Power Plant Environmental Noise Guide."

   The CadnaA model will be configured to accept hemispherical spreading and atmospheric absorption. Standard atmospheric conditions will be assumed. Directivity effects for noise from the stack and air cooled condensers will also be considered. Modeling receptors will be chosen in the same locations as where background monitoring was performed in order that direct comparison of existing to projected future noise levels can be made. Additionally, a noise contour map of the site area will be prepared such that Project noise levels at any location can be determined. The model will account for the noise emissions from each Project source that propagates to individual points on the specified receptor grid.

   The noise modeling will be used as a design tool in order to determine the degree of silencing required on individual noise sources within the Project if needed to meet applicable noise guidelines and standards.

6. A listing of the noise control measures incorporated into the analysis will be provided.

   The results of the noise assessment will be provided in the DEIS. A complete technical noise report will be included as an Appendix to the DEIS.

7. An analysis of noise mitigation measures during construction; including, but not limited to the use of muffler systems on its construction equipment; construction schedules developed in consultation with the community to minimize noise impacts; etc.

8. For areas where estimated construction sound levels are expected to exceed the existing background level by more than 10dBA, a mitigation plan will be established to minimize such exceedances.

9. A comparative noise assessment shall be developed that evaluates the noise impacts from the construction and operation of the Project compared to significant local activities.

10. All dBA numeric values (e.g., actual field readings and applicable standards) shall be described in terms of examples familiar to the general public.

4.9 Geology, Seismology, and Soils

The DEIS will include a study of the probable geologic, seismologic, and soils impacts of the Project. The components of the assessment will include identification and mapping of existing conditions, impact analysis, and proposed mitigation, where applicable.

4.9.1 Geology

1. Regarding potential geologic impacts, the assessment will include the following.

(a) A map based on the most recent 1:24000 scale USGS quadrangle maps showing topographic contours, the Project site and interconnection routes.

(b) A proposed site plan showing existing and proposed contours for the Project site, at a scale sufficient to show proposed buildings, structures, paved and vegetative areas, and construction areas.

(c) A preliminary calculation of the quantity of cut and fill necessary to construct the Project.

(d) A description and preliminary calculation of the amount of fill material to be brought in to the Project site, if any.

(e) A description and preliminary calculation of the amount of cut material or spoil to be removed from the Project site, if any. Regulatory requirements pertaining to offsite disposal will be identified, and the procedures that will be implemented to assure proper disposal of any such materials will be described.

(f) A delineation of temporary cut or fill storage areas to be employed.

(g) A description of excavation techniques to be employed.

(h) Impacts from blasting on the site must be identified and mitigated. A blasting plan will be provided if blasting is anticipated on the site.

4.9.2 Seismology

The assessment of seismic conditions at the Project site will include the following.

(a) A description of the regional geology, tectonic setting and seismology of the Project vicinity.

(b) An analysis of the impacts of typical seismic activity experienced in the Project area on the operation of the Project.

4.9.3 Soils

The assessment of conditions at the Project site will include a map delineating soil types on the Project site and electrical interconnections. The DEIS will further provide a description of the characteristics and suitability for construction purposes of each soil type identified. The impact on agricultural classified soils will be evaluated.

4.9.4 Foundation Design

The DEIS will provide a summary of the analyses conducted for the Project to determine suitable building and equipment foundations.

4.10 Infrastructure

The infrastructure section will include analyses of water supply, wastewater collection and treatment, stormwater runoff, solid waste collection and management, and energy supply, as described below.

4.10.1 Water Supply

The DEIS will provide the following information and assessments relative to the Project's water demand.

Potable Water

1. An estimate of the daily peak and the daily average water supply needs and consumptive water uses of the Project, in gallons.
2. An estimate of the fire suppression needs of the Project, in gallons per minute, and a demonstration that an adequate water supply is available (both quantity and pressure) for fire protection.
3. A description of the water system to serve the potable and fire suppression for requirements for the Project and a description of any additional water treatment that would be necessary to obtain the desired chemistry.
4. An identification of the water supply source or sources, proposed to be used by the Project. An assessment of the available capacity of the water supply source and an analysis of potential impacts, in terms of quantity and quality.

Cooling Water

1. The assessment will also include an identification of infrastructure improvements, if any, necessary to serve the Project including treatment requirements. Gray water from the Middletown POTW is the preferred method and will be addressed as a primary cooling water source.

2. An identification and evaluation of other reasonable water supply alternatives and mitigation measures to avoid or minimize water supply impacts, as identified.

4.10.2 Wastewater

The DEIS will provide the following information and assessments relative to the Project's wastewater discharge requirements and/or disposal methods.

1. A water balance diagram for daily peak and daily average water use operating conditions for the Project that shows in detail water sources, plant water uses, water treatment facilities, wastewater treatment facilities, wastewater discharges and which effluents would be discharged, and where. The DEIS will provide information on the key characteristics (e.g. volume, temperature, constituent concentrations) of water use and discharge under primary operating conditions.

2. An identification and description of reasonable discharge or disposal methods for wastewater generated from the Project, including a review of options explored for process wastewater disposal.

3. For each proposed discharge and/or disposal method, an identification and description of Project wastewater treatment facilities and discharge structures including a demonstration that each facility and/or effluent discharge is capable of meeting applicable effluent limitations or pretreatment standards.

4. Thermal discharge impacts to receiving stream will be evaluated.

4.10.3 Stormwater Runoff

The DEIS will provide the following information relative to the Project's stormwater management plan for both construction and operation.

1. A description of all techniques that would be used to prevent stormwater and spill contamination, and a conceptual site plan showing all intended structures and improvements to prevent stormwater contamination, including chemicals or other contaminants from storage facilities, product delivery, plant operation, plant maintenance, waste handling activities, and vehicles in parking lots or other areas.

2. A complete SWPPP will be prepared in compliance with Town of Wawayanda and NYS DEC regulations.

4.10.4 Spill Prevention and Control Plan

The DEIS will provide the following information relative to the management of ammonia, wastewater, and other chemical, petroleum or hazardous substances at the Project site.

1. A description of the spill prevention and control measures to be in place for ammonia storage, wastewater storage, and other chemical, petroleum or hazardous substances stored on site, including an evaluation of alternatives and mitigation measures, if required.

2. An identification of whether the storage of ammonia, wastewater, other chemicals, petroleum or hazardous substances on site is subject to regulation under the State of New York's chemical and petroleum bulk storage programs, and if so, a demonstration of compliance with such regulations.

3. An identification of whether the storage of ammonia, wastewater, other chemicals, petroleum or hazardous substances on site is subject to regulation under local or county codes, and if so, a demonstration of the degree of compliance with such local laws.

4. Emergency response plan will be provided. This plan will include review and input from jurisdictional emergency response agencies.

4.10.5 Solid Waste Management

The DEIS will provide an estimate of the amount of solid waste to be generated as a result of facility operations and associated potential increases in the demand for municipal solid waste and sanitation services. Measures will be assessed, as necessary, to reduce quantities generated.

4.10.6 Energy

The DEIS will include an assessment of the energy that would be consumed and produced during operation of the proposed Project. The compatibility of the Project with the State Energy Plan will be evaluated. Energy conservation measures will be described.

4.11 Water Resources

This section of the DEIS will provide a description of the local water resources in the vicinity of the Project site and the potential impacts, if any, the construction and operation of the proposed facility will have on the local water resources.

4.11.1 Surface Waters

The DEIS will include the following information pertaining to surface water resources for both the generating facility site development, electrical interconnection to NYPA, and water and sewer, utility infrastructure.

1. A description of the water quality, flow and other characteristics of all surface water features, including:

   (a) Physical condition of banks and adjacent land within 100 feet of water resources
   (b) Description of the function of wetlands and streams (including intermittent) within the watershed or sub watershed
   (c) Description of all connections between onsite water resources (including wetlands

and streams) and offsite water resources.

(d) Updated and verified wetland map for all wetlands regardless of jurisdictional status (including vernal pools and intermittent streams)

(f) Description of the contributing drainage area for each wetland or sub watershed for stream

(g) Description of wetland and stream condition

(h) Stream flow and wetland hydro period information, including water supply during drought

(i) Ability of storm water practices to accommodate changes in stream frequency and intensity

2. An analysis of the direct and indirect impacts of the construction and operation of the Project and electrical interconnections on the surface waters identified above.

(a) Map of entire area of disturbance - it includes all areas where existing vegetation is to be removed, and where heavy equipment is operating, either for pre-construction or post construction activities.

(b) Calculation of all impervious surfaces, pre and post development, and description of total impervious surfaces located within each wetland and stream contributing drainage area.

(c) Changes in wetland hydroperiod, i.e. seasonal (or other periodic) water level fluctuations

(d) Changes in wetland ponding (water depth) within wetlands

(e) Assessment of all indirect impacts to surface waters including:
- increased stormwater runoff (uncontrolled, untreated)
- impacts on groundwater recharge
- flow constrictions (construction of roads, structures, utility crossings across wetlands or upstream/downstream of them)
- increased water level fluctuation

(f) Changes in water quality including sediment deposition, pollutant accumulation in wetland sediments, fate of untreated stormwater pollutant load, nutrient enrichment, road salt.

(g) Cumulative impacts on water resources.

(h) The fate of road salt and impacts on water quality, including plan for the storage of plowed snow, proximity of roads and parking areas to streams and wetlands.

(i) Pollutant load calculations for both pre- and post- development for major pollutants (from the list on page 2-3 of the DEC Stormwater Management Design Manual). The Simple Method (Scheuler, T. 1987.*Controlling Urban Runoff: A Practical Manual for Planning and Designing Urban BMPs*. Metropolitan Washington Council of governments, Washington, D.C.), or a comparable professionally accepted method, may be used for this purpose; but the same method must be used for all calculations.

The results from these calculations are best presented in tabular form so that pre-development pollutant load may be easily compared to post-development load. Oil and grease and chlorides (i.e. road salt) are other common constituents of stormwater runoff that should also be considered during impact assessment.

3. Mitigation

   (a) An identification and evaluation of reasonable mitigation measures regarding impacts on Waters of the State of New York and the United States and the other surface waters identified above.

   (b) Each significant impact described in this section should also be discussed in terms of mitigation. Some impacts cannot be mitigated; this should be noted when appropriate.

   (c) The use and effectiveness of vegetated buffer zones (around all wetlands and streams) for mitigating the effects of specific impacts on water quality and habitat should be discussed in the EIS.

4.11.2 Groundwater

The DEIS will include the following with respect to groundwater resources.

1. A site map showing estimated depths to high groundwater levels for the Project site.

2. An analysis and evaluation of potential impacts from the construction and operation of the Project on groundwater quality and quantity in the Project area.

3. Evaluation of the need for dewatering treatment and discharge during facility construction.

4. Implications, if any, to the site's watershed overlay district designation.

5. Hydrogeologic analysis of the site groundwater resource, pump test protocol and procedures. The results shall be summarized in the text and the complete study included in the appendix.

6 Description of groundwater/wetland connections including recharge, discharge, water supply and hydroperiod.

4.12 Ecology

The DEIS will provide a study of the probable ecological impacts of the construction and operation of the project to terrestrial, wetland and aquatic habitats, and plant and animal species of conservation concern.

4.12.1 Habitats

1. Preparation of a map of all habitats (terrestrial, wetland and aquatic) / vegetative communities found on the site and interconnections, on the basis of recent aerial photography, available reports, and field observations, including an identification and

delineation of any unusual habitats or natural communities which could support listed species or species of conservation concern. The map will include habitat connections and corridors and interconnected habitats that occur in, on, or in the vicinity of the Project site and interconnections.

2. Habitat descriptions (including condition and approximate size) corresponding with the above mentioned habitat map including evaluation of all aquatic, wetland and stream (perennial and intermittent) habitats onsite as well as connections to adjacent or offsite habitats, regardless of regulatory status or jurisdiction.

(a) The ecological communities will be described according to Reschke, Ecological Communities of New York State (1990).

(b) A characterization of the type of plant communities present, the condition of these communities and the species composition of each community, based on reconnaissance surveys.

4.12.2 Plants

1. Based on the habitat/vegetative cover map, and field reconnaissance, a species list and an assessment of the status of threatened, endangered and other plants of conservation concern, and likelihood of presence on the project site; including but not limited to confirmation via NYS Natural Heritage records. Note: "Conservation concern" species include those listed in the following:

- Endangered or Threatened under the federal Endangered Species Act
- NYS list of Endangered threatened, rare, and exploitably vulnerable species (plants)
- S1, S2, or S3 by the New York Natural Heritage Program
- Regionally rare, scarce, declining, or vulnerable in Kiviat and Stevens (2001)
- NYNHP Rare plant status list (www.nynhp.org)

2. All field surveys specifically directed at identifying rare plants should be conducted at the time of year appropriate for the species being sought.

3. An analysis of the impact of the construction of the infrastructure interconnections on the vegetation identified, including a delineation of the vegetation areas to be removed or disturbed, and expected changes in status of invasive species.

4.12.3 Wildlife

1. A list of the conservation concern species of mammals, birds, amphibians, invertebrates and reptiles reasonably likely to occur in, on, or in the vicinity of the Project site based on site observations, habitat data, and supplemented by publicly available sources. This includes species that are associated with the habitats depicted on the above mentioned map and that may use the project site at some time during their life cycle, including but not limited to species observed on the property. All species of

conservation concern will be described. Note: "Conservation concern" species include those listed in the following:

- Endangered or Threatened under the federal Endangered Species Act
- NYS list of Endangered, Threatened, Rare, or Special Concern species (animals)
- Species of Greatest Conservation Need, NYS Comprehensive Wildlife Strategy (www.dec.state.ny.us)
- S1, S2, or S3 by the New York Natural Heritage Program
- Regionally rare, scarce, declining, or vulnerable in Kiviat and Stevens (2001)

(c) This list may be supplemented by information obtained from: spring and/or summer reconnaissance surveys, available data from the New York State (NYS) Amphibian and Reptile Atlas project, the NYS Breeding Bird Atlas and range maps, Hudsonia's Biodiversity Assessment Manual, NYS Comprehensive Wildlife Conservation Strategy (DEC), and other similar references

Identification of any unusual habitats or natural communities which could support listed species or species of conservation concern.

3. Additional species specific field surveys may be required depending on results of the descriptions noted above. All additional surveys shall be conducted by a qualified professional at the time of year appropriate for the species being sought.

~~4.~~ A profile of each species of conservation concern shall *include* consideration of all habitats and related conditions required throughout life cycle, areas onsite where any of these habitats are found, loss or degradation of these habitats due to project construction or operation, and subsequent impacts on the species.

5. An analysis of the impact of the facility construction and operation, and interconnections on the identified wildlife resources, species of conservation concern, wildlife habitats, status of invasive species, and wildlife travel corridors

6. An identification and evaluation of reasonable mitigation measures, regarding wildlife impacts identified. Each significant impact described in this section should also be discussed in terms of mitigation. Some impacts cannot be mitigated; this should be noted when appropriate.

4.12.4 Wetlands

1. The presence of any on-site *wetlands* (regardless of jurisdictional status) will be identified in the DEIS. Appropriate maps and field delineations from NYSDEC and the U.S. Army Corps of Engineers will be examined for wetland identification. Assessment of the potential impacts to wetlands will include the surface water impacts described in Section 4.11.1, and procedures and predictive data provided in the U.S. Army Corps of Engineers Wetlands Delineation Manual (1987). The DEIS will provide the following information:

(a) An identification of the extent of all wetlands that may be impacted by the Project, directly or indirectly

(b) A description of the characteristics of all wetlands identified, including a description of the contributing drainage area, vegetation, functions, habitat value, soils, and hydrology data collected for each wetland site identified, based on actual on-site wetland observations. This will also include the extent (acres and percent cover) of impervious surfaces within the contributing drainage area, pre and post-construction.

(c) An analysis of the impact of the facility construction and operation, and interconnections on the identified wetland resources.

(d) A discussion of vegetated buffers shall be provided, including the use of such buffers as mitigation for specific impacts. References for this include but are not limited to the Environmental Law Institute's publications: Thresholds for Land Use Planners, and Planner's Guide to Wetland Buffers for Local Governments.

(e) An identification and evaluation of reasonable mitigation measures, to avoid or minimize wetlands impacts, if any. Each significant impact described in this section should also be discussed in terms of mitigation. Some impacts cannot be mitigated; this should be noted when appropriate.

(f) Impacts associated with the use of ground water for any type of water supply potable or process must be identified, studied and mitigated.

4.13 Construction Impacts

Construction impacts, while temporary in nature, will be described and their significance evaluated in the DEIS. The assessment of construction impacts will include.

1. A description of the anticipated phasing for construction activity of the Project, including the expected starting and ending dates.

2. A narrative description of each phase of construction, including an identification of the number of employees per shift for the peak phase of construction, a description of the construction equipment to be used during each phase of construction, the hours during which it is planned that construction and component transportation vehicles would operate; material lay-down and employee parking area descriptions; and a preliminary identification of which state, county, and town roads that would be utilized for transportation of construction equipment and Project components.

3. A description of planned site security measures during construction, as well as the measures planned to deal with solid and sanitary waste generated by construction activities.

4. An assessment of potential traffic, air quality, noise, water quality, natural resources and hazardous material impacts that may be created by or encountered during Project construction.

5. An identification of mitigation measures design to minimize the significant construction impacts identified.

4.14 Community Character

The DEIS will include a qualitative and quantitative discussion of how the project will impact community character as described below.

Community character is defined as:

- The built environment which may include historic building, development and land-use patterns, architectural landscape, roads, sidewalks, and visual character. The natural, or "un-built," environment often encompasses stream corridors, open spaces, farms, geographical features, critical habitats, and air and water quality. The interaction between the built and un-built environment is also an element of community character.
- The social and cultural characteristics of a community can include those attributes that reflect its overall quality of life (i.e., quality of schools, poverty and crime rates, demographics, etc.) and represent its cultural resources (i.e. hospitals, museums, social gatherings, local arts, community activities, etc.).
- The community's economic environment may include the number and quality of jobs, unemployment rates, type of business, and presence and/or vitality of a downtown area.

4.15 Cumulative Impacts

Cumulative effects result when the effects of an action are added to or interact with other effects in a particular location and within a particular time. The DEIS will include the following cumulative impact studies:

1. Potential social economic and fiscal cumulative impacts on community services within the Town of Wawayanda.

2. Cumulative traffic impact assessment for site access roadways.

3. Conduct of a cumulative air quality compliance modeling analysis, using NYSDEC protocol.

4. The cumulative impacts of the gas, at the lowest possible and electric transmission lines, grey water lines and the construction and operation of the CPV energy plant must be performed. The following information must be included in the cumulative impact section:

   (a) Detailed description of the proposed line, including interconnecting facilities, route, and who will construct and operate the facilities.

(b) Alternative analysis, including routes and installation techniques (i.e., overhead vs. underground).

(c) A map level and literature review assessment of the probable environmental impacts and proposed mitigation to wildlife habitat, wetlands, water bodies, water resources, groundwater, soils, vegetation, cultural resources and land use along the proposed corridor."

Impact of gas, electric and gray water transmission mains include applications for all Article VII permits as an appendix if this information is available at time of DEIS submission.

(a) A dated description of each proposed line, including interconnected facilities, route and who will construct and operate these facilities.

(b) Alternative analysis, including routes and installation techniques (i.e. overhead or underground.

(c) A map level and literature review of the probable environmental impacts and proposed mitigation to wildlife, wildlife habitats, wetlands, water bodies and resources, groundwater soils, vegetation, cultural resources and land use along the proposed and alternative corridors.

4.16 Other Environmental Impacts

The DEIS will also identify and discuss the following to the extent applicable and significant.

1. Reasonably Related Short-term and Long-term Impacts, Cumulative Impacts and Other Associated Impacts

   (a) This section will address those short-term and long-term impacts, cumulative impacts and other environmental impacts associated with the Project as identified in the DEIS environmental analyses.

2. Adverse Environmental Effects Which Cannot Be Avoided If the Project Is Implemented

   (a) This section of the DEIS will identify any adverse impacts associated with the Project which cannot be avoided or fully mitigated if the proposed action is implemented.

3. Irreversible and Irretrievable Commitment of Resources

   (a) This section will include those natural and human resources identified in the DEIS environmental analyses that will be consumed, converted or otherwise made unavailable for future use if the Project is implemented.

4. Growth-Inducing Aspects of the Proposed Action

   (a) This section will define any secondary impacts the Project may have in inducing economic growth or development in the vicinity of the Project site, or in Orange County. The analysis will include any additional commercial or industrial development within the Project site owned by the project developer and/or or owner-operator, as well as activity attracted to the general area because of the facility's electric power generation and transmission.

5. Effect of the Proposed Action on the Use and Conservation Of Energy

   (a) This section of the DEIS will discuss the effects of the Project on the use and conservation of energy.

6. Electric and Magnetic Fields

   This section will discuss an analysis of the levels of electric and magnetic fields consistent with thresholds set forth Public Service Commission Order in Cases 26529 and 26559 – Proceeding on Motion of the Commission as to Regulations Regarding Electric and Magnetic Fields Standards for Transmission Lines. Applicant shall depict the levels at locations identified in the order.

5.0 ALTERNATIVES

In accordance with 6NYCRR Part 617.9(b)(5)(v), the DEIS will include "a description and evaluation of the range of reasonable alternatives to the action." Among the alternatives that will be considered are the following:

1. No action alternative.
2. Alternative Project sites considered for the CPV Valley Energy Center.
3. Electrical interconnect alternative rights-of-way considered.
4. Alternative Project technology, including cooling technologies.
5. Site design alternatives including facility size, site access, layout configuration.
6. Fuel supply right-of-way alternatives.
7. Fuel use alternatives.
8. Cooling Water Alternatives

The discussion of the alternatives will be at a level of detail sufficient to permit a comparative assessment of the environmental impacts of each alternative, particularly as they regard air quality, visual, traffic, sound, and fiscal.

6.0 APPENDICES TO ACCOMPANY DEIS

In accordance with the environmental scope discussed above, the DEIS will include a number of studies, reports, and engineer drawings related to identifying and quantifying the potential environmental impacts of the proposed Project. These reports, to be attached as appendices to the DEIS, will include the following:

1. SEQR Procedural Information (i.e. EAF, Lead Agency Determination, Scoping);
2. Agency Correspondence;
3. Project Engineering Plans and Site Plan Drawings;
4. Air Permit Modeling Protocol and Air Permit Application;
5. Phase IA/IB Cultural Resource Report;
6. Traffic Impact Analysis Report;
7. Noise Impact Assessment Technical Report;
8. SPDES application and supporting documentation;
9. Stormwater management/SWPPP;
10. Any Article VII applications or other regulatory approvals in connection with the gas and electric transmission lines, if this information is available at EIS submission;
11. Enhanced public participation plan;
12. Data and information collected and used to perform wetlands impact, surface water, and groundwater analyses.
13. Electric and magnetic fields maps. Article VII applications.
14. Fiscal Impact Study.