

PUBLIC PARTICIPATION PLAN

Applicant:

CPV Valley, LLC

Facility:

CPV Valley Energy Center

NYSDEC Application Number:

DEC ID 3-3356-00136/000010 & 00009

As Required by:

NYSDEC Commissioner's Policy Guidance CP-29

Submitted to:

New York State Department of Environmental Conservation

Region 3

21 South Putt Corners Road, New Paltz, NY 12561-1696

Date:

April 7, 2023

Rev. May 23, 2023

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List of Acronyms

Acronym	Definition
CP-29	Commissioner Policy 29, Environmental Justice and Permitting
NYSDEC	New York State Department of Environmental Conservation
PEJA	Potential Environmental Justice Area
PPP	Public Participation Plan
Valley / Applicant	CPV Valley, LLC

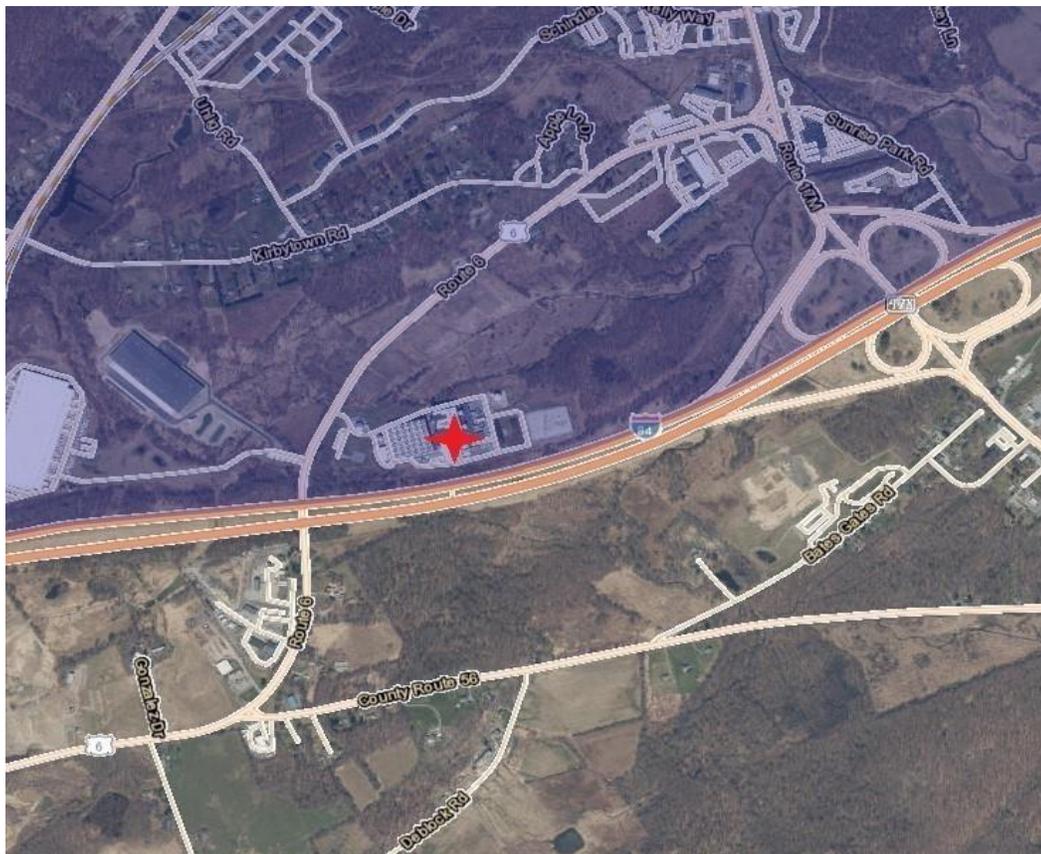
I. INTRODUCTION AND OBJECTIVE

This Public Participation Plan (PPP) has been prepared by CPV Valley, LLC (hereinafter referred to as Applicant or Valley) to fulfill and comply with the requirements of New York State Department of Environmental Conservation **Commissioner Policy 29, Environmental Justice and Permitting (CP-29)** for the Valley Energy Center, that requires a permit under Title V (Air) and Title IV (Acid Rain) of the Clean Air Act and which has been determined by NYSDEC to potentially impact one or more potential environmental justice area (PEJA) (See Figure 1).

This PPP has been developed in accordance with the procedures established in CP-29 Section V.D and it aims to help ensure meaningful and effective public participation throughout the NYSDEC environmental permit review process. Public participation in the NYSDEC environmental permit review process means a program of activities that provides opportunities for stakeholders to be informed about and involved during the review of a proposed action.

The objective of this PPP is to outline and describe the program of activities that Valley will implement to actively seek and enhance public participation during the application review process.

Figure 1. Valley Energy Center Location and Potential Environmental Justice Area (purple indicates PEJA)



II. DESCRIPTION OF THE PROPOSED ACTION

Overview

Valley currently operates the Valley Energy Center, a nominal net 680-megawatt (MW) combined-cycle gas turbine electric generating facility, on a site located in Wawayanda, Orange County, New York. Valley has submitted an application to the NYSDEC for permits under Title V (Air) and Title IV (Acid Rain) of the Clean Air Act for the Valley Energy Center, located on 3330 Route 6, Middletown, NY 10940 - Town of Wawayanda, Orange County Tax Parcels 4-1-38.32, 4-1-38.3, and 4-1-40.22 (the Action).

Nature of Proposed Action and Purpose

The Valley Energy Center commenced operation in 2018 under an air state facility permit (ASF Permit ID: 3-3356-00136/00001) issued by the NYSDEC.

The Valley Energy Center was approved by the Town of Wawayanda Planning Board, acting as the lead agency under the State Environmental Quality Review Act (SEQRA) after a full environmental review and preparation of an environmental impact statement (EIS), including an enhanced public participation plan under the Commission's CP-29. The initial ASF permit for the Valley Energy Center was issued on August 1, 2013 and required Valley to apply for a Title V permit. Valley submitted applications for Title V and Title IV Acid Rain air permits to NYSDEC under to 6 NYCRR Part 201.

The Valley Energy Center has been in operation since 2018 and has operated within and under its ASF permit. Valley proposes a decrease in upstream greenhouse gas emissions and no changes or modifications to its physical facility or the Valley Energy Center property.

As one of the state's documented newest, most efficient, and highly flexible generating units, the Valley Energy Center is an important part of the New York State electric generation and transmission system and will play an important part to reliably transition the State of New York to the increased use of intermittent renewable generation and energy storage in furtherance of state energy policy.

The Valley Energy Center's design features highly efficient technology and state-of-the-art emissions controls, making it one of New York's documented cleanest natural gas energy facilities in existence. The Valley Energy Center has enough electricity to power more than 650,000 homes, helping to meet the demand for local, affordable and reliable power in the lower Hudson Valley.



Figure 2. Existing Project

Potential Impacts

Environmental justice (EJ) issues are discussed, in part, in the Draft Environmental Impact Statement (DEIS) at § 7.5 ([Appendix D](#)) and Final Environmental Impact Statement (FEIS) at § 4.1.16 ([Appendix E](#)). The EJ analysis considered disproportionate adverse human health and environmental impacts on minority and low-income populations using methodologies based upon the NYSDEC EJ Policy (CP-29, Environmental Justice and Permitting, Mar. 19, 2003) and federal guidance documents prepared by the United States Environmental Protection Agency (USEPA) for use in preparing a National Environmental Policy Act (NEPA) environmental justice analysis.

The substantive EJ analysis included relevant underlying data showing the maximum predicted impacts of CO, SO₂, PM₁₀, and NO₂ for comparison with significant impact levels (SILs), as well as the sum of maximum air impacts with conservative background air quality levels so that total predicted concentrations can be compared to the corresponding National Ambient Air Quality Standards (NAAQS) as set forth in DEIS Table 7-18 ([Appendix F](#)).

As concluded in the EJ analysis, (1) the Valley Energy Center “is not considered to have any adverse air quality impacts”; the study area “will not receive a disproportionate share of the maximum short-term project impacts”; and that “the maximum predicted annual impacts are always below the corresponding SIL, so there will be no adverse impact from the project ([Appendix D](#), DEIS § 7.5.4.1).

The EJ analysis also considered and found no adverse / disproportionate impacts throughout the environmental justice area regarding traffic and transportation impacts, noise impacts; visual impacts, and impacts on water resources.

A. SEQRA Lead Agency Findings

In the SEQRA Findings Statement, the Town of Wawayanda Planning Board, serving as the SEQRA Lead Agency, concluded that “[b]ased on the EIS Documents, the Planning Board’s findings are that positive socioeconomic impacts will result from the project with no adverse EJ impacts” (Appendix H, Findings Statement at 34). The Lead Agency’s conclusion was first based on its finding that the Valley Energy Center EJ analysis was conducted “consistent with the principles set forth in Executive Order 12898, entitled ‘Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations’ and NYSDEC Policy CP-29” (Appendix H, Findings Statement at 37).

Further, the Lead Agency determined that the EJ analysis demonstrated that (1) the “potential air emission concentrations did not cause violations of the National Ambient Air Quality Standards (NAAQS) within the EJ study area, and therefore are not adverse”; (2) that the use of hazardous materials such as “oil, aqueous ammonia, and other chemicals at the project site would not result in a disproportionate or adverse impact to the identified potential EJ area”; and (3) that noise and visual impacts within the study area “are not considered adverse or disproportionate” (Appendix H, Findings Statement at 37-38).

Under this record, the Lead Agency determined that “[b]ecause of the socioeconomic benefits arising from the project, and the avoidance of impacts to any identified EJ areas, no specific mitigation measures are warranted” (Appendix H, Findings Statement at 38). The Lead Agency’s findings and conclusions are supported by the SEQRA record, which fully address Staff’s questions regarding potential impacts to disadvantaged communities.

B. 2022 Co-pollutant Analysis

In addition, Valley consultants have prepared updated co-pollutant calculations (Appendix G). Since Valley has now been in operation for over four years under an Air State Facility permit (Permit ID: 3-3356-00136/00001), the updated report is based, in part, on actual reported emissions data for each of its six emission sources.

These recent co-pollutant calculations show that the Valley Energy Center’s continued operation will not disproportionately burden any PEJAs located within the EJ study area.

III. STAKEHOLDER IDENTIFICATION & CONTACT LIST

A contact list consisting of the names, addresses, phone numbers, or email addresses of stakeholders to the proposed action is provided in Appendix A. The contact list includes individuals and organizations with a direct stake in the proposed Action and people and individuals and organizations that have expressed interest in the Valley Energy Center.

As detailed in Appendix A, Valley’s draft contact list includes:

- NYSDEC;
- Local municipalities;
- Local School Districts;
- County and State elected officials;
- Businesses, residences, civics, and service groups within the study area.

The current contact list has been developed in consultation with NYSDEC by identifying stakeholders from the following categories: local government and elected officials; business owners, residents, and occupants; local civic, community, environmental and religious organizations; local news media; administrator/operator of any school or day care that live, work and/or represent a neighborhood or community within a 1-mile radius of the Valley Energy Center.

Valley will utilize this contact list to communicate and disseminate information about the proposed Action and the permit application review process to the affected community and stakeholders. At a minimum, this includes distribution of the written information and outreach materials described in Section V to inform the community about upcoming public meetings and opportunities for public participation.

The contact list will be reviewed periodically and updated as appropriate throughout the permit application review process. Valley will update the contact list with any new stakeholders identified during the public meeting or execution of other PPP components. In addition, individuals and organizations will be added to the contact list upon request. Such requests should be submitted to the Valley liaison identified in Section IV. Other additions to the contact list may be made at the discretion of the Valley or, at the request of the NYSDEC project manager, in consultation with other NYSDEC staff, as appropriate.

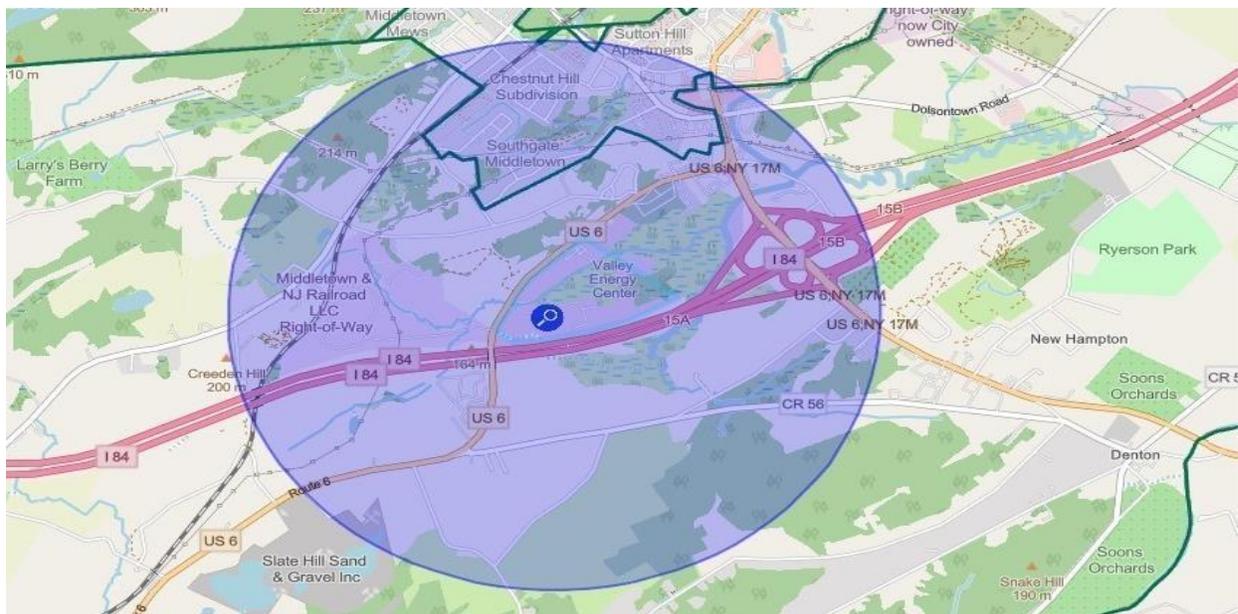


Figure 1. Outreach Radius Map

IV. VALLEY LIAISON

A representative from the Valley team will be available during business hours at:

Donald Atwood
3330 Route 6, Middletown, NY 10940
(781) 848-2202
datwood@cpv.com

Impacted residents and interested stakeholders can contact the Valley liaison listed above to provide input to the Valley team, discuss any issues or concerns and/or to ask questions or request information. The Valley liaison shall respond in a timely manner and in the manner appropriate to questions or informational requests received. The Valley liaison will be responsible for tracking and documenting public input, inquires, questions, and information requests received, along with responses provided.

V. PUBLIC OUTREACH ACTIVITIES

Valley will utilize a range of engagement strategies and conduct various public outreach activities to facilitate participation, involvement, and direct communication with the affected community during the permit application review process. Valley will implement the public outreach activities outlined below upon finalization and approval of this PPP by NYSDEC.

In compliance with the requirements of CP-29, Valley will hold public information meeting(s) to keep the public informed about the proposed action and the environmental permit review process. At minimum, Valley will prepare, distribute and post written information and materials, including a meeting notice and fact sheet, to encourage dialogue and solicit input from interested stakeholders during the permit application review process. All public outreach materials and information will be prepared and presented in an easy-to-read, understandable format, using plain language free of legal terminology, and geared towards a non-technical audience.

The public meeting notice and fact sheet will be made available and disseminated in both English and Spanish. In addition, the public can contact the Valley liaison regarding the availability of language assistance and to request that the notice and fact sheet are translated into another language for comprehension by non-English speaking or limited proficiency stakeholders.

Public Meeting(s)

Valley will hold one or more virtual public meeting(s) conducted to satisfy the intent of CP-29 and may hold additional meetings if determined necessary by NYSDEC.

A meeting is typically required to inform the public about: the status of, or, if applicable, the availability of, final application materials and draft permits for review; the pending NYSDEC

public comment period, and deadline to submit written comments to NYSDEC, if established; and eventual final decision.

Valley will facilitate a virtual public meeting(s) targeted for August 2023, but ultimately on at a date and time to be determined in coordination with Stakeholders and NYSDEC to:

- Inform the public about the Action and permit application review status.
- Provide the opportunity for stakeholders to ask questions and express concerns about the Action and identify how to obtain information or answers to questions after the meeting has concluded.
- Hold a dialog with the public and attempt to address concerns and consider modifications to the Action, if possible.
- Inform attendees how they may submit written comments on the permit application to the NYSDEC during the public comment period and, if available, identify any applicable deadlines.
- This will also be an opportunity for Valley to present some of the options that have been proposed as part of Valley's CLCPA Section 7(3) review and provide an opportunity for residents in the disadvantaged community to weigh in during the Application.

Necessary Meeting Discussion Points and Requirements

All meetings will be facilitated by Valley representatives. During the meeting, the Valley representatives will present a brief overview of the Action, including any relevant background information, details on the permitting action, scope of work, schedule, and community impacts. The second part of the meeting will include a question-and answer-portion where the floor will be open for attendees to ask questions, make remarks, and/or express concerns. In addition, the following discussion points will be addressed:

- Provide an update on the permit application review process and identify outstanding application requirements and future milestones in the application review process.
- Make it clear that the meeting is being held prior to NYSDEC's permitting decision for the Action.
- Identify the location of the online document repository and provide directions on how attendees may obtain and review materials relevant to the application, documents related to the meeting and other public participation plan components.
- Identify and provide contact information for the Valley liaison and announce procedures for how attendees may obtain answers to questions after the meeting has concluded and interested stakeholders can submit questions, express concerns, or request additional information by telephone, email, and in writing.
- Announce any future outreach, opportunities for public participation, and /or required follow-up with attendees including, but not limited to: additional meetings and future mailings, including, but not limited to the Notice of Complete Application.

Attendance will be recorded during the virtual meeting by virtual sign-in sheets and registration. Valley will track the number of attendees for all meetings held during

implementation of this PPP and, where feasible and applicable, identify any affiliation of participants and interests represented at the meeting. In addition, Valley will be responsible for documenting meeting notes or minutes, along with a record of comments and questions raised in the meeting and respective responses and answers provided. Attendees not identified on the contact list will have the option to be added in the event of future meetings or information sharing.

Virtual Public Meeting Notice Preparation and Distribution

Information regarding the details of the virtual public meeting(s) and how to participate via computer and/or telephone is contained in the reader-friendly meeting notice(s) shown in Appendix B. The notice has been prepared in English and Spanish. Through these notices the public will be invited and encouraged to attend the early engagement meeting and the scheduled public virtual meeting.

Once the PPP has been approved by NYSDEC, the public meeting notice will be posted and available in the online document repository described in Section VI of this document. At least two weeks in advance of the public virtual meeting, the notice will be published in the Times Herald-Record which is a weekly newspaper printed, published, and circulated in the City of Middletown and Town of Wawayanda. In addition, the public meeting notice will be emailed and mailed to the stakeholders identified in the contact list in Appendix A at least two weeks prior to the public virtual meeting.

Fact Sheet Preparation and Distribution

Factual information on the proposed Action, including an overview, purpose statement, and potential impacts, is outlined in the reader-friendly fact sheet shown in Appendix C. In addition, the fact sheet outlines how interested stakeholders can: participate in the permit application review process; access the online document repository to review relevant application materials prior to the public meeting; and contact the Valley team to obtain additional information. The fact sheet has been prepared in English and Spanish.

Once the PPP has been approved by NYSDEC, the fact sheet will be posted and available in the online document repository described in Section VI of this document. No later than 2 weeks prior to the public meeting, Valley will distribute the fact sheet to provide stakeholders with relevant background on the proposed Action and facilitate meaningful participation during the meeting. The fact sheet will be distributed together with the public meeting notice via email or regular mail.

The fact sheet(s) will also be posted within the vicinity of the Valley Energy Center and visible to the public. For example, they may be posted on bulletin boards located in public facilities such as libraries, schools, or community centers within proximity of the Valley Energy Center.

Distribution of Notice of Complete Application

Once NYSDEC determines the application(s) for the proposed Action is complete and issues the Notice of Complete Application (NOCA), Valley will distribute the NOCA and draft permit, if applicable, to the meeting attendees and any identified interested parties, to provide notification regarding the start of the NYSDEC public comment period and to announce the deadline for submission of written comments to NYSDEC. If the NOCA is available at the time of the meeting, Valley will distribute the NOCA at the public meeting. If the NOCA is not available at the time of the meeting, Valley will provide explicit instructions on how to access the online repository and inform the attendees that, once available, the NOCA will be posted to the online document repository and will be distributed to attendees via email or mail as soon as possible, but no later than the date that the NOCA is published by Valley in the print edition of a paid local newspaper that is circulated at least weekly and available in the municipality in which the Valley Energy Center is located.

VI. DOCUMENT REPOSITORY

An online document repository has been established for the community and interested stakeholders to access and review information about the Action. The online repository available at <https://cpv.com/our-projects/cpv-valley-energy-center/archive-documents/> will provide information and documents relating to the Action and permit application.

The repository will be updated throughout the application process with relevant information and written materials (i.e., application forms and supporting materials, draft permit, fact sheet, statement of basis (where applicable), the NOCA provided by the NYSDEC, etc.).

VII. SUBMISSIONS

Progress Report

No later than two weeks following the early engagement meeting described in Section V, Valley will submit a progress report to NYSDEC in the form of a brief memorandum or cover letter. At minimum, the progress report shall:

- describe progress to-date in implementing the approved PPP, identify the components of the plan yet to be implemented, and the timeline for completion of the PPP.
- summarize the public meeting (identify the time and date, number, affiliation and diversity of attendees and interests represented) and include or append copies of the written materials (i.e. virtual public meeting notice, fact sheet) along with any documentation that supports implementation of public outreach activities described in Section V, such as: the meeting sign-in sheet, record of attendees/participants, meeting presentation, notes or minutes, summary of questions and answers, and copy of newspaper notice or other proof of publication.
- identify any language or disability assistance requests received and document any considerations or accommodations made to-date,
- summarize or include a table that documents:

- all substantive concerns raised to-date, either during the public meeting, or, received by the Valley liaison, along with responses provided by Valley
- all resolved and outstanding issues
- explain any application changes and/or measures to reduce potential impacts, either as result of community/public input or NYSDEC permitting review process.

The progress report will become part of the application record and will be posted to the online document repository so that it is readily available to the public.

Final Summary Report and Written Certification

Upon completion of the enhanced public participation plan, Valley will submit written certification to NYSDEC to certify that it has fully executed and complied with the approved PPP. The certification shall be signed by Valley and submitted to NYSDEC prior to a final decision on the application.

As part of the certification, Valley shall submit a final summary report documenting the implementation of this PPP. The report will summarize the activities that occurred in accordance with the PPP and will identify any substantive concerns raised by stakeholders during the public meeting, or, at any time throughout the permitting process and detail Valley's response(s) to any such concerns or questions. Valley will include, or append, any documentation that supports the final summary report, such as: the meeting sign-in sheet(s), record of attendees/participants, meeting presentation, notes or minutes, summary of questions and answers, and copy of newspaper notice or other proof of publication. In addition, the report will identify any changes or modifications to the permit application that were made or considered by Valley to address or reduce concerns surrounding the permit application.

The final summary report and written certification will become part of the application record and will be posted to the online document repository so that it is readily available to the public.

APPENDIX A

Contact List

Appendix A
Stakeholder Contact List

Local / State Stakeholders

Town of Wawayanda
Town Supervisor Denise Quinn
80 Ridgebury Hill Road
Slate Hill, NY 10973

City of Middletown
Mayor Joseph M. DeStefano
16 James Street
Middletown, NY 10940

Town of Goshen
41 Webster Avenue
Goshen NY 10924

Orange County
County Executive Steven M. Neuhaus
255 Main Street
Goshen, NY 10924

New Hampton Fire Company
5024 Route 17 M
New Hampton, NY 10958

Minisink Valley Central School District
P.O. box 217
Rte. 6, Slate Hill, NY 10973

Enlarged City School District of Middletown
223 Wisner Avenue
Middletown, NY 10940

New York State Department of Public
Service
3 Empire State Plaza
Albany, New York 12223-1350

New York State Department of
Environmental Conservation
Region 3
21 South Putt Corners Road
New Paltz, NY 12561-1696

New York Independent System Operator
10 Krey Blvd.
Rensselaer, NY 12144

Elected Representatives

Sen. James Skoufis
NY Senate District 42
45 Quaker Avenue
Suites 202 & 207
Cornwall, NY 112518-2146

Rep. Karl A. Brabenec
New York State Assemblyman, 98th District
28 North Main St., Suite 2
Florida, NY 10921

Civic / Social / Labor / Community

Construction Contractors Association of the
Hudson Valley
330 Meadow Ave
Newburgh, NY 12550

Greenville Wawayanda Lions Club
RD #2 Box 226K
Port Jervis, NY, 12771

Horizons at Wawayanda
3476 Route 6
Middletown, NY 10940¹
(horizonswawayanda@tmo.com)

And to:

Regan Development, Inc.
1055 Saw Mill River Road, Suite 204
Ardsley, NY 10502

Hudson Valley Building and Construction
Trades Council
451 A Little Britain Road
Newburgh, New York 12550

Laborers' Local 17
451A Little Britain Road
Newburgh, NY 12550

¹ Valley will also post fact sheets and meeting notices
in both English and Spanish at each building for this
housing facility if authorized by property owner.

Appendix A
Stakeholder Contact List

Millwright & Machinery Erectors Local
Union 740
8907 Atlantic Ave
Woodhaven, NY 11421

Minisink Valley Kiwanis
P.O. Box 446
Slate Hill, NY 10973

Orange County Chamber of Commerce
924 Homestead Ave
Maybrook, NY 12543

Orange County Partnership
40 Matthews Street, Suite 108
Goshen, NY 10924

Orange Environment Inc.
15 Railroad Ave
Chester, NY 10918

Protect Orange County
83 Post Road
Slate Hill, NY 10973

Ramapo-Catskill Conservation Group
83 Post Road
Slate Hill, NY 10973

Slate Hill Pacers Senior Club
1906 Route 284
Slate Hill, New York 10973

SMART Local Union 38
P.O. Box 119
38 Starr Ridge Road
Brewster, NY 10509

Sprinkler Fitters Local Union No. 69
7050 Oakland Mills Road, Suite 200
Columbia, MD 21046

Teamsters Local 445
15 Stone Castle Rd.
Rock Tavern, NY 12575

NAACP Middletown Chapter 2156

P.O. Box 2329
Middletown, NY 10940
(Middletownny@naacp.com)

Middletown Family Housing
22 Sweezy Avenue
Middletown, NY 10940²
(info@middletownhousing.org)

Christian Faith Fellowship Family Church
3032 US-6
Slate Hill, NY 10973

New Life Worship Center
5018 NY-17M
New Hampton, NY 10958

Crossroads Church, CMA
175 County Rd 78
Middletown, NY 10940

Our Lady of Mount Carmel Church
90 Euclid Ave
Middletown, NY 10940

Denton Presbyterian Church
22 County Rd 56
New Hampton, NY 10958

Town of Wallkill Community Center
8 Wes Warren Drive
Middletown, NY 10941
(lkotkin@townofwallkill.com)

The Salvation Army Middletown Corps
Community Center
80 W Main St.
Middletown, NY 10940

Michael G. Perkins Community Center
47 Academy Ave
Middletown, NY 10940

² See fn. 1.

APPENDIX B
Virtual Public Meeting Notice
(English and Spanish)

YOU ARE INVITED

Virtual Public Meeting August 1, 2023 at 11:00 am CPV Valley Energy Center Title V Application

CPV Valley, LLC has submitted an application to the New York State Department of Environmental Conservation (NYSDEC) for a Title IV / V permit for the Valley Energy Center. A Public Participation Plan has been developed in accordance with NYSDEC Commissioner Policy 29, Environmental Justice and Permitting (CP-29). The purpose of this meeting is to inform the public about the project and to engage and involve the community early on in the Title IV / V permit application review process.

To Join Online

Use the following link:

https://teams.microsoft.com/l/meetup-join/19%3ameeting_ZDY3YzlwMmEtNmJhYy00YWM1LTImNDMtYjhhMDJjYTlhNzNh%40thread.v2/0?context=%7b%22id%22%3a%22052478b4-2eb2-4294-977c-f05a75d27ae3%22%2c%22oid%22%3a%22e7f0b762-8f6b-4e21-895b-9af297bc4397%22%7d

To Call-in Using a Phone

Dial in using the following number:

(301) 563-9150

When prompted, enter the Meeting ID:

253 201 905#

Agenda:

- Project Overview
- Background
- Scope of work
- Project schedules
- Community Impacts
- Proposed Mitigation Measures
- Questions and Answers

Your Attendance is Important!

Project personnel will be available to answer questions from the community. For additional information on the proposed project:

- Contact: Donald Atwood by phone at (877) 355-7010 or by email datwood@cpv.com
- Visit the repository at: <https://cpv.com/our-projects/cpv-valley-energy-center/archive-documents/>

Contact the project liaison to request reasonable accommodation for a disability or interpreter services in a language other than English, so that you can participate in the call and/or to request a translation of any of the event documents into a language other than English.

ESTÁN INVITADOS

Reunión Pública Virtual

1 de agosto de 2023 a las 11:00 am
CPV Valley Energy Center Solicitud de Título V

CPV Valley, LLC ha sometido una solicitud al Departamento de Conservación Ambiental del Estado de Nueva York (NYSDEC) para un permiso Título IV/V para el Centro de Energía del Valle. Se ha desarrollado un Plan de Participación Pública de acuerdo con la Póliza 29 del Comisionado de NYSDEC, Justicia Ambiental y Permisos (CP-29). El propósito de esta reunión es informar al público sobre el proyecto, captar, e involucrar a la comunidad desde el principio en el proceso de revisión de la solicitud de permiso Título IV / V.

Para unirse en línea

Utilice el siguiente enlace:

https://teams.microsoft.com/l/meetup-join/19%3ameeting_ZDY3YzlwMmEtNmJhYy00YWM1LTlmNDMtYjhhMDJjYTIhNzNh%40thread.v2/0?context=%7b%22Tid%22%3a%22052478b4-2eb2-4294-977c-f05a75d27ae3%22%2c%22Oid%22%3a%22e7f0b762-8f6b-4e21-895b-9af297bc4397%22%7d

Para llamar usando un teléfono

Marque usando el siguiente número:

(301) 563-9150

Cuando se le solicite, escribe el ID de la reunión:

253 201 905#

Agenda:

- Resumen del Proyecto
- Los Antecedentes
- El Alcance del Trabajo
- Horarios del Proyecto
- Impactos a la Comunidad
- Medidas de Mitigación Propuestas
- Preguntas y respuestas

¡Su Asistencia es Importante!

El personal del proyecto estará disponible para responder preguntas de la comunidad. Para obtener información adicional sobre el proyecto propuesto:

- Comuníquese con Donald Atwood por teléfono al (877) 355-7010 o por correo electrónico datwood@cpv.com
- Visite el repositorio en: <https://cpv.com/our-projects/cpv-valley-energy-center/archive-documents/>

Póngase en contacto con el intermediario del proyecto para solicitar acomodaciones razonables por discapacidad o servicios de intérprete en un idioma que no sea inglés, para que pueda participar en la llamada y/o solicitar traducción de cualquiera de los documentos del evento a un idioma que no sea el inglés

YOU ARE INVITED

Second Virtual Public Meeting August 1, 2023 at 7:00 pm CPV Valley Energy Center Title V Application

CPV Valley, LLC has submitted an application to the New York State Department of Environmental Conservation (NYSDEC) for a Title IV / V permit for the Valley Energy Center. A Public Participation Plan has been developed in accordance with NYSDEC Commissioner Policy 29, Environmental Justice and Permitting (CP-29). The purpose of this meeting is to inform the public about the project and to engage and involve the community early on in the Title IV / V permit application review process.

To Join Online

Use the following link:

https://teams.microsoft.com/l/meetup-join/19%3ameeting_NDNjNjRkOWEtNmVmNS00NjVklWI3MDItOGQxNWZhOGU1Yzkz%40thread.v2/0?context=%7b%22Tid%22%3a%22052478b4-2eb2-4294-977c-f05a75d27ae3%22%2c%22Oid%22%3a%22e7f0b762-8f6b-4e21-895b-9af297bc4397%22%7d

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Dial in using the following number:

(301) 563-9150

When prompted, enter the Meeting ID:

635 273 187#

Agenda:

- Project Overview
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- Community Impacts
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- Questions and Answers

Your Attendance is Important!

Project personnel will be available to answer questions from the community. For additional information on the proposed project:

- Contact: Donald Atwood by phone at [\(877\) 355-7010](tel:8773557010) or by email datwood@cpv.com
- Visit the repository at: <https://cpv.com/our-projects/cpv-valley-energy-center/archive-documents/>

Contact the project liaison to request reasonable accommodation for a disability or interpreter services in a language other than English, so that you can participate in the call and/or to request a translation of any of the event documents into a language other than English.

ESTÁN INVITADOS

Reunión Pública Virtual
1 de agosto de 2023 a las 7:00 pm
CPV Valley Energy Center Solicitud de Título V

CPV Valley, LLC ha sometido una solicitud al Departamento de Conservación Ambiental del Estado de Nueva York (NYSDEC) para un permiso Título IV/V para el Centro de Energía del Valle. Se ha desarrollado un Plan de Participación Pública de acuerdo con la Póliza 29 del Comisionado de NYSDEC, Justicia Ambiental y Permisos (CP-29). El propósito de esta reunión es informar al público sobre el proyecto, captar, e involucrar a la comunidad desde el principio en el proceso de revisión de la solicitud de permiso Título IV / V.

Para unirse en línea

Utilice el siguiente enlace:

https://teams.microsoft.com/l/meetup-join/19%3ameeting_ZDY3YzlwMmEtNmJhYy00YWM1LTlmNDMtYjhhMDJjYTIhNzNh%40thread.v2/0?context=%7b%22Tid%22%3a%22052478b4-2eb2-4294-977c-f05a75d27ae3%22%2c%22Oid%22%3a%22e7f0b762-8f6b-4e21-895b-9af297bc4397%22%7d

Para llamar usando un teléfono

Marque usando el siguiente número:

(301) 563-9150

Cuando se le solicite, escribe el ID de la reunión:

253 201 905#

Agenda:

- Resumen del Proyecto
- Los Antecedentes
- El Alcance del Trabajo
- Horarios del Proyecto
- Impactos a la Comunidad
- Medidas de Mitigación Propuestas
- Preguntas y respuestas

¡Su Asistencia es Importante!

El personal del proyecto estará disponible para responder preguntas de la comunidad. Para obtener información adicional sobre el proyecto propuesto:

- Comuníquese con Donald Atwood por teléfono al (877) 355-7010 o por correo electrónico datwood@cpv.com
- Visite el repositorio en: <https://cpv.com/our-projects/cpv-valley-energy-center/archive-documents/>

Póngase en contacto con el intermediario del proyecto para solicitar acomodaciones razonables por discapacidad o servicios de intérprete en un idioma que no sea inglés, para que pueda participar en la llamada y/o solicitar traducción de cualquiera de los documentos del evento a un idioma que no sea el inglés

APPENDIX C
Fact Sheet
(English and Spanish)

Valley Energy Center Fact Sheet

- **Project:** Valley Energy Center Title IV / V Applications
- **Applicant:** CPV Valley, LLC
- **Facility:** Valley energy Center, 3330 Route 6, Middletown, New York
- **NYSDEC Application Number:** 3-3356-00136/000010 & 00009
- **A Public Participation Plan (PPP) has been developed in accordance with NYSDEC Commissioner Policy 29, Environmental Justice and Permitting (CP-29)**

What is the Proposed Project?

Valley currently operates the Valley Energy Center, a nominal net 680-megawatt (MW) combined-cycle gas turbine electric generating facility, on a site located in Wawayanda, Orange County, New York (the Project). To continue its operations, Valley has submitted an application to the NYSDEC for permits under Title V (Air) and Title IV (Acid Rain) of the Clean Air Act for the Valley Energy Center. The purpose of this fact sheet is to inform the public about this application and to involve the community during the NYSDEC permit application review process.

Why does Valley need a Title IV / V Permit ?

The Valley Energy Center commenced operation in 2018 under a previously approved air state facility permit (ASF Permit ID: 3-3356-00136/00001) issued by the NYSDEC. As both a condition of its ASF and under law, Valley is required to obtain Title V (Air) and Title IV (Acid Rain) permits to continue operations.

How might the project affect the surrounding community?

The Valley Energy Center has been in operation since 2018 and has operated within and under its ASF permit. Valley proposes no changes or modifications to its physical facility or the Valley Energy Center property. The Valley Energy Center has and will continue to operate without adverse impacts to air quality or the Community.

How can I participate in the permit review process?

- Attend the upcoming virtual public meeting scheduled for August 1, 2023 at 11:00 a.m. or 7:00 p.m to learn about the project, ask questions and/or express concerns about the project.
- Ask questions, express concerns, provide input or submit by comments in writing, by phone or email to the project contact person identified below.

Where can I get more information about the proposed project?

- Visit the online document repository at: <https://cpv.com/our-projects/cpv-valley-energy-center/archive-documents/> to obtain application materials, relevant documents, and information about the project.
- Contact Donald Atwood by phone at: (781) 848-2202 by email at: datwood@cpv.com or in writing at: 3330 Route 6, Middletown, NY 10940 for information on the project, instructions on how to attend the upcoming virtual public meeting, or to find out about the status of the permit application and public comment period.

Who is responsible for reviewing the Permit Application?

- NYSDEC Region 3 Headquarters, 21 South Putt Corners Road, New Paltz, NY 12561-1696, is responsible for reviewing and issuing the required permits. Tel: (845) 256-3000; email: DEP.R3@dec.ny.gov

Hoja informativa del Centro de Energía de Valley

- **Proyecto:** Valley Energy Center Título IV / V Aplicaciones
- **Solicitante:** CPV Valley, LLC
- **Instalación:** Centro de energía del valle, 3330 Ruta 6, Middletown, Nueva York
- **Número de solicitud de NYSDEC:** 3-3356-00136/000010 y 00009
- **Se ha desarrollado un Plan de Participación Pública (PPP) de acuerdo con la Política 29 del Comisionado del NYSDEC, Justicia Ambiental y Permisos (CP-29)**

¿Qué es el Proyecto Propuesto?

Valley actualmente opera el Valley Energy Center, una instalación de generación eléctrica de turbina de gas de ciclo combinado de 680 megavatios (MW) nominales netos, en un sitio ubicado en Wawayanda, Condado de Orange, Nueva York (el Proyecto). Para continuar con sus operaciones, Valley ha presentado una solicitud al NYSDEC para permisos bajo el Título V (Aire) y el Título IV (Lluvia ácida) de la Ley de Aire Limpio para el Centro de Energía de Valley. El propósito de esta hoja informativa es informar al público sobre esta aplicación. y a involucrar la comunidad durante el permiso NYSDEC solicitud proceso de revisión.

Por qué Valley necesita un permiso Título IV/V ?

El Centro de Energía de Valley comenzó a operar en 2018 bajo un permiso de instalación estatal del aire previamente aprobado (ID de permiso de ASF: 3-3356-00136/00001) emitido por NYSDEC. Como condición de su ASF y por ley, Valley debe obtener permisos del Título V (Aire) y Título IV (Lluvia ácida) para continuar con las operaciones.

¿Cómo podría afectar el proyecto a la comunidad circundante?

El Valley Energy Center ha estado en funcionamiento desde 2018 y ha operado dentro y bajo su permiso ASF. Valley no propone cambios ni modificaciones a sus instalaciones físicas ni a la propiedad de Valley Energy Center. El Centro de Energía de Valley ha operado y continuará operando sin impactos adversos a la calidad del aire o a la Comunidad.

¿Cómo puedo participar en el proceso de revisión del permiso?

- Asista a la próxima reunión pública virtual programada para el 1 de agosto de 2023 a las 11:00 a. m. o a las 7:00 p.m. aprender acerca de el proyecto, preguntar preguntas y/o expresar preocupaciones acerca de el proyecto.
- Haga preguntas, exprese inquietudes, proporcione información o envíe comentarios por escrito, por teléfono o correo electrónico al contacto del proyecto persona identificada a continuación.

¿Dónde puedo obtener más información sobre el proyecto propuesto?

- Visite el repositorio de documentos en línea en: <https://cpv.com/our-projects/cpv-valley-energy-center/archive-documents/> para obtener materiales de solicitud, documentos relevantes e información sobre el proyecto.
- Comuníquese con Donald Atwood por teléfono al: (781) 848-2202 por envíe un correo electrónico a: datwood@cpv.com o por escrito a: 3330 Route 6, Middletown, NY 10940 para obtener información sobre el proyecto, instrucciones sobre cómo asistir a la próxima reunión pública virtual o para conocer el estado de la solicitud del permiso y período de comentarios públicos.

¿Quién es responsable de revisar la Solicitud de Permiso?

- La oficina central de la Región 3 de NYSDEC, 21 South Putt Corners Road, New Paltz, NY 12561-1696, es responsable de revisar y emitir los permisos requeridos. Teléfono: (845) 256-3000; correo electrónico: DEP.R3@dec.ny.gov

CPV Valley Energy Center

Responsible Energy Starts With Us



Location
Wawayanda, NY



System Information

- Featuring Siemens SGT6-5000F gas turbines and a Siemens SST-5000 steam turbine



Total Installed Capacity
680 MW



Supply Capacity
650,000 homes



Investment
\$775 million



Local and Regional Employment

- 23 full-time plant staff
- 900 union labor workers over 30-month construction period



In Operation Since
February 2018



O&M Provider
DGC Operations, LLC



Project Overview

The CPV Valley Energy Center generates enough reliable electricity on average to power more than 650,000 New York homes and offset carbon dioxide emissions equivalent of taking more than 200,000 cars off the road each year. Through our use of Siemen's advanced power generation technology, CPV Valley

provides safe, reliable, cost-effective and environmentally responsible power for NY. CPV Valley pairs well with less reliable power sources like wind and solar because it provides a backstop to maintain grid reliability when the wind or sun cuts out.



CPV's Commitment to the Community

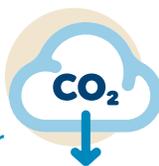
Making lives better is what drives CPV to modernize the country's power system. Underlying our goal is the positive impact we're having on the communities where we build and operate power generation facilities. Our commitment to being a good corporate citizen in our communities means integrating Environmental, Social and Governance (ESG) matters into the business. Our focus on ESG and track record of success have enabled us to grow into one of North America's premier energy companies.



Environmental Benefits

AIR QUALITY

Avoided an estimated 900,000 tons of CO₂, the equivalent of taking more than 200,000 passenger vehicles off the road for one year



Combined-cycle plants like CPV Valley are approximately 30 percent more efficient than conventional electric generation technologies, meaning they need less fuel to produce the same amount of electricity. The result is lower costs and fewer emissions, a win-win.

WATER USE

Air-cooled design saves as much as 90% of the water used by similar wet-cooled facilities



CPV Valley's air-cooled design significantly reduces the amount of water needed to operate, helping conserve vital resources. Only about 15% of natural gas combined-cycle generation is currently air-cooled in the United States.

Converting grey water into millions in new revenue stream for the city

As part of its unique environmental design, CPV Valley includes a grey water loop from the Middletown water treatment facility to the project and back again. The loop allows the project to utilize recycled grey water for the process water it does use, turning a former waste product into a productive, long term revenue stream for Middletown.

LEARN MORE:

About the Project | www.cpvvalley.com

About CPV | www.cpv.com

CONTACT US:

info@cpvalley.com

info@cpv.com

Social Benefits

SCHOOL SUPPORT

Our local school support ties to Science, Technology, Engineering and Math (STEM), including site tours for West Point and surrounding schools as well as sponsorship of the annual Girl Boss Expo in Goshen, NY, which provides an opportunity for young girls to discuss careers in STEM with CPV staff and our partners. We look forward to developing a long-term relationship with the local school districts to support their STEM goals.



FOOD PANTRIES

COVID-19 has been impacting CPV's host communities in various ways, and one of the major consequences of the pandemic has been an increase in food insecurity. Job losses and furloughs have led to a 30% increase or more in demand for food at pantries in our host communities.

- \$5,000 to Church of the Holy Cross Food Pantry
- \$5,000 to the Town of Wawayanda for elderly meal delivery service during COVID-19

EMERGENCY RESPONDERS

CPV Valley supports emergency responders in Wawayanda and the surrounding area by working closely with the police and fire departments and providing them with much-needed resources to better support local public safety.



- \$9,600 New Hampton Fire Department

MISCELLANEOUS

- \$5,000 to Run4Downtown Inc.
- \$1,800 to Orange County Adopt-a-Family Program; \$1,800 additional from CPV Valley plant staff and matching \$1,800 from DGC, for grand total of \$5,400



Competitive
Power Ventures

Centro de energía del valle de CPV

La energía responsable comienza con nosotros



Ubicación
Wawayanda, Nueva York



Información del sistema •
Con turbinas de gas Siemens SGT6-5000F y una
turbina de vapor Siemens SST-5000



Capacidad Total Instalada
680 megavatios



Capacidad de Oferta
650.000 viviendas



Inversión \$775
millones



Empleo local y regional • 23 empleados de
planta a tiempo completo • 900
trabajadores sindicalizados en más de
Período de construcción de 30 meses



En funcionamiento desde
febrero 2018



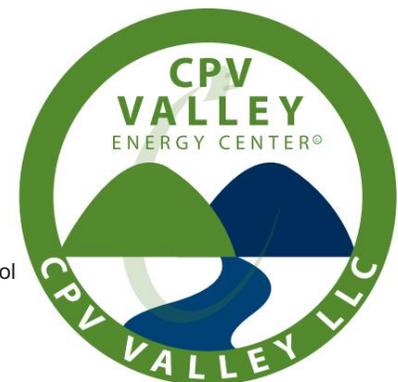
Proveedor de O&M
Operaciones DGC, LLC



Resumen del proyecto

El CPV Valley Energy Center genera suficiente electricidad confiable en promedio para alimentar a más de 650,000 hogares de Nueva York y compensar las emisiones de dióxido de carbono equivalentes a sacar de circulación a más de 200,000 automóviles cada año. A través de nuestro uso de la tecnología avanzada de generación de energía de Siemens, CPV Valley

proporciona energía segura, confiable, rentable y ambientalmente responsable para NY. CPV Valley combina bien con fuentes de energía menos confiables como la eólica y la solar porque proporciona un respaldo para mantener la confiabilidad de la red cuando el viento o el sol recorta.



Compromiso de CPV con la ComunidadX

Mejorar vidas es lo que impulsa a CPV a modernizar el sistema eléctrico del país. Detrás de nuestro objetivo está el impacto positivo que estamos teniendo en las comunidades donde construimos y operamos instalaciones de generación de energía. Nuestro compromiso de ser un buen ciudadano corporativo en nuestras comunidades significa integrar los asuntos ambientales, sociales y de gobierno (ESG) en el negocio. Nuestro enfoque en ESG y el historial de éxito nos han permitido crecer hasta convertirnos en una de las principales empresas de energía de América del Norte.



Beneficios ambientalesX

CALIDAD DEL AIRE

Se evitó un estimado de 900,000 toneladas de CO₂, el equivalente a sacar de circulación a más de 200.000 turismos un año Las



plantas de ciclo combinado como CPV Valley son aproximadamente un 30 por ciento más eficientes que las tecnologías de generación eléctrica convencionales, lo que significa que necesitan menos combustible para producir la misma cantidad de electricidad. El resultado son costos más bajos y menos emisiones, un beneficio mutuo.

USO DE AGUA

El diseño enfriado por aire ahorra hasta un 90% del agua utilizada por instalaciones similares de enfriamiento húmedo. El



diseño enfriado por aire de CPV Valley reduce significativamente la cantidad de agua necesaria para operar, lo que ayuda a conservar recursos vitales. Solo alrededor del 15% de la generación de ciclo combinado de gas natural actualmente se enfría con aire en los Estados Unidos.

Convertir aguas grises en millones en una nueva fuente de ingresos para la ciudad Como parte de

su diseño ambiental único, CPV Valley incluye un circuito de aguas grises desde la instalación de tratamiento de agua de Middletown hasta el proyecto y viceversa. El circuito permite que el proyecto utilice aguas grises recicladas para el agua de proceso que utiliza, convirtiendo un antiguo producto de desecho en un flujo de ingresos productivo a largo plazo para Middletown.

APRENDE MÁS:

Sobre el Proyecto | www.cpvvalley.com Acerca de CPV

| www.cpv.com

CONTÁCTENOS:

info@cpvvalley.com

info@cpv.com

Beneficios SocialesX

APOYO ESCOLAR Nuestro apoyo escolar local se vincula con la ciencia, la tecnología, la ingeniería y las matemáticas (STEM), incluidos los recorridos por West Point y las escuelas circundantes, así como el patrocinio de la Expo Girl Boss anual en Goshen, NY, que brinda una oportunidad para las niñas para discutir carreras en STEM con el personal de CPV y nuestros socios. Esperamos desarrollar una relación a largo plazo con los distritos escolares locales para apoyar sus objetivos STEM.



DESPENSAS DE ALIMENTOS

El COVID-19 ha estado impactando a las comunidades anfitrionas de CPV de varias maneras, y una de las principales consecuencias de la pandemia ha sido el aumento de la inseguridad alimentaria.

La pérdida de empleos y las licencias han llevado a un aumento del 30 % o más en la demanda de alimentos en las despensas de nuestras comunidades anfitrionas.

- \$5,000 para la despensa de alimentos de la Iglesia de la Santa Cruz
- \$5,000 para el pueblo de Wawayanda para el servicio de entrega de comidas a personas mayores durante el COVID-19

PERSONAL DE RESPUESTA DE EMERGENCIA

CPV Valley apoya al personal de respuesta de emergencia en Wawayanda y el área circundante al trabajar de cerca con los departamentos de policía y bomberos y brindarles los recursos que tanto necesitan para apoyar mejor la seguridad pública local.



- \$9,600 Departamento de Bomberos de New Hampton

MISCELÁNEAS

- \$5,000 para Run4Downtown Inc.
- \$1,800 para el Programa de Adoptar una Familia del Condado de Orange; \$1,800 adicionales del personal de la planta de CPV Valley y \$1,800 equivalentes de DGC, para un total general de \$5,400



APPENDIX D

Draft Environmental Impact Statement § 7.5

Draft Environmental Impact Statement

CPV Valley Energy Center



VOLUME I
Sections 1-19

November 17, 2008, REV. 1

Submitted to:

Town of Wawayanda Planning Board
80 Ridgebury Hill Road
PO Box 296
Slate Hill, New York 10973

Prepared by:



TRC
Wannalancit Mills
650 Suffolk Street
Lowell, Massachusetts 01854



Submitted by:
CPV Valley, LLC
50 Braintree Hill Office Park, Suite 300
Braintree, MA 02184



ALPINE
P.O. Box 145
Montgomery, New York 12549

7.4.7 Funding for Decommissioning

The typical operating life span for a new electric generating facility ranges from 30 to 40 years. With respect to funding for decommissioning, it is expected that the aboveground portion of the Facility's components would be offered for sale, for salvage or at least scrap value in the event of decommissioning. Even if there were no market for purchasing the Project's components for salvage purposes, the scrap value of the equipment, buildings, and structures on the Project site would be anticipated to be more than sufficient to offset the complete cost of demolition of the Facility.

It should be noted that decommissioning is unlikely to occur under any reasonable scenario during either construction or any period when the Facility is economically viable. During Project construction, there are contractual requirements for the Project to reach commercial operation, and several levels of remedies in place to cure a potential default. During Project operation, as long as the facility remains economically viable, continuing operations would negate any need to pursue decommissioning. Once operational, the Project would be the cleanest, most efficient, and reliable baseload electric generation facility in the region. Thus, one would expect older less efficient plants in the current fleet to be retired well before the CPV Valley Project.

7.5 ENVIRONMENTAL JUSTICE

7.5.1 Introduction

The intent of this environmental justice (EJ) analysis is to determine whether the construction and operation of the proposed Project would have a significant adverse and disproportionate affect on an "environmental justice community." The concept of performing an EJ analysis for the Project is related to the issuance of Executive Order 12898, entitled "Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations" (February 11, 1994). The order requires Federal agencies to consider disproportionate adverse human health and environmental impacts on minority and low-income populations. The methodology used in preparing this analysis is based upon the New York State Department of Environmental Conservation (NYSDEC) EJ Policy (CP-29, Environmental Justice and Permitting, Mar. 19. 2003) and Federal guidance documents prepared by the United States Environmental Protection Agency (USEPA) for use in preparing a National Environmental Policy Act (NEPA) environmental justice analysis.

The NYSDEC EJ Policy was issued on March 19, 2003. This report sets forth guidelines for how environmental justice consideration can be incorporated into permit review, SEQRA procedures, and some components of the NYSDEC's enforcement and public participation programs.

The NYSDEC EJ Policy applies to permits administered under Article 70 of the Environmental Conservation Law (ECL) and Title 6 of the New York Code of Rules and Regulations (NYCRR) Part 621. Any application for a new permit that is classified as a major project (as defined by 6 NYCRR Part 621.4) from applicable programs or an application for a major modification of an

existing permit from the same applicable programs are subject to the EJ screening process. The NYSDEC programs that would be the subject of a review for EJ impact, as they relate to the Project include:

- Air Pollution Control-6 NYCRR Parts 201
- SPDES-6 NYCRR Parts 750 through 758

The NYSDEC EJ Policy prescribes a two-step methodology for conducting the preliminary screening analysis. These steps consist of:

- Determine whether the proposed action is in or near a minority or low-income community and identify potential environmental impacts.
- Determine whether impacts are likely to adversely affect a potential EJ community.

The focus of an EJ analysis is the determination of whether the construction and operation of a proposed Project would have both adverse and disproportionate impacts on an environmental justice community.

Notwithstanding the fact that this EIS demonstrates that the impacts of the CPV Valley would not be considered to be “adverse” under any Federal, state, or local guideline or standard, an environmental impact analysis was conducted to determine whether there would be an adverse and disproportionate environmental burdens on minority or low-income populations as defined in the NYSDEC EJ Policy.

7.5.2 Determination of Environmental Justice Communities

The NYSDEC EJ Policy establishes state-specific thresholds in order to identify areas, typically census tracts or block groups, where the representation of low-income and/or minority populations qualifies the area as a “potential environmental justice area.” The NYSDEC EJ Policy establishes the New York State urban EJ threshold for minority population at 51.1 percent. For purposes of this policy, an urban threshold applies because the area in question is located within a Census-designated place with a population of 2,500 people or more. The Town of Wawayanda proper has a small minority population of 10.6 percent.

The NYSDEC EJ Policy establishes the New York State EJ threshold for low-income population at 23.59 percent. Income data are part of the US Census “long form” questionnaire and are based on a partial, sample count. For the year 2000 Census, low-income population is defined as the percentage of individuals whose 1999 income was less than 100 percent of the poverty level. Block groups in which more than 23.59 percent of individuals fit this description are potential EJ communities. In the Town of Wawayanda, only 3.7 percent of the population was living below the poverty threshold. Table 7-15 provides a summary of percent minority, poverty rate, and household income data for each Census block group within a two mile radius of the Project site, as well as six Census block groups outside the 2-mile radius that have been identified by NYSDEC as potential EJ sites. Figure 7-4 shows the location of the each Census Block relative to the Project site.

Table 7-15 Environmental Justice Data by Census Block Group			
Area	Minority Population Percentage	Poverty Rate	Median Household Income
New York State	39.5	14.6	\$43,393
Orange County	28.6	10.5	\$52,058
Wawayanda	10.6	3.7	\$61,885
Tract 11, BG 4*	53.1	21.9	\$27,548
Tract 14, BG 2*	49.0	39.3	\$14,500
Tract 14, BG 3*	60.1	34.7	\$18,424
Tract 14, BG 6*	55.4	31.7	\$26,786
Tract 15, BG 1*	57.6	22.0	\$32,292
Tract 15, BG 3	62.29	26.76	\$22,768
Tract 16, BG 1	36.63	12.31	\$43,403
Tract 16, BG 2	36.42	6.95	\$51,139
Tract 16, BG 3	31.10	5.92	\$43,750
Tract 16, BG 4	39.70	6.09	\$50,714
Tract 17, BG 1*	56.7	31.4	\$15,341
Tract 112, BG 3	35.00	4.13	\$49,450
Tract 114, BG 3	15.37	1.33	\$60,536
Tract 118, BG 1	12.12	1.16	\$67,417
Tract 118, BG 2	12.43	3.04	\$61,250
Tract 118, BG 3	10.89	2.41	\$68,942
Tract 118, BG 4	11.40	5.51	\$53,021
Tract 118, BG 5	7.25	6.13	\$55,809
<p>Notes: BG: Block Group The NYSDEC minority population percentage threshold in urban areas is 51.1 percent The NYSDEC poverty rate threshold is 23.59 percent Bold values indicate percentage above the NYSDEC threshold * DEC-identified potential EJ area outside 2-mile radius</p> <p>Sources: U.S. Census, 2000 and Empire State Development Website</p>			

The Town of Wawayanda’s minority population, 10.6 percent, and poverty rate, 3.7, are well below the NYSDEC’s population percentage threshold for minority populations and the population percentage threshold for low income¹. As shown in Table 7-15, one out of the twelve census block groups within a two-mile radius of the Project is a potential Environmental Justice Area. This Census Block (Tract 15, BG 3) is primarily located in the City of Middletown; a small portion is located in Walkill. The southwestern most point of the census block is 0.94 miles northeast from the Facility Site. Based on the data land use mapping for Middletown and Walkill, the block has the following land use types: Utilities, Industrial, Light Industrial, Commercial, Professional Office, Mixed Use, Single Family Residential, Two-Family Residential, Multi-Family Residential, Parks/Open Space, Community Services, Public/Government, and Vacant.

¹ Minority and income data were obtained from the 2000 Census.

In addition, the NYSDEC identified six potential EJ areas outside the 2-mile radius (Tract 11, BG 4; Tract 14, BG 2; Tract 14, BG 3; Tract 14, BG 6; Tract 15, BG 1; and Tract 17, BG 1.)

Tract 11, BG 4 is located entirely in Middletown. The block group is 2.7 miles northeast from the Project. Based on the data land use mapping from the Middletown Comprehensive Plan, the block has the following landuse types: Single Family Residential, Two-Family Residential, Multi-Family Residential, Commercial, Professional/Office, Mixed Use, Light Industrial, Industrial, Community Services, Public/Government, Transportation, and Vacant.

Tract 14, BG 2 is located entirely in Middletown. The block group is 2.5 miles northeast from the Project. Based on the data land use mapping from the Middletown Comprehensive Plan, the block has the following landuse types: Single Family Residential, Two-Family Residential, Multi-Family Residential, Commercial, Professional/Office, Mixed Use, Light Industrial, Industrial, Parks/Open Space, Community Services, Public/Government, Transportation, Utilities, and Vacant.

Tract 14, BG 3 is located entirely in Middletown. The block group is 2.1 miles northeast from the Project. Based on the data land use mapping from the Middletown Comprehensive Plan, the block has the following landuse types: Single Family Residential, Two-Family Residential, Multi-Family Residential, Commercial, Professional/Office, Mixed Use, Light Industrial, Industrial, Parks/Open Space, Community Services, Public/Government, Transportation, Utilities, and Vacant.

Tract 14, BG 6 is located entirely in Middletown. The block group is 2.5 miles north from the Project. Based on the data land use mapping from the Middletown Comprehensive Plan, the block has the following landuse types: Single Family Residential, Two-Family Residential, Multi-Family Residential, Commercial, Mixed Use, Industrial, Community Services, Public/Government, Transportation, Utilities, and Vacant.

Tract 15, BG 1 is located entirely in Middletown. The block group is 2.2 miles northeast from the Project. Based on the data land use mapping from the Middletown Comprehensive Plan, the block has the following landuse types: Single Family Residential, Two-Family Residential, Multi-Family Residential, Commercial, Professional/Office, Mixed Use, Light Industrial, Industrial, Community Services, Public/Government, Transportation, and Vacant.

Tract 17, BG 1 is located in Middletown and Walkill. The block group is 2.4 miles north from the Project. Based on the data land use mapping from the Middletown Comprehensive Plan and the Walkill Comprehensive Plan, the block has the following landuse types: Agriculture, Commercial, Mixed Use, Light Industrial, Community Services, Transportation, and Vacant.

In addition, a workforce housing project called “Horizons at Wawayanda” is located adjacent to Project site to the northwest of the Project site. Horizons at Wawayanda consists of 106 dwelling units, and is approximately 0.40 miles from where the facility will sit on the site. Construction at this site is nearing completion and applications are being accepted for fall 2008 occupancy. Horizons at Wawayanda is a project built with a combination of private and public funding to develop affordable housing for Orange County’s working families at below market

rates. Horizons at Wawayanda was constructed on a formerly vacant parcel adjacent to a cemetery, commercial, and industrial properties and directly bordering the MI Zoning District

7.5.3 Enhanced Public Participation Plan

Public participation in the NYSDEC environmental permit review process encompasses a program of activities that provides opportunities for citizens to be informed about and involved in the review of a proposed action. To ensure meaningful and effective public participation, this policy requires applicants for permits covered by this policy to actively seek public participation throughout the permit review process. CPV is implementing an Enhanced Public Participation Plan in accordance with NYSDEC's EJ Policy. The Plan is provided as Appendix 1-B of this DEIS, and includes the following elements as recommended in NYSDEC's EJ Policy.

- Identify stakeholders to the proposed action, including residents adjacent to the proposed action site, local elected officials, community-based organizations and community residents located in a potential environmental justice area;
- Distribute and post written information on the proposed action and permit review process.
- Hold public information meetings to keep the public informed about the proposed action and permit review status.
- Establish easily accessible document repositories in or near the potential environmental justice area to make available pertinent project information.

7.5.4 Environmental Justice Area Impact Assessment

To evaluate the existing environmental load profile and determine the potential impacts of the proposed facility within the potential environmental justice area, analyses related to air quality, contaminated materials, noise, and transportation impacts were undertaken. These analyses are summarized below.

7.5.4.1 Air Quality

The Project was modeled in accordance with the procedures documented in the revised Air Quality Modeling Protocol, and maximum predicted Project impacts were determined for various pollutants and averaging periods.

Table 7-16 presents the maximum predicted impacts of CO, SO₂, PM-10, and NO₂ for comparison with significant impact levels (SILs) that have been established by EPA. Table 7-16 also presents the sum of maximum Project impacts and conservative background air quality levels so that total predicted concentrations can be compared to the corresponding National Ambient Air Quality Standards (NAAQS).

All predicted Project impacts, except for 24-hour average PM-10 impacts, are below SILs. The sum of maximum predicted impacts and conservative background levels is below the

corresponding NAAQS for all pollutants and averaging periods. Therefore, the Project is not considered to have any adverse air quality impacts

Figures 7-5 through 7-12 provide isopleths of maximum predicted Project impacts for each pollutant and averaging period. The outlines of identified EJ areas are also depicted on the plots.

The maximum predicted Project impacts for short-term averaging periods are generally predicted to occur in elevated terrain located to the northwest of the Project in a direction away from identified EJ areas. Therefore, the identified EJ areas will not receive a disproportionate share of the maximum short-term Project impacts.

The maximum predicted annual Project impacts exhibit a pattern that reflects the general southwest/northeast orientation of the surrounding terrain and the corresponding prevailing winds. Although some of the maximum annual Project impacts are predicted to occur near some of the nearest EJ areas or, in some cases, near the Project fence line, the maximum predicted annual impacts are always below the corresponding SIL, so there will be no adverse impact from the Project.

Table 7-16 CPV Valley Energy Center - Maximum Modeled Concentrations <u>a/</u>						
Pollutant	Averaging Period	SIL ($\mu\text{g}/\text{m}^3$)	NAAQS ($\mu\text{g}/\text{m}^3$)	Background Concentration <u>b/</u> ($\mu\text{g}/\text{m}^3$)	Maximum Ground-Level Project Impact ($\mu\text{g}/\text{m}^3$)	Total Ground-Level Concentration <u>c/</u> ($\mu\text{g}/\text{m}^3$)
CO	1-Hour	2,000	40,000	3,893	563	4,456
	8-Hour	500	10,000	3,206	182	3,382
SO ₂	3-Hour	25	1,300	55.0	3.3	58
	24-Hour	5	365	28.8	0.6	29
	Annual	1	80	5.2	0.04	5.2
PM ₁₀	24-Hour	5	150	78	9.9	88
	Annual	1	50	35	0.2	35
NO ₂	Annual	1	100	41.4	0.8	42
Notes: <u>a/</u> Maximum modeled ground-level concentration due to the worst case overall facility operating scenario (i.e., the facility operating scenario that resulted in the maximum modeled air quality impact) for each pollutant. <u>b/</u> Background concentrations are the highest second highest short term (1-, 3-, 8-, and 24-hour) and maximum annual concentrations. <u>c/</u> Total concentration = background concentration + maximum modeled (i.e., ground-level) concentration. Source: TRC Environmental Corp.						

7.5.4.2 Traffic and Transportation

Operation of the proposed Facility would not adversely impact traffic conditions in the project study area or within the environmental justice area. The proposed facility would contribute a small number of vehicle trips to the local roadway network. The facility would have, at most, 8 to 10 persons on duty during any one shift. It is anticipated that there would be a maximum of 30 vehicle trips during the morning and evening peak hour periods. The addition of these vehicle trips would not impact traffic flow conditions throughout the environmental justice area.

7.5.4.3 *Noise*

The proposed Facility would not result in adverse or disproportionate noise impacts within the environmental justice area. The environmental justice area is more than one mile away from the proposed Facility. Operation of the Facility will not result in any increase in noise levels at all locations within the environmental justice area. The Project's projected increase in noise levels at the Horizon complex is well within NYSDEC and the Town noise ordinance standards.

7.5.4.4 *Visual*

The proposed Facility would not result in disproportionate or adverse visual impacts within the EJ environmental justice area. A detailed visual impact assessment for the Project is presented in Section 5.0, Visual Resources and Aesthetics. The results of the visual impact analysis indicate that views from within the environmental justice area are likely to be intermittent, and to the extent they exist at all, would be limited to the tip of the Project stack in the distant horizon. Due to the distance away from the Project and limited views in the environmental justice area, externality costs associated with possible declines in property values are not expected. Most views from the environmental justice area toward the Project, to the extent they exist, already contain many manmade features (i.e., roads, houses, stores, telephone poles, automobiles, etc.) and thus the new visual element of a portion of the Facility's stacks would not result in a significantly new modification to the landscape. As views of the stack would not be limited to those from within the environmental justice area, visual impacts within the environmental justice area are not considered disproportionate.

7.5.4.5 *Water*

With respect to impacts on water, the Project will minimize water use by using treated effluent from the City of Middletown Sewage Treatment Plant. The Project will not discharge to groundwater and will have a SWPPP and a SPCC plan in place to prevent impacts to surface and groundwater quality. Thus, no disproportionate impacts are expected to EJ communities of concern related to water, and the Project is not expected to result in any externality costs associated with water impacts in or outside of the EJ area.

7.5.5 Conclusion with Respect to Environmental Justice

The above analysis shows that one census block exceeds the NYSDEC thresholds for minority and/or low-income representation within the 2-mile study radius. In addition, the NYSDEC identified six potential EJ areas outside the 2-mile radius (Tract 11, BG 4; Tract 14, BG 2; Tract 14, BG 3; Tract 14, BG 6; Tract 15, BG 1; and Tract 17, BG 1.)

The analysis demonstrates that the Project's potential air emission concentrations do not cause violations of the NAAQS within the EJ study area, and therefore are not adverse. Furthermore, the maximum modeled air quality impact locations do not fall within the potential environmental justice areas and thus are not considered disproportionate.

Regarding hazardous materials and chemical use, the introduction of oil, aqueous ammonia, and other chemicals at the Project site would also not result in a disproportionate or adverse impact to the identified potential environmental justice area as the use and/or presence of fuel oil, chemicals, and other materials is currently occurring throughout the two-mile Project study area and is not concentrated within the environmental justice area. The storage of fuel oil or use of aqueous ammonia or other chemicals at the Project site would also not jeopardize public health or impact groundwater quality.

The proposed Facility would comply with NYSDEC and Town of Wawayanda noise standards at all locations within the Project study area, and therefore, would not cause any adverse impact to any environmental justice area.

Facility views from within the environmental justice area are likely to be intermittent and minimal, limited to the tip of the Project stack along the horizon, set behind the existing development within and north of the environmental justice area. However, views of the stack would not be limited to those from within the environmental justice area. Therefore, visual impacts within the environmental justice area are not considered adverse or disproportionate. Finally, operation of the Facility would not result in disproportionate or adverse impacts related to Project-related traffic.

7.6 REFERENCES

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APPENDIX E

Final Environmental Impact Statement § 4.1.16

State Environmental Quality Review
Notice of Completion of Final EIS

Date: February 8, 2012

This notice is issued pursuant to Part 617 of the implementing regulations pertaining to Article 8 (State Environmental Quality Review Act) of the Environmental Conservation Law.

A Final Environmental Impact Statement has been completed and accepted by the Town of Wawayanda Planning Board, as lead agency, for the proposed action described below.

Name of Action:

CPV Valley Energy Center

Description of Action:

The CPV Valley Energy Center (Project or Facility) is proposed to consist of a combined cycle natural gas powered electric generating facility nominally rated at 630 megawatts (MW) and an interconnection substation. The proposed Facility would generate nominally 630 MW of electricity, fueled primarily by natural gas. The Facility would use ultra-low sulfur distillate oil for back-up for reliability purposes. The Project is proposed to utilize "combined cycle" generation technology, one of the most efficient technologies for producing electricity. The Project is proposed to consist of two combined-cycle units, each consisting of a combustion turbine generator, a Heat Recovery Steam Generator (HRSG) with supplemental duct firing, and a steam turbine generator. Auxiliary equipment would include a low nitrogen oxide (NOx) natural gas-fired auxiliary boiler, needed to keep the HRSGs warm during periods of turbine shutdown and to provide sealing steam during startups. The Project is proposed to be equipped with dry low NOx burners and selective catalytic reduction (SCR) technology to control emissions of NOx, and an oxidation catalyst to control carbon monoxide (CO) and volatile organic compounds (VOC) emissions. The Facility would be limited to operating on the back-up fuel for the equivalent of 720 hours per year, per turbine. Water use will be minimized by the use of air cooled condensers. Process water supply is proposed to be treated wastewater supplied from the City of Middletown's Sewage Treatment Plant (STP). Wastewater generated by the CPV facility would be returned to the City of Middletown STP.

Location:

Route 6, Wawayanda, Orange County, New York.

The project site is located at the intersection of state Route 6 and 17M, and interstate Route 84. The project site is bounded to the north by Route 6, to the south by interstate Route 84 and to the east by Route 17M.

The underground trench would cross the unnamed tributary to Carpenter Creek, south of where it joins Carpenter Creek, requiring 600 square feet (0.01 acre) of temporary impact to the stream and its banks. Open cut construction methods will be used. Following construction, the trench area and the disturbed corridor will be re-graded, stabilized, and revegetated. The stream bed and banks will also require restoration to pre-existing grades, with bank stabilization measures and monitoring to prevent soil erosion. Wetland and stream restoration monitoring will be implemented according to permit conditions.

The riser poles at the GIS building site location in Middletown would permanently impact approximately 0.05 acres of wetlands. Given the pre-existing disturbed conditions of the wetland area and the developed nature of the area, the impacts associated with the pole installation are insignificant. The process water supply/return lines will be routed to avoid impact wetlands.

A wetland mitigation plan has been prepared in accordance with the NYSDEC and ACOE Joint Application review process and associated mitigation standards, in which both the permanent “fill” impacts and “forest conversion” impacts associated with the project will be compensated on the site. Wetland fill impacts will be compensated for on the site by creating a wetland replacement area. The wetlands will be replaced on site on a >2:1 areas basis, totaling 0.80 acres. Conversion of forested wetlands to non-forested wetlands within the electrical interconnect will be compensated by creating a permanent forested buffer along Carpenter Creek where there are currently fields in agricultural use.

The NYSDEC SPDES Discharge Permit for Stormwater will contain conditions that will further protect wetland resources. The SPDES permit will include provision of a Stormwater Pollution Prevention Plan. The additional field studies for the site included study of the resource value of the existing vernal pools. Construction of the Facility will not have direct impacts on the vernal pools, which were found to have low overall biological quality.

4.1.15 Ecology

In response to ecological comments received on the DEIS, supplemental studies were conducted for plant species of conservation concern, summer roosting habitat for the Indiana bat, and potential turtle habitat complexes. Appendix 2A of the FEIS presents the results of the field studies conducted. As summarized in Section 3.2, Ecology, no significant impacts on ecological resources have been identified for either Facility construction or operation.

4.1.16 Environmental Justice

A comment letter was received from the Middletown Chapter of the National Association for the Advancement of Colored People (NAACP) on November 17, 2009, voicing concerns regarding air quality, greenhouse gas emissions, hazardous chemical storage, and the impact on the environmental safety of all Americans and particularly African Americans currently living in direct proximity of the proposed Project. The David Moore Heights and its surrounding residential complexes in Middletown were noted as being a low income and minority community of particular concern. Section 7.5 of the DEIS provided a thorough analysis of Project-related impacts to the areas identified as minority and low income (Environmental Justice areas). The analysis was completed in accordance with NYSDEC Environmental Justice policies and guidance.

The analysis in the DEIS demonstrated that the Project’s potential air emission concentrations do not cause violations of the NAAQS within the identified environmental justice areas, which include the David Moore Heights and surrounding residential housing complexes. Furthermore, the maximum

modeled air quality impact locations do not fall within the potential environmental justice areas and, thus, do not create disproportionate impacts in such areas.

Regarding hazardous materials, the use of oil, aqueous ammonia, and other chemicals at the Project site would not result in a disproportionate or adverse impact to the identified potential environmental justice areas. The storage of fuel oil or use of aqueous ammonia or other chemicals at the Project site would comply with all local, state, and federal requirements and would not jeopardize public health or impact groundwater quality. The use and/or presence of fuel oil, chemicals, and other materials is currently occurring throughout the 2-mile Project study area and is not concentrated within the environmental justice areas.

Specific responses to the National Association for the Advancement of Colored People (NAACP) comment letter are provided in Section 4.2 of the FEIS (Response to Comments on Section 7.0 – Socioeconomics and Environmental Justice).

4.1.17 Decommissioning

As described in Section 7.4.9 of the DEIS, the typical operating life span for a new electric generating facility ranges from 30 to 40 years. With respect to funding for decommissioning, it is expected that the aboveground portion of the Facility's components would be offered for sale, for salvage or at least scrap value in the event of decommissioning. Even if there were no market for purchasing the Project's components for salvage purposes, the scrap value of the equipment, buildings, and structures on the Project site would be anticipated to be more than sufficient to offset the complete cost of demolition of the Facility.

Once operational, the Project would be one of the cleanest, most efficient, and reliable baseload electric generation facilities in the region. Thus, one would expect older less efficient plants in the current fleet to be retired well before the CPV Valley Project.

4.2 RESPONSE TO COMMENTS ON THE DEIS

This section presents responses to comments received on the DEIS, including written comments and comments made during the Public Hearing. The comment letters received on the DEIS and the public hearing transcript are included in Appendices 1A and 1B of the FEIS. The comment letters and comments provided at the Public Hearing were thoroughly reviewed, and responses were prepared to address each substantive comment.

Each comment letter and public hearing speaker comment was given a unique identification code as summarized in Table 1-3. Individual issues or comments within each comment letter and public speaker comment were then denoted by appending a sequential number to the comment identification code. For example, the first three comments in the GREENPLAN comment memorandum (PB1) were denoted by PB1-1, PB1-2, and PB1-3. The comments were then compiled and organized according to the applicable section in the DEIS as follows:

- 1.0 Executive Summary
- 2.0 Project Description
- 3.0 Land Use and Zoning
- 4.0 Cultural Resources
- 5.0 Visual Resources and Aesthetics
- 6.0 Community Facilities
- 7.0 Socioeconomics and Environmental Justice

APPENDIX F

DEIS Table 7-18

**Table 7-18
CPV Valley Energy Center - Maximum Modeled Concentrations a/**

Pollutant	Averaging Period	SIL (µg/m³)	NAAQS (µg/m³)	Background Concentration <u>b/</u> (µg/m³)	Maximum Ground-Level Project Impact (µg/m³)	Total Ground-Level Concentration <u>c/</u> (µg/m³)
CO	1-Hour	2,000	40,000	3,893	563	4,456
	8-Hour	500	10,000	3,206	182	3,382
SO ₂	3-Hour	25	1,300	55.0	3.3	58
	24-Hour	5	365	28.8	0.6	29
	Annual	1	80	5.2	0.04	5.2
PM ₁₀	24-Hour	5	150	78	9.9	88
	Annual	1	50	35	0.2	35
NO ₂	Annual	1	100	41.4	0.8	42

Notes:
a/ Maximum modeled ground-level concentration due to the worst case overall facility operating scenario (i.e., the facility operating scenario that resulted in the maximum modeled air quality impact) for each pollutant.
b/ Background concentrations are the highest second highest short term (1-, 3-, 8-, and 24-hour) and maximum annual concentrations.
c/ Total concentration = background concentration + maximum modeled (i.e., ground-level) concentration.
Source: TRC Environmental Corp.

Source: Valley Draft Environmental Impact Statement at 7-34 (Table 7-18).

APPENDIX G

Co-Pollutant Analysis

**CPV Valley Energy Center
Measures and Alternatives to Mitigate the
Impacts of Co-Pollutant Emissions from
Greenhouse Gas Emission Sources**

Prepared for:

Competitive Power Ventures, Inc.

Prepared by:

TRC
21 Griffin Road North
Windsor, CT 06095

December 2022

1. Introduction

1.1. Legislative Background

Climate Leadership and Community Protection Act of 2019 (CLCPA)¹ sets goals for New York State to achieve 100 percent zero-emissions electricity generation by 2040 and anthropogenic greenhouse gas (GHG) emissions reductions (relative to the 1990-levels) of 40 percent by 2030 and 85 percent by 2050. Section 7(3) of CLCPA directs the New York State Department of Environmental Conservation (NYSDEC) to prioritize net reductions of GHG emissions and co-pollutants in disadvantaged communities (DAC).

The CLCPA defines co-pollutants as hazardous air pollutants (HAPs) that are emitted by a piece of equipment that emits GHG. For this report, carbon monoxide (CO), particulate matter less than 2.5 microns in diameter (PM_{2.5}), sulfur dioxide (SO₂), nitrogen oxides (NO_x), ozone (O₃), and its precursors² are considered to be co-pollutants.

1.2. Purpose

The purposes of this report are to:

- Provide co-pollutant emission calculations for the Valley Energy Center (Project).
- Describe the measures and alternatives to reduce the Project's co-pollutant emissions and its impact on DAC.

2. Project Description

2.1. Co-Pollutant Emission Sources

Competitive Power Ventures, Inc. (CPV) owns and operates the Project, a 680-megawatt electric generation facility. The Project commenced operation during 2018 and operates under Air State Facility Permit ID: 3-3356-00136/00001 (Permit). The Project includes the following GHG emission sources:

- Emission Units U-00001 and U-00002: Two combined-cycle Siemens F-class combustion turbines, which are both equipped with duct-burners. They are capable of firing natural gas or No. 2 fuel oil.
- Emission Unit U-00003: One 46.7 million British thermal units per hour (MMBtu/hr) auxiliary boiler that fires natural gas. This boiler is used to heat the steam power plant to facilitate startup of the combined-cycle units. The boiler's operation is limited by the Permit to no more than 2,000 hours per year (hr/yr).

¹ <https://www.nysenate.gov/legislation/bills/2019/S6599>, accessed December 2022

² The Project does not directly emit O₃, but it does emit volatile organic compounds (VOC) and NO_x, which are O₃ precursors.

- Emission Unit U-00004: One 1,495 horsepower (hp) emergency diesel generator engine. This engine is operated for emergencies, maintenance, and testing only. Its operation is limited by the Permit to no more than 500 hr/yr.
- Emission Unit U-00005: One 282 hp firewater pump engine. This engine is operated for emergencies, maintenance, and testing only. Its operation is limited by the Permit to no more than 500 hr/yr.
- Emission Unit U-00006: Two 6.28 MMBtu/hr fuel gas heaters that fire natural gas.

2.2. Potential to Impact Disadvantaged Communities

The Project is located at 3330 Route 6, Middletown, New York, 10940 (Census Tract 36071011801). It is identified as a potential DAC in the CLCPA Climate Council’s Climate Justice Working Group (CJWG) draft DAC list³.

3. **Co-pollutant Emission Calculations**

Tables 1 through 5 provide calculations of the potential co-pollutant to emit (PTE) for each GHG emission source. PTE is the maximum capacity of a stationary source to emit under its physical and operational design. Any physical or operational limitation on the source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation, or on the type or amount of material combusted, stored, or processed, is treated as part of its design if the limitation is enforceable by the Administrator of the Environmental Protection Agency (EPA). Tables 1 through 6 provide the following:

- Table 1: Co-pollutant PTE calculations for the two combustion turbines and their associated duct-burners. Each combined-cycle unit is assumed to operate at its maximum capacity (based on data provided by the equipment vendor) for 8,760 hr/yr. Two cases (each turbine firing natural gas 8,760 hr/yr and each turbine firing natural gas and No. 2 fuel oil 8,040 hr/yr and 720 hr/yr, respectively) are evaluated, and the largest co-pollutant emission rate selected as the co-pollutant PTE. Most of the co-pollutant emitted by the combined-cycle units are hydrocarbon products of incomplete combustion (PIC), such as formaldehyde and acetaldehyde, or uncombusted constituents of natural gas such as benzene. Each combined-cycle unit is equipped with an oxidation catalyst that will oxidize these PIC. Nevertheless, the calculations in Table 1 take credit for the emission rate reduction for only formaldehyde.
- Table 2: Co-pollutant PTE calculations for the auxiliary boiler. It is assumed to operate at its rated capacity for 2,000 hr/yr.

³ CJWG Draft List of Disadvantaged Communities, at pg. 30, available at: <https://climate.ny.gov/-/media/Project/Climate/Files/Draft-List-of-Disadvantaged-Communities.pdf> accessed December 2022).

- Tables 3 and 4: Co-pollutant PTE calculations for the emergency diesel generator and firewater pump engines. Each is assumed to operate at its rated capacity for 500 hr/yr.
- Table 5: Co-pollutant PTE calculations for the two fuel gas heaters. Each is assumed to operate at its rated capacity for 8,760 hr/yr.
- Table 6: A Summary of the Project's co-pollutant PTE.

The Project's Draft Environmental Impact Statement⁴ describe a variety of air dispersion modeling analyses that demonstrated the following:

- The Project's emissions of nitrogen dioxide, CO, PM_{2.5}, and SO₂ would not cause or significantly contribute to violations of the National Ambient Air Quality Standards then applicable.
- The Project's emissions would not adversely impact vegetation in the site area.
- The Project's emissions of PM_{2.5} precursors complied with the Federal and State requirements then applicable.
- The predicted impacts of the Project's non-criteria pollutant complied with the NYSDEC Guideline Concentrations then applicable.

4. Co-pollutant Emission Impact Mitigation Measures and Alternatives

4.1. Mitigation Measures

The impact of the Project's co-pollutant emissions on its neighbors are mitigated by the Project's design features and operational practices. The design features include the following:

- The Project's combined-cycle units are thermally efficient and minimize the amount of fuel burned (and amount of co-pollutants emitted) per unit of electricity generated. Table 7 compares the Project's heat rate [British thermal units of fuel burned to generate one kilowatt-hour of electricity (Btu/kWh)⁵] to electrical generators in the region and to Permit limits.
 - For calendar year 2020, EPA eGRID⁶ reports that the Project's heat rate was 6,912 Btu/kWh, versus a heat rate of 7,599 Btu/kWh for all Northeast Power Coordinating Council (NPCC) upstate New York subregion combustion generation plants.

⁴ Draft Environmental Impact Statement - CPV Valley Energy Center, Volume I, February 2009, Revision 2

⁵ All heat rate data are expressed at fuel higher heating value (HHV).

⁶ Emissions & Generation Resource Integrated Database (eGRID), <https://www.epa.gov/egrid/download-data> accessed December 2022.

- Project heat rates equal to 6,659; 6,938; 6,934; and 6,917 Btu/kWh were measured in 2019, 2020, 2021, and 2022, respectively. The Permit limit is 7,605 Btu/kWh⁷.
- The Project's GHG emissions per unit of electricity generated are low. Table 8 compares the Project's GHG emissions [pounds of carbon dioxide equivalents released to generate one megawatt-hour of electricity (lb CO₂e/MWh)] to electrical generators in the region and to Permit limits.
 - For calendar year 2020, EPA eGRID reports that the Project emitted 822 lb CO₂e/MWh. The Permit limit is 925 lb CO₂e/MWh.
 - For calendar year 2020, EPA eGRID reports that combustion generation plants, fossil fuel generation plants, and non-baseload generation plants located in the NPCC upstate New York subregion emitted, respectively, 836, 852, and 881 lb CO₂e/MWh.
- The HAPs emitted by the Project's combined-cycle units are hydrocarbon PIC and trace metals contained in liquid fuels (No. 2 fuel oil and diesel fuel). CO and VOC are also PIC. Each combined-cycle unit is equipped with an oxidation catalyst that oxidizes the PIC and uncombusted natural gas constituents such as benzene.
- Each combined-cycle unit is equipped with dry low emission (DLE) combustors and a selective catalytic reduction (SCR) system. The DLE combustors decrease NO_x formation, and the SCR system reduces NO_x emissions to nitrogen and water.
- The Project's combined-cycle units are less efficient when they are starting up. The steam plant must be heated prior to bringing the combustion turbines to full load. To minimize startup duration, the Project's auxiliary boiler operates to heat the steam plant as needed prior to and during startup.

The impact of the Project's co-pollutant emissions on its neighbors are also mitigated by the Project's operational practices, including the following:

- The Project's combined-cycle units actual annual operating hours are less than the theoretical maximum potential hours of operation. Table 9 presents each combined-cycle unit's actual and maximum potential annual operating hours.
- The emergency generator firewater pump engines are operated only during emergencies, testing, and maintenance.

⁷ Measured and permit limit heat rates are corrected to reference conditions per ASME PTC 46-1996 <https://www.asme.org/codes-standards/find-codes-standards/ptc-46-overall-plant-performance>, accessed December 2022.

- The Project’s combined-cycle units are less efficient during startup and shutdown events. The oxidation catalyst is less effective in oxidizing organic co-pollutants during startup events. CPV operating practices minimize the frequency and duration of the combined-cycle units’ startup and shutdown events. These are summarized in Table 10.
- The Project’s combined-cycle turbines are each permitted to combust distillate oil for up to 720 hr/yr. Co-pollutant emissions are greater when firing distillate oil than when firing an equivalent amount of natural gas. Distillate oil is fired in the Project’s combined-cycle turbines only when natural gas is unavailable or for testing.
- The Project’s GHG emission sources are operated and maintained in accordance with manufacturer specifications and industry standards.

4.2. Alternatives

4.2.1. Green Hydrogen

Electrolysis is the process of using electricity to split water into hydrogen and oxygen. Green hydrogen produced by electrolysis using electricity generated using renewable energy. Green hydrogen can then be stored and combusted by dispatchable energy resources to generate electricity when it is needed without emitting GHG or co-pollutants.

The Project’s combined-cycle turbines use DLE combustion technology. Siemens Energy reports that, using currently available technologies, the Project’s combined-cycle turbines could burn up to 15 percent hydrogen with the minor modifications, or up to 30 percent hydrogen with more extensive retrofits. By 2030, Siemens anticipates that technologies will be commercially available which will enable large turbine DLE systems to combust 100 percent hydrogen fuel. Combusting green hydrogen in the Project’s combined-cycle units is not now feasible because utility-scale green hydrogen infrastructure does not exist in the vicinity of the Project. CPV continues to monitor the feasibility of this alternative.

4.2.2. Renewable Natural Gas

Renewable natural gas (RNG) is a pipeline-quality gas derived from biomass or other renewable sources that is fully interchangeable with conventional natural gas. RNG is essentially the gaseous product of the decomposition of organic matter that has been processed to a high degree of purity. Producing and combusting RNG does not create new carbon emissions. Instead, RNG recycles carbon that was already in circulation, and which would have resulted in the emission of GHGs absent conversion. Like conventional natural gas, RNG is mostly methane. Therefore, the amount of co-pollutant emissions produced by burning RNG is similar to the amount of co-pollutant emissions produced by burning an equivalent amount conventional natural gas. Conventional natural gas also contains small amounts of heavier hydrocarbons (e.g., C2 - C6).

Therefore, burning conventional natural gas also produces small amounts of co-pollutants which are the PIC of the heavier hydrocarbons.

While RNG production may require new interconnections to pipelines, RNG supply does not necessarily require additional natural gas system infrastructure, such as transmission and distribution pipes. RNG can be transported in existing natural gas pipelines and used by conventional natural gas consumers. CPV continues to monitor the availability of RNG and the feasibility of combusting RNG in the Project's combined-cycle units.

5. Summary and Conclusion

The Project uses state-of-the art design features and operating practices to minimize and mitigate its co-pollutant emissions and its potential to impact disadvantaged communities. These include the following:

- Thermally efficient combined-cycle units.
- Catalyst systems which oxidize the combined-cycle units' CO and hydrocarbon co-pollutant emission.
- DLE combustors and SCR systems which decrease the combined-cycle units' NO_x emissions.
- Auxiliary boiler to minimize startup duration.
- Operating GHG sources fewer hours than allowed.
- Minimizing the frequency and duration of combined-cycle unit startup and shut down.
- Combusting distillate oil in the combined-cycle units only during testing or when natural gas is unavailable.
- Operating and maintaining GHG emission sources in accordance with manufacturers' specifications and industry standards.

These measures are consistent with the goals of the CLCPA. CPV continues to monitor the feasibility of alternative fuels to further mitigate its co-pollutant emissions and its potential to impact DAC.

**Table 1: Potential to Emit
Two Combustion Turbines w/ Duct Burners
Emission Units U-00001 and U-00002**

	Extreme Cold (-5 °F)	Moderate (51 °F)	Extreme Heat (90 °F)	Annual Total	
Combustion Turbine					
Operation (hr/yr)					
Case 1 - Natural Gas	1,440	14,640	1,440	17,520	(2 units)
Case 2a - Natural Gas	0	14,640	1,440	16,080	(2 units)
Case 2b - Distillate	1,440	0	0	1,440	(2 units)
Fuel Usage (MMBtu/hr)					
Case 1 - Natural Gas	2,238	2,002	1,859		
Case 2a - Natural Gas	2,238	2,002	1,859		
Case 2b - Distillate	2,140	1,889	1,752		
Duct Burners					
Operation (hr/yr)					
Case 1 - Natural Gas	0	14,640	1,440	16,080	(2 units)
Case 2a - Natural Gas	0	14,640	1,440	16,080	(2 units)
Case 2b - Distillate	0	0	0	0	(2 units)
Fuel Usage (MMBtu/hr)					
Case 1 - Natural Gas	0	186	457		
Case 2a - Natural Gas	0	186	457		
Case 2b - Distillate	0	0	0		

Co-pollutant	Emission Factor (lb/MMBtu)	Ref.	Hourly Emissions (lb/hr)			Annual Emissions (ton/yr)
			Winter	Spring/Fall	Summer	
Case 1 - Natural gas firing in combustion turbine for 8,760 hours per year per unit						
Criteria Pollutants						
NO _x		7	16.80	15.04	13.92	132.21
CO		7	10.20	9.20	8.40	80.74
VOC		7	2.03	1.82	1.68	15.99
SO ₂		7	4.87	4.36	4.04	38.31
PM _{2.5} /PM ₁₀		7	11.11	10.10	9.67	88.87
Hazardous Air Pollutants						
1,3 Butadiene	4.30E-07	1	9.62E-04	8.61E-04	7.99E-04	0.01
Acetaldehyde	4.00E-05	1	8.95E-02	8.01E-02	7.44E-02	0.70
Acrolein	6.40E-06	1	1.43E-02	1.28E-02	1.19E-02	0.11
Benzene	1.20E-05	1	2.69E-02	2.40E-02	2.23E-02	0.21
Ethylbenzene	3.20E-05	1	7.16E-02	6.41E-02	5.95E-02	0.56
Formaldehyde	1.10E-04	2	2.46E-01	2.20E-01	2.04E-01	1.94
Naphthalene (included in PAH)	1.30E-06	1	2.91E-03	2.60E-03	2.42E-03	0.02
Total PAH	2.20E-06	1	4.92E-03	4.40E-03	4.09E-03	0.04
Toluene	1.30E-04	1	2.91E-01	2.60E-01	2.42E-01	2.29
Xylenes	6.40E-05	1	1.43E-01	1.28E-01	1.19E-01	1.13
Total HAP						7.01

Case 2a - Natural gas firing in combustion turbine for 8,040 hours per year per unit						
Criteria Pollutants						
NO _x		7	16.80	15.04	13.92	120.12
CO		7	10.20	9.20	8.40	73.39
VOC		7	2.03	1.82	1.68	14.53
SO ₂		7	4.87	4.36	4.04	34.80
PM _{2.5} /PM ₁₀		7	11.11	10.10	9.67	80.87
Hazardous Air Pollutants						
1,3 Butadiene	4.30E-07	1	9.62E-04	8.61E-04	7.99E-04	0.01
Acetaldehyde	4.00E-05	1	8.95E-02	8.01E-02	7.44E-02	0.64
Acrolein	6.40E-06	1	1.43E-02	1.28E-02	1.19E-02	0.10
Benzene	1.20E-05	1	2.69E-02	2.40E-02	2.23E-02	0.19
Ethylbenzene	3.20E-05	1	7.16E-02	6.41E-02	5.95E-02	0.51
Formaldehyde	1.10E-04	2	2.46E-01	2.20E-01	2.04E-01	1.76
Naphthalene (included in PAH)	1.30E-06	1	2.91E-03	2.60E-03	2.42E-03	0.02
Total PAH	2.20E-06	1	4.92E-03	4.40E-03	4.09E-03	0.04
Toluene	1.30E-04	1	2.91E-01	2.60E-01	2.42E-01	2.08
Xylenes	6.40E-05	1	1.43E-01	1.28E-01	1.19E-01	1.02
Total HAP						6.37
Case 2b - Distillate oil firing in combustion turbine for 720 hours per year per unit						
Criteria Pollutants						
NO _x		7	51.43	45.43	42.14	37.03
CO		7	7.43	9.20	8.60	5.35
VOC		7	2.10	1.82	1.68	1.51
SO ₂		7	3.27	2.89	2.68	2.35
PM _{2.5} /PM ₁₀		7	51.35	46.19	42.10	36.97
Hazardous Air Pollutants						
1,3 Butadiene	1.60E-05	3	3.42E-02	3.02E-02	2.80E-02	0.02
Benzene	5.50E-05	3	1.18E-01	1.04E-01	9.64E-02	0.08
Formaldehyde	2.80E-04	3	5.99E-01	5.29E-01	4.91E-01	0.43
Naphthalene (included in PAH)	3.50E-05	3	7.49E-02	6.61E-02	6.13E-02	0.05
Total PAH	4.00E-05	3	8.56E-02	7.56E-02	7.01E-02	0.06
Arsenic	1.10E-05	4	2.35E-02	2.08E-02	1.93E-02	0.02
Beryllium	3.10E-07	4	6.63E-04	5.86E-04	5.43E-04	4.78E-04
Cadmium	4.80E-06	4	1.03E-02	9.07E-03	8.41E-03	0.01
Chromium	1.10E-05	4	2.35E-02	2.08E-02	1.93E-02	0.02
Lead	1.40E-05	4	3.00E-02	2.64E-02	2.45E-02	0.02
Manganese	7.90E-04	4	1.69E+00	1.49E+00	1.38E+00	1.22
Mercury	1.20E-06	4	2.57E-03	2.27E-03	2.10E-03	1.85E-03
Nickel	4.60E-06	4	9.84E-03	8.69E-03	8.06E-03	0.01
Selenium	2.50E-05	4	5.35E-02	4.72E-02	4.38E-02	0.04
Total HAP						1.98

Cases 1 & 2a - Natural gas firing in duct burners for 8,040 hours per year per unit						
Criteria Pollutants						
NO _x		7		1.48	4.00	13.74
CO		7		3.71	10.00	34.34
VOC		7		1.30	3.50	12.02
SO ₂		7		0.40	1.09	3.74
PM _{2.5} /PM ₁₀		7		2.02	5.45	18.71
Hazardous Air Pollutants						
2-Methylnaphthalene	2.35E-08	5		4.37E-06	1.07E-05	3.97E-05
3-Methylchloranthrene	1.76E-09	5		3.27E-07	8.06E-07	2.98E-06
7,12-Dimethylbenz(a) anthracene	1.57E-08	5		2.91E-06	7.16E-06	2.65E-05
Acenaphthene	1.76E-09	5		3.27E-07	8.06E-07	2.98E-06
Acenaphthylene	1.76E-09	5		3.27E-07	8.06E-07	2.98E-06
Anthracene	2.35E-09	5		4.37E-07	1.07E-06	3.97E-06
Arsenic	1.96E-07	6		3.64E-05	8.95E-05	3.31E-04
Benzo(a)anthracene	1.76E-09	5		3.27E-07	8.06E-07	2.98E-06
Benzene	2.06E-06	5		3.82E-04	9.40E-04	3.47E-03
Benzo(a)pyrene	1.18E-09	5		2.18E-07	5.37E-07	1.98E-06
Benzo(b)fluoranthene	1.76E-09	5		3.27E-07	8.06E-07	2.98E-06
Benzo(g,h,i)perylene	1.18E-09	5		2.18E-07	5.37E-07	1.98E-06
Benzo(k)fluoranthene	1.76E-09	5		3.27E-07	8.06E-07	2.98E-06
Beryllium	1.18E-08	6		2.18E-06	5.37E-06	1.98E-05
Cadmium	1.08E-06	6		2.00E-04	4.92E-04	1.82E-03
Chromium	1.37E-06	6		2.55E-04	6.27E-04	2.32E-03
Chrysene	1.76E-09	5		3.27E-07	8.06E-07	2.98E-06
Cobalt	8.24E-08	6		1.53E-05	3.76E-05	1.39E-04
Dibenzo(a,h)anthracene	1.18E-09	5		2.18E-07	5.37E-07	1.98E-06
Dichlorobenzene	2.06E-06	5		3.82E-04	9.40E-04	3.47E-03
Fluoranthene	2.94E-09	5		5.46E-07	1.34E-06	4.96E-06
Fluorene	2.75E-09	5		5.09E-07	1.25E-06	4.63E-06
Formaldehyde	7.35E-05	5		1.36E-02	3.36E-02	0.12
Hexane	1.76E-03	5		3.27E-01	8.06E-01	2.98
Indeno(1,2,3-cd)pyrene	1.76E-09	5		3.27E-07	8.06E-07	2.98E-06
Lead	4.90E-07	6		9.10E-05	2.24E-04	8.27E-04
Manganese	3.73E-07	6		6.91E-05	1.70E-04	6.29E-04
Mercury	2.55E-07	6		4.73E-05	1.16E-04	4.30E-04
Naphthalene	5.98E-07	5		1.11E-04	2.73E-04	1.01E-03
Nickel	2.06E-06	6		3.82E-04	9.40E-04	3.47E-03
Phenanthrene	1.67E-08	5		3.09E-06	7.61E-06	2.81E-05
Pyrene	4.90E-09	5		9.10E-07	2.24E-06	8.27E-06
Selenium	2.35E-08	6		4.37E-06	1.07E-05	3.97E-05
Toluene	3.33E-06	5		6.19E-04	1.52E-03	5.62E-03
Total HAP						3.12

Co-pollutant	Emissions for Two Units (ton/yr)		
	Case 1 8,760 hr/yr Nat Gas	Case 2 8,040 hr/yr Nat Gas 720 hr/yr Distillate	Maximum of Cases 1 & 2
Criteria Pollutants			
NO _x	146	171	171
CO	115	113	115
VOC	28.0	28.1	28.1
SO ₂	42.1	40.9	42.1
PM _{2.5} /PM ₁₀	108	137	137
Hazardous Air Pollutants			
2-Methylnaphthalene	3.97E-5	3.97E-5	3.97E-5
3-Methylchloranthrene	2.98E-6	2.98E-6	2.98E-6
7,12-Dimethylbenz(a) anthracene	2.65E-5	2.65E-5	2.65E-5
Acenaphthene	2.98E-6	2.98E-6	2.98E-6
Acenaphthylene	2.98E-6	2.98E-6	2.98E-6
Anthracene	3.97E-6	3.97E-6	3.97E-6
Benzo(a)anthracene	2.98E-6	2.98E-6	2.98E-6
Benzo(a)pyrene	1.98E-6	1.98E-6	1.98E-6
Benzo(b)fluoranthene	2.98E-6	2.98E-6	2.98E-6
Benzo(g,h,i)perylene	1.98E-6	1.98E-6	1.98E-6
Benzo(k)fluoranthene	2.98E-6	2.98E-6	2.98E-6
Chrysene	2.98E-6	2.98E-6	2.98E-6
Cobalt	1.39E-4	1.39E-4	1.39E-4
Dibenzo(a,h)anthracene	1.98E-6	1.98E-6	1.98E-6
Dichlorobenzene	3.47E-3	3.47E-3	3.47E-3
Fluoranthene	4.96E-6	4.96E-6	4.96E-6
Fluorene	4.63E-6	4.63E-6	4.63E-6
Hexane	2.98	2.98	2.98
Indeno(1,2,3-cd)pyrene	2.98E-6	2.98E-6	2.98E-6
Naphthalene	1.01E-3	1.01E-3	1.01E-3
Phenanthrene	2.81E-5	2.81E-5	2.81E-5
Pyrene	8.27E-6	8.27E-6	8.27E-6
Toluene	5.62E-3	5.62E-3	5.62E-3
1,3 Butadiene	7.57E-3	0.03	0.03
Acetaldehyde	0.70	0.64	0.70
Acrolein	0.11	0.10	0.11
Benzene	0.21	0.28	0.28
Ethylbenzene	0.56	0.51	0.56
Formaldehyde	2.06	2.31	2.31
Naphthalene	0.02	0.07	0.07
Toluene	2.29	2.08	2.29
Xylenes	1.13	1.02	1.13
Arsenic	3.31E-4	0.02	0.02
Beryllium	1.98E-5	4.97E-4	4.97E-4
Cadmium	1.82E-3	9.21E-3	9.21E-3
Chromium	2.32E-3	0.02	0.02
Lead	8.27E-4	0.02	0.02
Manganese	6.29E-4	1.22	1.22
Mercury	4.30E-4	2.28E-3	2.28E-3
Nickel	3.47E-3	0.01	0.01
Selenium	3.97E-5	0.04	0.04
Total HAP	10.1	11.4	11.4

Reference:

1. AP-42, 5th Edition Tables 3.1-3
2. CATEF factor for natural gas-fired combustion turbines with SCR and oxidation catalyst median value, rounded to two significant figures. <https://ww2.arb.ca.gov/california-air-toxics-emission-factor>
3. AP-42, 5th Edition Tables 3.1-4
4. AP-42, 5th Edition Tables 3.1-5
5. AP-42, 5th Edition Tables 1.4-3
6. AP-42, 5th Edition Tables 1.4-4
7. Vendor data

**Table 2: Potential to Emit
Auxiliary Boiler
Emission Unit U-00003**

Annual Operating Schedule (hr)		2,000	Fuel Consumption (MMBtu/hr)		46.7
Co-pollutant	Emission Factor (lb/MMBtu)	Reference	Hourly Emission (lb/hr)	Annual Emission (ton/yr)	Note
Criteria Pollutants					
NO _x	0.05	1	2.29	2.29	
CO	0.08	1	3.85	3.85	
VOC	5.39E-3	2	0.25	0.25	
SO ₂	5.88E-4	2	0.03	0.03	
PM _{2.5} /PM ₁₀	7.45E-3	2	0.35	0.35	
Hazardous Air Pollutants					
2-Methylnaphthalene	2.35E-8	3	1.10E-6	1.10E-6	PAH
3-Methylchloranthrene	1.76E-9	3	8.24E-8	8.24E-8	PAH
7,12-Dimethylbenz(a) anthracene	1.57E-8	3	7.33E-7	7.33E-7	PAH
Acenaphthene	1.76E-9	3	8.24E-8	8.24E-8	PAH
Acenaphthylene	1.76E-9	3	8.24E-8	8.24E-8	PAH
Anthracene	2.35E-9	3	1.10E-7	1.10E-7	PAH
Arsenic	1.96E-7	4	9.16E-6	9.16E-6	
Benzo(a)anthracene	1.76E-9	3	8.24E-8	8.24E-8	PAH
Benzene	2.06E-6	3	9.61E-5	9.61E-5	
Benzo(a)pyrene	1.18E-9	3	5.49E-8	5.49E-8	PAH
Benzo(b)fluoranthene	1.76E-9	3	8.24E-8	8.24E-8	PAH
Benzo(g,h,i)perylene	1.18E-9	3	5.49E-8	5.49E-8	PAH
Benzo(k)fluoranthene	1.76E-9	3	8.24E-8	8.24E-8	PAH
Beryllium	1.18E-8	4	5.49E-7	5.49E-7	
Cadmium	1.08E-6	4	5.04E-5	5.04E-5	
Chromium	1.37E-6	4	6.41E-5	6.41E-5	
Chrysene	1.76E-9	3	8.24E-8	8.24E-8	PAH
Cobalt	8.24E-8	4	3.85E-6	3.85E-6	
Dibenzo(a,h)anthracene	1.18E-9	3	5.49E-8	5.49E-8	PAH
Dichlorobenzene	2.06E-6	3	9.61E-5	9.61E-5	
Fluoranthene	2.94E-9	3	1.37E-7	1.37E-7	PAH
Fluorene	2.75E-9	3	1.28E-7	1.28E-7	PAH
Formaldehyde	7.35E-5	3	3.43E-3	3.43E-3	
Hexane	1.76E-3	3	0.08	0.08	
Indeno(1,2,3-cd)pyrene	1.76E-9	3	8.24E-8	8.24E-8	PAH
Lead	4.90E-7	4	2.29E-5	2.29E-5	
Manganese	3.73E-7	4	1.74E-5	1.74E-5	
Mercury	2.55E-7	4	1.19E-5	1.19E-5	
Naphthalene	5.98E-7	3	2.79E-5	2.79E-5	PAH
Nickel	2.06E-6	4	9.61E-5	9.61E-5	
Phenanthrene	1.67E-8	3	7.78E-7	7.78E-7	PAH
Pyrene	4.90E-9	3	2.29E-7	2.29E-7	PAH
Selenium	2.35E-8	4	1.10E-6	1.10E-6	PAH
Toluene	3.33E-6	3	1.56E-4	1.56E-4	PAH
Total PAH	4.04E-6		1.89E-4	1.89E-4	
Total HAP				0.09	

Reference:

1. AP-42 Table 1.4-1
2. AP-42 Table 1.4-2
3. AP-42 Table 1.4-3
4. AP-42 Table 1.4-4

**Table 3: Potential to Emit
Emergency Generator
Emission Unit U-00003**

Annual Operating Schedule (hr) 500 Power Output (bkW) 1,115¹
 Fuel Consumption (MMBtu/hr) 15.4¹

Co-pollutant	CAS No.	Emission Factor		Reference	Hourly Emission (lb/hr)	Annual Emission (ton/yr)
		(lb/MMBtu)	(g/kWh)			
Criteria Pollutants						
NO _x			5.42	1	13.3	3.33
CO			0.80	1	1.97	0.49
VOC			0.23	1	0.57	0.14
SO ₂		1.53E-03		2	2.36E-02	5.90E-03
PM _{2.5} /PM ₁₀			0.80	1	1.97	0.49
Hazardous Air Pollutants						
Acetaldehyde	75-07-0	2.52E-05		3	3.89E-04	9.72E-05
Acrolein	107-02-8	7.88E-06		3	1.22E-04	3.04E-05
Benzene	71-43-2	7.76E-04		3	1.20E-02	2.99E-03
Formaldehyde	50-00-0	7.89E-05		3	1.22E-03	3.04E-04
Total PAH		2.12E-04		4	3.26E-03	8.16E-04
Acenaphthene	83-32-9	4.68E-06		4	7.22E-05	1.81E-05
Acenaphthylene	208-96-8	9.23E-06		4	1.42E-04	3.56E-05
Anthracene	120-12-7	1.23E-06		4	1.90E-05	4.74E-06
Benzo(a)anthracene	56-55-3	6.22E-07		4	9.60E-06	2.40E-06
Benzo(b)fluoranthene	205-99-2	1.11E-06		4	1.71E-05	4.28E-06
Benzo(g,h,i)perylene	191-24-2	5.56E-07		4	8.58E-06	2.14E-06
Benzo(k)fluoranthene	207-08-9	2.18E-07		4	3.36E-06	8.41E-07
Benzo(a)pyrene	50-32-8	2.57E-07		4	3.97E-06	9.91E-07
Chrysene	218-01-9	1.53E-06		4	2.36E-05	5.90E-06
Dibenzo(a,h)anthracene	53-70-3	3.46E-07		4	5.34E-06	1.33E-06
Fluoranthene	206-44-0	4.03E-06		4	6.22E-05	1.55E-05
Fluorene	86-73-7	1.28E-05		4	1.98E-04	4.94E-05
Indeno(1,2,3-cd)pyrene	193-39-5	4.14E-07		4	6.39E-06	1.60E-06
Naphthalene	91-20-3	1.30E-04		4	2.01E-03	5.01E-04
Phenanthrene	85-01-8	4.08E-05		4	6.30E-04	1.57E-04
Pyrene	129-00-0	3.71E-06		4	5.72E-05	1.43E-05
Toluene	108-88-3	2.81E-04		3	4.34E-03	1.08E-03
Xylenes	1330-20-7	1.93E-04		3	2.98E-03	7.44E-04
Total HAP						5.34E-03

Reference:

1. Vendor data (Caterpillar C175-20 Standby)
<https://s7d2.scene7.com/is/content/Caterpillar/CM20190430-aca82-c4a9f>
2. Diesel fuel (15 ppm sulfur, 7 lb/gal, 0.137381 MMBtu/gal)
2. AP 42 Table 3.4-3.
3. AP 42 Table 3.4-4.

**Table 4: Potential to Emit
Firewater Pump
Emission Unit U-00005**

Co-Pollutant	CAS No.	Emission Factor (lb/MMBtu)	Reference	Hourly Emission (lb/hr)	Annual Emission (ton/yr)
Criteria Pollutants					
NO _x		0.6763	1	1.37	0.34
CO		0.4356	1	0.88	0.22
VOC		0.0378	1	0.08	0.02
SO ₂		1.53E-03	2	3.09E-3	7.72E-4
PM _{2.5} /PM ₁₀		0.0362	1	0.07	0.02
Hazardous Air Pollutants					
Acetaldehyde	75-07-0	7.67E-04	3	1.55E-03	3.87E-04
Acrolein	107-02-8	9.25E-05	3	1.87E-04	4.67E-05
Benzene	71-43-2	9.33E-04	3	1.88E-03	4.71E-04
Formaldehyde	50-00-0	1.18E-03	3	2.38E-03	5.96E-04
Total PAH		1.68E-04	3	3.39E-04	8.49E-05
Acenaphthene	83-32-9	1.42E-06	3	2.87E-06	7.17E-07
Acenaphthylene	208-96-8	5.06E-06	3	1.02E-05	2.56E-06
Anthracene	120-12-7	1.87E-06	3	3.78E-06	9.44E-07
Benzo(a)anthracene	56-55-3	1.68E-06	3	3.39E-06	8.48E-07
Benzo(b)fluoranthene	205-99-2	1.88E-07	3	3.80E-07	9.49E-08
Benzo(g,h,i)perylene	191-24-2	9.91E-08	3	2.00E-07	5.00E-08
Benzo(k)fluoranthene	207-08-9	4.89E-07	3	9.88E-07	2.47E-07
Benzo(a)pyrene	50-32-8	1.55E-07	3	3.13E-07	7.83E-08
Chrysene	218-01-9	3.53E-07	3	7.13E-07	1.78E-07
Dibenzo(a,h)anthracene	53-70-3	5.83E-07	3	1.18E-06	2.94E-07
Fluoranthene	206-44-0	7.61E-06	3	1.54E-05	3.84E-06
Fluorene	86-73-7	2.92E-05	3	5.90E-05	1.47E-05
Indeno(1,2,3-cd)pyrene	193-39-5	3.75E-07	3	7.58E-07	1.89E-07
Naphthalene	91-20-3	8.48E-05	3	1.71E-04	4.28E-05
Phenanthrene	85-01-8	2.94E-05	3	5.94E-05	1.48E-05
Pyrene	129-00-0	4.78E-06	3	9.66E-06	2.41E-06
Toluene	108-88-3	4.09E-04	3	8.26E-04	2.07E-04
Xylenes	1330-20-7	2.85E-04	3	5.76E-04	1.44E-04
Total HAP					1.94E-03

Reference:

1. Vendor data (Cummins CFP23E-F50)
2. Diesel fuel (15 ppm sulfur, 7 lb/gal, 0.137381 MMBtu/gal)
3. AP 42 Table 3.3-2.

**Table 5: Potential to Emit
Two Fuel Gas Heaters
Emission Unit U-00006**

Co-Pollutant	Emission Factor (lb/MMBtu)	Reference	Hourly Emission (lb/hr)	Annual Emission (ton/yr)	Notes
Operating Schedule (hr/yr) 8,760 Firing Rate (MMBtu/hr) 12.56 ¹					
Criteria Pollutants					
NO _x	0.0364	1	0.46	2.00	
CO	0.073	1	0.92	4.02	
VOC	0.005	1	0.06	0.28	
SO ₂	5.88E-4	2	7.39E-3	0.03	
PM _{2.5} /PM ₁₀	7.45E-3	2	0.09	0.41	
Hazardous Air Pollutants					
2-Methylnaphthalene	2.35E-08	3	2.96E-07	1.29E-06	PAH
3-Methylchloranthrene	1.76E-09	3	2.22E-08	9.71E-08	PAH
7,12-Dimethylbenz(a) anthracene	1.57E-08	3	1.97E-07	8.63E-07	PAH
Acenaphthene	1.76E-09	3	2.22E-08	9.71E-08	PAH
Acenaphthylene	1.76E-09	3	2.22E-08	9.71E-08	PAH
Anthracene	2.35E-09	3	2.96E-08	1.29E-07	PAH
Arsenic	1.96E-07	4	2.46E-06	1.08E-05	
Benzo(a)anthracene	1.76E-09	3	2.22E-08	9.71E-08	PAH
Benzene	2.10E-03	3	2.64E-02	1.16E-01	
Benzo(a)pyrene	1.18E-09	3	1.48E-08	6.47E-08	PAH
Benzo(b)fluoranthene	1.76E-09	3	2.22E-08	9.71E-08	PAH
Benzo(g,h,i)perylene	1.18E-09	3	1.48E-08	6.47E-08	PAH
Benzo(k)fluoranthene	1.76E-09	3	2.22E-08	9.71E-08	PAH
Beryllium	1.18E-08	4	1.48E-07	6.47E-07	
Cadmium	1.08E-06	4	1.35E-05	5.93E-05	
Chromium	1.37E-06	4	1.72E-05	7.55E-05	
Chrysene	1.76E-09	3	2.22E-08	9.71E-08	PAH
Cobalt	8.24E-08	4	1.03E-06	4.53E-06	
Dibenzo(a,h)anthracene	1.18E-09	3	1.48E-08	6.47E-08	PAH
Dichlorobenzene	2.06E-06	3	2.59E-05	1.13E-04	
Fluoranthene	2.94E-09	3	3.69E-08	1.62E-07	PAH
Fluorene	2.75E-09	3	3.45E-08	1.51E-07	PAH
Formaldehyde	7.35E-05	3	9.24E-04	4.05E-03	
Hexane	1.76E-03	3	2.22E-02	9.71E-02	
Indeno(1,2,3-cd)pyrene	1.76E-09	3	2.22E-08	9.71E-08	PAH
Lead	4.90E-07	4	6.16E-06	2.70E-05	
Manganese	3.73E-07	4	4.68E-06	2.05E-05	
Mercury	2.55E-07	4	3.20E-06	1.40E-05	
Naphthalene	5.98E-07	3	7.51E-06	3.29E-05	PAH
Nickel	2.06E-06	4	2.59E-05	1.13E-04	
Phenanthrene	1.67E-08	3	2.09E-07	9.17E-07	PAH
Pyrene	4.90E-09	3	6.16E-08	2.70E-07	PAH
Selenium	2.35E-08	4	2.96E-07	1.29E-06	PAH
Toluene	3.33E-06	3	4.19E-05	1.83E-04	PAH
Total PAH	4.04E-06		5.08E-05	2.22E-04	
Total HAP				2.17E-01	

Reference:

1. Vendor data (2 heaters)
2. AP-42 Table 1.4-2
3. AP-42 Table 1.4-3
4. AP-42 Table 1.4-4

**Table 6: Potential to Emit
CPV Valley Energy Center**

Co-pollutant	Potential to Emit (lb/yr)					
	Two Combustion Turbines w/ Duct Burners	Auxiliary Boiler	Emergency Generator	Firewater Pump Engine	Two Fuel Gas Heaters	Total
Criteria Pollutants						
NO _x	341,758	4,578	6,662	683	4,008	357,689
CO	230,148	7,692	983	440	8,032	247,295
VOC	56,125	504	283	38.2	550	57,499
SO ₂	84,104	54.9	11.8	1.54	64.7	84,237
PM _{2.5} /PM ₁₀	273,114	696	983	36.6	820	275,649
Hazardous Air Pollutants						
1,3 Butadiene	63.1					63.1
2-Methylnaphthalene	7.94E-02	2.20E-03			2.59E-03	0.08
3-Methylchloranthrene	5.95E-03	1.65E-04			1.94E-04	6.31E-3
7,12-Dimethylbenz(a)anthracene	5.29E-02	1.47E-03			1.73E-03	0.06
Acenaphthene	5.95E-03	1.65E-04	3.61E-02	1.43E-03	1.94E-04	0.04
Acenaphthylene	5.95E-03	1.65E-04	7.12E-02	5.11E-03	1.94E-04	0.08
Acetaldehyde	1,408		1.94E-01	7.75E-01		1,409
Acrolein	225		6.08E-02	9.34E-02		226
Anthracene	7.94E-3	2.20E-04	9.49E-03	1.89E-03	2.59E-04	0.02
Arsenic	34.6	1.83E-02			2.16E-02	34.6
Benzo(a)anthracene	5.95E-3	1.65E-04	4.80E-03	1.70E-03	1.94E-04	0.01
Benzene	560	1.92E-01	5.99E+00	9.42E-01	2.31E+02	798
Benzo(a)pyrene	3.97E-03	1.10E-04	1.98E-03	1.57E-04	1.29E-04	6.35E-3
Benzo(b)fluoranthene	5.95E-03	1.65E-04	8.56E-03	1.90E-04	1.94E-04	0.02
Benzo(g,h,i)perylene	3.97E-03	1.10E-04	4.29E-03	1.00E-04	1.29E-04	8.60E-3
Benzo(k)fluoranthene	5.95E-03	1.65E-04	1.68E-03	4.94E-04	1.94E-04	8.49E-3
Beryllium	0.99	1.10E-03			1.29E-03	1.00
Cadmium	18.4	1.01E-01			1.19E-01	18.6
Chromium	38.5	1.28E-01			1.51E-01	38.8
Chrysene	5.95E-03	1.65E-04	1.18E-02	3.57E-04	1.94E-04	0.02
Cobalt	2.78E-01	7.69E-03			9.06E-03	0.29
Dibenzo(a,h)anthracene	3.97E-3	1.10E-4	2.67E-3	5.89E-4	1.29E-4	7.47E-3
Dichlorobenzene	6.95	0.19			0.23	7.37
Ethylbenzene	1,127					1,127
Fluoranthene	9.92E-3	2.75E-4	0.03	7.69E-3	3.24E-4	0.05
Fluorene	9.26E-3	2.56E-4	0.10	0.03	3.02E-4	0.14
Formaldehyde	4,630	6.87	0.61	1.19	8.09	4,646
Hexane	5,954	165			194	6,313
Indeno(1,2,3-cd)pyrene	5.95E-3	1.65E-4	3.19E-3	3.79E-4	1.94E-4	9.89E-3
Lead	44.8	0.05			0.05	44.9
Manganese	2,436	0.03			0.04	2,436
Mercury	4.56	0.02			0.03	4.61
Naphthalene	151	0.06	1.00	0.09	0.07	153
Nickel	21.1	0.19			0.23	21.5
Phenanthrene	0.06	1.56E-3	0.31	0.03	1.83E-3	0.40
Pyrene	0.02	4.58E-4	0.03	4.83E-3	5.39E-4	0.05
Selenium	77.1	2.20E-3			2.59E-3	77.1
Toluene	4,589	0.31	2.17	0.41	0.37	4,592
Xylenes	2,254		1.49	0.29		2,255
Total HAP	22,767	173	10.7	3.87	435	23,389

Note that total HAP emissions does not equal the sum of the pollutant emissions values listed above. Speciated PAH and total PAH are both listed . The pollutant emissions values listed for the combustion turbines are the worse case of to emissions values with and without duct burner firing.

**Table 7: Heat Rate Comparison
CPV Valley Energy Center**

Project, Power Plant Category, or Requirement	Heat Rate (Btu/kWh, HHV)	Notes
CPV Valley Energy Project	6,912 ⁽¹⁾	eGRID calendar year 2020 operation
CPV Valley Energy Project	6,650 ⁽²⁾	April 9, 2019 heat rate test
CPV Valley Energy Project	6,938 ⁽²⁾	May 27, 2020 heat rate test
CPV Valley Energy Project	6,934 ⁽²⁾	May 26, 2021 heat rate test
CPV Valley Energy Project	6,917 ⁽²⁾	June 7, 2022 heat rate test
All NPCC ³ Upstate NY Combustion Generation Plants	7,599 ⁽¹⁾	eGRID calendar year 2020 operation
NYSDEC Maximum Allowable Heat Rate	7,605 ⁽²⁾	State Facility Permit 3-3356-00136/ 00001 Condition 19

1. EPA eGRID <https://www.epa.gov/egrid/download-data>
2. Corrected to reference conditions per, ASME PTC 46-1996 <https://www.asme.org/codes-standards/find-codes-standards/ptc-46-overall-plant-performance>
3. Northeast Power Coordinating Council

**Table 8: Greenhouse Gas Emission Rate Comparison
CPV Valley Energy Center**

Project, Power Plant Category, or Requirement	CO₂e Emission Rate (lb/MWh)	Notes
CPV Valley Energy Project	822 ⁽¹⁾	eGRID calendar year 2020 operation
All NPCC Upstate NY Combustion Generation Plants	836 ⁽¹⁾	eGRID calendar year 2020 operation
All NPCC Upstate NY Fossil Fuel Plants	852 ⁽¹⁾	eGRID calendar year 2020 operation
All NPCC Upstate NY Non-baseload Plants	881 ⁽¹⁾	eGRID calendar year 2020 operation
Maximum Allowable Emission Rate	925 ⁽²⁾	Measured on a 12-month rolling average basis

1. EPA eGRID <https://www.epa.gov/egrid/download-data>
2. State Facility Permit 3-3356-00136/ 00001 Condition 100

**Table 9: Combined-Cycle Turbine Operating Hours
CPV Valley Energy Center**

Year	Operating Hours ¹		
	Emission Unit U-00001	Emission Unit U-00002	Maximum Potential
2018	2,480	2,310	8,208 / 8,352 ²
2019	6,802	6,855	8,760
2020	7,814	7,421	8,784
2021	7,133	6,926	8,760
2022 (Q1 & Q2)	3,675	3,839	4,344

1. From EPA Clean Air Markets <https://campd.epa.gov/data> accessed October 2022.
2. U-00001 and U-00002 commenced operation on January 24, 2018 and January 18, 2018, respectively.

**Table 10: Startup and Shutdown Event Frequency and Duration
CPV Valley Energy Center**

Event Type	Extended Startup	Cold Startup	Warm Startup	Hot Startup	Shutdown
Unit Downtime Prior to Event	>96 hours	>48 hours ≤96 hours	>8 hours ≤48 hours	≤ 8 hours	Not Applicable
Year	Event Frequency (Events/Year)				
2018	3	0	9	4	2
2019	11	5	17	23	41
2020	7	6	20	31	53
2018 - 2020 Total	21	11	49	59	96
Year	Average Event Duration (Hours/Event)				
2018	1.71	2.66	2.43	0.88	0.13
2019	3.35	2.66	1.98	1.24	0.38
2020	2.52	1.65	1.77	1.27	0.28
2018 - 2020 Average	2.84	2.11	1.97	1.23	0.35

**Table 11: Annual Fuel Consumption
CPV Valley Energy Center**

Year	Amount of Fuel Burned	
	No. 2 Fuel Oil / Diesel Fuel (gallon/year)	Natural Gas (standard cubic feet/ year)
2020	5,371	31,504,950,000
2021	1,541	28,887,150,000

APPENDIX H

SEQRA Findings Statement

A RESOLUTION OF THE PLANNING BOARD
OF THE TOWN OF WAWAYANDA
ORANGE COUNTY, NEW YORK,
ACCEPTING AND ADOPTING THE FINDINGS
STATEMENT IN THE APPLICATION OF THE
CPV VALLEY ENERGY CENTER

WHEREAS, the Town of Wawayanda Planning Board is Lead Agency for the SEQRA Review of the CPV Valley Energy Center application; and

WHEREAS, the Town of Wawayanda Planning Board has given due consideration to the DEIS and FEIS, and information derived from other documents, public hearings and meetings during the course of the SEQRA review process; and

WHEREAS, a Findings Statement has been prepared pursuant to and as required by 6 NYC44 Part 617; and

WHEREAS, the Planning Board has reviewed the Findings Statement and the Planning Board and its consultants have determined that the Findings Statement is ready for acceptance and adoption; and

WHEREAS, the Planning Board, upon its independent examination and consultation with its consultants and counsel, has concluded that the Findings Statement is consistent with the social, economic and other essential considerations of the proposed action; considers reasonable alternatives; considers mitigation measures specified in the DEIS and FEIS seeking to avoid or minimize adverse environmental impacts to the maximum extent practicable.

NOW, THEREFORE, BE IT RESOLVED that the Planning Board of the Town of Wawayanda accepts and adopts the Findings Statement of CPV

Valley Energy Center in accordance with the requirements of 6 NYCRR Part 617 and hereby authorizes the filing of same.

DATED: May 23, 2012

Motion by: Barbara Parsons

Seconded by: Daniel Long

Ayes: 7

Nays: 0

Abstentions: 0

**Town of Wawayanda Planning Board
State Environmental Quality Review
Findings Statement**

This Findings Statement is based on the information contained in the Draft Environmental Impact Statement (DEIS), the Additional Studies, and Final Environmental Impact Statement (FEIS) prepared for the CPV Valley Energy Center Project (Project) (collectively, the EIS Documents) and as set forth below, the independent review of the EIS Documents conducted by the Planning Board and its consultants and advisors. The Project applicant is CPV Valley, LLC (CPV Valley).

The Town of Wawayanda Planning Board (Planning Board) has relied upon the advice, technical review, and counsel of its outside environmental and engineering consultants, McGoey, Hauser & Edsall Consulting Engineers, C.T. Male, ARC Engineering and Construction, George M Janes & Associates, Greenplan and The Hudson Group, and of its outside legal counsel, Bavoso, Plotsky & Onofry. These consultants and counsel have reviewed the EIS Documents and the associated record developed with respect to those documents, and have advised the Planning Board with respect to the identification of environmental and other impacts of the Project, the potential significance of such impacts, and the availability and sufficiency of potential measures to avoid, minimize, and mitigate such impacts to the maximum extent practicable. The Planning Board has conducted its own thorough review of the EIS Documents, the public comments received on the EIS Documents, the record created with respect to the EIS Documents and the results of the consultants' and counsel's review of that record. These Findings are based upon the review of the entire record by the Board, its consultants and its counsel. The Planning Board paid

particular attention to the comments on the DEIS, and placed an emphasis on assuring that substantive comments were addressed in the FEIS and in these Findings.

These Findings are made by the Town of Wawayanda Planning Board acting as Lead Agency pursuant to Article 8 of the Environmental Conservation Law, The State Environmental Quality Review Act and 6 New York Code of Rules and Regulations Part 617.

Lead Agency: Town of Wawayanda Planning Board

Address: Town of Wawayanda

80 Ridgebury Hill Road

Slate Hill, NY 10973

Name of Action: CPV Valley Energy Center Project

Applicant: CPV Valley, LLC

Description of

Action: The proposed CPV Valley Energy Center will be located on an approximate 21.25 acre portion of a total 122 acre site parcel of open land in the northeast portion of the Town of Wawayanda. The broader 122 acre site parcel is bounded by Interstate-84 (I-84) to the south, Route 17M on the east, and Route 6 to the north and west. The approximate 21.25 acre development footprint is located in the southwest quadrant of the broader site. The development site parcel is currently undeveloped land used previously for agricultural purposes, including the growing of hay and corn, and wooded areas. There is a private cemetery (Cooley Cemetery) located

on the far northwestern corner of the Project site, which will not be impacted by the Project.

The Project consists of a combined-cycle facility (Facility) capable of generating a peak of approximately 630¹ megawatts (MW) of electricity, although the output of the Facility will vary depending on actual ambient conditions. Approximately 365 MW of this power will be produced using two F Class combustion turbine generator sets. Exhaust heat from the combustion turbines will be sent to heat recovery steam generators (HRSGs) to produce steam to drive a steam turbine generator. The HRSGs will include a natural gas-fired “duct burner” (supplemental firing system). The duct burners will allow for additional electrical production during select periods. Exhaust steam from the steam turbine will be cooled (i.e., condensed) and then returned to the HRSG using an air-cooled condenser. Air-cooled condensing will be employed to minimize water use and eliminate potential cooling tower plume impacts.

For environmental purposes, the Project will be equipped with state-of-the-art emissions control technology; including selective catalytic reduction (SCR) technology to control oxides of nitrogen (NO_x) and an oxidation catalyst to control carbon monoxide (CO) and volatile organic compound (VOC)

¹ CPV Valley, LLC is listed as queue position 251 in the NYISO Interconnection Queue and has a maximum summer output (“SP (MW)”) rating of 678 MW. The output of the facility varies depending on weather conditions. The 678 MW output represents the facility’s maximum summer net output @ 85°F.

emissions. To control the NO_x emissions from the Facility, the combustion turbines also will be equipped with an advanced dry low NO_x combustion system. The dry low NO_x combustion system will limit NO_x formation by controlling the combustion process through optimization of the air and fuel mixture. When the combustion turbines are operating on ultra-low sulfur light distillate oil, water injection will also be used to control NO_x emissions. The CO emissions from the combustion turbines (and duct burners) will be reduced using an oxidation catalyst (also referred to as a CO catalyst). Exhaust gases from the turbines will be passed over a catalyst bed where excess air oxidizes the CO to carbon dioxide (CO₂).

Natural gas will be used as the primary fuel with ultra-low sulfur distillate oil serving as a back-up fuel for reliability purposes. Use of the back-up fuel will be limited to the equivalent of 720 hours per year, per turbine, so that the Facility can reliably support the electrical system in the event that natural gas supplies are needed to meet residential heating or other demands. To accommodate short-term operation on ultra-low sulfur distillate oil, the proposed Project will include a 965,000 gallon fuel oil storage tank and associated off-loading facilities.

The Project will interconnect with the New York Power Authority's (NYPA) 345-kilovolt (kV) transmission system, which is located less than 1 mile north of the Project site. The Facility's new 345 kV gas insulated switchgear (GIS)

switchyard will be located adjacent to the NYPA transmission lines. In addition to the electrical substation facilities to be located adjacent to the NYPA transmission lines, the electrical interconnection will include underground transmission lines that will extend easterly along the Project site parallel to I-84 towards Route 17M. At the eastern portion of the site, the underground transmission line route will turn and extend north paralleling Route 17M in the New York State Department of Transportation (NYSDOT) Route 17M right-of-way.

Process water requirements for the Facility will be met through use of treated effluent from the City of Middletown Sewage Treatment Plant. Treated effluent currently discharged to the Walkkill River will be filtered and chlorinated for reuse as process makeup water. Process water discharge will be conveyed back to the City of Middletown Sewage Treatment Plant. Potable water will be obtained through an interconnection to the municipal system along Route 6.

Location: Town of Wawayanda, Orange County, NY

Jurisdiction: Special Use Permit and Site Plan Review

Contact: Barbara Parsons, Planning Board Chairperson

80 Ridgebury Hill Road

Slate Hill, NY 10973

Date FEIS Filed: February 8, 2012

Procedural Summary

On March 10, 2008 a Full Environmental Assessment Form (EAF) addressing the proposed power generation Project was submitted by CPV Valley, LLC to the Planning Board. The formal submittal of the EAF initiated the SEQRA process for the subject action. A solicitation of Lead Agency status was forwarded to involved agencies by the Wawayanda Planning Board on May 8, 2009. On June 11, 2008, the Planning Board formally assumed the role of Lead Agency, and, in that role, issued a positive declaration on June 25, 2008 requiring the preparation of a DEIS.

On October 8, 2008, the EIS Scope was approved by the Planning Board. The DEIS was submitted to the Planning Board on November 18, 2008. After review by the Planning Board and its consultants, any revision to address their comments, the DEIS was accepted as complete on February 23, 2009. Upon acceptance of the DEIS, copies of that document (along with a copy of the public notice) were distributed to all interested and involved agencies and made available to the public at the Town of Wawayanda Town Hall, Goshen Library and Historical Society, City of Middletown, Middletown Thrall Library and the Walkkill Town Hall. The entire DEIS was posted to the Project website (www.cpvvalley.com) and a link provided on the Town of Wawayanda's website (www.townofwawayanda.com) to facilitate public review and comment on the document. The public comment period ran from February 23, 2009 to April 22, 2009, and was subsequently extended through May 14, 2009. A public hearing was held by the Planning Board in its capacity as Lead Agency at the Wawayanda Town Hall on April 8, 2009.

To provide greater detail regarding specific aspects of the Project, some additional studies were performed at the request of the Planning Board. The studies included seasonally dependent ecological field surveys, a more detailed visual impact assessment of the above ground electric transmission lines, and preparation of a technical memorandum on the visible plume analysis and secondary formation of fine particulate matter (PM_{2.5}), which responded to specific comments on the DEIS (Additional Studies). The Additional Studies were documented in the following reports:

- *Spring and Summer 2009 Ecological Field Survey Report*, which provides the results and assessment of the seasonally dependent ecological surveys;
- Technical Memoranda regarding comments on the Visible Plume and Secondary Formation of Fine Particulate Matter (PM_{2.5}); and
- Technical Memorandum regarding the visual assessment further analyzing the impacts of the above ground electric transmission line.

The Additional Studies were submitted to the Planning Board, and the Planning Board held a public comment period on the Additional Studies from March 8, 2010 through March 22, 2010. A Responsiveness Summary was subsequently prepared as part of the FEIS to address all substantive comments received on the DEIS (Section 4 of the FEIS) and the Additional Studies (Section 5 of the FEIS).

A proposed FEIS was prepared initially by CPV Valley. The proposed FEIS was reviewed by the Planning Board and its consultants. The FEIS was revised and ultimately accepted as

complete by the Planning Board on February 8, 2012, and thereafter noticed, filed and distributed as required under 6 NYCRR Section 617.12.

Facts and Conclusions Relied Upon To Support Decision

The EIS Documents fully describe the Project, its environmental setting, and its potential environmental impacts, including a summary of permits and approvals, as presented in Section 1.5 of the DEIS. The EIS Documents also demonstrate the public need for the Project and the socioeconomic benefits that it will provide, which benefits include, among others approximately 660 construction jobs, 25-30 direct jobs during operation, and a new source of revenue for the community and state through the construction and operation of the Project. The Planning board believes that the benefits to the Town serve to balance the identified adverse environmental impacts associated with the Project, all of which have been minimized to the maximum extent practicable.

The EIS Documents identify both significant and minor adverse environmental impacts resulting from the Project. They also comprehensively discuss alternatives to the Project and measures that could avoid, minimize, or mitigate identified significant adverse environmental impacts. The Planning Board has identified measures that will ensure that environmental impacts of the Project are minimized to the maximum extent practicable. The measures are detailed in this Findings Statement, consistent with the requirements of Part 617.11 (Findings Statement).

The Planning Board recognizes the subjective nature of individual perspectives regarding potential impacts from the Project. The Planning Board and its consultants have given careful consideration to these perspectives, and spent many hours reviewing the potential impacts of the Project. The Planning Board has done so with an open mind, consistent with its obligations to assure compliance with applicable laws and regulations and to protect the interests of residents of Wawayanda, and with its broader responsibility as SEQRA lead agency.

The potential environmental impacts reviewed in the SEQRA process are summarized by topic herein. Each section presents a summary of potential significant environmental impacts, the required mitigation, and the Planning Board's related findings. As appropriate, potential environmental impacts both from the construction and operation of the Facility are addressed separately, as are the associated mitigation measures.

Purpose & Need

The Project is consistent with several of the policy objectives set forth in the 2009 New York State Energy Plan. This Plan, which is the most recent State Energy Plan, states the following five (5) policy objectives:

1. Assure that New York has reliable energy and transportation systems;
2. Support energy and transportation systems that enable the State to significantly reduce greenhouse gas emissions;

3. Address affordability concerns of residents and business caused by rising energy bills, and improve the State's economic competitiveness;
4. Reduce health and environmental risks associated with the production of energy; and
5. Improve the State's energy independence by developing in-state energy supply resources.²

The Energy Plan further states “[p]roduction and use of in-state energy resources – renewable resources and natural gas – can increase the reliability and security of our energy systems, reduce energy costs and contribute to meeting climate change, public health and environmental objectives.”³

The addition of the Project to the generation resources of New York will enhance electric system reliability as well as increase the fuel diversity in the region. As a combined-cycle facility, the Project will be one of the most efficient methods of generating dispatchable electricity. The high efficiency of combined-cycle technology equates to less fuel consumed to produce electricity, and therefore, less emissions. The efficiency of combined-cycle technology along with the clean burning nature of natural gas provides significant reductions in greenhouse gas emissions⁴ when compared to existing alternative generation

² 2009 New York State Energy Plan, p. *xiii*

³ *Id.* at p. *xiv*

⁴ On April 21, 2009, the NY ISO issued a press release entitled “*Power Plant Emission Rates Improve: Double-Digit Decline in Past Decade*” This document, describes the increased efficiency of power plants as the root of the significant reductions in greenhouse gas and other pollutant emission rates in New York State. Over the ten
(Footnote continued on next page)

resources in the state, and more specifically, in the NYISO's Zone G. The Project's combined-cycle technology along with the clean burning natural gas fuel is another step towards improving New York's health and reducing environmental impacts associated with power generation.

The NYISO has confirmed that the expansion of natural gas combined-cycle power generation facilities has improved New York's air quality while reducing overall costs for the consumer⁵. The CPV Valley Energy Center will continue this trend of improved air quality and benefits to the public.

The location of the proposed Project is consistent with the State's Energy Plan to increase in-state generation and energy independence. Further, the NYISO's CARIS⁶ process

year period from 1999 to 2008, SO₂ rates have dropped 77%, CO₂ rates 28%, and NO_x rates 61%. Combined cycle, natural gas facilities are by far the most efficient of the fossil fuels at generating power, and as the press release points out, "...the lower the heat rate the less fuel is required to produce the same amount of electricity.", resulting in lower emissions.
http://www.nyiso.com/public/webdocs/newsroom/press_releases/2009/Power_Plant_Emission_Rates_Improve_04212009.pdf

⁵ On May 12, 2009, the NY ISO issued a press release entitled "*Wholesale Electricity Prices Drop Again: Wholesale energy price in April at a level not seen since 2002*". This document credits the more efficient natural gas facilities that have been added to the fleet for driving down wholesale energy prices. "The prices of wholesale electric energy in New York State have dropped to their lowest level since 2002..." Over a ten year period, 1999 to 2008, the system-wide heat rate has improved 21% due to the addition of the efficient fossil-fueled facilities. NYISO President and CEO Stephen G. Whitley was quoted as saying "While the latest drop in energy prices is largely attributable to lower natural gas costs, New York also has a much more efficient fleet of power plants today. Natural gas prices may go back up, but the efficiency improvements will not disappear." The economic, environmental, and reliability benefits for a natural gas facility are unlike any other power generation technology. http://www.nyiso.com/public/webdocs/newsroom/press_releases/2009/NYISO_Wholesale_Electricity_Prices_Drop_Again_05122009.pdf

⁶ The NYISO released the "*2009 Congestion Assessment and Relief Integration Study, CARIS-Phase 1*". This study evaluated the impacts of adding various resource types on the projected congestion costs from 2009 to 2018. In the study, the congestion costs for three regions of the transmission system were calculated for the ten year period. Then, the additions of generic resources were added to those regions to determine the impact on congestion costs. The analysis concluded that the addition of a generic 500MW combined-cycle in the Hudson Valley region, which includes Zone G, would provide significant congestion cost benefits. Of the three regions evaluated, the Hudson Valley region was projected to experience the greatest amount of congestion costs
(Footnote continued on next page)

concluded that the addition of new resources located in the Hudson Valley region, which includes Zone G, would provide congestion relief and could provide economic benefits to the consumers⁷. The Project is located in Zone G.

The Project represents a significant capital investment in New York that will stimulate the local economy through construction and operational job creation. As more fully described in Section 7.4 of the DEIS, the economic stimulus provided by the Project once in operation is in excess of \$23 million annually. In addition, the Project is estimated to provide an average of \$2.35 million annually in additional revenues to the Town of Wawayanda, the local school district, the local fire district and Orange County through payments in lieu of taxes and other host community payments.

A. Land Use and Zoning

The CPV Valley Energy Center would be located on an approximate 21.25 acre portion of the total 122 acres of site parcel in the northeast portion of the Town of Wawayanda and approximately 0.4 miles to the boundary with the City of Middletown. The land is currently vacant and bounded by an interstate highway (I-84) and New York State roadways (Route 6 and Route 17M). It is also adjacent to a clover-leaf exit off I-84 with Route 17M. Approximately 7.0 additional acres of land within the 122 acre site parcel would be temporarily used during construction for materials lay down, equipment storage and

(estimated at \$1.3 billion) over the 10-year study period. The study estimated that the location of 500 MW of combined-cycle generation in this region would create \$346 million (net present value) of production cost savings.

⁷ Subsequent to the FEIS being accepted as complete, the NYISO released the "2011 Congestion Assessment and Resource Integration Study, *CARIS-Phase 1*". Although analysis of this document is not included in the SEQRA record, the conclusions in the new report are consistent with those provided in the 2009 version of the report.

construction parking. The primary land use management law applicable to the Project is the Town of Wawayanda's Zoning Code. Other applicable laws and regulations include the State's Agricultural Districts Law and the Environmental Quality Review Act (SEQRA) regulations governing the designation of the Critical Environmental Areas. In addition, the City of Middletown's Zoning Ordinance will apply to the portions of the Project's electrical, process water supply, and water discharge interconnection that are located within the City.

From a land use development perspective, the CPV Valley Energy Center will occupy approximately 21.25 acres within the large 122 acre parcel. The majority of the tract on the site currently used for agricultural purposes is located within the 21.25 acre development footprint. As a result, the agricultural use will be displaced by the Project development.

The 21.25 acre development footprint is located in the southwest quadrant of the 122 acre site area. The I-84 limited access highway forms a boundary edge between the Project and open space to the south. The two lane Route 6 arterial roadway forms a similar boundary edge to the north and west. In an easterly and northeasterly direction, the areas of the site that are outside the development footprint serve as a physical buffer providing a degree of separation between the proposed physical plant from off-site land uses. Route 17-M, a four lane arterial roadway, forms the easterly edge of the broader Facility site. Highway commercial oriented land uses dominate development along Route 17M. The Facility as an industrial activity will not have any adverse impact to the highway commercial land uses.

Horizons at Wawayanda abuts the Project site to the northeast. The location of the Facility physical development in the southwest portion of the 122 acre site provides a significant

physical separation from the Horizons complex consisting of primarily tree cover along with some open crop land. Four single-family residences are located on the section of Route 6 that forms the northern boundary of the 122 acre site. One of the residences is located on the south side of Route 6. The land use setting of this residence to the south currently consists of agricultural use and open space. This setting will change with development of the energy facility. Through selective tree plantings, development of a landscaped buffer area will be incorporated.

Single-family residences located on Kirbytown Road to the north of the site have areas of tree buffer of varying density and linear thickness leading to Route 6. This tree cover and the Route 6 arterial roadway physically separate the energy facility from the Kirbytown residences. As a result of the physical separation and tree cover, the energy facility does not represent a direct physical disruption to the neighborhood appearance or functioning.

The CPV Valley Energy Facility will require construction of an electrical interconnection to the NYPA transmission lines, located less than one mile north of the site. The transmission line will be underground from the Project to the NYPA transmission lines. From the western edge of the site to the NYPA lines, the transmission lines will be underground within the unpaved portion of the Route 17M right-of-way. No permanent impacts to existing highways or commercial land uses will result from operation of the underground line.

Off site construction trenching activities of the underground electrical conduit will be relatively short in duration and would not be expected to result in significant adverse impacts to nearby land uses due to their temporary nature.

Construction of the electrical interconnect would result in some currently vacant land on-site and commercial land off-site being converted to industrial/utility use. Impacts associated with the construction of the approximate 0.9 mile utility interconnect easement would include conversion of undeveloped and forested land to a cleared 20 foot wide permanent right-of-way, although the existing ecological communities will be maintained. A total of approximately 1,450 feet of underground electrical interconnect would be installed offsite mainly in the roadway shoulder of Route 17M, with a portion south of and then north of its intersection with Route 6.

Operation of the Project would be compatible with the existing and proposed land uses within the 1-mile radius study area. Given the agricultural and open space use of the 122 acre site, no displacement of current physical land use development will result from development of the CPV Valley Energy Center.

Operation of the electrical interconnect also would be compatible with existing and proposed land uses within the 1-mile radius study area, as well as the broader region. Once constructed, the underground electrical transmission line and the water supply/wastewater pipelines will have no impacts to off-site land use development.

Through selective tree plantings on the Project site, a landscaped buffer will be constructed to minimize visual impacts of the Project on viewpoints north of the Site, along Route 6. Due to the minimal nature of impacts to nearby land uses, no specific mitigation measures are suggested for the electrical interconnect and water supply/wastewater pipelines.

B. Cultural Resources

The potential impacts on cultural resources from the construction and operation of the Project are analyzed and discussed in the EIS Documents. The impact analysis was carried out in accordance with the 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 New York Office of Parks, Recreation and Historic Preservation (OPRHP), which acts as the State Historic Preservation Office (SHPO) for the State of New York, was consulted throughout the process for both guidance and concurrence.

A Phase IA and IB archaeological survey was conducted on the proposed construction impact areas of the Project site in an effort to determine if there would be a potential impact to any cultural resources eligible for inclusion in the National Register of Historic Places (NRHP).

In addition, an architectural survey, consisting of a literature search and field verification of historic resources—buildings, structures, objects, districts, and sites—50 years or older was conducted within a 1/2-mile radius, defined as the Area of Potential Effect (APE) of the Project site. The objective of these surveys was to identify historic resources listed in, determined eligible for listing, or potentially eligible for listing in the NRHP; to provide evaluations of NRHP eligibility for the surveyed resources based on the NRHP Criteria for historic significance and integrity; and to provide assessments of direct and indirect (primarily noise and visual) effects to historic resources from the Facility.

A Phase IA/IB Cultural Resource Report was submitted to the OPRHP on October 31, 2008. The Report concluded that the archaeological deposits encountered are not eligible for the National Register of Historic Places. The OPRHP responded in a letter dated December 23, 2008 concurring with the Report's findings, but recommended additional Phase 2 testing at two sites. Upon further discussion with the OPRHP reviewer, Mr. Doug Mackey, it was agreed that Phase 2 testing on the two sites would not be needed if additional shovel tests were conducted in and around the clusters of artifacts at the sites that could confirm no concentrations of subsurface artifacts in those areas.

As recommended by the OPRHP, additional field shovel testing was conducted in September, 2009 at two small areas on the Project site (A07119.000197 and A07119.000198). Consistent with the previous conclusions, these additional investigations did not identify any significant archeological resources on the Project site. The results of the September 2009 field work were submitted to the OPRHP for concurrence with the findings and determination of No Adverse Impact upon properties eligible for inclusion in the State or National Register of Historic Places. The OPRHP concurred with the conclusion, and has determined that the Project will have No Adverse Impact upon properties (historic and archeological) listed in or eligible for inclusion in the State or National Register of Historic Places as stated in their letter dated November 5, 2009.

By letter dated November 4, 2011, CPV provided the OPRHP a summary of Project refinements that evolved as a result of the SEQRA and permitting processes. These include the electric interconnection (addition of the GIS building) and process water supply/return

routing alternatives (see Appendix 7B of the FEIS). The OPRHP's response dated December 13, 2011 requested more detailed information along the proposed water supply/return routing alternatives that are proposed to be located within roadway right-of-way corridors to document existing conditions and assess the potential for intact deposits to remain along these road right-of-way corridors. For any areas where the full depth of disturbance cannot be verified, additional testing may be required to help verify disturbance.

By letter dated January 9, 2012, CPV committed to provide additional information and to carry out supplemental cultural resources investigation of the routing options (or if selected the preferred options) along the Route 17M right-of-way and Dolsontown Road right-of-way. The objective will be to ascertain the extent of previous ground disturbance in the areas proposed to be utilized for the routing alternatives to determine whether installation of the water line has the potential to impact archeological resources. The work will consist of a walk-over of each route alternative, collection of street-view photographs to document disturbance along the routes, and, in areas where disturbance is not apparent, manual shovel tests to document soil profiles. Field observations will be reported in a letter to OPRHP, with a copy of the results also provided to the Town of Wawayanda. CPV Valley will complete this supplemental investigation prior to commencing construction of the water lines.

By letter dated February 1, 2012 the OPRHP stated that they have no objections to this approach or to the SEQRA process being allowed to proceed with the understanding that

such testing in advance of any actual construction be made a condition of any SEQRA finding or New York State Department of Environmental Conservation (NYSDEC) permit.

Based on prior reports and contingent upon the specific results of the supplemental investigation, it is not anticipated that there will be any impacts to NRHP-listed or eligible cultural resources as a result of construction and operation of the Project; therefore, no additional mitigation is necessary. If any changes are made to the Project, additional consultations with OPRHP may be necessary.

C. Visual Resources and Aesthetics

The most prominent features of the overall appearance of the CPV Valley Energy Center are the two exhaust stacks, air cooled condenser, and the generation building. The generation building would house the combustion turbine generators and the Heat Recovery Steam Generators (HRSG). The tallest structure will be the two exhaust stacks with a height of approximately 275 feet above grade. The highest portion of the generation building will be 113 feet above grade. The air-cooled condenser will have a height of approximately 115 feet above grade. The Project will also incorporate a 1,000,000 gallon combination raw water/fire water storage tank, a 400,000 gallon demineralized water storage tank, and a 965,000-gallon fuel storage tank and associated off-loading facilities, transfer piping, and pump systems. The Facility's combined raw and fire water storage tank will be 40 feet tall and the fuel storage tank will be 48 feet tall. The demineralized water storage tank will be 22 feet tall. Ancillary facilities, such as fuel gas compressor, maintenance building, and a

combustion turbine inlet filter would be smaller and less prominent than the aforementioned structures.

Neutral coloring will be used for project building structures. Landscaping is proposed for key vantage points on the development parcel. The Facility lighting plan is designed to meet operational requirements while minimizing to the extent possible offsite visibility. The two exhaust stacks will be lighted to meet Federal Aviation Administration (FAA) requirements. Considerations such as color, landscaping and lighting will be addressed in detail during the site plan review conducted by the Planning Board.

Visual impacts of the Project's electrical interconnect to the 345 kilovolt (kV) NYPA Marcy South system, located less than 1 mile from the site to the northeast have been avoided by placing the electric transmission lines underground from the Facility, to the point of interconnection. The GIS building will be an enclosed structure, similar in character to existing nearby structures. With a height of approximately 55 feet, the GIS building does represent a new element in the area viewshed, however, the NYPA Marcy South transmission structures represent the dominate viewshed feature.

The visual impact assessment (VIA) performed for the Project identified potential viewpoints within a 5 mile radius of the Project site for which viewshed analyses were performed, along with impact assessments and mitigation analyses. In addition, an analysis of potential stack plume visibility was also performed. Visual impact was assessed in terms of the anticipated change in visual resources, including whether there would be a change in character or quality of the view.

The analysis performed for this Project used the technical concepts and methods contained in the NYSDEC program policy entitled “Assessing and Mitigating Visual Impacts” for evaluating visual and aesthetic impacts generated from proposed facilities.

The visual impact assessment for this Project was performed using two methodologies: 1) viewshed analysis and 2) realistic photo-renderings (photosimulations). A viewshed analysis is a Geographic Information System analytical technique that allows one to determine if and where an object, such as a generating facility, is potentially visible within the visual study area. The results of the viewshed analyses are typically displayed over a USGS topographic quadrangle or aerial photograph. Photosimulations are prepared to obtain the best possible visual representation of the proposed Project in terms of size and scale within the landscape, and assist in evaluating the potential visual impact from a given vantage point. These assessments are contained in the EIS Documents.

Representative viewpoints were selected for photosimulations. The process for selecting the viewpoints for photosimulations included: 1) identification of existing visual resources within the 5-mile study area surrounding the Project site (as described in Section 5.2.3 of the DEIS); 2) determination of potential project visibility from each location identified; and 3) evaluation of potential project visibility for sensitive viewing areas and locations of representative viewer groups in the Project vicinity in accordance with the NYSDEC visual policy.

Existing visual resources and potential viewpoints identified within the Project study area included historic sites, recreational resources, residential communities, major roadways, and other areas identified by the Planning Board.

The CPV Valley Energy Center has been designed in such a way to minimize visual impacts. However, the Project will create a new visual element to the existing landscape. As previously stated, the most prominent structures associated with the Project are the two exhaust stacks; air cooled condenser, and the generation building. The tallest structure will be the two exhaust stacks with a height of approximately 275 feet above grade.

The Project will interconnect to the 345 kilovolt (kV) NYPA Marcy South system, located less than 1 mile from the site to the northeast. The interconnection would be made via a newly constructed, enclosed 345 kV GIS substation located adjacent to the existing NYPA transmission lines. The transmission line connecting the Project to the new substation will be located underground within the right-of-way of Route 17M.

The results of the viewshed analysis and field survey show that the areas with the greatest potential for views of the Project will be open areas in low lying locations and those at higher elevations where views of the site are not obscured by hills and vegetation. Views from parks, schools, and other sensitive receptors considered in the study would be very limited as a result of dense tree cover and intervening topography.

The CPV Valley Energy Center will create a new visual element in the landscape from certain viewpoints. Places where the Facility will appear large in relation to the landscape are

limited to those located very close to the site along major roadways (i.e., I-84 and Route 6) where motorists would view the Project for short periods of time while traveling. Due to the short term nature of this view by motorists, this impact is not considered to be significant.

The vapor plume from the two exhaust stacks will add to the vertical visual impact of the Facility during limited periods when temperature, relative humidity and wind speed are conducive to plume formation. The vapor plume will be a wispy light cloudy type of visual element occurring approximately 13.2 percent of the daylight hours (See Section 3.4 and appendix 3A of the FEIS). At all other times there would be no visible plume seen from the stacks. When the plume is visible, it can increase the Project's impact on visual resources, since the acuity of the human eye will notice the plume's movement and draw attention to the Project.

The Project has implemented a number of techniques to avoid and minimize off-site visual impacts. The techniques are consistent with the visual impact avoidance and mitigation tools recommended for consideration under NYSDEC's visual resources policy. These include design and siting; alternative cooling technologies; changes to the profile or size of the Facility; on-site screening and landscaping; coloring and texture of materials; maintenance during operation. In addition, the Project design also includes enclosing much of the Facility components inside buildings; minimizing stack height based on air discharge analysis; preserving the natural vegetation to the extent practicable and implementing a lighting plan that complies with Dark Sky standards and incorporates red lighting on the stacks to minimize impacts to the surrounding communities and roadways.

The CPV Valley Energy Center is sited and designed in such a way to minimize visual impacts to the maximum extent practicable. Locating the Facility at the southern center portion of the Project site was preferred as it placed the proposed Facility proximate to nearby Route 6 and I-84 and proposed and existing commercial properties along the Route 6 corridor, thereby providing for a continuation of the orderly development of the Project area by avoiding a fragmented development condition, and also providing maximum buffer from nearby visual receptors, thereby mitigating potential impacts. The air-cooling design was chosen over a wet-cooling design for a number of reasons, including its elimination of cooling tower plumes. The air-cooled condenser (ACC) height was minimized so as not to increase the height of the stacks. Preliminary modeling considered stack heights of up to 325 feet based on Good Engineering Practice stack height associated with an initial Facility design. Project design changes, including the reduction in the height of the air cooled condenser to 115 feet, reduced the Good Engineering Practice stack height to 287.5 feet. The final stack height of 275 feet for the combustion turbines was selected based on dispersion modeling that showed that this height was adequate to largely avoid increases in predicted air quality impacts that can result from the effects of building induced downwash on stacks that are below Good Engineering Practice stack height.

The electric transmission lines required to connect the Project to the existing transmission infrastructure were originally proposed to be above ground within the Project site, but based on the Planning Board's evaluation of underground alternatives, those lines are being placed underground to avoid the visual impacts associated with towers and wires of an

aboveground electrical interconnection. This change to the Project after acceptance of the DEIS responds to and resolves a number of comments on the DEIS.

The proposed Landscaping Plan is intended to enhance the appearance and natural beauty of the property, and to provide visual buffering for the surrounding areas. Various small sections of the entrance to the Project site will be graded and seeded after construction. Approximately 7.0 acres of land will be temporarily used as equipment and construction materials laydown and parking during construction. This land, as well as other land to be left as buffer outside the Facility fence line after construction will be restored to its current open space use after construction.

The existing natural vegetation, which provides large buffer areas surrounding the Facility, and proposed landscaping will help shield full views of the Facility from off site locations. Other landscaping plans include adding trees and shrubs at select areas on the site. These landscaping areas will be protected by protective barriers, curbs, or other damage control measures and from storm water runoff. The Project will incorporate measures to protect landscaping and vegetation adjacent to parking areas, loading areas and driveways. To the maximum practical extent and where applicable, mature shade trees, vegetation, and unique site features such as stone walls will be preserved. The applicant will be required to implement the final landscaping plan, and this requirement will be incorporated as an enforceable permit condition as part of the Site Plan and Special Use Permit Approval.

The buildings (i.e., doors, siding, etc.) will be painted a neutral beige color to mitigate visibility. The steel stack will be painted a neutral gray tone to complement the generation

building. Non-reflective materials will be specified, to further soften the Facility appearance and minimize the potential for glare.

Normal lighting and emergency temporary lighting customary for these types of installations will be provided throughout the Facility. The Project's proposed lighting design will minimize off-site impacts, while providing sufficient lighting to ensure worker safety during routine operations and maintenance. The site lighting will be designed according to the latest edition of the Illuminating Engineering Society (IES) Lighting Handbook and the International Dark Sky guidelines.

An FAA Determination of No Hazard to Air Navigation is required for the CPV Valley Energy Center because the stack height would be greater than 200 feet. Stack lighting will be in accordance with FAA advisory circular No. 70/7460-2 called Obstruction Marking and Lighting, a med-duel system – Chapters 4, 8 (M-Duel), &12. The FAA allows several options for the type of lighting and stack marking. The options include for example: Red Obstruction Lights, Medium Intensity Flashing White Obstruction Lights, High Intensity Flashing White Lights, Dual Lighting (red lighting for nighttime and high or medium intensity white lighting for day time and twilight). Red lighting will be used at night to mark the stacks, so as to reduce any potential impacts associated with white lights shining into homes during nighttime hours. Based on communication with FAA representatives, the red lighting for night time is typically preferred by surrounding residents and the public in general (compared to white lighting).

D. Community Services

This section discusses the Project's potential impacts to local community services, such as the school systems, transportation and emergency response services. Each community function was examined for possible impact on service and capital outlay demands. Particular attention and focus was paid to transportation/highway and emergency services, including police protection, fire, and emergency medical services. The primary service providers of community services were contacted in an effort to determine their capacity to serve and respond to the proposed Project. For each relevant community service, when necessary, an analysis was performed to assess potential impacts of the Project including any suitable mitigation measures.

Police services are provided by New York State Troopers, Troop F.

The closest fire departments to the Project are the New Hampton Fire Company (1 mile east of the Project, in Wawayanda), the Slate Hill Fire Department (2.6 miles southwest of the Project, in Slate Hill), and the City of Middletown Fire Department (2.7 miles northeast of the Project, in Middletown).

The Project's primary structures are located within the New Hampton Fire Company district, which is the closest fire department to the Project. The New Hampton Fire company is located at 5024 Route 17M in New Hampton, NY and provides fire and rescue type calls. The New Hampton Fire Company has three cars, two engines and one 3,500 gallon tanker.

The Facility is proposed to be located in the Minisink Valley Central School District. The Minisink Valley Central District has five public schools including: one high school, one middle school, one intermediate school, and two elementary schools (Town of Wawayanda, 2008). The district comprises approximately 4,700 students. The nearest school to the Project is a private school, Our Lady of Mount Carmel Elementary School. It is located on Wawayanda Avenue in Wallkill, approximately 1.3 miles north of the Project. Our Lady of Mount Carmel Elementary covers pre-kindergarten to eighth grade and has a total of 216 students. The nearest public school is the Truman Moon Elementary School, located at 53 Bedford Avenue in Middletown, approximately 1.9 miles northeast of the Project. The Truman Moon Elementary School is a primary center of approximately 400 students in kindergarten and first grade and is part of the Middletown City School District.

Hospital services in Orange County, and specifically in the vicinity of the Project, are provided by the Orange Regional Medical Center, located on East Main Street in the Town of Wallkill. Other hospitals include Saint Luke's Cornwall Hospital with campuses in Cornwall and Newburgh for a combined 183 staffed beds; Bon Secours Community Hospital in Port Jervis with 183 staffed beds; and Saint Anthony Community Hospital in Warwick with 73 staffed beds (AHD, 2008). Currently, the nearest hospital to the Project is the Orange Regional Medical Center's Horton Campus, approximately 2.7 miles northeast of the Project site.

There are no houses of worship within 1 mile of the Project site. The nearest houses of worship are the Middletown Islamic Center; located 1.1 miles East of the site, Our Lady of

Mount Carmel Catholic Church; located 1.3 miles directly north of the Project site, at 90 Eculid Avenue in Middletown, and Middletown Alliance, also located about 1.3 miles from the site to the North. Both facilities are located in Walkkill.

The construction of the CPV Valley Energy Center is expected to generate approximately 660 temporary construction jobs and 25 permanent operations jobs. Considering a worst case in which the total of 660 temporary positions were filled by workers from outside the current service area of New York State Police Troop F, the influx of project workers would represent a less than 0.07 percent increase in the population currently served by Troop F. In addition, the Project will have private security during construction, thereby requiring minimal to no police services.

Once constructed, the perimeter of the Project site will be secured with a chain link fence, sliding gates and surveillance equipment so as to permit only authorized access to the facility's service drive, structures and operations. One gate would provide access into the Project site, thereby restricting access to this area. The gate will be locked at all times with access provided by Facility personnel. The Facility security will be controlled by the Facility's operators in the control room 24 hours per day, 7 days per week, 365 days per year. All site security personnel would be equipped with communication equipment to maintain contact with construction and operations management personnel and/or the New York State Police Troop F and the New Hampton Fire, Rescue, and Emergency Services. Accordingly, any increase in the demand for police services resulting from construction and operation of the Project would be negligible.

The Facility would be equipped with fire suppression systems as well as emergency fire protection backup pumping capacity. The 1,000,000 gallon raw water/fire water storage tank, of which 500,000 gallons are dedicated solely for fire protection purposes, would provide additional capacity for emergency fire fighting use. The remaining balance (up to 500,000 gallons) will be used for Facility process water, and if required, can be used for fire protection. The fire suppression systems would be used only during emergencies or during periodic testing of emergency systems, as required. The use of the raw water tank would allow the Project to avoid impacting the local water distribution system for fire protection.

It is not anticipated that the Project would result in significant impacts related to fire and emergency services as the Project has been designed to provide a high level of safety and redundancy and to meet all National Fire Protection Association (NFPA), state, and local requirements. CPV Valley intends to have its Facility personnel trained as an on-site fire brigade, working cooperatively with the fire department, to function as the first line of defense in the event of a fire at the Facility. As part of this training effort, a safety orientation program and fire response plan will be in place during Project construction and operation. A Preliminary Emergency Response Plan has been established, and prior to the commencement of Project construction and operation, CPV Valley will be required, as part of the Site Plan and Special Use Permit approval, to finalize the Emergency Response Plan in consultation with the Town. Based on operational experience of similar type facilities, incidence of fire is remote due to the combination of fire protection systems incorporated in the design of the facility and operator training. The trained operating personnel on site familiar with fire safety and the on-site dedicated fire water storage help mitigate potential

cost impacts to fire and emergency services in the area. Emergency medical services are available via the hospitals and any costs of such ambulance or hospital services would be addressed by the individual users and therefore would not result in added costs to the municipality.

Consultation with the New Hampton Fire Company will continue throughout the Site Plan process and the design of the facility's fire protection system so as to address and mitigate potential impacts that may be identified. In addition, this consultation with the New Hampton Fire Company will continue through the operation phase to facilitate communication of emergency protocols, coordination of safety programs, review material storage locations on site, etc.

Due to the limited number of operational employees (approximately 25), the proposed Facility will not result in the placement of a significant number of additional students in local schools or impact the ability of local religious institutions to serve their community.

The number of construction workers and employees do not represent a significant increase in the population served by the closest hospital; therefore, the Project is not expected to impact the hospital's resources.

Although construction and operation of the Project is not expected to bring a measurable number of additional school-age children into the districts, when completed the CPV Valley Energy Center will represent a long-term source of incremental revenue for the Town of

Wawayanda and the Minisink Valley Central School District through a Payment in Lieu of Taxes (PILOT) agreement with the Orange County Industrial Development Agency (IDA).

Distributions of a percentage of the PILOT payments to the Minisink Valley Central School District will not impact school aid that the school district receives from the state. The PILOT arrangement through the IDA will allow the school district to realize its percentage distribution of the PILOT payments in addition to the school aid the district currently receives. This financial benefit without any significant increase in students resulting from the Project provides a positive economic impact for the school district. In addition, the Town of Wawayanda will also receive a percentage distribution of the PILOT payments.

E. Socioeconomics and Environmental Justice

This section assesses direct and indirect social and economic effects associated with the construction and operation of the Project, including an evaluation of the local and regional socioeconomic impacts and benefits of the construction and operation of the Project. An Environmental Justice (EJ) Analysis, which addresses potential impacts to low-income and minority populations, is contained in the EIS Documents. Based on the EIS Documents, the Planning Board's findings are that positive socioeconomic impacts will result from the project with no adverse EJ impacts.

The Project will have both direct and indirect positive economic effects on the state, town, county, and school district. These effects will commence during construction and continue throughout the operating life of the Project. The Project will result in an estimated capital

investment of approximately \$900 million for the development and construction of the Facility. In the short term, benefits will include additional employment and expenditures associated with construction of the Project. It is expected that the Project would require approximately 660 employees during the peak construction months, and approximately 300 construction employees on average. Construction is expected to be completed within an estimated 26 to 29-month timeframe. It is expected that the peak construction period would last approximately four to five months. It is anticipated that the required construction labor force for the Project would be readily met with the available trades and union workforce in Orange County. In the long term, the operating Project will represent a source of additional revenue or local jurisdictions through a Payment in Lieu of Taxes (PILOT) agreement, purchases of goods and services, and the Host Community Agreement (HCA). The Project will also provide about 25 fulltime permanent jobs once the Facility is completed. All of these results should have a beneficial effect on local community and businesses.

In addition to the jobs created during construction and the wages paid to the work force, this Project is expected to have an indirect impact on the local economy through the purchase of goods and services, which will support local businesses and perhaps result in the creation of additional new jobs. An input-output (I/O) methodology model was used to determine the economic and fiscal impacts of the Project on the regional economy. The analysis was included in the DEIS and estimated that the Project's direct positive impact on Orange County and New York will result in total output of \$466.5 million in the state of New York, of which \$393.9 million will occur within Orange County, based on

the then current project costs, which have increased since that time. This means that these values would be greater when the project is financed and built.

The job impacts from construction activity will be large, and with indirect and induced (multiplier) impacts occurring across many industries. The construction of the Facility will result in a total job impact of 1,797 across the State of New York during each year of the construction phase of the Project. The total increase in labor incomes from construction in the State is estimated at \$182.4 million.

The operation of the Facility is expected to create approximately 25 new full-time jobs. In addition, another 49 indirect and induced jobs will be created in the region as a result of the operation of the Facility and the income earned from the direct and indirect employment impacts for a total annual impact of 74 jobs in the region. Finally, 20 jobs will be created or “leak” from the region into other areas of New York as a result of CPV Valley Energy Center annual operations. The total job impacts in New York resulting from the annual Facility operations are estimated to be 94.

The total annual direct, indirect and induced income impacts (including all non-wage salary and benefits) in the region are estimated to be \$5.24 million with another \$940,000 of labor income increases occurring in other New York counties, for a total impact on labor income of \$6.18 million. The direct and indirect labor income impacts suggest that the average annual wages resulting from Facility operations will be significantly higher than the current average annual wages in the region.

As noted in the previous section, the economic impacts to the Minisink School District and the Town are expected to be positive.

The PILOT payments will increase the revenues of the local taxing jurisdictions, and will represent a significant portion of their total tax levy. The PILOT payments will serve to offset any minor increases in community service costs that may be associated with long-term operation and maintenance of the Project (e.g., small number of additional school children.)

An EJ analysis of the Project was conducted consistent with the principles set forth in Executive Order 12898, entitled "Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations" and NYSDEC Policy CP-29.

The intent of this EJ analysis was to determine whether the construction and operation of the proposed Project would have a significant adverse and disproportionate affect on an "environmental justice community."

An EJ area located in the City of Middletown, with a small portion located in Walkill, was identified. The southwestern most point of the census block is 0.94 miles northeast from the Facility Site. The analysis demonstrates that the Project's potential air emission concentrations do not cause violations of the National Ambient Air Quality Standards (NAAQS) within the EJ study area, and therefore are not adverse. Furthermore, the maximum modeled air quality impact locations do not fall within the potential EJ areas and thus are not considered disproportionate.

Regarding hazardous materials, the use of oil, aqueous ammonia, and other chemicals at the Project site would not result in a disproportionate or adverse impact to the identified potential EJ area. The storage of fuel oil or use of aqueous ammonia or other chemicals at the Project site would comply with all local, state and federal requirements and would not jeopardize public health or impact groundwater quality. The use and/or presence of fuel oil, chemicals, and other materials is currently occurring throughout the two-mile Project study area and is not concentrated within the EJ area. The Facility would also be required to comply with NYSDEC and Town of Wawayanda noise standards at all locations within the Project study area, and therefore, would not cause any adverse impact to any EJ area.

Facility views from within the EJ area are likely to be intermittent and minimal, and limited to the top of the Project stack. Any views that do exist will be within a commercial/industrial context and visual impacts will be minimal. In addition, views of the stack would not be limited to those from within the EJ area. Therefore, visual impacts within the EJ area are not considered adverse or disproportionate.

Because of the socioeconomic benefits arising from the Project, and the avoidance of impacts to any identified EJ areas, no specific mitigation measures are warranted. Although, the PILOT and HCA are outside of the Planning Board's jurisdiction; they will provide significant socioeconomic benefits to the area.

F. Traffic and Transportation

Based on the EIS Documents, the Planning Board had determined that impacts to traffic and transportation would be minimal subject to the mitigation discussed herein

Impacts

The Project site is bounded on the north and west by U.S. Route 6, on the east by N.Y. Route 17M and on the south by Interstate 84 (I-84).

A traffic analysis of the Project is contained in the EIS Documents. The initial stage of the traffic analysis consisted of a detailed review of existing land-use, roadway, and traffic conditions near the proposed site. Existing traffic volumes were recorded in November 2007. Next, in order to identify potential Project impacts, the study estimated and analyzed future conditions and then compared them to existing conditions.

During the construction of the proposed Project, additional vehicle trips would be generated by the construction workforce, and by the delivery of equipment and materials to the Project site. Construction of the facility is expected to take approximately 26-29 months.

It is expected that the highest level of potential traffic impact would occur during the middle 4 to 5 months of the construction period, when the highest level of workers will be on-site. Any traffic impacts associated with Project construction would be temporary in nature limited to the duration of construction.

The traffic impact analysis conducted was conservative in its approach because it included 30 percent of the construction worker trips within the peak hours. As described in the EIS Documents, based on experience with other projects, most construction related trips would arrive and depart before the respective AM and PM peak commuter roadway hours. In this case, 70 percent of the workforce are expected to arrive by 7:00 AM – a full half-hour before the peak hour of the adjacent street, which was determined to be 7:30 to 8:30 AM. Similarly, most of the construction workers would have left the site by 4:00 PM – in advance of the 4:30 to 5:30 PM peak hour.

There are a few instances when construction-related traffic would cause deterioration in Level of Service (LOS) at a study location. The drop in LOS is generally moderate and will be temporary in nature, lasting only during the 4 to 5 months of peak construction activity. Thereafter, conditions will return to pre-construction levels.

Construction involving crossing of Route 6 or Route 17M will utilize directional drilling to minimize the potential for traffic disruption. Construction involving use of roadway right-of-way will be conducted generally during off-peak hour periods with associated informational signing, safety barriers, and police officer control. With construction utilizing the unpaved portion of the roadway rights-of-way, no rerouting of traffic is anticipated. CPV will provide the necessary Maintenance and Protection of Traffic plans for work in the public roadway right-of-way associated with construction of the off-site utility work and obtain necessary permits. Requirements of the NYSDOT will be met. If required by NYSDOT, State Police

traffic officer control, paid by the Project applicant, will be utilized at the intersection of Route 6 and Kirbytown Road, and the Facility site access drive.

Operation

Under full time, post construction operating conditions, at all locations and under both AM and PM peak hour traffic conditions, the impacts from the proposed Project will be negligible in that no LOS would change as a result of the traffic generated by the proposed Facility, compared to the “no build” scenario. The Project site entrance has been located so as to provide sight distances that meet or exceed applicable standards to ensure safe ingress and egress to and from the Project site. Therefore, no additional mitigation measures are necessary.

G. Air Quality

The CPV Valley Energy Center will not result in any significant adverse impacts to air quality. The Project will not only be required to comply with a variety of state and federally issued regulations and guidelines, but it is also designed to be one of the most efficient and clean power generation facilities in New York. The Project is designed to utilize natural gas, as well as state of the art, highly efficient gas turbines in a combined cycle configuration. It will also employ highly effective emission control equipment, including an SCR to control NO_x and an oxidation catalyst to control CO and VOC emissions, at the Facility. These design characteristics play an important role in minimizing and avoiding potential adverse impacts.

The dispersion modeling and other analyses that have been performed demonstrate that not only will the Project comply with all of the various air permitting requirements, but its maximum air quality impacts, both alone and in combination with those of other existing source emissions, will be substantially smaller than the federal and State ambient air quality standards that were established to:

- Protect both public health, with an adequate margin of safety for sensitive individuals such as those with respiratory illnesses, the elderly and children, and public welfare (e.g. flora, fauna and property), and
- Prohibit air pollutant concentration increases that are excessive, which effectively keeps cleaner air clean.

The CPV Valley Energy Center is considered a major stationary source that will be located in an attainment area for a regulated air pollutant, and therefore it is subject to the Clean Air Act's requirement for a Prevention of Significant Deterioration (PSD) permit review. The Project is subject to PSD review for NO_x, CO, particulate matter sized 10 and 2.5 microns or smaller (PM₁₀ and PM_{2.5}, respectively), and sulfur dioxide (SO₂). The Project is subject to Best Available Control Technology (BACT) and ambient air quality impact compliance demonstration requirements for these applicable PSD pollutants. The Project will also be located in an area that is non-attainment for ozone and PM_{2.5}, which means that it is subject to the Clean Air Act's non-attainment new source review program if certain of its potential emissions (of precursor pollutants) exceed a designated yearly threshold. Since the Project's potential emissions exceed the yearly threshold for NO_x and VOC, the Project is required to

meet Lowest Achievable Emission Reduction Rate (LAER) limits and acquire emission offsets at a ratio of 1.15 to 1 for those pollutants. This means the Facility will offset 1.15 times more than what it will actually emit, resulting in a net air quality benefit.

The Project has submitted an application for regulatory agency review in conjunction with the federal and State PSD and non-attainment new source review requirements and process.

The Project will utilize natural gas as the main fuel for generating electricity, and will incorporate an SCR system to limit NO_x emissions. The combustion turbines will also be equipped with an advanced dry low NO_x combustion system. The dry low NO_x combustion system will limit NO_x formation by controlling the combustion process through optimization of the air and fuel mixture. Water injection will be used to control NO_x emissions when the combustion turbines are operating on ultra-low sulfur light distillate oil. The CO emissions from the combustion turbines (and duct burners) will be reduced using an oxidation catalyst (also referred to as a CO catalyst). Exhaust gases from the turbines will be passed over a catalyst bed where excess air will oxidizes the CO. The oxidation catalyst system will greatly decrease CO concentrations. The Facility will incorporate oil as a backup fuel for situations when natural gas use may be curtailed, but under those circumstances the Facility will use ultra-low sulfur distillate to further reduce any emissions associated with the Project.

Maximum predicted Project impacts at identified sensitive receptors within a radius of 5 miles from the Project were determined using typical modeling procedures, with impacts based on the results of a single year of meteorological data. For each combination of

pollutant and averaging period, the year for which the Project had overall predicted maximum impacts was used for the modeling to predict impacts at the sensitive receptors. Receptors representing historic parks, other parks, golf courses, public nature preserves, conservation easements, cemeteries, churches, fire stations, hospitals, nursing homes, police stations, schools, pre-schools, and other recreational areas within 5 miles were identified and included as receptors for the modeling. Maximum Project impacts were predicted for nitrogen dioxide (NO₂), CO, PM₁₀, and SO₂. All predicted impacts were well below the concentration levels that were established by EPA to protect public health and welfare, and to prevent excessive air pollutant concentration increases, respectively.

New (or revised) NAAQS and PSD increments became applicable to the Project after November 2008. The new (or revised) NAAQS pertain to NO₂, SO₂ and lead (Pb). The new PSD increments pertain to PM_{2.5}. The new standards are much more stringent than the ones that applied to those air pollutants in 2008. Supplemental dispersion modeling analyses performed in 2012 and included in the FEIS (Section 3.3.2 and Appendix 3B) demonstrate that the Project and its state-of-the-art air pollutant emission controls are more than adequate to ensure compliance with the new NAAQS and PSD increments.

The Project will not result in any significant adverse impacts to air quality, therefore no mitigation is necessary. The Project will provide an annual summary of fuel use and emissions data to the Town.

H. Noise

A detailed noise assessment of the proposed Project was conducted. The assessment included an ambient noise monitoring program, conducted during the leaf-off season when no insect noise was present (January 28-29, 2008) and a computer noise modeling study. The ambient program was conducted in order to quantify the existing noise environment, including during winter late night hours when ambient noise levels are typically lowest. The computer modeling study included Project source specific noise emission data, as provided by the proposed equipment manufacturers. The modeling conducted included topographic features, and was conservative in that no credit was taken for tree cover or any intervening off site structures that would act to reduce noise levels. Design noise control measures, including enclosing most major sources inside buildings, acoustical specifications for building walls, and noise limits for the air cooled condensers, were included in the model.

The resulting calculated Facility noise levels were compared to minimum late night ambient noise levels from each noise monitoring location in order to determine if any increases in noise would occur, and if so, whether those increases would be below NYSDEC's noise impact screening criterion. The criterion establishes increases in noise of 6 dBA and greater to have the potential for an adverse impact. The Town of Wawayanda noise requirement that noise generated is no greater than 65 dBA at a distance of 100 feet from the Project lot line was also analyzed. The EIS Documents demonstrate the Project noise levels would be in compliance with both the NYSDEC criterion and the Town of Wawayanda noise ordinance,

and that no additional mitigation measures are necessary beyond those proposed in the EIS Documents.

Noise Impacts of Project Operation

Based on the EIS Documents, the noise analysis revealed that no increases in noise from operation of the Project would be expected at any of the noise monitoring locations, with the lone exception being at the Uhlig Road location, where an increase of 4 dBA was projected, which is below the NYSDEC impact criterion. The Town of Wawayanda noise standard will be complied with. A review of this analysis reveals that Project noise levels would be below 65 dBA even within the Project lot line, and are well below 65 dBA 100 feet from the lot line. Accordingly, no significant noise impacts are anticipated due to Project operation, and the Project noise levels would be in compliance with the Town of Wawayanda noise ordinance.

The design of the Facility includes the following noise attenuation features:

- Locating major Facility sources, including the combustion turbines, Heat Recovery Steam Generators (HRSGs), steam turbine and ancillary sources within buildings;
- Building walls will be designed to provide a nominal 20 dBA attenuation of interior noise;
- HRSG exhaust stack silencers;
- Acoustically treated building ventilation louvers; and

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- An air cooled condenser (ACC) with a noise specification not to exceed 59 dBA at a distance of 100 meters from the edge of the ACC.
 - No additional measures are necessary to mitigate operational noise.

Noise Impacts of Project Construction

Construction equipment utilized will differ from phase to phase. In general, heavy equipment (bulldozers, dump trucks, cement mixers) will be used during excavation and concrete pouring activities. Noise is generated during construction primarily from diesel engines, which power the equipment. Exhaust noise usually is the predominant source of diesel engine noise.

Construction equipment is not generally operated continuously, nor is the equipment always operated simultaneously. There will therefore be times when no equipment is operating and noise will be at ambient levels. Also, it should be noted that the construction noise levels modeled are those, which would be experienced for people outdoors. A building (house) will provide significant attenuation for those who are indoors. Sound levels can be expected to be up to 27 dBA lower indoors with the windows closed. Even in homes with the windows open, indoor sound levels can be reduced by up to 17 dBA (USEPA, 1978). Construction noise will also be temporary in nature. As such, no adverse or long term noise impacts from construction noise are anticipated.

Calculated construction noise levels were shown to be below measured average noise levels at all locations. Therefore no additional mitigation measures are required. However, the

Project will nonetheless make use of functional mufflers on all equipment engine exhausts. Further, construction activities are currently scheduled to occur primarily during daytime hours. In addition, noise compliance monitoring will be done during construction and operation subject to final "Noise Compliance Testing Protocol" that is subject to the review and finalization by the Planning Board during the Site Plan approval process.

I. Soil, Geology and Seismology

The topography of the Project Site is nearly flat, with a gentle slope decreasing from west to east. The elevation change is approximately 10 feet.

Based on the preliminary geotechnical analysis in the EIS Documents, the unconsolidated material at the Project Site is suitable to support the proposed Facility. Construction of the Project will require the excavation of soils and the reworking of the unconsolidated surficial material. Site preparation would require heavy equipment for grading and excavation. This would include excavators, bulldozers, graders, front-end loaders, concrete trucks, and dump trucks. This will not impact the geologic setting. Foundations will be shallow and deep, depending upon the requirements of the specific equipment building structure component. The surficial geology at the CPV Valley Energy Center consists of coarse to fine gravel and/or sand, and silts, clays, and oxidized fine sand and gravel. The depth to bedrock is 52 to 80 feet below ground surface. The soils are not contaminated chemically or physically and should be suitable for multiple uses on or offsite. Foundation construction will be completed with standard construction techniques and no blasting of bedrock is anticipated.

Prevention of contamination to soils due to operation of the Facility will be accomplished in part by development and implementation of the best management practices incorporated in the Storm Water Pollution Prevention Plan (SWPPP) that will be consistent with local and NYDEC permits.

Sediment and erosion of soils will be mitigated during construction with common engineering controls. Excavation and grading for the proposed facilities will include re-working to promote good site drainage and runoff control. Given the flat topography that exists at the Project Site, some excavation and fill activity will likely be needed to achieve a site level suitable for construction. Where necessary soils unsuitable as structural fill will be removed from the Project Site. It is anticipated that unsuitable soils will be recycled offsite for landscaping or non-engineering grade fill.

Due to the relatively shallow groundwater at the Project Site, dewatering will likely be required to support foundation construction at select locations. Groundwater will be brought down approximately 1 foot below the proposed sub-grade, prior to excavating to final subgrade. The groundwater will be maintained at that level until the subgrade is prepared and concrete placed in order to minimize disturbance of the ground. This will be temporary and will only be a localized condition. Erosion and sediment control will be installed to prevent impacts to soil and exposed surficial materials.

Guidelines established for agricultural soil removal and restoration will be followed as the site is developed. NYS Department of Agriculture and Markets farm land reclamation notes will be added to the site plan, making these procedures a condition of the site plan approval

for the project. Implementation of the Agriculture and Markets guidelines is a mitigation measure that will be undertaken by the applicant to assure conservation of the agricultural soil resource.

The methods proposed for stripping, stockpiling and stabilizing the agricultural soil profiles are in accordance with NYS Department of Agriculture and Markets and NYSDEC guidelines.

Soils and surface topography will be re-established to original conditions following the installation of the water/wastewater lines and electrical interconnect. Cut material not suitable for re-use as backfill will be recycled off-site.

A third party environmental inspector will be present during construction. The inspector will be trained to screen cut material for evidence of contamination. If contaminated soils are identified, they will be stockpiled separately and sampled for chemical parameters required by the licensed receiving facility permit. The environmental inspector will be paid for by CPV Valley.

Erosion and sediment controls will be maintained throughout construction and during post-construction restoration. Vehicle exits will be designed to prevent unconsolidated surface materials from being transported to offsite local roadways.

Given that soil nutrients and agricultural chemicals are bound on the soil colloid fraction, and that the exposure period will be shorter in duration than the agricultural tillage cycle, releases from the site related to this temporary use are expected to be less than those associated with the planting of row crops or re-seeding the hay crop.

Operation

During operation, commonly used oils (e.g., fuel oil, lube oil) and chemicals (e.g., aqueous ammonia, water treatment chemicals) will be utilized. The state of the art storage and containment facilities proposed will be operated with management plans to prevent a release to the environment. The mitigation measures to protect geologic resources, as well as other resources, are addressed as part of the *Spill Prevention and Contingency Plan*.

Based upon the above analysis, significant adverse impacts on soils and geology are not anticipated, and mitigation measures in addition to the avoidance, minimization and mitigation measures proposed in the EIS Documents are not required.

J. Water Resources & Infrastructure

Several advanced technologies and sound water resources management policies and practices have been incorporated into the Facility's overall design to minimize impacts to water resources during construction and operation. These include:

- Use of combined-cycle technology for power generation, thereby increasing the overall water and fuel efficiency of the Facility when compared to traditional steam electric generating plants;
- Selection of an air-cooled condenser to dissipate heat, thereby eliminating the need for large volumes of water for cooling purposes;

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- Reuse of tertiary treated effluent from the City of Middletown's Sewage Treatment Plant to satisfy process makeup requirements for power generation, thereby minimizing water withdrawals from the municipal water supply systems or ground or surface waters;
 - Use of inlet air cooling to enhance the overall performance characteristics of the combustion turbines during the peak summer electrical demand season, thereby decreasing reliance on older generating assets within the Lower Hudson River Basin that require large amounts of water for cooling purposes (i.e., existing facilities currently using surface waters of the State in once-through cooling systems);
 - Development of best management practices (BMPs), including both structural and non-structural controls, to ensure the proper storage, handling and management of fuel oils, lubricants, transformer oils, water treatment additives and boiler additives; and
 - Development of an erosion and sediment control plan to ensure that applicable site specific controls are in place and properly maintained throughout the construction process.

Potential impacts to groundwater resources, wetlands, and surface waters have each been analyzed. In order to reduce the energy of stormwater during construction, flow within temporary swales will be interrupted by a series of stone check dams. The effects of

stormwater runoff will also be controlled through the use of temporary filter fencing installed to protect areas downgradient of construction activity.

Sedimentation/detention basins, properly sized and located, have been included in the Project design. The purpose of the basins is threefold. In addition to providing a controlled location for sediment deposition and retention, the basins will provide storage volume to compensate for that lost through development of the site and will serve to limit peak flows of stormwater runoff to levels which do not exceed current or pre development peak discharge rates (for the 100 year design storm). As the basins are multi-functional (i.e., sedimentation and treatment as well as stormwater detention), they have been designed to control runoff during the 100 year storm event. Removal of accumulated sediments contained within the basins will be performed as needed. The SWPPP included in the EIS Documents details the pre and post developmental drainage conditions as well as the stormwater runoff model and calculations used in development of the basin design. In addition to limiting the peak rate of stormwater discharge, the stormwater management facilities provide the required Water Quality Volume (WQV) for stormwater treatment, as well as the regulatory Channel Protection volume, designed to protect receiving waters from high velocity discharges that would damage or overtop stream banks.

The impacts to water resources include those related to the construction of the Project and the respective interconnects, as well as the long term use of process water and discharge of treated stormwater. These impacts fall into three categories: Impacts attributed to construction of the Project, which will be minimized and mitigated by the design features,

including erosion and sediment control, wetland creation, etc., incorporated in the SWPPP, impacts attributed to operation of the Facility's stormwater management system, which will be minimized and mitigated through the maintenance and operation of a system that meets all regulatory guidelines at the time of construction, and impacts related to the long term use of process water for cooling are expected to be minimal. The use of process water from the City of Middletown Sewage Treatment Plant will have no impact on water resources in general, or on the operation of the Sewage Treatment Plant in particular.

Considering the resource evaluation and analyses prepared for the Project, it is anticipated that construction and operation of the proposed action will have a negligible cumulative impact on water resources. Additionally, the Project should not generate significant negative impacts to water supply or quality in the aquifer or surface waters.

Proper sequencing of construction activities represents a key element in the Project's Construction CSWPPP. BMPs for sediment and erosion control would be implemented early in the construction process and prior to the start of major earthwork activities. These include installation of stabilized construction entrances and installation of silt fencing. Temporary sedimentation basins and diversion swales would also be used as construction progresses. In addition, procedures for the stabilization of soil stockpiles and for protecting catch basins would be implemented on an as needed basis.

All stormwater management, treatment, erosion and sediment control measures proposed for the CPV Valley site have been designed in accordance with the April 2008 *New York State Stormwater Management Design Manual (SMDM)*, NYSDEC's Division of Water TOG

5.1.8 and 5.1.10 and NYSDEC's *Better Site Design, April 2008*⁸. Further, in accordance with Article 17 of the Environmental Conservation Law (which mandates SPDES permit authorization for stormwater discharges associated with construction activity), a comprehensive erosion and sediment control/stormwater management plan is required for the proposed development. The plan under development will detail the erosion and sediment control measures to be utilized on-site during the construction phase.

The project SWPPP has been developed in accordance with NYSDEC guidelines, and the site plans include design measures to minimize and mitigate the effects of these pollutants, given the increase in impervious area brought about by implementation of the proposed project. All stormwater generated by the completed project is treated for quality enhancement in accordance with prevailing guidelines. Current NYSDEC pond and outlet designs have been developed to mitigate impacts from paved areas, and, by definition, are the accepted method for controlling pollution from paved surfaces. These measures, depicted on the Site Plans, and detailed in the SWPPP to be maintained on-site during construction, conform to New York State's Guidelines for Urban Erosion and Sediment Control, particularly the 2008 New York State SMDM and the New York Standards and Specifications for Erosion and Sediment Controls. The stormwater management plan and all proposed control measures shall comply with the requirements of current NYSDEC regulations under ECL Article 17, Titles 7 and 8 as well as 6NYCRR Parts 700-705. All relevant

⁸ Pursuant to NYSDEC DOW -1.2.5: *New York State Stormwater Design Manual 2010 Update Transition Policy*, the SWPPP for the Project may comply with the 2008 Design Manual because CPV Valley made applications to governmental entities prior to March 1, 2011, which included a preliminary SWPPP, developed using the 2008 version of the Design Manual.

conditions of the SPDES General Permit will be met, including the SMDM requirements for Runoff Reduction and Green Infrastructure, which provide for increased groundwater recharge in the vicinity around newly developed sites.

No significant impacts to surface waters and wetlands are anticipated from construction of the Project. The Facility has incorporated mitigation and avoidance measures into its construction plans, therefore, no additional mitigation is necessary.

Operation

The Project will use an air cooled condenser for heat dissipation to minimize both water supply and wastewater discharge requirements. The Facility's process makeup water requirements will be addressed using tertiary treated effluent from the City of Middletown Sewage Treatment Plant. Process wastewater will be discharged to the City of Middletown Sewage Treatment Plant. The City of Middletown Sewage Treatment Plant currently discharges treated effluent to the Wallkill River. Potable water for on-site staff and visitors would be obtained from the municipal water distribution system. Sanitary wastewater will be discharged to the City of Middletown Sewage Treatment Plant via the town sewer system. Stormwater runoff from construction and operation would discharge to on-site wetlands, which ultimately drain to Monhagen Brook.

The Project site area will be covered in gravel, except for designated roads, tanks, and buildings, and will be approximately 23 percent impervious (i.e., approximately 8 acres will

be impervious). The switchyard area and area beneath the air cooled condenser will be covered with crushed rock.

Potential groundwater impacts attributable to the proposed Project are related to the storage of fuel oil and ammonia, process water usage, and stormwater runoff from the Project site.

Mitigation measures proposed to reduce/eliminate potential water quantity and quality impacts include:

- Aboveground fuel storage to facilitate leak detection will be provided, with secondary containment capable of containing 110 percent of the tank contents. A leak detection system will be incorporated into this containment area.
- Ammonia tanks to be underlain and surrounded by a concrete dike for containment, maintenance and leak detection.
- The proposed detention ponds will incorporate measures to provide stormwater treatment in accordance with the 2003 NYSDEC Manual, revised in 2008 and 2010.
- Water quality inlets in heavily trafficked areas of the site will serve to remove sediments from the stormwater stream.
- No de-icing chemicals will be used on site roadways or parking areas.
- The site will not use pesticides or herbicides for site maintenance.

In order to mitigate the potential impacts, such as the increased surface water runoff, peak rate of discharge, and erosion and sedimentation, the preliminary site plan for the Facility includes a series of structural and non-structural stormwater management and erosion control measures. These measures, along with the other design features, adequately mitigate the potential impacts identified.

Facility operation requires the use and storage of oil and hazardous materials (OHM), such as natural gas, fuel oil, and aqueous ammonia. These are well known and have been safely used by commercial and industrial facilities throughout New York State in a wide range of applications, including electric power generation. The majority of the OHM required to support operations would be consumed in the electrical generation process or recycled offsite. The Facility design incorporates a number of features to mitigation potential impacts associated with the release of these materials, including locating major processing equipment indoors, installing indoor storage areas for water treatment chemicals in the water treatment buildings, stores chemicals, used oils and other lubricants in designated storage enclosures within the gas turbine building, the maintenance warehouse and the water demineralization building (the enclosures would be constructed with an impervious, chemically resistant pad on which to place portable containers), proper labeling and handling procedures, hazardous materials training programs for employee, and proper truck unloading procedures.

All piping, fittings and connections associated with the transfer of oil or hazardous materials would be fabricated, constructed and installed in a manner that would prevent the escape of any potentially toxic materials to the ground, ground water or surface waters.

As part of final design and in accordance with New York State regulations, a Spill Prevention, Control, and Countermeasures Plan (SPCC Plan) would be prepared for the Facility with as-built drawings. The SPCC Plan will be subject to the review and approval of NYSDEC.

An emergency response plan also will be developed to detail procedures to prevent a release of OHM to the environment and to direct response actions at the Facility in the event of an emergency. The plan will evolve as part of final design and construction, ultimately completed using as-built plans and implemented with Facility staff.

The Facility will acquire process water from the City of Middletown Sewage Treatment Plant (STP), and will return the discharge back to the headworks of the STP. Due to the minimal volumes of process water required for operation and relatively unchanged characteristics of the discharge water, no impacts associated with the Facility's process water are anticipated.

The impact avoidance, minimization, and mitigation measures proposed in the EIS Documents minimize adverse impacts to the maximum extent practicable; therefore, no additional mitigation measures are necessary.

K. Ecology

The NYSDEC list of Species of Greatest Conservation Need, NYS Comprehensive Wildlife Strategy (NYSDEC, 2008) was consulted and reviewed with respect to the potential

occurrence of these species or their habitat on-site and any potential impacts associated with project construction.

The CPV Valley Energy Center would be located on approximately a 21.25 acre portion of 122 acres of open land comprising the site, consisting primarily of agricultural cropland, hayfield, and small portions of adjacent federal jurisdictional wetlands. An additional 7 acres of land, primarily old field and hayfields, within the 122 acre parcel would be temporarily disturbed during construction for materials lay down, equipment storage, and construction parking.

As a result of the CPV Valley Energy Center project construction, permanent impacts will occur to 21.25 acres of cropland/row crop ecological community and permanent filling of 0.33 acres of Federal jurisdictional wetlands. The Facility has been designed to minimize and/or avoid impacts to wetlands to the maximum extent practicable. The layout and footprint of the Facility is focused on the upland portions of the site; however small fringe wetland areas within the fields, adjacent drainage ditches, and broad swale along I-84 containing invasive species common reed (*Phragmites sp.*) could not be entirely avoided. Permanent wetland impacts of Federal jurisdictional wetlands, as a result of the main facility footprint are 0.246 acres. For construction laydown/parking areas, approximately 7 acres of Successional old field and hayfield will be temporarily impacted, and will be restored upon completion of construction. Approximately 0.09 acres⁹ of wetland, including

⁹ Although the amount of permanent wetland impacts may vary slightly during the Site Plan approval process, the identified mitigation area exceeds the required amount of mitigation and will sufficiently offset any additional
(Footnote continued on next page)

a temporary bridge across Carpenter Creek, will be temporarily impacted to provide access to the laydown areas.

The routing of the underground electric transmission line has also been optimized to avoid wetlands. The electrical transmission line extending east from the Facility will be placed underground, reducing the right-of-way clearing requirements to further reduce impacts to forested wetlands. Given siting constraints such as extensive wetlands around the site and the ability to site the transmission line in the roadway, the on-site underground electrical transmission line option will consist of an underground duct bank containing insulated, three phase conductors, and up to three precast concrete manholes approximately 20 feet long by 9 feet wide by 8.5 feet deep in dimension (540 square feet each, for a total of 1,620 square feet [0037 acres]).

The on-site underground electrical transmission route would follow the same general route as the originally proposed overhead route. The construction corridor will occur within approximately 2,077 linear feet of wetlands (240 linear feet of which are currently forested). Use of a 75 foot construction corridor would result in approximately 3.56 acres of temporary construction impacts. Approximately 0.46 acres of permanent impacts will occur to wetlands in the form of conversion of forested to non-forested vegetation. This arrangement results in a reduction from the above ground option that consisted of a 130 foot right-of-way width resulting in approximately 6.2 acres of temporary wetland impacts, and 0.92 acres of permanent impacts to wetlands in the form of conversion of forested to impacts. To the extent the permanent wetland impacts are reduced, the mitigation amount will remain in excess of amounts required.

non-forested vegetation. A permanent corridor of 20 feet will be maintained for the electric transmission line within the site proper (i.e., from the switching station to the crossing of Carpenter Creek at Route 17M).

The underground duct bank for the electrical transmission line will cross the two streams; an unnamed tributary to Carpenter Creek (NYSDEC Class B, south of where it joins Carpenter Creek and Carpenter Creek itself where it crosses Route 17M). These crossings will result in 600 square feet (0.01 acre) of temporary impact to the stream and its banks. Open cut construction methods will be used. Following construction, the trenched areas and the disturbed corridor will be re-graded, stabilized, and re-vegetated. The stream bed and banks will also require restoration to pre-existing grades, with bank stabilization measures and monitoring to prevent soil erosion. The Freshwater Wetlands Permit issued by NYSDEC and the Nationwide Permit issued by the U.S. Army Corps of Engineers (ACOE) will address the construction of the underground electrical transmission line. Wetland and stream restoration monitoring will be implemented according to permit conditions.

The riser poles at the GIS building site location in Middletown would permanently impact approximately 0.05 acres of wetlands. Given the pre-existing disturbed conditions of the wetland area and the developed nature of the area, the impacts associated with the pole installation are considered to be insignificant. The process water supply/return lines will be routed to avoid impact wetlands.

A wetland mitigation plan has been prepared in accordance with the NYSDEC and ACOE Joint Application review process and associated mitigation standards, in which both the

permanent “fill” impacts and “forest conversion” impacts associated with the project will be compensated on the site. Wetland fill impacts will be compensated for on the site by creating a wetland replacement area, subject to the review and approval of NYSDEC and the ACOE. The wetlands will be replaced on site on a greater than 2:1 ratio, resulting in the creation of 0.80 replacement acres¹⁰. This wetland replication area will also provide enhanced wildlife habitat functions for the site. Conversion of forested wetlands to non-forested wetlands within the electrical interconnect will be compensated by creating a permanent forested buffer along Carpenter Creek where there are currently fields in agricultural use. The NYSDEC SPDES General Permit for Stormwater will contain conditions that will further protect wetland resources, including a provision for a Stormwater Pollution Prevention Plan. The additional field studies for the site included study of the resource value of the existing vernal pools. The vernal pools were found to have “low” (Tier III) overall biological quality according to the assessment manual, “Conserving Pool-Breeding Amphibians in Residential and Commercial Developments in the Northeastern United States” (Calhoun and Klemens, 2002), which was recommended by the Town’s DEIS consultant. Construction of the Facility and the transmission line will avoid and not have direct impacts on the vernal pools.

In response to ecological comments received on the DEIS, supplemental studies were conducted for plant species of conservation concern, summer roosting habitat for the

¹⁰ Although the amount of permanent wetland impacts may vary slightly during the Site Plan approval process, the identified mitigation area exceeds the required amount of mitigation and will sufficiently offset any additional impacts. To the extent the permanent wetland impacts are reduced, the mitigation amount will remain in excess of amounts required

Indiana bat, and potential turtle habitat species complexes. As summarized in Section 3.2 of the FEIS no significant impacts on ecological resources have been identified for either Facility construction or operation.

Although the limited amount of wetlands impacts are unavoidable, the optimization of the Facility's design and layout have significantly minimized, the impacts, to the maximum extent practicable.

Impacts to wildlife habitat will be minimized due to utilization of agricultural fields for the majority of the proposed Facility. Losses of forested habitat will be minimized through the southern routing of the electrical interconnect, selection of an underground construction methodology, maintenance of only a 20 foot wide permanent electrical corridor, and the use of roadway shoulders where possible. No impacts to Federal or State listed Threatened or Endangered species are anticipated. By locating the electrical interconnect route in a corridor requiring the least amount of tree removal, losses of potential forested summer roosting habitat of the Indiana bat will be minimized. The water/wastewater line route will use existing roadways, non-forested areas, and existing overland utility corridors to minimize use of any new overland routes/corridors.

No significant impacts to Federal or State listed Threatened or Endangered species are anticipated; therefore no further mitigation is warranted. However, based on recommendations made during agency reviews, several large trees in the vicinity of the wetland mitigation area that are in continuum with the adjacent forested area, and that could potentially provide summer roosting habitat for Indiana bat, will be preserved and

integrated into the mitigation area. In addition, all tree clearings shall be conducted between the dates of November 15 and March 31 to further protect the federally listed endangered Indiana Bat.

L. Community Character

The EIS Documents evaluated the impacts on the community character of the area in the vicinity of the Project. Community character is defined as:

- The built environment which may include historic buildings, 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.

The Town of Wawayanda is a rural-suburban community located in western Orange County, New York. The Town was incorporated in 1849, and its roots lie in agriculture due to its acres of fertile “black dirt” located in the floodplain around the Walkill River. The Town encompasses a mix of small-town, suburban and rural settings and is home to several historic hamlets. According to the Town’s Comprehensive Plan, Wawayanda has been experiencing significant growth pressures since before 2000 as neighboring areas to the east and south continued to accommodate the movement of populations outward from the New York City metropolitan area. Residential development has largely been incremental. There is a large amount of vacant land primarily due to environmental constraints such as poor soil conditions for development, wetlands, floodplains and steep slopes. Since 2000, the Town’s population has continued to increase due to its proximity to transportation, highways and its affordability relative to other communities. (Saratoga, 2006).

The Town of Wawayanda’s most recent Comprehensive Plan was adopted in August, 2006. It places emphasis on appropriate economic development together with preservation and protection of natural and community resources. The plan sets forth environmental, cultural, and agricultural priorities. The Town of Wawayanda’s most recent Comprehensive Plan centers around four major themes: promoting economic development and diversity, maintaining and supporting Wawayanda’s rural character, protecting natural resources and open space, and cultivating a sense of community.

With respect to industrial development, the Town's Comprehensive Plan seeks to channel commercial and industrial uses into designated zones. The Project site and surrounding area is proposed to be within a Mixed Commercial Zone. This targeted area was created based on a set of environmentally-based criteria, existing land use and zoning, current land use planning principles, and residents' preferences.

The area has seen some recent developments along this corridor, including a project directly northeast of the Project site, the Horizons at Wawayanda. This housing development consists of several large three story buildings. Across the street from the Project site, a large warehouse with building heights of 35-40 feet was recently built, the Pannattoni project. Just west of the Project site along Route 6 is the New York Department of Transportation (NYDOT) facility which has some large buildings, including a very tall shed and cell tower. North of Kirbytown Road runs an abandoned railroad bed and the NYPA right-of-way and electric transmission lines and towers that are as high as 130 feet.

The primary focus of the Route 17M corridor centers on automotive and commercial uses while the Route 6 corridor is more diversified and includes more industry and a large-scale dairy operation, Elvree Farms, with closely massed large scale buildings and several silos up to 85 feet in height. Other industrial uses that set the tone for this portion of Route 6 include the Thruway Authority/NYS DOT maintenance facility, which has several large buildings, salt sheds, and a 180 foot cell tower, Eason's Auto Body, Thermo King, and the Tetz facility which houses a concrete batch plant, a crushing and screening plant, and truck/equipment repair facilities.

The community character during construction of the Project would be affected only relatively close to the Project site as a result of traffic and noise. However, such impacts would be relatively minor and temporary, and will be mitigated (e.g., by offsetting construction work day hours from peak traffic periods on local roads, use of noise attenuation measures on construction equipment). The construction workforce is not expected to result in any required in-migration of workers, and thus no temporary impacts to community character are expected from the need to accommodate such workers in homes in the area or provide municipal services to these workers.

As the Project will not result in any discernible in-migration of workers, it will not have an effect on the character of the area in terms of changing the number or type of people living in the area, or affecting costs associated with additional school enrollment or other town services. As well, traffic impacts during operation will be negligible compared to existing traffic volumes. Other environmental factors such as changes in noise levels, air emissions, and water impacts will generally not be discernible, and will not affect community character. Visual impacts could result in minor changes to the character of the area in limited locations that are both very close to the Project and have a view of the Project, as the landscape at the Project site would change from open/agricultural land to industrial. However, the extent of visibility is limited due to topography, trees, and structures in the area, and due to the undergrounding of the electrical interconnection. Thus overall, the Project would not change the community character of the area except in limited locations very close to the Project site where views exist.

With respect to positive impacts, the significant revenues going to the Town of Wawayanda, and more specifically the Minisink Valley Central School District, will allow the Town to improve its services to residents, and the school district to improve the general quality and character of its school system. Additionally, 25 jobs will be created for operation of the Project. CPV expects all 25 positions to be filled locally.

As stated previously, the Project site is located within an area specifically targeted for mixed commercial use, and will be consistent with the uses currently authorized in that area, as well as futures use proposed under the Comprehensive Plan.

The Project would aid in economic development and diversity by broadening the community's revenue base and creating stable new jobs in the energy industry. The siting of the Project allows economic development without threatening the goals of the other themes in the Town's Comprehensive Plan. One of the recommendations in the Town's plan is to balance commercial and industrial growth in the town's three school districts.

Relative to scale and size, portions of the Facility will be higher than the existing structures in the area, including the generation building (113 feet), Air Cooled Condensers (115 feet), and the Facility stacks (275 feet). The Facility's placement at the southern center portion of the Parcel helps to mitigate visual effects of the Facility structures from residential areas to the north of the site.

The Facility's combustion turbine stacks are the most visually prominent feature. One way to minimize stack height is to limit the height of nearby structures that determine the Good

Engineering Practice stack height. Preliminary modeling considered stack heights of up to 325 feet based on Good Engineering Practice stack height associated with an initial Facility design. Project design changes, including the reduction in the height of the air cooled condenser to 115 feet, reduced the Good Engineering Practice stack height to 287.5 feet. The final stack height of 275 feet for the combustion turbines was selected based on modeling that showed that this height was adequate to largely avoid increases in predicted impacts that can result from the effects of building induced downwash on stacks that are below Good Engineering Practice stack height.

The proposed landscaping plan is intended to enhance the appearance and natural beauty of the historical agricultural use of the existing property, and to enhance property values in the surrounding areas. Various small sections of the entrance to the Project site will be graded and seeded after construction. Land outside the Facility fence line will be left as buffer after construction and will be restored to its current open space use.

Other landscaping plans include adding trees and shrubs in areas on the site. To the maximum practical extent and when applicable, mature shade trees, vegetation, and unique site features such as stone walls will be preserved. A buffer area will be placed along the Route 6 boundary; and one shade tree (minimum caliper of three inches at four feet) will be planted for each 40 feet of lot frontage.

The natural vegetation, large buffer areas surrounding the Facility, and proposed landscaping will help shield full views of the Facility from off site locations. The exterior architectural treatment of the buildings (i.e., windows, doors, siding, etc.) will be painted a

neutral beige color to reduce visibility. The steel stack will be painted a neutral gray tone to complement the generation building. Non-reflective materials will be specified, where feasible, to further soften the Facility appearance and minimize the potential for glare.

The proposed transmission line interconnect will consist of an underground duct bank configuration routing within a 20-foot wide right-of-way. The underground alignment will basically parallel I-84. It will then parallel Route 17M and cross Route 6, eventually connecting to NYPA's Marcy South 345 kV right-of-way electric transmission system. The transmission line was placed underground to mitigate visual impacts and to avoid any change to the character of the area.

The Project will not have significant adverse impacts on the character of the surrounding community because it will not generate significant operational traffic, it is a use consistent with the existing and planned future character of the surrounding area, its visual impacts will be small given the landscaping and screening features incorporated into the Project design, its noise impacts will comply with applicable criteria, and it will not burden community services. The following are some of the Project attributes that will allow the Facility to blend with the existing community character:

- The Facility's placement at the southern center portion of the Parcel helps to mitigate visual effects of the Facility structures from residential areas to the north of the site.

-
- Various small sections of the entrance to the Project site will be graded and seeded after construction. Land outside the Facility fence line will be left as buffer after construction and will be restored to its current open space use.
 - To the maximum practical extent and when applicable, mature shade trees, vegetation, and unique site features such as stone walls will be preserved. A buffer area will be placed along the Route 6 boundary; and one shade tree (minimum caliper of three inches at four feet) will be planted for each 40 feet of lot frontage.
 - The exterior architectural treatment of the buildings (i.e., windows, doors, siding, etc.) will be painted a neutral beige color to reduce visibility. The steel stack will be painted a neutral gray tone to complement the generation building. Non-reflective materials will be specified, where feasible, to further soften the Facility appearance and minimize the potential for glare.

Based upon the analysis above, no additional mitigation for impacts to community character are required.

Unavoidable Adverse Impacts

As discussed previously, the proposed Project will result in significant long-term economic and other benefits to the Town of Wawayanda, the local school districts, special districts, Orange County, as well as the state as whole. When fully operational, the Project is capable of

providing a peak of approximately 630¹¹ MW of highly efficient, low cost electric power generation. The development of the site is consistent with the Town's zoning and comprehensive plan.

Despite the positive effects anticipated as a result of the Project, its construction and operation will necessarily result in certain unavoidable adverse impacts to the environment. The majority of the adverse environmental impacts associated with the Project will be temporary, and will result from construction activities. Site preparation (e.g., clearing, grading), and construction of the facility (including the electrical interconnection and water and sewer connections) will have short-term and localized adverse impacts on the soil, water, agricultural, and ecological resources of the site. This construction will also have short-term impacts on the local transportation system, air quality, and noise levels. These impacts will largely result from the movement and operation of construction equipment and vehicles, which will occur during the construction of the Project. The level of impact to each of these resources has been described in the EIS Documents. They will generally be localized and/or of short duration.

Long-term unavoidable impacts associated with operation and maintenance of the Project include visibility of the stacks and air emissions from Project operation. While the presence of the stacks will result in a change in perceived land use from some viewpoints, their overall contrast with the landscape will likely be low to moderate in most locations. Although the project will be a source of new air emissions, the air impact analyses demonstrate that those

¹¹ CPV Valley, LLC is listed as queue position 251 in the NYISO Interconnection Queue and has a maximum summer output ("SP (MW)") rating of 678 MW. The output of the facility varies depending on weather conditions. The 678 MW output represents the facility's maximum summer net output @ 85°F.

emissions will not create any significant adverse impacts. Project development will also result in an increased level of sound at some receptor locations within the study area, a minor loss of cropland/row crop ecological community, the conversion of Red Maple-hardwood swamp to non-forested wetlands, and the conversion of upland Beech-maple mesic forest to non-forested upland. As described in the EIS Documents, these impacts are not considered significant.

Although adverse environmental impacts will occur, they will be minimized through the use of various general and site-specific avoidance and mitigation measures, as described in the herein. With the incorporation of these mitigation measures, the Project is expected to result in positive, long-term overall impacts that will offset the adverse effects that cannot otherwise be avoided.

Alternatives

The EIS Documents described and evaluated a range of alternatives to the proposed Project. These alternatives included alternate sites, fuels, electric and gas interconnect routing, air emission control technologies, condenser cooling technologies, designs, equipment selections, and water supply options. The discussion of alternatives was principally contained in Section 19 of the DEIS, and in the related sections of the FEIS and Responses to Comments. The no action alternative was also evaluated.

Alternative Project Sites

As a private applicant without the power of eminent domain, CPV Valley is only required to consider reasonable alternative sites that are under its control. Nonetheless, CPV Valley did

conduct an alternate site screening analysis which concluded that the proposed Project Site is the preferred site. Further, and in any event, there are no suitable alternative sites under the control of CPV Valley.

Based upon the discussion in the EIS Documents, the Planning Board finds that all practicable alternatives have been reviewed and analyzed in the EIS Documents and that, with the Project changes described in the FEIS, there are no practicable alternatives to the Project that would avoid or minimize adverse environmental impacts to a greater extent.

Alternative Electrical Interconnection Routing

Three alternate routings for the electrical interconnection were considered in the DEIS. For all of the alternatives, the first segment of the route, on the Project Site, would be the same up to the eastern Project Site boundary at Route 17M. Alternative 1 would continue north from that boundary along the western shoulder of Route 17M to the NYPA 345 kV line right-of-way. Alternative 2 follows the same route to the Project Site boundary, but would then continue east beneath Route 17M, cross beneath a culverted section of a stream flowing from the site, and then continue via underground conduits to the east, crossing Sunrise Park Drive and a second culverted section of the stream. From there, Alternative 2 would continue east across Monhagen Brook to a set of tie-in structures at the existing NYPA lines. Alternative 3 would share most of its route with Alternative 2, but would cross Sunrise Park Drive at more of an angle to the northeast, and then would immediately cross Monhagen Brook east of the Sunrise Park Drive. All of the alternatives included evaluation of both overhead and underground routing configurations.

After consultation with ACOE, NYSDEC and NYISO and the other involved transmission owners, and consideration of the comments on the DEIS, CPV proposed to utilize Alternative 1 with an underground arrangement that exits the site and travels along the west side of Route 17M, and terminates at the new 345 kV GIS substation adjacent to NYPA's Marcy South transmission right-of-way, just north of the intersection of NY Routes 6 and 17M. Based upon its consideration of the EIS Documents, the Board finds that this proposed alternative is the one best suited for the Project and the community, and will avoid and minimize adverse environmental impacts to the maximum extent practicable.

Alternative Gas Line Routing

The Project's natural gas fuel will be transported to the Project via the Federal Energy Regulatory Commission (FERC) regulated Millennium Pipeline. The Project will interconnect to the existing Millennium Pipeline by a new 7 to 8 mile long gas transmission line, which would require approval from FERC. An alternative option of obtaining natural gas transportation service through Orange and Rockland Utilities, Inc. (O&R) was evaluated in the DEIS, which would have required the construction of a new 2 to 3 mile natural gas transmission line, which would require approval from the New York State Public Service Commission (PSC) under Public Service Law Article VII.

Section 17.5 of the DEIS provided a discussion of both alternatives. A map level and literature review of the potential environmental impacts to wildlife, wildlife habitats, wetlands, water bodies and resources, groundwater soils, vegetation, cultural resources and land use along the potential routing options was conducted. Details of the corridor level map and literature

review study are presented in Appendix 17-A of the DEIS. Routing options evaluated were anticipated to have relatively minimal environmental impacts and minimal cumulative environmental impacts with respect to the proposed Project.

CPV Valley has reached an agreement with Millennium Pipeline for the construction of the natural gas lateral connecting the Project to the pipeline. Millennium Pipeline has identified potential routes for the connecting pipe. The routes were evaluated based on utilization of existing rights-of-way and minimization of environmental impacts. The final routing will be the responsibility of Millennium Pipeline and will undergo its own separate environmental review and approval process.

Alternative Cooling Technologies

CPV Valley proposes to utilize air-cooled condensers to cool the exhaust from the steam turbine. Four alternatives to using an air-cooled condenser were evaluated in the EIS Documents: once-Through Cooling; mechanical draft (wet) cooling towers; hybrid (wet/dry) cooling towers; and natural draft cooling towers. For the reasons described in the EIS Documents, the Planning Board determines that use of an air-cooled condenser will avoid and minimize adverse environmental impacts to the maximum extent practicable.

Alternative Air Emissions Control Technologies

The proposed Facility design incorporates the use of SCR. SCR is an add-on NO_x control technique that is placed in the exhaust stream following the gas turbine/duct burner. SCR involves the injection of ammonia (NH₃) into the exhaust gas stream upstream of a catalyst

bed. On the catalyst surface, NH₃ reacts with NO_x contained within the flue gas to form nitrogen gas (N₂) and water (H₂O). Other air emissions control technologies evaluated in the EIS Documents included Selective Non-Catalytic Reduction (SNCR); XONON™; and SCONOX™. The Planning Board finds that, for the reasons described in the EIS Documents, use of SCR will avoid and minimize adverse environmental impacts to the maximum extent practicable.

Alternative Facility Designs

The EIS Documents evaluated a number of alternatives to the Project that would have resulted in a project of a smaller or larger generating capacity. The alternatives investigated included different turbine technologies, including “G” class turbines and a Siemens Westinghouse V84.3 steam turbine, and a project configuration without duct firing. The Planning Board agrees with the conclusions in the EIS Documents that use of the “F” technology with duct firing will provide the most cost-efficient facility, and will avoid and minimize adverse environmental impacts to the maximum extent practicable.

Alternate Site Layouts

The EIS Documents considered a number of potential site layouts on the 122 acre parcel. Locating the Facility at the south central portion of the 122 acre parcel was preferred for three reasons. First, it placed the proposed Facility proximate to nearby Route 6 and I-84 and proposed industrial properties; thereby providing for a continuation of the orderly development of the Project area by avoiding a fragmented development condition. Second, it placed the Project further away from nearby visual receptors in an effort to mitigate potential

visual impacts. Third, the location minimizes impacts to wetlands and vegetated habitats. The Planning Board concurs that the proposed layout will avoid and minimize adverse environmental impacts to the maximum extent practicable.

Alternate Stack Heights

The EIS Documents included evaluation of several ways to minimize the visibility of the proposed Facility, including changes to the Facility profile and size. The Facility's combustion turbine stacks are the most visually prominent feature. One way to minimize stack height is to limit the height of nearby structures that determine the Good Engineering Practice stack height. Preliminary modeling considered stack heights of up to 325 feet based on Good Engineering Practice stack height associated with an initial Facility design. Project design changes, including the reduction in the height of the air cooled condenser (ACC) to 115 feet, reduced the Good Engineering Practice stack height to 287.5 feet. The final stack height of 275 feet for the combustion turbines was selected based on modeling that showed that this height was adequate to largely avoid increases in predicted impacts that can result from the effects of building induced downwash on stacks that are below Good Engineering Practice stack height.

For the reasons described in the EIS Documents, the Planning Board finds that the 275 foot stacks will minimize adverse visual impacts, and enable the Project to blend with the surrounding area as much as possible.

Alternative Water Supply Option

CPV Valley proposes to utilize Treated Effluent from City of Middletown Sewage Treatment Plant for its process make-up water. The EIS Documents also considered the use of ground water, surface waters, and existing municipal potable water supplies for make-up water. Use of ground water and surface waters were found to be technically viable; however, existing municipal water supplies would not be able to meet the facilities make-up water needs. For the reasons described in the EIS Documents, the Planning Board determines that the proposed use of effluent from the City of Middletown Sewage Treatment Plant will avoid and minimize adverse environmental impacts to the maximum extent practicable.

Cumulative Impacts

Cumulative impacts potentially created by construction and operation of the Project are thoroughly evaluated in the EIS Documents. The evaluation focused on the projects for which sufficient location, layout, and design information was available to carry out a meaningful analysis. Based upon its review of the EIS Documents, and its knowledge of new land uses and developments proposed in the Town and the area near the Project Site, the Planning Board finds that the EIS Documents thoroughly analyzed the degree to which the impacts of the Project may have cumulative impacts with such other projects. Further, the Planning Board agrees with, and adopts the cumulative impact conclusions reached in, the EIS Documents, and finds that the Project will not cause or contribute to any significant adverse cumulative environmental impacts.

Certification of Findings To Approve

The Town of Wawayanda Planning Board has considered the relevant environmental impacts, facts and conclusions disclosed in the EIS Documents and other pertinent information, and has weighed and balanced relevant environmental impacts with social, economic and other considerations.

Having considered the information and the facts and conclusions relied upon to meet the requirements of 6 NYCRR 617.11, the Town of Wawayanda Planning Board certifies that:

- 1) The requirements of 6 NYCRR Part 617 have been met; and
- 2) Consistent with social, economic, and other essential considerations from among the reasonable alternatives available, the action is one that avoids or minimizes adverse environmental impacts to the maximum extent practicable, and that adverse environmental impacts will be avoided or minimized to the maximum extent practicable.

This Statement Is Not Complete Until Authorized As Follows:

Adopted By Resolution: May 9th 2012

Chairperson: Barbara Peterson