

**Draft Environmental
Impact Statement**

Cricket Valley Energy Project – Dover, NY

Section 7 – Alternatives

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List of Acronyms and Abbreviations – Section 7

ACC	air cooled condenser
BACT	Best Available Control Technology
CEA	Critical Environmental Area
ConEd	Consolidated Edison Company of New York
CVE	Cricket Valley Energy, LLC
DSM	Demand Side Management
GHG	greenhouse gases
gpd	gallons per day
gpm	gallons per minute
HRSG	heat recovery steam generator
Iroquois	Iroquois Gas Transmission
kV	kilovolt
LAER	Lowest Achievable Emission Rate
MGD	million gallons per day
MW	megawatt
NYSDEC	New York State Department of Environmental Protection
Property	131-acre property optioned by CVE
Project Development Area	The 57-acre portion of the 131-acre Property proposed for development
UA	unconsolidated aquifer
ULSD	Ultra-low sulfur diesel
USEPA	United States Environmental Protection Agency
ZLD	Zero liquid discharge

7. ALTERNATIVES

7.1 Introduction

This section discusses alternatives to the project that were considered, including the “no-action” alternative. The “no action” alternative describes likely circumstances if the project does not proceed. This section also explains Cricket Valley Energy, LLC’s (CVE’s) site and technology selection rationale and describes the alternative cooling and emissions control technologies that were considered. It also discusses facility design alternatives, including alternate facility sizes, fuel use alternatives, and alternative sources of water supply.

7.2 “No-Action” Alternative

The “no-action” alternative considers what would happen should the project not proceed. Under this assumption, the project’s purpose and public need would not be met, and the benefits summarized here and more fully discussed in Section 1.1 would not accrue. Also, the short-term and long-term impacts associated with the construction and operation of the project as detailed in Sections 2 through 6 would not occur.

Without the project, there are no plans to proceed with the removal of the site’s existing dilapidated structures and industrial debris, or the proposed site and wetland restoration activities. This industrially zoned parcel would continue to remain impaired, unutilized and unproductive for the foreseeable future. Therefore, the significant socioeconomic benefits discussed in Section 6.7, including construction and long-term jobs as well as significant tax revenue to the Town of Dover, Dutchess County and the State of New York would not accrue.

Without the project, the following benefits might not be achieved for New York State:

- Enhancing the reliability of the New York energy system
- Reducing greenhouse gas (GHG) and other air pollutant emissions
- Stabilizing energy costs and improving economic competitiveness

Without the project, the following benefits might not be achieved for the Town of Dover:

- Rehabilitating an inactive industrial site, currently in disrepair, and returning it to productive use
- Preserving a reach of the Swamp River and bordering wetlands
- Restoring existing previously damaged wetlands

- Stimulating economic growth without creating a significant burden on the community or significant adverse impact to the environment
- Creating approximately 750 construction jobs and, post construction, 25-30 full-time positions
- Increasing tax revenue
- Purchasing local materials and indirectly creating additional secondary employment, as discussed in Section 6.7

Under the “no-action” alternative, the electrical generating capacity of the project would need to be met through construction of additional generation capacity elsewhere. As described in Section 7.4, development of a comparable facility at another location with adequate access to natural gas supply and the bulk transmission system (i.e., with minimal off-site disturbance) and adequate buffer from other land uses would likely necessitate the use of a greenfield site instead of an inactive industrial site. Without the project or a similar new facility developed elsewhere within the region, the electrical output of the project would likely need to be met through continued and increased reliance on older, less efficient and higher emitting sources. Increased reliance on the current, older and less efficient fleet of power plants would result in:

- Higher emission rates of air pollution and GHG emissions in the region; and
- The loss of the regional air quality benefit that would be derived from the operation of the CVE plant, as quantified in Section 4.6.5 and explained below.

Because the proposed project is more efficient than the existing fleet of electric generating plants in the region, it will be called on to operate (dispatched) ahead of older, less efficient and higher emitting units. As a result, the operation of the project will have a significant net air quality benefit and result in a reduction in regional emissions of GHG. These emissions benefits are quantified in Section 4.6.5. Under the “no action” alternative, these benefits would not accrue.

Given the above factors, the “no-action” alternative was not considered a viable alternative to the project.

7.3 Demand Side Management

Demand Side Management (DSM) is an effective means of meeting future energy needs by optimizing supply and demand. DSM programs seek to both decrease energy consumption and optimize patterns of electricity usage through efficiency improvements in electrical appliances, more efficient use of electricity, and load interruptions during peak demand

times. In the New York Independent System Operator (NYISO) system, “load interruptible” facilities are considered Special Case Resources and can participate in the NYISO process to meet demand in the same way as generators do.

Aggressive DSM and deployment of new, higher efficiency, lower emitting base-load generating capacity are complementary energy strategies. This is recognized in the 2009 New York State Energy Plan, which among other things seeks to achieve its goals through “end-use efficiency” (for example through DSM) and “electric system efficiency” (for example through displacement of older, less efficient and higher emitting facilities with new, highly efficient, low emitting, state-of-the-art plants). Special Case (interruptible load) Resources best meet peak electric demands (typically the highest demand hours on the hottest days of the year). The proposed project is intended to meet base-load energy demand. As such, DSM and the proposed project serve different, and equally important, needs.

Clean, efficient, quick-start natural gas-fired generation plants are also needed as a physical hedge or safeguard against the failure of DSM resources. Experience in other states has shown that on peak energy consumption days, or in emergencies, DSM can only be relied on for a certain number of hours before the availability of DSM resources degrade, necessitating the use of physical generation.

The proposed project does not preclude or impede DSM measures such as interruptible load resources. Because DSM does not meet the project’s purpose and need, meeting growing base-load energy demands as summarized above and more fully discussed in Section 1.1, DSM was not considered a viable alternative to the project.

7.4 Alternate Project Sites

The 131-acre CVE site (the Property) was selected based on detailed criteria that included proximity to energy infrastructure (existing natural gas and electric transmission lines), appropriate industrial zoning, and sufficient land to create a natural buffer to minimize impacts to the surrounding community. A 57-acre portion of the Property that has largely been previously developed for industrial use (the Project Development Area), meets all of these criteria, specifically:

- It is adjacent to a 345-kilovolt (kV) electric transmission line owned by Consolidated Edison Company of New York (ConEd). No new off-site power lines will be built.