Note:
This summary was last updated on ***May 23, 2022***
For current information, follow this link:
PSC Docket Case #9437

Case #9437 (Modification)

CPV St. Charles Energy Center
5052 Thomas Edison Drive
Waldorf, MD
(Charles County)

Transmission Grid Reliability Project

PPRP Case Manager: Shawn Seaman

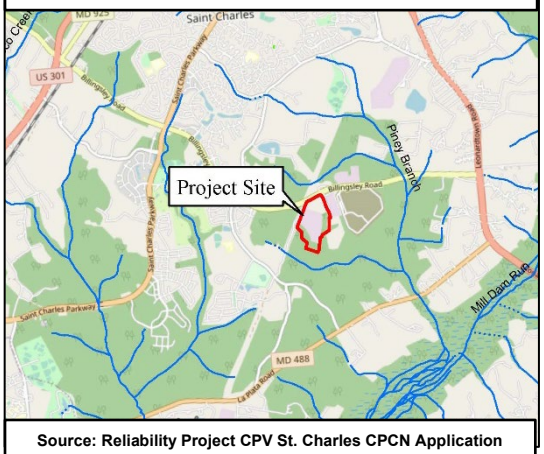
Note:
This summary is based on information provided in the CPCN Application dated ***January 14, 2022*** *which is subject to change and has not yet been fully reviewed by PPRP*

CPCN Timeline
CPCN Application filed on January 14, 2022
Applicant Direct Testimony: May 20, 2022
Interveners' Direct Testimony: June 22, 2022
Public Hearing: July 11, 2022 @ 7:00 pm
PSC Evidentiary Hearing: July 14, 2022 @ 10:00 am

Project Location:

The CPV St. Charles Energy Center (CPV St. Charles) is a 745 MW natural gas-fired electrical power generating facility located on a 76 acre site at 5052 Thomas Edison Drive in Waldorf (Figure 1). Google Map Link The proposed modification (the Project) and all associated laydown areas will be entirely within a portion of the site that has already been developed.

Figure 1: Project Location



Source: Reliability Project CPV St. Charles CPCN Application

Project Overview:

During a widespread power outage, most generating stations require an offsite power source to restart; therefore, the addition of onsite emergency generators capable of restarting the plant are needed to ensure timely grid recovery and reliability. Otherwise, generating stations must wait for adequate energy to be available on the grid before restarting. In an effort to improve grid recovery and reliability, the regional grid operator (PJM) has selected CPV St. Charles to install such capability.

Project components include four (4) new 3.5 MW emergency generators and a 25-foot high generator stack. The generators will be EPA Tier II-certified engines powered by ultra-low sulfur diesel fuel and will only be operated in the event of a large-scale blackout and will not alter the generating station's capacity.

In the event of a widespread power outage, the proposed generators will be started and used only until one of the facility turbines is restarted and running at 10% capacity. In addition, the proposed generators may be operated under non-emergency situations for up to 100 hours per year for testing and maintenance purposes. Historically, widespread power outages have been rare so the Applicant's ERD assumes one event per year for purposes of air emission calculations.

Site Description

The CPV St. Charles facility occupies a 76-acre site, of which approximately 54 acres have been developed to include the electrical generating power block, administration building, and employee parking areas. The remaining portion of the property remains undeveloped to provide a buffer between power block and the property boundary. The Application indicates that the proposed Project would be situated entirely within the developed portion of the site (Figure 2).

The area immediately adjacent to the CPV St. Charles facility remains largely undeveloped, with the exception of several industrial sites, including an asphalt mixing plant and the Charles County Landfill, both located to the east. The nearest residences are located approximately 0.5 miles to the west and Regency Furniture Stadium is located approximately 0.75 miles to the southwest.

MARYLAND DEPARTMENT OF NATURAL RESOURCES

Figure 2: Aerial Photograph of Project Site

Source: Reliability Project CPV St. Charles CPCN Application

Impact Assessment Highlights

Air Impacts

- The Project's estimated potential NOx and VOC emissions are below the Nonattainment New Source Review applicability threshold for Charles County (25 tons per year).
- The Applicant indicates that the Project will comply with all applicable State emissions requirements (i.e. for Nuisance, Odors, Visible Emissions, and Control of Sulfur Oxide and NOx Emissions).
- The Applicant states that the Project will comply with the federal New Source Performance Standard for Stationary Compression Ignition Interval Combustion Engines by utilizing generators that are certified to meet EPA Tier-2 emission standards.
- The Applicant indicates that the Project will not exceed the Prevention of Significant Deterioration (PSD) significant emission rates listed in 40 CFR 52.21 and as such, the Project is considered a minor modification and is not subject to PSD New Source Review requirements.
- The Applicant indicates that greenhouse gas emissions will be minimal due to infrequent operation of the proposed emergency generators.

Biological

The Applicant states that the Project will not cause adverse impacts to ecological resources.

- No additional water will be required for construction or operation of the Project and construction dewatering is not anticipated. There will be no direct discharges to ground water or surface water. The Project will involve limited additional impervious area, and best management practices will be used for sediment and erosion control during construction.
- The property includes a few small, isolated wetlands but that because of the Project's location and the anticipated minimal runoff, there will be no wetland impacts. The site is not located within the Critical Area and is over 1 mile from the nearest Tier II stream segment and approximately 10 miles from the nearest Scenic or Wild River segment.
- Although surrounded by forested areas, the site is largely covered by infrastructure and lacks ecological habitat and the Project will be limited to the developed portion of the site; thus, impacts to wildlife and rare, threatened, and endangered species are not anticipated.
- The only waste anticipated to be generated during operation of the Project is a small quantity of used oil from changing the oil in the emergency generator engines.

Noise Impacts

- The Applicant indicates that no significant noise impacts are expected during operation of the system due to the infrequent and short duration operation of the generators and the fact that running the turbines at 10% capacity will not generate more noise than their operation at full capacity.

Transportation

- During construction there will be equipment deliveries and daily worker traffic to and from the site. Construction traffic is expected to arrive to the site via Billingsley Road.
- The Applicant states that there will be no impacts to aviation safety or visual quality because the 25-foot generator stack is shorter than the existing 150-feet generating station stack.

Economic and Fiscal

- The Applicant states that the Project will create temporary jobs during the construction period, but that overall, the project construction and operation represent small capital costs that are not expected to significantly impact the state economy.
- The Application indicates that the Project will benefit the stability and reliability of the electrical grid system.

Cultural & Aesthetic

- The Application indicates that because the Project will be constructed on previously developed land, no historical or archaeological impacts are expected.