**Environmental Justice/Title VI Review**
**Prime Data Centers**
**I.D. No.:** 031440AWZ
Application No.: 24090003

*1. Introduction*

This document describes the various Environmental Justice (EJ) and Title VI[1]-related considerations undertaken by the Illinois EPA's Bureau of Air in evaluating the above-referenced construction permit application. Because the proposed project will be located in an EJ area of concern, the Illinois EPA's policies for enhanced public outreach and evaluating potential impacts to overburdened communities were addressed in the permit review process. In addition, a Title VI-related settlement agreement (i.e., Informal Resolution Agreement or IRA) entered between the Illinois EPA and the USEPA in February 2024[2] was applied to this review process and resulted in a written analysis of the applicant's history of prior adjudications and past compliance, as discussed later.

*2. Permitting Project:*

Prime Data Centers (Prime Data) proposes to construct an electronic data center located at 1600 East Higgins Road, Elk Grove Village, Illinois. Elk Grove Village is a community comprised of an estimated 32,000 people and is located directly next to the O'Hare International Airport. The area is home to a concentrated hubs of manufacturing, logistic freight, and other economic activities, including several data centers.

Data center operations are generally classified as Computer Processing and Data Preparation and Processing Services, Code 7376, under the Standard Industrial Classification system. Recent media reports indicate that increasing demands for internet-driven services, cloud storage and artificial intelligence (AI) technology are spurring new or expanding data center developments across the industry. Such efforts are generally viewed as essential to promoting the Nation's modern infrastructure needs.

Prime Data proposes to 39 diesel-fired emergency generators (Cummins model rated at 3,250 kilowatt (kW)) at the new data center designated ORDO1-01. These emergency generators will meet the USEPA's Tier 2 emission standards for non-road engines over 37kW (50 horsepower); the regulations classify engines as Tier 1 through Tier 4, with each tier reflecting more stringent standards over time. The emergency generators are used to support the data center when electrical generating power from the grid

[1] Title VI refers generally to the requirements of Title VI of the federal Civil Rights Act of 1964, which is one of eleven titles to the law and is entitled "Nondiscrimination in Federally Funded Programs." See, 42 U.S.C. §§2000d to §§2000d-7.

[2] The negotiated terms of this IRA involved a Title VI disparate impacts complaint filed with USEPA in 2020 stemming from the issuance of a construction permit to General III for the relocation of a scrap metal recycling facility to Chicago's Southeast Side. The *General III* IRA memorializes the Illinois EPA's commitment to consider additional factors in its review of certain construction permit applications, as well as to enhance its public participation policies, for the purpose of improving transparency and assuring meaningful public access to its programs and activities. Additional information concerning the settlement agreement can be found on the Illinois EPA's webpage (i.e., use the Environmental Justice tab from the General Information drop-down menu).

is not available due to outages. Based on air quality modeling performed for the project, as noted below, 20 of the 39 emergency generators will be equipped with diesel particulate filters (DPFs) as a means of emissions control. See, Special Condition 12(b). Other modeling limitations include restricting each engine to no more than 35 hrs/yr for maintenance and readiness testing, as well as a restriction to limit the fuel use of the engines to ultralow sulfur diesel (ULSD) with a sulfur content of no more than 15 parts per million by weight (ppmw)(Special Condition 12(c).

For this construction permit, Prime Data is limiting the operating schedule and run-times of each emergency generator so as not to operate beyond a daily schedule of 8am to 6pm and not to exceed 35 hours per year (hrs/yr)( for a total of 1,365 hrs/yr combined for all generators). See, Special Condition 12(a)(i) and (ii). In addition, the company is also limiting its emissions to restrict its potential-to-emit estimates of criteria pollutants to less than major source thresholds. More specifically, the issued construction permit contains pounds per hour (lbs/hr) and tons per year (tons/yr) emission limits on the uncontrolled emergency generators for the following pollutants: carbon monoxide (CO), nitrogen oxides (NOx), particulate matter (PM), $PM_{2.5}$, $PM_{10}$, sulfur dioxides ($SO_2$), and volatile organic materials (VOM). For emissions of NOx, which are a pollutant of concern because they are generated in the highest amounts during the run-time of the emergency generators, the company is accepting limits of 46.81 lbs/hr and 15.56 tons/year. See, Special Condition 12(b). For the emergency generators that are controlled with DPFs, the $PM_{2.5}$ and $PM_{10}$ limits are reduced by the permit from 2.05 lbs/hr and 0.68 tons/yr to 0.205 lbs/hr and 0.072 tons/yr respectively. See, Special Condition 12(c).

*3. Emissions Profile of Area and Proposed Project:*

As noted, the Elk Grove Village area is the home of numerous manufacturing and/or industrial activities, including other electronic data centers. The area within an approximately one-mile radius of the proposed site includes a high school and elementary school, an animal hospital, a cemetery, the Busse Forest Nature Preserve, and seven parks.

The Elk Grove Village location for this construction permit is in Cook County, which is designated as "serious" non-attainment area for the 8-hour ozone (2015) standard and attainment for all other criteria pollutants. The construction permit prepared by the Illinois EPA in this proceeding will contain federally enforceable permit limits that will assure that the proposed facility will be constructed and operated as a permitted minor source.

This construction project would result in proposed increases in annual permitted emissions of criteria pollutants from the facility, as follows:

| **Pollutants** | **Proposed Emissions Increase** |
|---|---|
| | **(Tons per Year)** |
| NOx | 31.94 |
| Carbon Monoxide (CO) | 18.21 |
| Particulate Matter (PM) | 0.752 |
| Volatile Organic Material (VOM) | 0.04 |
| Sulfur Dioxide ($SO_2$) | 1.68 |

It should be noted that the environmental impacts associated with this project do not reflect continuous operation of the engines from the project but, rather, only during planned maintenance and testing and at times when the facility experiences a power outage.

*4. EJ Screen Results:*

The Illinois EPA continues to implement its EJ Policy through the use of EJ Start, which relies on census data for identifying potential areas of EJ concern based on low income and minority populations. In this case, the Illinois EPA conducted enhanced public outreach because the mapping tool identified the area surrounding the proposed site as a potential area of EJ concern. See, EJ Outreach below.

At the time of this permit review, information identifying EJ-related screening results previously obtained through the U.S. Environmental Protection Agency's EJScreen webpages are no longer available. Other federal agency screening guides, including the Environmental Justice Index administered by the Centers for Disease Control (CDC) and the Agency for Toxic Substances and Disease Registry (ATSDR) and the Climate and Environmental Justice Screening Tool administered by the White House Council for Environmental Quality (CEQ), are also unavailable.

Demographical information relating to the affected community can be found on Wikipedia: The Free Encyclopedia at Elk Grove Village, Illinois - Wikipedia and on a detailed facility report for this facility generated by USEPA's enforcement and tracking database known as the Enforcement and Compliance History Online (ECHO).

*5. EJ Outreach and Public Participation Process:*

The Illinois EPA conducted enhanced outreach through the EJ notification process. The EJ notification letter was sent to 87 separate groups, individuals, and elected officials on October 3, 2024. No inquiries were received in response to the EJ notification letter.

In accordance with the Illinois EPA Language Access Plan (LAP), Illinois EPA reviewed the American Community Survey results from the 2020 Census Bureau for the area of the proposed site. The percentage of households who speak English less than very well at home is 11.4% (Language Spoken at Home | American Community Survey | U.S. Census Bureau).

*6. Air Quality Modeling Analysis:*

At the Illinois EPA's request, the project underwent a comprehensive air quality modeling analysis to predict the air quality impacts from the project. An initial modeling report and electronic modeling files was submitted by Atmospheric Dynamics, Inc., (ADI) to the Illinois EPA on January 9, 2025.

The source impact analysis of the relevant NAAQS and their respective averaging periods showed modeled concentrations from the facility operating at various loads and their comparison to USEPA's significant impact levels (SILs) for the various pollutants. The modeling results showed modeled impacts for the 24-hour averaging periods for $PM_{2.5}$ and $PM_{10}$, as well as the 1-hour averaging period for $NO_2$,

exceeding the respective SIL for each pollutant, and the Modeling Unit's audit confirmed the source impact analysis results. The Modeling Unit recommended the use of DPFs on a significant number of the emergency generators (i.e., 20 out of 39) to limit diesel PM to 0.02 grams/British horsepower (bhp) per hour (hr), as comparative analyses showed results that such DPFs would reduce model impacts below the SILs. The Modeling Unit also undertook an analysis addressing the anticipated impact of precursor increases of NOx, $SO_2$ and VOM on both ozone ($O_3$) and $PM_{2.5}$. These results did not show the project as significantly impacting $O_3$ or $PM_{2.5}$ from secondary formation.

A NAAQS analysis of modeled concentrations of $NO_2$ (1-hour and annual averaging periods), $PM_{10}$ (24-hr averaging period) and $PM_{2.5}$ (24-hr averaging period) was preformed by the consultant. Modeling results showed that the $NO_2$ annual averaging period and both of the $PM_{10}$ and $PM_{2.5}$ 24-hr averaging periods would be below their respective NAAQS values. Only the 1-hr $NO_2$ standard revealed a modeled exceedance, which resulted in the Modeling Unit performing a culpability analysis to determine if the project would cause or contribute to these modeled exceedances. This analysis demonstrated Prime Data's contribution to the standard being less than the 1-hr $NO_2$ SIL, indicating that the project would not cause or contribute to a NAAQS exceedance.

The Modeling Unit also performed an air toxics analysis that evaluated several pollutants associated with the project (naphthalene, acetaldehyde, acrolein, benzene, formaldehyde, toluene, and xylenes) for their potential emissions and compared them to reference concentrations from the California's Office of Environmental Health Hazard Assessment. Based on this comparison, all modeled concentrations were below their respective reference concentrations.

For additional details concerning the modeling analysis, see the Memorandum from the Modeling Unit to the State Permits and FESOP Unit of the Permit Section, June 4, 2025.

*7. Permit Enhancements:*

Permit enhancements consist of permit conditions that are incorporated into construction permits by the Illinois EPA to assure that a source can achieve compliance with applicable requirements, or that are necessary to accomplish the purposes of the Illinois Environmental Protection Act (Act) and are not inconsistent with Illinois Pollution Control Board (PCB) regulations. The Illinois EPA frequently considers permit enhancements when authorized by existing law.

As previously noted, the issued construction permit authorizes construction of the 39 emergency generators, however, 20 of the engines will be voluntarily equipped by the applicant with DPF controls. The issued permit also contains limitations on the daily operating schedule, the runtime for the generators in hrs/yr for both individual engine and combined engine, and emissions from criteria polluants in lbs/hr and tons/yr. See generally, Special Condition 12(a), (b) and (c). The modeling analysis also resulted in a number of restrictions, mentioned above in the modeling discussion, that are also carried over into the construction permit. As a result of these limitations, the permittee's proposed facility will be restricted to emission levels that are protective of the NAAQS and that are below emission thresholds that would

otherwise trigger major source requirements under the nonattainment areas regulations found at 35 Ill. Adm. Code Part 203. The finding of non-applicability of the major source rules is shown in Special Condition 1(a) of the permit.

In addition, the source has submitted an episode action plan for the facility, consistent with other recent data center projects permitted by the Illinois EPA. In this regard, the source will comply with the requirements of Subpart C, entitled Episode Action Plans, of 35 Ill. Adm. Code Part 244. Special Condition 11(a) of the construction permit address these requirements.

*8. Past Adjudications and/or Past Compliance History of Applicant:*

Because the construction project implicated the requirements of the *General III* IRA, the EJ/Title VI review document for this permitting action affirmatively considered the prior adjudications and past compliance history of the permit applicant, consistent with existing permit authorities found in the Act.

In this instance, the applicant does not have a history of past operation in the Elk Grove Village vicinity and the permitted facility is a new source. A search of the applicant's name does not reveal any prior adjudications or the entry of agreed consent orders by Illinois state courts or by the PCB. A review of the applicant's past compliance history for air-related matters from USEPA's Enforcement and Compliance History Online (ECHO)) does not show compliance data entries or compliance issues for the applicant.

*9. Additional Considerations:*

Increased emissions of PM (especially $PM_{2.5}$) and HAP-related emissions from a permitting project may present concerns to people residing in the vicinity of a project's planned location, particularly where there are other industrial sources located nearby. $PM_{2.5}$ is often a pollutant of concern in communities that border areas of industrial or manufacturing activity because of the adverse effects that smaller-sized particles of PM may pose to the environment or to human health. For this project, there is a negligible increase in permitted annual emissions of PM for the 19 engines not equipped with DPFs (i.e., at 0.68 tpy) and even fewer emissions for the 20 engines equipped with DPFs (i.e., 0.07 tpy). The air quality modeling analysis confirmed that modeled concentrations of PM2.5 and PM10 emissions for this project would be below the applicable NAAQS standard and respective averaging period for both components of PM.

HAP-related emissions from a construction project may also pose public concerns due to their individual or collective impacts. For this project, the Modeling Unit concluded that a toxics analysis of seven Organic Process HAPs expected from the generator operations. The modeling analysis showed that modeled concentrations of the pollutants would be below reference concentration levels identified by the California OEHHA. The construction permit also contains a permit restriction common to minor source permits, as shown in Special Condition 13, for limiting the project's potential to emit to less than 10 tpy for any single HAP and 25 tpy for any combination of total HAPs, assuring that the source avoids major source status under the requirements of Section 112(g) of the Clean Air Act.

*10. Evaluation of Title VI Criteria for Disparate Impact Discrimination:*

As described by the Overview and Implementation webpage for the *General III* IRA, the criteria for evaluating whether agency action is responsible for disparate impact discrimination is 1) identifying the policy or practice at issue, 2) a showing of adversity/harm, 3) a showing of disparity and 4) a showing of causation. Although this examination can be complicated, the operative criterion in most cases involving the permitting of air pollution sources is adversity/harm. The Illinois EPA's analysis in this review document examines the issue of alleged adversity/harm by assessing whether circumstances would support an enforcement action brought under existing environmental laws and regulations.

a. Substantive Standards

The issued construction permit will increase annual permitted emissions of NOx and, to a lesser degree, CO. Permitted increases of VOM, PM, and $SO_2$ emissions associated with the project are largely *de minimis*. Based on the air quality modeling analysis, increased emissions from the project will not violate the NAAQS. As noted, the construction permit will limit runtime and emissions from the emergency generators to assure that the source remains a minor source (nonmajor for purposes of air permitting programs). Other permit restrictions were established in the construction permit for modeling purposes. Nothing presented in the permit review indicates that the proposed project would cause a violation of air emission standards addressed by the Act, the PCB's Subtitle C (Air Pollution) regulations, or applicable federal regulations adopted by USEPA and enforceable by the Illinois EPA under state law.

b. Narrative Standards

The Illinois EPA has no information that would demonstrate a violation of a narrative standard of air pollution based on possible health impacts.

c. Nuisance-Based Standards

There is no history of odor complaints or nuisance believed to be associated with the proposed facility, such that a claim of statutory or common law nuisance could be demonstrated.