June 30, 2022

VIA EMAIL AND CERTIFIED MAIL

Mr. Dale Irwin
Greendige Generation, LLC
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Re: Notice of Denial of Title V Air Permit
DEC ID: 8-5736-00004/00017
Greendige Generation LLC – Greenidge Generating Station
Title V Air Permit Application

Dear Mr. Irwin:

On March 5, 2021, Greenidge Generation LLC (Greenidge or Applicant) submitted a timely application to renew its Clean Air Act Title V (Title V) air permit to the New York State Department of Environmental Conservation (DEC or Department). Greenidge seeks to renew its Title V air permit to allow for the continued operation of the Greenidge Generating Station, a primarily natural gas-fired electric generating facility with a 107 megawatt (MW) capacity located in the Town of Torrey, Yates County (Facility). The Applicant’s Title V permit term for the Facility ended on September 6, 2021.

The Department has reviewed information submitted by Greenidge, including in the initial Title V air permit renewal application as well as supplemental materials submitted in response to comments and requests for additional information made by the Department (collectively, the Application). The Department has also reviewed approximately 4,000 public comments received on the Application from individuals or organizations during the public comment period.¹

As described further below, and as initially indicated by the Department in the Notice of Complete Application,² the renewal of the Title V permit for the Facility would be inconsistent with or would interfere with the attainment of the Statewide greenhouse gas (GHG) emission limits

¹ The public comment period ran from September 8, 2021 through November 19, 2021.
established in Article 75 of the Environmental Conservation Law (ECL). Moreover, Greenidge has failed to demonstrate that the continued operation of the Facility is justified notwithstanding this inconsistency, as it has not provided any electric system reliability or other ongoing need for the Facility. Finally, while Greenidge proposed limited GHG mitigation measures at the Facility as part of the Application, Greenidge has not identified adequate GHG mitigation measures or alternatives and in any case the Department need not reach this stage of the analysis given that the Facility’s inconsistency is not justified.

Therefore, based on the specific facts and circumstances associated with this Facility and the Application, the Department is unable to satisfy the required elements of Section 7(2) of the Climate Leadership and Community Protection Act (CLCPA or Climate Act). Thus, the Application is hereby denied. As required by Title 6 of the New York Codes, Rules, and Regulations (6 NYCRR) Section 621.10, a statement of the Department’s basis for this denial is provided below.

**BACKGROUND**

I. Facility Description and History

The Facility is a 107 MW capacity electric generating facility located on the shores of Seneca Lake in the Town of Torrey, Yates County. The Facility originally operated as a coal-fired power plant and was in operation as early as the 1930s. Unit 4 of the Facility was installed in 1953. The Facility ceased operations as a coal-fired power plant in March 2011. Thereafter, the prior owner of the Facility relinquished the Title V permit for the Facility in 2012.

In 2014, Greenidge applied for a new Title V air permit to restart operations at the Facility. As part of the application for restarting operations at the Facility, Greenidge indicated it would switch the Facility’s primary fuel from coal to natural gas. The reopening of the Facility was, according to Greenidge, for the purpose of producing electricity on a limited basis to be sold into the New York Independent System Operator (NYISO) market. That is, the Facility was to be utilized in a “peaking” capacity, providing a limited amount of electricity to the grid in certain circumstances. At that time, Greenidge did not indicate that it intended to utilize a significant amount of the energy generated by the Facility behind-the-meter for its own purposes. That is, Greenidge did not indicate in the initial application that it intended the Facility to primarily serve increasing energy load from on-site cryptocurrency mining operations, rather than provide energy primarily to the electricity grid.

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3 ECL § 75-0107(1). See also 6 NYCRR Part 496, Statewide Greenhouse Gas Emission Limits (Part 496).
4 Chapter 106 of the Laws of 2019.
5 6 NYCRR § 621.10(f) (“An application for a permit may be denied for failure to meet any of the standards or criteria applicable under any statute or regulation pursuant to which the permit is sought”).
6 By letter dated November 18, 2012, the Department received a letter from the prior owner of the Facility regarding the permanent shutdown and pending demolition of the Facility. By letter dated December 19, 2012, the Department confirmed, pursuant to 6 NYCRR § 621.11(e), that the prior owner had satisfied all requirements for permit relinquishment per 6 NYCRR § 621.11(d). Thus, the Title V permit for the Facility’s prior owner became null and void upon acceptance by the Department in its December 19, 2012 letter.
Based on the application materials provided by Greenidge, the Department’s understanding at the time was that the Facility would only be producing electricity to be sold to the grid. In fact, this understanding formed the basis for part of the Department’s findings pursuant to the State Environmental Quality Review Act (SEQRA). As part of the Department’s SEQRA negative declaration associated with the 2016 Title V permit issuance, the Department noted that “the operation of the plant itself will not create a new demand for energy. Rather, it will serve as another facility to help meet the current electricity needs of the region. As a result, the plant will have no significant adverse impacts in increasing the use of energy.”

As part of its review of the Title V permit application for the restart of the Facility on natural gas, the Department undertook an analysis pursuant to the requirements of New Source Review (NSR). Among other requirements, the NSR review resulted in the imposition of Best Available Control Technology (BACT) emission limits for GHGs. This included a Title V permit limit of 641,878 tons per year of carbon dioxide equivalents (CO2e) and other related limits.

The Department initially issued the Title V permit for the Facility on September 7, 2016. The permit term was for a period of five years, or until September 7, 2021.

II. Procedural History of Application

The Department received the initial renewal application from Greenidge on March 5, 2021. Notably, in the initial renewal application, Greenidge made no mention of its ongoing change in the primary purpose of the Facility’s operation, including the increased energy demand created by the new behind-the-meter cryptocurrency mining operations. Instead, the Applicant merely emphasized that the renewal application requested only minor changes to the existing permit.

On May 3, 2021, the Department issued a Notice of Incomplete Application (NOIA) to Greenidge. Among other things, the NOIA noted that the Application lacked information for the Department to determine if renewal of the permit would be inconsistent with or would interfere with the attainment of the Statewide GHG emission limits established in ECL Article 75. As part of the NOIA, the Department sought various information from the Applicant regarding the GHG emissions associated with the Facility, including the Facility’s potential to emit (PTE) GHGs, projections for anticipated future GHG emissions, actual historical GHG emissions, and upstream GHG emissions.

On June 30, 2021, the Department sent a Request for Additional Information to the Applicant (RFAI 1) in conjunction with a request to mutually suspend timeframes for review under the Uniform Procedures Act (UPA). RFAI 1 provided additional clarity regarding the GHG emission information requested in the NOIA, and sought additional technical information from

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7 ECL Article 8; 6 NYCRR Part 617.
8 SEQR Part 3, Full Environmental Assessment Form Evaluation of the Magnitude and Importance of Project Impacts and Determination of Significance, DEC Application #8-5736-00004/00001m/00016, and /00017 at 3 (June 28, 2016) (2016 SEQR Determination).
9 The Department implements the requirements of the federal Clean Air Act’s NSR program through its regulations at 6 NYCRR Part 231.
Greenidge to inform the Department’s required analysis under Section 7 of the Climate Act. This included a request from DEC for Greenidge to identify when the Facility began cryptocurrency mining operations, along with how much electricity the Facility provided to the grid as compared to its behind-the-meter use.

On August 2, 2021, Greenidge submitted a response to DEC’s RFAI 1 (Greenidge CLCPA Submission 1) providing the Department with some of the information it requested in the NOIA and RFAI 1.

On August 16, 2021, the Department sent a second Request for Additional Information to the Applicant (RFAI 2). Based on an initial review of Greenidge CLCPA Submission 1, RFAI 2 sought additional information from the Applicant, including regarding the current and planned generating capacity and utilization rate of the Facility. Among other things, RFAI 2 sought from Greenidge a discussion of the portion of the Facility’s output that will be used for each mode of operation (e.g., grid vs. on-site consumption for blockchain or cryptocurrency mining operations).

On August 20, 2021, Greenidge submitted a response to DEC’s RFAI 2 (Greenidge CLCPA Submission 2), again providing the Department with some information in response to its requests in RFAI 1, RFAI 2, and the NOIA.

On September 6, 2021, the Title V permit term for the Facility ended.

On September 8, 2021, the Department published the Complete Notice in its Environmental Notice Bulletin. As the Department emphasized in the Complete Notice, while the Department made a draft Title V permit available for public review, the Department had not made any tentative or final determination to issue any permit for the Facility. In particular, as part of the Complete Notice, the Department explained the necessary findings that the Department would need to make pursuant to Section 7(2) of the Climate Act prior to issuing any final permit for the Facility.

The Complete Notice initially established October 22, 2021 as the deadline for receiving public comments on the draft permit and Application. The Department subsequently extended the public comment deadline to November 19, 2021. On October 13, 2021, the Department’s Office of Hearings and Mediation Services conducted two virtual public legislative hearings pursuant to 6 NYCRR Part 621 to receive statements from members of the public on the draft permit and Application for the Facility. A total of 102 individuals provided oral statements at the two legislative public comment hearings. A total of 3,883 written public comments were received during the public comment period, substantially all of which were in opposition to the Facility and Application.

On March 25, 2022, following the close of the public comment period, the Applicant submitted a letter to DEC in further support of its Application (Greenidge GHG Mitigation Proposal). In addition to reasserting its positions regarding the supposed consistency of the Facility with the Climate Act, the Greenidge GHG Mitigation Proposal also proposed two additional limits to be included in any final permit for the Facility. In particular, the Greenidge GHG Mitigation Proposal offered: (1) a binding condition that requires a 40% reduction in GHG emissions from
current permitted levels by the end of 2025; and (2) a requirement that the Facility be zero-carbon emitting by 2035.

Following the close of the public comment period, on multiple occasions the Department and the Applicant mutually agreed to extend the relevant timeframes for the Department’s decision on the Application pursuant to the UPA. Most recently, on March 30, 2022, following the submission of the Greenidge GHG Mitigation Proposal, DEC and the Applicant mutually agreed to extend the UPA decision deadline to June 30, 2022.

BASIS FOR DENIAL

I. Overall Climate Act Requirements

The Climate Act, effective January 1, 2020, establishes economy-wide requirements to reduce Statewide GHG emissions. Article 75 of the ECL establishes Statewide GHG emission limits of 40% below 1990 levels by 2030, and 85% below 1990 levels by 2050. As set forth in the Climate Act, Statewide GHG emissions include all emissions of GHGs from anthropogenic sources within the State, as well as upstream GHGs produced outside of the State associated with either: (1) the generation of electricity imported into the State; or (2) the extraction and transmission of fossil fuels imported into the State. This includes the upstream GHG emissions associated with the production and transmission of the natural gas or other fossil fuel to be combusted at the Facility.

As required by the Climate Act, on December 30, 2020, the Department finalized its regulation to translate these statutorily required Statewide GHG emission percentage reduction limits into specific mass-based limits, based on estimated 1990 GHG emission levels. Pursuant to Part 496, the 2030 and 2050 Statewide GHG emission limits are, respectively, 245.87 and 61.47 million metric tons of CO2e on a 20-year Global Warming Potential (GWP) basis.

CO2e provide a measure of the relative GWP of each individual type of GHG to that of carbon dioxide (CO2) over a specific time frame. CO2 is assigned a value of one (1) and all other GHGs have a GWP greater than that of CO2 when measured on a pound-for-pound basis. For example, the GWP of methane on a 20-year basis (GWP20) is defined in Part 496 as 84, meaning that one ton of methane emissions has the same global warming impact as 84 tons of CO2. Equating the GWP of various GHGs to that of CO2 provides a uniform basis for the analysis of the relative climate impact of different compounds. The GWP of a compound is also dependent on the timeframe used for measurement. Under the Climate Act, as required by ECL Article 75, GHGs must be measured using a GWP based on GWP20, rather than the one-hundred-year timeframe (GWP100) most typically used by the federal government and the United Nations. The CO2e,

10 ECL § 75-0107(1).
11 ECL § 75-0101(13).
12 ECL § 75-0107(1).
13 See Part 496.
14 6 NYCRR § 496.4.
15 ECL § 75-0101(2).
using GWP20, of each GHG under the Climate Act is listed in a table in the Department’s regulations at 6 NYCRR Section 496.5.

In addition to these Statewide GHG emission reduction requirements established in the ECL, the Climate Act includes a new Public Service Law (PSL) Section 66-p. This provision requires the Public Service Commission (PSC) to implement programs to ensure that, subject to certain limited exceptions, 70% of electricity generation is renewable by 2030 and all electricity generation in the State is zero emissions by 2040. In addition to the current and in effect requirements of Section 7, the Climate Act also established the Climate Action Council, which is currently developing a Scoping Plan that will provide recommendations for how the State will achieve the Statewide GHG emission reduction requirements. Finally, by January 1, 2024, the Department must promulgate substantive and enforceable regulations on all GHG emission sources that reflect the Scoping Plan’s recommendations and ensure compliance with the Statewide GHG emission limits.

II. Requirements of Climate Act Section 7(2)

A) General Requirements of Section 7(2)

While the State is currently in the process of implementing the CLCPA, including through the development of the Scoping Plan and regulations described above, the requirements of CLCPA Section 7, as noted, are already in effect. Moreover, the Department has authority under Section 7(2) of the Climate Act to deny a permit application where, as here, such denial is warranted based on its application of this statutory provision to the facts at hand. Section 7 of the Climate Act applies to the Facility for purposes of the Department’s review of the Application. Among other requirements, as noted in the Complete Notice, the Department cannot renew the Title V permit for the Facility unless the Department can ensure compliance with all requirements of CLCPA Section 7.

Section 7(2) of the Climate Act has three elements. First, as is relevant here for purposes of the Department’s review of the Application, the Department must consider whether the renewal of a Title V permit for the Facility would be inconsistent with or interfere with the attainment of the Statewide GHG emission limits established in ECL Article 75. Second, if the renewal of a Title V permit for the Facility would be inconsistent with or would interfere with the Statewide GHG emission limits, then the Department must also provide a detailed statement of justification for the continued operation of the Facility notwithstanding the inconsistency. Third, in the event a

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16 ECL § 75-0103.
17 ELC § 75-0109.
18 Danskammer Energy, LLC v. NYSDEC, et al., Index No. EF008396-2021, at 67 (Orange Cnty. Supreme Court, June 8, 2022) (“The section at issue, by its plain language, is of immediate effect.”).
19 Id., at 75.
20 In addition to the requirements of Section 7(2) of the Climate Act regarding consistency with the Statewide GHG emission limits, prior to renewing any Title V permit for the Facility, the Department would also need to ensure compliance with the requirements of Section 7(3) with respect to potential disproportionate impacts on disadvantaged communities, as discussed further below.
justification is available, the Department would also have to identify alternatives or GHG mitigation measures to be required for the Facility.

It is important to emphasize that the Department’s review of relevant permitting decisions pursuant to Section 7(2) of the Climate Act is a case-specific inquiry. That is, the statutory requirement sets forth the three-pronged analysis the Department must undertake; the Department then applies these elements of Section 7(2) on a case-by-case basis to each relevant permitting decision, based on the specific facts and circumstances associated with the facility and application. In all cases, the Department reviews the administrative record before it – including application materials, supplemental information, and all public comments – prior to making any determination under 6 NYCRR Part 621 and CLCPA Section 7(2).

B) Section 7(2), the Application, and the Facility

The fact that Greenidge is seeking to renew a Title V air permit for its existing Facility does not relieve Greenidge or the Department from the obligation to comply with CLCPA Section 7(2) as part of the Application and this permitting decision. Nothing in the statutory language limits the application of this provision to new or modified facilities or permits. Instead, the Climate Act’s directive pursuant to Section 7 to the Department and other agencies is in the context of “considering and issuing permits, licenses, and other administrative approvals and decisions.” A renewal application for a Title V permit, like the Application at issue here for the Facility, constitutes such a permitting and administrative decision by the Department.

Indeed, the Department’s own regulations specify that Title V renewals are to be treated the same as applications for new permits. For example, the Department’s Title V permitting regulations explicitly state that Title V permit renewals “[a]re subject to the same procedural and review requirements . . . that apply to initial permit issuance.” 6 NYCRR § 201-6.6(a)(1).21 Moreover, the Department’s Uniform Procedures Act regulations also state that “[a]pplications for the renewal or modification of delegated permits [including Title V permits] . . . will be treated as new applications.” 6 NYCRR § 621.11(i).22 This includes with respect to the requirements of CLCPA Section 7(2).

In addition, the Department has proposed two draft policies that address the implementation of Section 7(2)’s requirements, including for air permits. Both draft policies would apply to renewals of existing permits.23 Moreover, while these draft policies note that a routine

21 This is consistent with federal Environmental Protection Agency regulations that set forth the requirements for state operating permit programs like the Department’s Title V program. 40 CFR § 70.7(c)(1)(i).
22 Even if the Application were not for a Title V permit, the Department may determine that a renewal application for a non-delegated permit will be treated as a new application under certain circumstances, including if there is a material change in the scope of permitted actions or in applicable law or regulations since issuance of the existing permit. 6 NYCRR § 621.11(h). Here, the change in the purpose of the Facility’s operation, along with the enactment of the Climate Act, would both qualify as such material changes.
23 Draft CP-49, Climate Change and DEC Action, at p. 5, Available at https://www.dec.ny.gov/docs/administration_pdf/cp49revised.pdf (last visited June 24, 2022); Draft DAR-21, The Climate Leadership and Community Protection Act and Air Permits, at p. 2, Available at https://www.dec.ny.gov/docs/air_pdf/dar21.pdf (last visited June 24, 2022). While neither policy has been finalized,
permit renewal that does not lead to an increase in actual GHG emissions may be considered consistent with the CLCPA in most circumstances, this is not the case here. That is, as discussed further below, since the original issuance of the permit and the passage of the Climate Act, actual GHG emissions from the Facility have increased drastically – and continue to increase – due to Greenidge’s material change in the primary purpose of the Facility’s operation. Therefore, particularly in these unique circumstances, the Department may treat a renewal of a Title V permit for an existing facility in the same manner as a new application for purposes of CLCPA Section 7(2).

Here, as the Department initially indicated in the Complete Notice, there are substantial GHG emissions associated with the Facility. Moreover, at the time of the Complete Notice, DEC noted that the Applicant had not yet demonstrated compliance with the requirements of the Climate Act, including requirements regarding GHG emissions. Similarly, based on the information available at that time, Greenidge had not provided a justification for the Facility nor proposed sufficient alternatives of GHG mitigation measures.

The Department specifically sought public comments on each of these issues to help assess the Facility’s compliance with the Climate Act. While as noted above, Greenidge did propose limited GHG mitigation measures on March 25, 2022 as part of the Greenidge GHG Mitigation Proposal – after the public comment period ended – the Applicant did not submit any other additional information relevant to Section 7(2). Thus, the Department has not received any information from the Applicant or otherwise that alters the preliminary conclusions noted in the Complete Notice.

III. Determination of Inconsistency or Interference with Statewide GHG Emission Limits

Based on the information in the Application as prepared and submitted by Greenidge, as well as public comments and other relevant information, the Department hereby determines that the Facility’s continued operation in its current manner would be inconsistent with or would interfere with the attainment of the Statewide GHG emission limits established in Article 75 of the ECL and reflected in Part 496. As explained further below, this determination is based primarily on the following factors: (1) the actual GHG emissions from the Facility have drastically increased since the time of the Title V permit issuance in 2016 and since the effective date of the CLCPA in 2020; (2) this increase in GHG emissions is primarily due to the fact that Greenidge has substantially altered the primary purpose of the Facility’s operation, from providing electricity to the grid in a “peaking” capacity to powering its own energy-intensive Proof-of-Work (PoW) cryptocurrency mining operations behind-the-meter;24 and (3) renewal of the Title V permit would allow Greenidge to continue to increase the Facility’s actual GHG emissions through the increased combustion of fossil fuels, for the benefit of its own behind-the-meter operations.

24 Greenidge has publicly acknowledged it uses PoW authentication for its cryptocurrency mining operations. For example, see: March 31, 2022 SEC filing: Greenidge Generation Holdings, Inc. 2022 10-k report. Available at: https://ir.greenidge.com/static-files/8ca2221f-6ff9-4962-9e83-ca7ae4fa39aa (last visited June 28, 2022).
A. Applicant’s Assertion of Consistency

Greenidge first argues as part of the Application that Section 7(2) does not apply at all to its Application. That is, the Applicant argues that CLCPA Section 7(2) does not apply to a renewal prior to the Department’s promulgation of CLCPA-implementing regulations. As discussed above, however, this is not the case, and Section 7(2) is of immediate effect. 25 Accordingly, the Department is required to apply Section 7(2) to the Application.

Next, Greenidge asserts that the Facility and the renewal of the Title V air permit would be consistent with the Climate Act because of several factors that are irrelevant to the Department’s analysis under Section 7(2). For example, Greenidge notes that the Facility itself represents a small portion of the State’s overall energy generation and GHG emissions. But this is true for the Facility as well as any single GHG emission source in the State. If this alone made a facility consistent with the Statewide GHG emission limits in the Climate Act, then it would render Section 7(2) meaningless and undermine the Legislature’s directive to the Department. It misses the crux of the Department’s required analysis pursuant to Section 7(2), which is focused on assessing a facility’s inconsistency or interference with the Statewide GHG emission limit in the context of an individual administrative decision.

Third, Greenidge focuses on the fact that the Facility is now emitting less GHGs than it did in 1990, when it was burning coal. This is also not the relevant standard under which the Department makes Section 7(2) consistency determinations. If it were, a facility that emits substantial GHG emissions now could be deemed consistent simply because it was an even dirtier facility decades ago. While the Statewide GHG emission limits are established in aggregate based on a 1990 baseline, this does not mean that each individual facility need only reduce its GHG emissions from a 1990 baseline and no more. Instead, the Department’s obligation under Section 7(2) is to assess whether the administrative decision at issue would be inconsistent with or would interfere with the State’s overall achievement of the aggregate Statewide GHG emission limit.

Fourth, Greenidge notes that Title V permits are issued with five-year terms, and thus it “defies logic” that a permit expiring prior to the effectiveness of CLCPA’s Statewide GHG emission limit in 2030 could be an obstacle to achieving its compliance. 26 But as with the Applicant’s improper use of a Facility-specific 1990 baseline, if a permit expiration date prior to 2030 automatically made such permitting decision consistent with the Statewide GHG emission limit, it would undermine the effect of CLCPA Section 7(2). It also ignores the fact that achieving the Statewide GHG emission limits will require substantial action prior to 2030, including to transition the energy sector away from its reliance on fossil fuels. Even during the permit term, the Facility’s continued operation for the purpose of providing energy behind-the-meter to its cryptocurrency mining operations would make achievement of the Statewide GHG emission limits more difficult. Finally, as the Facility itself demonstrates, a facility may continue to operate and emit GHGs even beyond the end of its permit term.

25 Danskammer v. NYSDEC, at 67.
26 E.g., Greenidge GHG Mitigation Proposal at 3.
B. GHG Emissions Data

A review of actual and projected GHG emission data from the Facility shows how GHG emissions from the Facility have increased drastically since both the issuance of the Title V permit in 2016, and the effectiveness of the Climate Act in 2020. First, from 2012 through 2015, following the Facility’s shut down as a coal-fired power plant, the Facility did not operate. Thus, there were no CO₂ or other GHG emissions from the Facility. Even in 2016 – the same year of Title V permit issuance for the restart of the Facility as a natural gas-fired facility to provide energy to the grid – there were virtually no emissions from the Facility.27 As noted above, operations did not restart at the Facility until 2017. Both historical actual emissions data from the Facility, as well as projected GHG emissions from the Facility as provided by the Applicant, reveal a significant and continuing increase in GHG emissions from the Facility.

i. Historical Actual GHG Emissions

From 2017-19, the Facility averaged 94,240 short tons of direct on-site CO₂ emissions per year according to data reported as part of the Regional Greenhouse Gas Initiative (RGGI) program, as implemented by DEC pursuant to 6 NYCRR Part 242.28 According to the Applicant, the Facility averaged 86,804 short tons of direct on-site CO₂ emissions per year during this period.29 Moreover, as noted above, Statewide GHG emissions under the Climate Act include upstream GHG emissions associated with the production and transmission of the natural gas to be combusted at the Facility. Thus, the Department requested Greenidge also provide upstream GHG emission information as part of its CLCPA analysis. According to the Applicant, during the same 2017-19 period, average upstream GHG emissions associated with the Facility were 72,166 short tons of CO₂e per year.30 Thus, the total GHG emissions associated with the Facility averaged 166,406/158,970 tons CO₂e per year from 2017 through 2019.

By contrast, GHG emissions associated with the Facility increased drastically beginning in 2020, the same year the Climate Act became effective. For example, in 2020, the Facility directly emitted 228,303 short tons of CO₂.31 According to the Applicant, this resulted in 187,558 short tons of additional tons CO₂e from upstream GHG emissions.32 Thus, in 2020 – the first year of Facility operation after the effectiveness of the Climate Act – the Facility had total emissions of 415,861 short tons CO₂e of GHGs, which equates to almost tripling its emissions.

This increase in GHG emissions continued in 2021. While the Applicant provided emissions data for only the first half of 2021 (as that was all that was available at the time of its submission), according to RGGI data the Facility directly emitted 278,846 short tons of CO₂ in

27 Greenidge CLCPA Submittal 2, Table 4 p. 6.
29 Greenidge CLCPA Submittal 2, Table 4 p. 6. For consistency, ease of comparison, and to avoid confusion, here and throughout this Decision the Department converted Applicant-provided figures from metric tons to short tons.
30 Id.
31 RGGI COATS and EPA CAMD data.
32 Greenidge CLCPA Submittal 2, Table 4 p. 6
2021. Using the same Department emission factors as Greenidge used for the upstream GHG emission data it provided, this resulted in 235,166 short tons CO$_2$e of upstream GHG emissions for the Facility in 2021. Thus, in 2021, the Facility had total emissions of 514,012 short tons CO$_2$e of GHGs.

In 2022, emissions data for the Facility is currently available only for the first quarter, through March 31, 2022. During this quarter, the Facility directly emitted 91,530 short tons of CO$_2$, resulting in 77,193 short tons CO$_2$e of upstream GHG emissions. This is consistent with the Facility’s recent trend of ongoing increases in GHG emissions. If this quantity of emissions were to be replicated for the remaining three quarters of 2022, total Facility emissions in 2022 would be 674,172 short tons CO$_2$e of GHGs.

ii. Applicant Projected GHG Emissions

As part of the Application, in response to a request from DEC, Greenidge provided projected actual CO$_2$e emissions from the Facility for calendar years 2022 through 2026. The Applicant projects that the Facility will directly emit 573,627 short tons of CO$_2$ each year during this period. Moreover, the Applicant projects that upstream GHG emissions associated with the Facility would be 476,840 short tons CO$_2$e per year. This would result in total Facility emissions of 1,050,467 short tons of CO$_2$e per year, which is more than six times the emissions the Facility was producing, on average, prior to shifting to cryptocurrency mining operations.

Notably, this amount of projected actual GHG emissions is, according to the Applicant, equivalent to the overall GHG PTE from the Facility. In other words, perhaps reflecting the fact that Greenidge intends to continue increasing the amount of time it operates the Facility to support cryptocurrency mining operations, Greenidge simply assumes that, each year, the Facility will actually emit the maximum amount of GHGs it is physically capable of emitting. Thus, in total, the Facility would emit 1,050,467 short tons CO$_2$e each year from 2022 through 2026. As discussed further below, given the unique circumstances here, this represents a substantial amount of ongoing GHG emission from a single GHG emission source, particularly given that the Climate Act requires a substantial overall reduction in Statewide GHG emissions.

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33 RGGI COATS and EPA CAMD data.
35 RGGI COATS and EPA CAMD data.
36 CLCPA Submission 2, Table 5, p. 7.
37 Id.
38 Id., Table 2, p. 5. Greenidge acknowledges that GHG emissions from the combustion of biomass are not included in such emissions. Id. These emissions would, however, count towards the achievement of the Statewide GHG emission limits under the Climate Act. Thus, actual PTE values from the Facility may be even higher than indicated by the Applicant. See Part 496.
C. Generation Data

Just as with the GHG emissions, a review of the Facility’s actual and projected electricity generation data, including as provided by Greenidge in its Application, reflect the Facility’s recent and ongoing change in the primary purpose of its operations. That is, according to both information provided by the Applicant in response to requests from DEC and publicly available data, the Facility continues to increase the amount and proportion of its energy generation dedicated to its behind-the-meter cryptocurrency mining operations. Moreover, these changes are correlated in time and practice with the actual and projected GHG emission increases from the Facility discussed above.

i. Applicant-Provided Data

In response to requests from the Department in RFAI 1 and RFAI 2, Greenidge provided a quantitative historical breakdown of the amount of energy dispatched from the Facility to the NYISO electricity grid, along with the amount of energy provided to behind-the-meter cryptocurrency mining operations.39 According to Greenidge, in 2017 and 2018 – subsequent to the issuance of the Title V permit but prior to the enactment of the CLCPA – the Facility did not provide any energy to cryptocurrency mining operations behind-the-meter.40 That is, in 2017 and 2018, virtually all the energy generated by the Facility served the NYISO grid in a “peaking” capacity.

In 2019 – the year of the Climate Act’s passage – the Facility first began devoting a portion of its energy to behind-the-meter cryptocurrency operations. In particular, according to the Applicant, in 2019 the Facility provided 7,812 MW-hours (MWh)41 to behind-the-meter PoW blockchain technology services (aka cryptocurrency mining operations), as compared to 61,232 MWh provided to the NYISO grid.42 In other words, according to Greenidge, approximately 10.6% of the Facility’s generation in 2019 served behind-the-meter cryptocurrency mining operations.43

In 2020, after the Climate Act took effect, the amount and proportion of energy provided behind-the-meter for PoW cryptocurrency mining operations increased drastically: to 132,215 MWh, as compared to 215,588 MWh to the NYISO grid, according to the Applicant’s own submission.44 In other words, in 2020, 34.8% of the Facility’s energy generation served behind-

39 Greenidge CLCPA Submission 1, Table 6, p. 12. Notably, Greenidge asserts that providing future projections of the utilization rate or breakdown between grid power and behind-the-meter power from the Facility is not feasible or appropriate until the Department promulgates regulations. Greenidge CLCPA Submission 2, p. 9.
40 Greenidge CLCPA Submission 1, Table 6, p. 12.
41 While Greenidge’s submission indicates that MW are the unit for the information in Table 6 of Greenidge CLCPA Submission 1, the Department assumes that the proper unit is actually MWh and has presented information in this section accordingly.
42 Id.
43 According to Greenidge, electricity generation from the Facility also provides some MWh to station service, which does not include blockchain technology service. Id. The percentages provided here factor in the MWh figures provided by Greenidge for each year. Id.
44 Id.
the-meter cryptocurrency mining operations. This corresponded with an increased amount in overall generation from the Facility, or an increase in the Facility’s overall capacity factor.

Finally, in the first half of calendar year 2021 (the most recent period for which data was available at the time of the Applicant’s submission), this trend continued: 112,474 MWh to behind-the-meter cryptocurrency operations, as compared to 76,484 MWh to the electricity grid. In other words, in 2021, 54.9% of the Facility’s generation served behind-the-meter PoW cryptocurrency mining operations. This again corresponded with an increased amount in overall generation from the Facility, or an increase in the Facility’s capacity factor.

Overall, according to generation data provided by the Applicant, the proportion of energy generated by the Facility dedicated to serving behind-the-meter PoW cryptocurrency mining operations has increased drastically since the passage of the Climate Act. In 2018, the Facility did not serve any behind-the-meter cryptocurrency mining operations. In the first half of 2021, however, a majority of the Facility’s energy served behind-the-meter load – primarily Greenidge’s own energy-intensive PoW operations – rather than being dispatched to the grid. At the same time, the overall quantity of energy generated by the Facility has also increased. This data clearly demonstrates a change in Greenidge’s primary purpose for the Facility’s operation since the Title V permit issuance and passage of the Climate Act.

ii. Additional Publicly Available Data

Even beyond the first half of 2021, publicly available information confirms this ongoing trend in the change in the primary purpose of the Facility’s operation. A review of data reported by Greenidge to EPA along with NYISO data first confirms that, in 2018, over 99% of the Facility’s generation served NYISO electricity grid load. In 2019, over 92% of the Facility’s generation served the NYISO grid, while the Facility’s overall capacity factor was only 6.12%.

In 2020, following the effectiveness of the Climate Act, the Facility’s overall capacity factor increased to 39.84%. But the proportion of this generation provided to the NYISO grid decreased to 58.96%. In other words, the Facility not only began operating more frequently overall; when it was operating, it began dedicating a larger portion of its generation to behind-the-meter cryptocurrency mining operations.

In 2021, this trend continued at the Facility. First, the Facility’s overall capacity factor increased to 48.97%. But the proportion of this generation provided to the NYISO grid decreased even further to 33.74%. Once again, the Facility operated more frequently overall, and the

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45 Id.
47 Id.
48 Id.
49 Id.
50 Id.
51 Id.
proportion of energy dedicated to behind-the-meter load increased as well. Initial indications are that this trend has continued in 2022. In the first quarter of 2022, for example, the Facility’s overall capacity factor increased even further to 62.22%.52

Overall, the generation data confirms that Greenidge has changed the primary purpose of its operation. That is, rather than providing the energy the Facility generates to the electric grid, Greenidge is utilizing a majority of the Facility’s energy behind-the-meter to support its own PoW cryptocurrency mining operations.

D. Effect of Renewal

If the Department were to renew the Facility’s Title V air permit as requested by Greenidge in the Application, it would allow for the continued operation of the Facility in its current manner. This would have the effect of making it more difficult to achieve the Statewide GHG emission limits mandated by the Climate Act. First, there has been a material change in law – the enactment of the Climate Act – since initial permit issuance. Second, a renewal would allow for substantial and ongoing increases in the Facility’s GHG emissions. Third, renewal of the Title V permit would improperly provide the Department’s imprimatur in the face of a change in the primary purpose of the Facility’s operations, contrary to the purpose originally contemplated by the Department in 2016. Finally, renewal of the Title V permit by the Department would allow Greenidge to both continue to increase energy demand and to meet such new demand through the combustion of fossil fuels, frustrating, delaying, or increasing the cost of meeting the Climate Act’s requirements.

i. Material Change in Applicable Law

First, when the Department issued the Title V permit for the Facility in 2016, the Climate Act was not yet enacted or in effect. That is, the requirements of Section 7(2) did not apply to DEC’s initial permitting decision. If such requirements had been in effect at that time, the Department may have denied the permit, imposed additional GHG emission permit limits as part of the Title V permit, or taken other action on the application. The material change in applicable law effected by the CLCPA must be considered by the Department as part of this renewal action. Thus, as discussed above, the Department must apply the requirements of Section 7(2) – including its required three-pronged analysis – to the Application.

ii. Continuation of Increased GHG Emissions

Second, as illustrated above, the Facility’s GHG emissions have increased dramatically over the course of the permit term and since the Climate Act took effect. In 2021, for example, the Facility emitted 514,012 short tons CO₂e of GHGs including both direct and upstream emissions. Moreover, Greenidge concedes that it is projected to emit up to the full PTE of the Facility each year from 2022 to 2026 – i.e., 1,050,467 short tons CO₂e of GHGs each year, including both direct and upstream emissions. This is significantly greater than the actual GHG emissions from the Facility after its reactivation in 2016 but prior to the enactment of the Climate Act.

52 Id.
This range of ongoing annual GHG emissions from the Facility represents a substantial amount of GHG emissions under the Climate Act, particularly when the Climate Act requires a substantial decrease in Statewide GHG emissions by 2030. A Departmental action to renew the permit for the Facility would therefore allow for this amount of GHG emissions to continue each year through at least 2026, making it substantially more difficult to achieve the Statewide GHG emission limits.

iii. Change in Primary Purpose of Facility’s Operations

Third, as illustrated above, the increase in the Facility’s GHG emissions coincides with the change in Greenidge’s primary purpose for the Facility’s operation. This change in purpose was entirely due to Greenidge’s own business decision and was not the result of any Departmental or other State requirement. Moreover, this change in purpose was not contemplated in Greenidge’s initial application for a Title V permit, nor addressed in any detail by Greenidge in the Application. That is, the Facility now primarily operates to support energy-intensive PoW cryptocurrency mining operations behind-the-meter, and this fact has not been fully accounted for by Greenidge as part of the Application.

In fact, contrary to DEC’s understanding at the time of the initial permit issuance as indicated in its 2016 SEQRA negative declaration, the Facility is now creating a significant new demand for energy. Instead of helping to meet the current electricity needs of the State as originally described, the Facility is operating primarily to meet its own significant new energy load caused by Greenidge’s PoW cryptocurrency mining operations. In this sense, contrary to the Department’s previous understanding, the Facility is creating a significant new demand for energy for a wholly new purpose unrelated to its original permit. This alone will make it more challenging for the State to meet the Statewide GHG emission limits and its Climate Act requirements.

iv. Increased Energy Demand to be Met by Fossil Fuel Combustion

Fourth, not only is the Facility creating a significant new demand for energy, it is also serving such increased energy demand exclusively through the combustion of fossil fuels. To achieve the State’s climate and clean energy policies as outlined in the Climate Act, the State needs to continue to accelerate its ongoing transition away from natural gas and other fossil fuels. Continued operation of a natural gas-fired power plant primarily to serve Greenidge’s own PoW cryptocurrency mining operations would accomplish the exact opposite and help to perpetuate a reliance on fossil fuels.

As explained above, in addition to the Statewide GHG emission reduction requirements established in ECL Article 75, the Climate Act includes a requirement that all electricity in the State be emissions-free by 2040. The continued use of fossil fuels to meet the additional energy demand created by the Facility’s PoW cryptocurrency mining operations – as would be allowed if

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53 2016 SEQR Determination.
54 PSL § 66-p
the Department were to renew the permit as requested by Greenidge in its Application – is inconsistent with the State’s laws and objectives, including the statutory requirement that all electricity in the State be emission-free by 2040.\textsuperscript{55}

Taken together, based on the specific facts and circumstances associated with the Facility – which have materially changed since the Department’s initial issuance of the Facility’s Title V permit and the passage of the Climate Act – renewal of the existing Title V air permit would be inconsistent with or would interfere with the Statewide GHG emission limits. A Department action to renew the Title V permit would improperly allow the Facility to continue increasing both GHG emissions and energy demand, and to do so through the increased combustion of fossil fuels.

IV. Potential Justification Notwithstanding Inconsistency

As indicated above, a permitting action’s consistency – or lack thereof – with the Climate Act’s Statewide GHG emission limits is only the first of three elements set forth in Section 7(2). Where, as here, a permit decision would be inconsistent with or would interfere with the attainment of the Statewide GHG emission limits established in ECL Article 75, the agency must also: (1) provide a detailed statement of justification for the project notwithstanding the inconsistency; and (2) if such a justification is available, identify alternatives or GHG mitigation measures to be required. Thus, given that renewal of the Facility’s Title V air permit would be inconsistent with or would interfere with the attainment of the Statewide GHG emission limits, the Department may only renew the Title V air permit for the Facility if it can satisfy these other required elements of Section 7(2).

As the Department initially indicated in the Complete Notice, at that time, the Applicant had not provided sufficient justification for the Facility. Since the time of the Complete Notice, Greenidge has not provided any additional information to the Department regarding a potential justification for the Facility. While the Applicant asserts that the Facility is consistent with the Climate Act, the Application does not provide the Department with any information to support a justification in the event of a finding of inconsistency, as is the case here, such as whether cryptocurrency mining operations in and of themselves could be necessary or could provide any economic or social utility for the State. Examples of potential justification for a project that is inconsistent with the Climate Act’s Statewide GHG emission limits, such as the Facility, include that the absence of the project will result in economic, social, or environmental harm to the public. In any event, as discussed below, the Applicant has not provided any sufficient alternatives or GHG mitigation specific to cryptocurrency mining operations, such as transitioning to less energy-intensive methods of validating blockchain transactions than the PoW authentication method employed by Greenidge.

While not provided by Greenidge as part of the Application, the Department considered whether the Facility may be necessary for purposes of maintaining electric system reliability. The Department considered any reliability need for the Facility as a potential justification for the Facility notwithstanding its inconsistency with the Statewide GHG emission limits. For example,

\textsuperscript{55} Id.

\textsuperscript{10} Id.
if the Facility was necessary in a “peaking” capacity to provide electricity to the grid even in limited circumstances, then this could potentially provide a justification for some type of continued operation pursuant to Section 7(2). From 2011 through 2017, however, the Facility did not operate; no known reliability issues were identified during that period. Studies undertaken over the last decade also demonstrate that the Facility is not needed in any capacity for purposes of maintaining the reliability of the electric system.

First, on September 17, 2010, the prior owners of the Facility filed a notice with the PSC indicating the prior owner’s intent to place Unit 4 – the only unit remaining operational at the Facility – in protective lay-up status. This would make the Facility unavailable to the NYISO electric system. In a September 18, 2012 notice to PSC, the Facility’s prior owner confirmed that neither NYISO nor the local utility found that the retirement of the Facility could harm the reliability of the bulk and local electric transmission systems in the State. In other words, at that time, no reliability issue was identified due to the unavailability of the Facility.

Thereafter, in 2014 as part of its process for reactivating the Facility, Greenidge requested that NYISO study the impacts to the electric system if the Facility returned to service. The NYISO conducted a System Reliability Impact Study (SRIS). At that time, the NYISO SRIS did not uncover any reliability issues associated with the Facility.

Finally, NYISO’s Reliability Needs Assessment (RNA) process does not indicate any deficiencies or loss of load expectation (LOLE) violations associated with a potential loss of availability of the Facility. In New York State, NYISO studies and evaluates the reliability needs of the State. The RNA is a biennial study that evaluates the resource adequacy and transmission system security of New York’s bulk power transmission facilities.

The Facility is located in NYISO Zone C. According to NYISO data provided in the most recent RNA, there is a Zonal Resource Adequacy Margin in NYISO Zone C that indicates removal of the Facility would not cause any reliability issues. In particular, in 2024, up to 1850 MW of zonal capacity could be removed from Zone C without causing any LOLE violations or exceeding zonal capacity; in 2030, up to 800 MW of capacity could similarly be removed from the system. The removal of the Facility - with its 108 MW capacity – would therefore not cause any reliability concerns for the electric grid.

57 Id., DMM No. 96 (filed Sept. 18, 2012).
59 Id.
As a result, the potential need for the Facility to maintain electricity reliability is not an available justification for the Facility notwithstanding its inconsistency under the Climate Act. The Department did not identify any other potential justification for Greenidge’s continued operation of the Facility, particularly to serve energy-intensive PoW cryptocurrency mining operations behind-the-meter. Thus, the Department is unable to provide a detailed statement of justification for the continued operation of the Facility notwithstanding its inconsistency. As a result, the Department is unable to satisfy this statutory requirement for the renewal and must deny the Application.60

V. Potential GHG Mitigation and Alternatives

As indicated above, if justification is available notwithstanding the action’s inconsistency with the Statewide GHG emission limits, then CLCPA Section 7(2) also requires an agency to identify alternatives or GHG mitigation measures to be required. Because no justification is available, the Department cannot satisfy the requirements of Section 7(2) and need not reach this third prong of the Section 7(2) analysis.

Notwithstanding this, at the time of the Complete Notice, the Department indicated that the Applicant had not provided sufficient alternatives or GHG mitigation measures. While Greenidge did propose limited GHG mitigation measures in a supplemental submission to DEC after the close of the public comment period,61 these measures are also insufficient. They would only provide minimal GHG mitigation and not fully account for the substantial increase in GHG emissions due to the Facility’s change in its primary purpose of operation, as discussed above.

Even if sufficient justification existed for continued operation of the Facility, Greenidge failed to offer a serious plan to transition away from its current and exclusive reliance on natural gas for its cryptocurrency mining operations. Such a plan might have included a schedule for transitioning to renewable energy generation or a timeline for obtaining an increasing percentage of its power used for cryptocurrency mining from the electrical grid, if not more directly from the addition of onsite renewable energy sources. For example, in other states, cryptocurrency mining operations have utilized renewable energy sources in a manner designed to maximize the overall benefit to the grid given these sources’ intermittency. Instead of demonstrating a commitment to these kinds of potential alternatives and GHG mitigation measures, Greenidge put forth vague assurances that it would decrease GHG emissions over time and eventually become a zero-carbon emitting power generation facility by 2035.62

Greenidge’s failure to adequately consider immediately using alternative renewable energy sources to power its mining operations is further compounded by its unwillingness to consider transitioning to a less energy intensive method of cryptocurrency mining. Greenidge uses a PoW authentication method to validate blockchain transactions which requires significant, as well as

60 6 NYCRR § 621.10(f).
61 Greenidge GHG Mitigation Proposal.
62 Id. at 2.
ever-increasing, energy consumption. While less energy-intensive mining alternatives - including Proof-of-Stake mining - exist, Greenidge did not indicate any plan for - nor indicate a willingness to consider - a transition to a less energy intensive mining alternative. In fact, these authentication methods (and the varying impact of each in terms of energy consumption) are not mentioned anywhere in Greenidge’s Application.

OTHER UNSATISFIED ISSUES

In addition to the requirements of Section 7(2) of the Climate Act, the Department must ensure compliance with the provisions of Section 7(3) prior to making any relevant permit decision. Pursuant to CLCPA Section 7(3), in considering and issuing permitting and other administrative decisions, the Department “shall not disproportionately burden disadvantaged communities.” Moreover, the Department is required to prioritize the reduction of GHG emissions and co-pollutants in these communities. Just like with Section 7(2), the requirements of Section 7(3) are already in effect for relevant permitting and other administrative decisions; no additional regulatory or other action by the Department or the State is necessary to trigger its requirements.

While the Climate Justice Working Group (CJWG) established under the Climate Act has not yet finalized criteria for the identification of Disadvantaged Communities pursuant to the Climate Act, a map of draft Disadvantaged Communities is currently available for public comment. Until the criteria and maps are finalized, the draft Disadvantaged Communities map published by the CJWG may be utilized at this time for purposes of addressing the requirements of Section 7(3) of the Climate Act. Here, a review of the draft Disadvantaged Communities map indicates that the Facility is located in and impacts a draft Disadvantaged Community.

Therefore, to ensure compliance with the requirements of Section 7(3), the Department would need to review and assess whether the Facility’s continued operation disproportionately burdens the surrounding Disadvantaged Community as well as potential efforts to prioritize reductions in GHG and co-pollutants in the community. Nevertheless, as part of the Application, Greenidge did not provide the Department with any submissions to specifically address Section 7(3). That is, the Application does not acknowledge the Facility’s location in a draft Disadvantaged Community. This is despite the fact that the CJWG released the draft Disadvantaged Communities maps on March 9, 2022, and Greenidge submitted other supplemental materials to the Department.

63 Jacob Elkin, A Pause on Proof-of-Work: The New York State Executive Branch's Authority to Enact a Moratorium on the Permitting of Consolidated Proof-of-Work Cryptocurrency Mining Facilities (Sabin Center for Climate Change Law, 2022).
64 Separate from and additional to the requirements of the Climate Act, prior to issuing any Title V permit or renewal for the Facility, the Department would need to ensure compliance with the requirements of NSR and 6 NYCRR Part 231. Given that denial of the Application is necessary pursuant to the requirements of Climate Act Section 7(2), the Department does not address NSR in this Notice of Denial, including whether the change in the primary purpose of the Facility’s operations triggers additional NSR permitting requirements.
65 Climate Act § 7(3).
66 See ECL § 75-0111.
67 Available at https://climate.ny.gov/Our-Climate-Act/Disadvantaged-Communities-Criteria (last visited June 23, 2022). As indicated on the website, public comments on the draft disadvantaged communities criteria are currently being accepted through July 7, 2022.
on March 25, 2022 as part of the Application. Thus, based on the Application before it, Department cannot ensure that renewal of the Title V permit for the Facility would comply with the statutory requirements of Climate Act Section 7(3).

CONCLUSION

For all of the reasons described above, the Department hereby denies the Application for the Facility.

Pursuant to 6 NYCRR Section 621.10(a)(2), Greenidge has the right to request an administrative adjudicatory hearing regarding the denial of this Application. Pursuant to this provision, any such request for a hearing must be made in writing within thirty (30) days of the date of this letter.

If you have any questions regarding this denial or the Project, you may contact me or Jonathan A. Binder, Esq. in the Office of General Counsel.

Sincerely,

[Signature]

Daniel Whitehead, Director
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