

# NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

## Division of Environmental Permits

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### **VIA EMAIL AND CERTIFIED MAIL**

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**Re: Notice of Denial of Title V Air Permit**  
DEC ID: 3-3346-00011/00017  
Danskammer Energy Center – Town of Newburgh, Orange County  
Title V Air Permit Application

Dear Ms. Colella and Ms. Mettler-LaFeir:

On December 3, 2019, Danskammer Energy, LLC (the Applicant or Danskammer) submitted a Clean Air Act Title V air permit modification application (Title V Application) to the New York State Department of Environmental Conservation (Department or DEC). Danskammer is seeking authorization to construct and operate a new natural gas-fired combined-cycle power generation facility having an optimal capacity of 536 net megawatts (MW) (the Project) at the current site of its existing 532 MW [nameplate capacity] generating facility (Danskammer Generating Station) located in the Town of Newburgh, Orange County, New York.

The Department has reviewed information submitted by Danskammer, including in the initial Title V Application as well as in its application to the New York State Board on Electric Generation Siting and the Environment (Siting Board) pursuant to Article 10 of the Public Service Law (PSL) (Article 10), and supplemental materials submitted in response to three Notices of Incomplete Application (NOIA) issued by the Department (collectively, the Application). Lastly, the Department has also reviewed the over 4,500 public comments it received during the public comment period.<sup>1</sup>

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<sup>1</sup> The Department received over 4,500 public comments from individuals or organizations during the public comment period on the Title V Application, which ran from June 30, 2021 through September 13, 2021.

As described further below, and as initially indicated by the Department in the Notice of Complete Application,<sup>2</sup> the Project would be inconsistent with or would interfere with the attainment of the Statewide greenhouse gas (GHG) emission limits established in Article 75 of the Environmental Conservation Law (ECL).<sup>3</sup> Moreover, Danskammer has not demonstrated that the Project is justified as it has failed to show either a short term or long term reliability need for the Project. Nor has Danskammer identified adequate alternatives or GHG mitigation measures. Accordingly, given that the Department is unable to satisfy these elements required by Section 7(2) of the Climate Leadership and Community Protection Act (CLCPA or Climate Act),<sup>4</sup> the Department is compelled to deny the Title V Application.<sup>5</sup> 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 permit denial is provided below.

## **I. PROCEDURAL BACKGROUND ON TITLE V APPLICATION**

In addition to a Title V permit from the Department, pursuant to Article 10, the Project requires a Certificate of Environmental Compatibility and Public Need (Certificate) from the Siting Board. The Project is subject to review under Article 10 by the Siting Board pursuant to a separate parallel administrative proceeding.

In conjunction with its Title V Application, Danskammer filed an application with the Siting Board pursuant to Article 10. On February 10, 2020, John Rhodes, then-Chairman of the Siting Board, sent a letter to the Applicant identifying a number of deficiencies in the Article 10 application. Thereafter, Danskammer filed four supplements to its Article 10 application with the Siting Board on March 11, April 21, July 8, and November 18, 2020. On February 26, 2021, then-Chairman Rhodes advised the Applicant that the Article 10 application, as supplemented, was compliant with PSL § 164, thereby commencing the Siting Board's one-year Article 10 public review process.<sup>6</sup> Separate and apart from the Department's obligation to apply the Climate Act in reviewing the Title V Application, the Project's consistency with the Climate Act, including the GHG emissions associated with the Project and the potential need for the Project, is also an issue for resolution before the Siting Board. Given that a Title V air permit from DEC is a prerequisite for the Siting Board to issue an Article 10 Certificate for the Project, the Siting Board will be unable to issue an Article 10 Certificate as a result of the Department's action herein.<sup>7</sup>

Contemporaneously with, but independent from, its Article 10 application to the Siting Board, the Applicant submitted, among other things, the Title V Application to DEC on December

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<sup>2</sup> Notice of Complete Application, June 30, 2021 (Complete Notice), Available at: [https://www.dec.ny.gov/enb/20210630\\_reg3.html](https://www.dec.ny.gov/enb/20210630_reg3.html) (last visited October 27, 2021).

<sup>3</sup> ECL § 75-0107(1). *See also* 6 NYCRR Part 496, Statewide Greenhouse Gas Emission Limits.

<sup>4</sup> Chapter 106 of the Laws of 2019.

<sup>5</sup> 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"). Danskammer's other applications to the Department regarding the Project – including for a State Pollutant Discharge Elimination System (SPDES) permit modification and a Clean Air Act Title IV permit – remain pending before the Department and are not addressed herein.

<sup>6</sup> *See* Application of Danskammer Energy, LLC for a Certificate of Environmental Compatibility and Public Need Pursuant to Article 10 for Approval to Repower its Danskammer Generating Station Site Located in the Town of Newburgh, Orange County, Siting Board Case No. 18-F-0325.

<sup>7</sup> PSL § 172(1).

3, 2019. The Project cannot be constructed or operated without a valid Title V air permit issued by DEC, and the Title V air permit must be issued by DEC prior to the Siting Board's issuance of an Article 10 Certificate. *See* PSL §§ 168(3)(e) and 172(1); *see also* ECL Articles 19, 70 and 75; and 6 NYCRR Parts 200 – 317, 496, and 621.

On January 31, 2020, DEC issued a NOIA (First NOIA) to the Applicant identifying a number of items which required additional information, including information related to the Project's consistency with the CLCPA, to be furnished in support of the Title V Application in order for DEC to determine the Title V Application complete pursuant to DEC regulations. *See* 6 NYCRR Part 621. Among other things, the First NOIA sought from Danskammer "an assessment of how the issuance of a Title V permit modification by the Department would be consistent with the [Statewide] greenhouse gas emission limits established in Article 75 of the [ECL], as required by Section 7(2) of the [Climate Act]."

On February 13, 2020, the Applicant provided DEC with a partial response to the First NOIA. And on July 8, 2020, the Applicant provided DEC with additional information in response to the First NOIA addressing the Project's purported consistency with the CLCPA. In particular, the Applicant submitted a "Supplemental Greenhouse Gas Analysis of the Danskammer Energy Center," prepared by its consultant ICF (the Danskammer July 2020 GHG Supplement).

On August 18, 2020, DEC requested the Applicant to provide additional air pollution modeling information in support of the Title V Application. Following this request, on September 8, 2020, DEC issued a second NOIA to the Applicant on its Title V Application and identified items which required additional information, including information related to the Project's consistency with the CLCPA (Second NOIA), for DEC to continue its review. The Second NOIA requested additional information from the Applicant related to the Danskammer July 2020 GHG Supplement and, among other items, specifically sought information regarding: (1) "direct GHG emissions from the facility itself, as well as upstream GHG emissions associated with the extraction and transmission of the natural gas to be combusted at the facility"; and (2) "the feasibility of utilizing renewable natural gas (RNG), including analysis to support the assumption that all combustion of RNG would result in zero on-site GHG emissions."

On November 17, 2020, the Applicant submitted additional information in response to DEC's August 18, 2020 request for information and the Second NOIA, which included an ICF-prepared supplement to the Danskammer July 2020 GHG Supplement (collectively, the Danskammer November 2020 GHG Supplement).

Finally, on January 19, 2021, DEC issued a third NOIA to the Applicant on its Title V Application and identified items which required additional information for DEC to continue its review and assess the Project's consistency with the Climate Act (Third NOIA).<sup>8</sup> In particular, the Third NOIA requested data on projected Nitrogen Dioxide (NO<sub>2</sub>) emissions as well as alternative plans to address an event where not all RNG needed for the Project could be obtained. On February 9, 2021, the Applicant and ICF submitted additional information to DEC in response to the Third

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<sup>8</sup> On January 26, 2021, the Siting Board issued a letter indicating that the Applicant had agreed to a four-week extension of the Article 10 deficiency review as of January 19, 2021 – the same date as DEC's Third NOIA to the Applicant on its Title V Application.

NOIA, further supplementing the Title V Application (collectively, the Danskammer February 2021 GHG Supplement).

Pursuant to DEC regulations, DEC would have had until April 9, 2021 to determine whether the Applicant's Title V Application was complete. *See* 6 NYCRR § 621.6. As noted, DEC's three separate NOIAs issued to the Applicant focused almost exclusively upon the Project's compliance with the Climate Act because compliance with the Climate Act is a key requirement of DEC's Title V air permit determination. *See* CLCPA § 7.

On April 8, 2021, the Applicant submitted a letter to DEC agreeing to a two-month (60 day) extension to June 8, 2021 for DEC to determine whether the Applicant's Title V Application was complete. On June 8, 2021, the Applicant submitted a letter to DEC agreeing to an additional two-week (14 day) extension to June 22, 2021 for DEC to determine whether the Applicant's Title V Application was complete. On June 21, 2021, the Applicant submitted a letter to DEC agreeing to an additional nine (9) day extension to June 30, 2021 for DEC to determine whether the Applicant's Title V Application was complete.

On June 30, 2021, DEC tentatively determined the Applicant's Title V Application, among others, "complete" for purposes of 6 NYCRR Part 621 and published for review and comment a draft Title V air permit for the Project in the Department's Environmental Notice Bulletin (ENB) for a 60-day time period.<sup>9</sup> As noted above, the Department explicitly indicated at the time of public notice that the Project, as proposed, was inconsistent with the requirements of the Climate Act. As a result of heightened public interest in the draft permits noticed for the Project, the public review and comment period was subsequently extended by an additional fifteen (15) days to September 13, 2021.

On August 23 and 25, 2021, DEC's Office of Hearings and Mediation Services (OHMS) conducted a total of four (4) separate virtual public legislative hearings held pursuant to 6 NYCRR Part 621 to receive statements from members of the public on the draft permits for the Project. OHMS conducted the hearings virtually due to ongoing concerns with COVID-19 infection and transmission in the county where the Project is proposed to be located. A total of 195 individuals provided oral statements at the four (4) public legislative hearings.

The Department's public comment period on the draft permits for the Project closed on September 13, 2021. As of that date, DEC received more than 4,500 separate and timely-filed written public comments on the draft permits; DEC also received about 20 separate written comments on the draft permits after the public comment period closed.

## **II. BASIS FOR DENIAL OF TITLE V APPLICATION**

The Department has completed its review of information submitted by the Applicant, specifically the Application, which includes the initial Title V Application and each of the supplemental materials submitted in response to the NOIAs subsequently issued by DEC, as well as the Article 10 application and public comments. As detailed further below, the Project would

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<sup>9</sup> *See* Complete Notice. In addition to a draft Title V air permit, DEC also published a draft SPDES permit for the Project in the ENB on June 30, 2021.

be inconsistent with or would interfere with the attainment of the Statewide GHG emission limits established in Article 75 of the ECL.<sup>10</sup> Consequently, in light of the requirements of Section 7(2) of the Climate Act,<sup>11</sup> the Department has made a determination to deny the Title V Application. 6 NYCRR § 621.10(f).

**a. General 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.<sup>12</sup> 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.<sup>13</sup> In the case of a fossil fuel-fired electric generating facility such as the proposed Project, 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,<sup>14</sup> 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.<sup>15</sup> Pursuant to 6 NYCRR Part 496, the 2030 and 2050 Statewide GHG emission limits are, respectively, 245.87 and 61.47 million metric tons of carbon dioxide equivalents (CO<sub>2</sub>e), measured on a 20-year Global Warming Potential (GWP) basis.<sup>16</sup>

CO<sub>2</sub>e provides a measure of the relative GWP of each individual type of GHG to that of carbon dioxide (CO<sub>2</sub>) over a specific time frame. CO<sub>2</sub> is assigned a value of one (1) and all other GHGs have a GWP greater than that of CO<sub>2</sub> when measured on a pound-for-pound basis. For example, the GWP of methane on a 20-year basis (GWP<sub>20</sub>) is defined in 6 NYCRR Part 496 as 84, meaning that one ton of methane emissions has the same global warming impact as 84 tons of CO<sub>2</sub>. Equating the GWP of various GHGs to that of CO<sub>2</sub> 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 GWP<sub>20</sub>, rather than the one-hundred-year timeframe (GWP<sub>100</sub>) most typically used by the federal government and the United Nations.<sup>17</sup> The CO<sub>2</sub>e, using GWP<sub>20</sub>, of each GHG under the Climate Act is listed in a table in the Department's regulations at 6 NYCRR Section 496.5.

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<sup>10</sup> ECL § 75-0107(1). *See also* 6 NYCRR Part 496, Statewide Greenhouse Gas Emission Limits.

<sup>11</sup> Chapter 106 of the Laws of 2019.

<sup>12</sup> ECL § 75-0107.

<sup>13</sup> ECL § 75-0101(13).

<sup>14</sup> ECL § 75-0107(1).

<sup>15</sup> *See* 6 NYCRR Part 496, Statewide GHG Emission Limits.

<sup>16</sup> 6 NYCRR § 496.5.

<sup>17</sup> ECL § 75-0101(2).

In addition to these Statewide GHG emission reduction requirements established in the ECL and particularly relevant for this proposed Project, the Climate Act includes a new 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 is renewable by 2030 and all electricity generation in the State is emission-free by 2040.<sup>18</sup> In addition to the currently effective 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 limits as well as net zero GHG emissions by 2050.<sup>19</sup> Finally, by January 1, 2024, the Department must promulgate substantive and enforceable regulations on all GHG emission sources that reflect the Scoping Plan recommendations and ensure compliance with the Statewide GHG emission limits.<sup>20</sup>

**b. Requirements of Section 7(2) of the Climate Act**

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 Section 7 of the Climate Act, as noted, are already in effect and applicable to Danskammer's Title V Application for the Project. Among other requirements, the Department cannot issue a Title V permit to Danskammer for the Project, unless the Department can ensure compliance with all requirements of CLCPA Section 7.

Section 7(2) of the Climate Act has three elements.<sup>21</sup> First, as is relevant here for purposes of the Department's review of the Title V Application, the Department must consider whether a Title V permit for the Project would be inconsistent with or interfere with the attainment of the Statewide GHG emission limits established in ECL Article 75. Second, if the issuance of a Title V permit for the Project 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 Project notwithstanding the inconsistency. Third, in the event a sufficient justification is available, the Department must also identify alternatives or GHG mitigation measures to be required for the Project.

As the Department initially indicated in the Complete Notice, there are substantial GHG emissions associated with the Project. Based on the information available at the time of the Complete Notice, the Department indicated that it appeared that the proposed Project would be inconsistent with or would interfere with the attainment of the Statewide GHG emission limits established in ECL Article 75.<sup>22</sup> Similarly, based on the information provided to that point, the Department noted that it was not currently able to satisfy either of the other two elements of Section 7(2) with respect to the proposed Project – that is, (1) a detailed statement of justification notwithstanding the inconsistency; and (2) alternatives or GHG mitigation measures to be required.

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<sup>18</sup> PSL § 66-p(2).

<sup>19</sup> ECL § 75-0103.

<sup>20</sup> ECL § 75-0109.

<sup>21</sup> In addition to the requirements of CLCPA Section 7(2) regarding consistency with the Statewide GHG emission limits, prior to issuing any Title V permit or other permit for the Project, the Department would also need to ensure compliance with the requirements of Section 7(3) of the Climate Act with respect to potential disproportionate impacts on disadvantaged communities.

<sup>22</sup> Complete Notice; ECL Article 75; 6 NYCRR Part 496.

Since the time of the Complete Notice, the Department has not received any information from Danskammer or otherwise that alters these preliminary conclusions.

**c. Determination of Inconsistency**

Based on the information available in the Application, which includes the responses to DEC's three separate NOIAs as submitted by the Applicant, the Department hereby determines that the Project as proposed would be inconsistent with or would interfere with the attainment of the Statewide GHG emission limits established in Article 75 of the ECL.

This determination of inconsistency is based primarily on the fact that the Project would be a new source of a substantial amount of GHG emissions, including both direct and upstream GHG emissions, and that the Project would constitute a new and long-term utilization of fossil fuels to produce electricity without a specific plan in place to comply with the requirements of the Climate Act.<sup>23</sup> On the other hand, Danskammer's assertions of compliance with the Climate Act are based on electricity sector modeling projections that are uncertain and that rely on potential reductions in GHG emissions at other facilities. As explained further below, this alone is insufficient to determine consistency with the Statewide GHG emissions limits under the Climate Act.

**i. Direct GHG Emissions**

First, as acknowledged in the Title V Application, the Project would result in significant direct GHG emissions. According to Danskammer's Title V Application, the Project's overall potential to emit (PTE) GHGs would be 1,954,952 short tons of CO<sub>2e</sub> per year utilizing a GWP100.<sup>24</sup> By any metric, this is a substantial amount of potential direct GHG emissions from a new source in the State. An *increase* of this amount due to this one new fossil fuel-fired power plant project is inconsistent with the achievement of the Statewide GHG emission limit for 2030, or at a minimum would interfere with the attainment of such Statewide GHG emission limit, especially given that achieving such limit requires a substantial overall *reduction* in GHG emissions.

The Applicant also included other direct GHG emission figures in the Application. For example, for purposes of the Prevention of Significant Deterioration/Nonattainment New Source Review (PSD/NNSR) Netting Analysis and the calculation of Emission Reduction Credits, Danskammer provided a baseline actual GHG emission figure. This provides actual GHG emissions from the existing facility located at the site of the proposed Project. Danskammer calculated baseline actual GHG emissions of 47,304 short tons of CO<sub>2e</sub> per year (GWP 100) from the existing facility.<sup>25</sup> By subtracting this amount from the Project's PTE for GHGs, the Applicant calculated a Project net GHG emissions increase of 1,907,648 short tons of CO<sub>2e</sub> per year.<sup>26</sup>

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<sup>23</sup> Ch. 106 of the Laws of 2019.

<sup>24</sup> Title V Application. Table 2-1, pp. 2-8. Notably, this CO<sub>2e</sub> figure is based on GWP100 values, rather than the GWP20 values required by the Climate Act and included in 6 NYCRR Part 496. Thus, the GHG PTE of the Project would be even higher if measured using the required GWP20 values set forth in 6 NYCRR Part 496.

<sup>25</sup> Title V Application, Table 3-4, pp. 3-24.

<sup>26</sup> *Id.* As previously noted, this calculation utilizes GWP100 values for CO<sub>2e</sub> as required for purposes of PSD/NNSR, rather than the GWP20 values required by the Climate Act and set forth in 6 NYCRR Part 496.

In addition, in the Danskammer November 2020 GHG Supplement, the Applicant included different estimates for the increase in direct GHG emissions in the State from electric generation by the Project. Unlike the PTE figures noted above, these estimated amounts are based on the projected dispatch of the new facility over time. According to the Applicant, the Project would not be expected to operate one hundred percent of the time, but Danskammer and ICF projected that the Project would have a much higher capacity factor than the existing facility located at the Project site. Based on projected dispatch of the Project, according to Danskammer, the increase in direct GHG emissions from the Project is projected to be 1.577 million short tons of GHGs per year in 2025, 1.085 million in 2030, and 1.104 million in 2035.<sup>27</sup>

The Department is not able to, nor does it need to, address or evaluate all of the methodological assumptions or analytical decisions made by Danskammer or ICF for purposes of their own estimates of GHG emissions from the Project. Moreover, as estimated by the Applicant, there is a range of estimates of projected GHG emissions from the Project. Generally speaking, PTE is calculated by assuming that a facility operates at its maximum capacity 24 hours per day, 365 days per year, whereas projected actual GHG emissions reflect a facility's expected hours of operation considering any planned downtime for maintenance or other periods where the facility's capacity may be reduced from its design maximum. Thus, as stated by Danskammer in its Application, direct GHG emissions from the Project in 2030 may range from 1.085 million short tons of CO<sub>2</sub>e (GWP20) to 1.955 million short tons of CO<sub>2</sub>e (GWP100). Regardless of where in this range GHG emissions ultimately fall, this would constitute a substantial and direct source of new GHG emissions in the State. As a result, even before considering the other issues noted below, the Project is inconsistent with or would interfere with the attainment of the Statewide GHG emission limit for 2030, as established by ECL Article 75 and reflected in 6 NYCRR Part 496.

ii. Upstream GHG Emissions

Importantly, this substantial amount of GHG emissions only includes the direct GHG emissions from on-site fossil fuel combustion at the Project. In other words, it is before even considering the upstream GHG emissions associated with the extraction and transmission of the fossil fuels to be combusted at the Project. As indicated above, upstream out-of-state GHG emissions associated with such fossil fuel imports are considered part of Statewide GHG emissions under the Climate Act.<sup>28</sup> Therefore, such GHG emissions must be considered by the Department for the Project pursuant to Section 7(2) of the Climate Act. Moreover, pursuant to the Climate Act, GHG emissions must be calculated using a GWP20 for CO<sub>2</sub>e.<sup>29</sup>

In response to the First NOIA and the Second NOIA, the Applicant provided estimates of upstream GHG emissions associated with the Project. The Danskammer November 2020 GHG Supplement estimated an increase of 476,000 short tons of GHGs (using GWP20 for methane) in 2030 attributable to the upstream GHG emissions from generation by the Project.<sup>30</sup> This estimate

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<sup>27</sup> Danskammer November 2020 GHG Supplement, Table 2-3, p. 6.

<sup>28</sup> ECL § 75-0101(13).

<sup>29</sup> ECL § 75-0101(2).

<sup>30</sup> Danskammer November 2020 GHG Supplement, Table 2-3, p. 6.



is based on Danskammer and ICF's projected dispatch of the Project and does not correspond to the full PTE provided in the initial Title V Application. In other words, if the Project were to operate more frequently than projected by Danskammer and ICF, then the upstream GHG emissions associated with the Project would increase accordingly.

Just as with direct GHG emissions from on-site combustion, the upstream GHG emissions associated with the Project are substantial. Even presuming the Applicant and ICF's projections of upstream GHG emissions are correct, 476,000 additional short tons of GHG emissions in 2030 from a new facility like the Project would be inconsistent with or would interfere with the attainment of the Statewide GHG emission limit for 2030, as established by ECL Article 75 and reflected in 6 NYCRR Part 496.

iii. Total Project GHG Emissions

To determine the total amount of GHG emissions attributable to the Project, the upstream GHG emissions need to be added to the direct GHG emissions from the Project. Thus, according to the Applicant, total GHG emissions from the Project would be between 1.561 and 2.4231 million short tons of CO<sub>2</sub>e in 2030.

By any metric, but particularly under the Climate Act, the range of estimated GHG emissions from the Project provided by the Applicant represents a substantial amount of GHG emissions. While achieving the Statewide GHG emissions limits requires an overall *reduction* in GHG emissions from current levels, the Project itself would result in a substantial *increase* in GHG emissions from just this one single GHG emission source in 2030.<sup>31</sup> Moreover, the Project would constitute a wholly new and fossil fuel-fired electric generation source. Therefore, the Project would make meeting the Statewide GHG emission limits established in ECL Article 75 substantially more difficult. Thus, under Section 7(2) of the Climate Act, the issuance of a Title V permit for the Project would be inconsistent with or would interfere with the attainment of the Statewide GHG emission limits.

iv. New and Long-term utilization of Fossil Fuel

In addition to the substantial GHG emissions from the Project, the Project is also inconsistent with other longer-term requirements of the Climate Act, given that it would be a new facility which would use fossil fuels to produce electricity. To achieve the State's climate change and clean energy policies as outlined in the CLCPA, the State needs to continue to accelerate its ongoing transition away from natural gas and other fossil fuels. Constructing and operating a new fossil fuel-fired power plant accomplishes the exact opposite and perpetuates 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

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<sup>31</sup> Title V facilities are required to report annual actual emissions of various air contaminants to the Department on an annual basis. This information is used to prepare an inventory of Statewide emissions for program planning and other purposes. The most recent complete inventory available is based on 2019 emissions data. Comparing the reported 2019 emissions data for other electric generating facilities to the projections prepared by Danskammer for the Project suggests that the Project would be among the highest GHG emitting electric generating facilities in the State.

State be emissions-free by 2040.<sup>32</sup> The continued long-term use of fossil fuels to produce electricity – as proposed by Danskammer for the Project – is inconsistent with the State’s laws and objectives, including the statutory requirement that all electricity in the State be emission-free by 2040.<sup>33</sup>

In other words, subject to certain limited exceptions, none of which are applicable here, the Climate Act contains a statutory mandate to ultimately cease the use of fossil fuels to produce electricity in the State by 2040. Particularly in the absence of any justification for the Project or the identification of alternatives or appropriate GHG mitigation measures, a new fossil fuel-fired electric generation facility like this Project could exacerbate and extend the use of fossil fuels to produce electricity, contrary to the requirements of the Climate Act. In this manner, the Project would delay, frustrate, or increase the cost of the statutorily mandated transition away from the use of natural gas and other fossil fuels to produce electricity in the State. The construction of a new fossil fuel-fired major electric generation facility, which would otherwise be expected to have a useful life beyond 2040, is inconsistent with the CLCPA’s requirement for emission-free electricity generation by 2040.<sup>34</sup>

v. Emission-Free by 2040 Requirement

In its Application, Danskammer recognizes the emission-free electricity generation by 2040 requirement, but acknowledges that it is “not proposing any specific approach at this time” to meet the CLCPA’s emission-free electricity by 2040 requirement.<sup>35</sup> The Applicant provides several potential options for how it might meet this requirement in the future, including: (1) converting the Project to utilizing hydrogen or RNG, if such fuels are available in sufficient quantities and deemed to be zero emission fuels under the Climate Act; (2) continuing to operate to the extent authorized by PSC under the CLCPA; or (3) other solutions that are not currently identifiable.<sup>36</sup> Only if these options are not feasible might the Applicant shut down the Project.

Overall, the Applicant’s plan for compliance with the Climate Act’s emission-free by 2040 generation requirement is uncertain and speculative in nature. With respect to the first potential compliance pathway – utilizing RNG or hydrogen as a potential compliance pathway – Danskammer has not established its feasibility from either a supply or GHG emission perspective.

For example, there is uncertainty surrounding the feasibility of firing hydrogen in existing combustion turbines. Nascent testing of hydrogen combustion at certain facilities is partially intended to address some of this uncertainty. While existing combustion turbines are generally capable of firing mixtures of hydrogen and natural gas, these fuel blends raise other concerns. When compared to natural gas, hydrogen has a higher explosive potential, a higher leak potential, a lower volumetric heating value, and a higher flame temperature. A lower volumetric heating

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<sup>32</sup> PSL § 66-p.

<sup>33</sup> *Id.*

<sup>34</sup> See also DEC Notice of Denial of Water Quality Certification, Northeast Supply Enhancement Project, May 15, 2020, at pp. 14-16, Available at: [https://www.dec.ny.gov/docs/permits\\_ej\\_operations\\_pdf/neseqwqcd denial05152020.pdf](https://www.dec.ny.gov/docs/permits_ej_operations_pdf/neseqwqcd denial05152020.pdf) (last visited October 27, 2021).

<sup>35</sup> Danskammer November 2020 GHG Supplement, p. 4.

<sup>36</sup> *E.g.*, Danskammer February 2021 GHG Supplement.

value means that more fuel needs to be fired to achieve the same output. The additional volume of fuel fired, combined with the higher flame temperature when firing hydrogen, is expected to cause higher emissions of Oxides of Nitrogen (NOx) without the installation of additional NOx controls. An existing combustion turbine facility may be required to modify its fuel feed system, fuel firing system, and/or emission control system to facilitate hydrogen firing in the combustion turbine while maintaining compliance with its permitted emission limits. Further, if a blend of hydrogen and natural gas is combusted, some amount of GHG emissions would still be generated from the natural gas component of the fuel mixture, potentially jeopardizing the facility's compliance with the zero emissions by 2040 requirement in the CLCPA.

With respect to RNG, while it may be technically feasible to operate the Project on RNG, Danskammer, in the ICF report, acknowledges that a transition to RNG is predicated on the availability of RNG in existing pipeline infrastructure by 2040.<sup>37</sup> For this capacity to be realized, third parties would need to pursue approval for the necessary infrastructure to generate and deliver RNG in sufficient quantities to allow the Project to continue to operate. That approval process – which would likely also be subject to Section 7(2) of the Climate Act by the relevant agency or agencies – may affect the ability to commence construction and operation on a schedule that meets the needs of the Project. Further, neither the Department, the Siting Board, nor the PSC have yet determined the extent to which RNG combustion may be an acceptable means of meeting the zero-emission by 2040 requirement of the CLCPA.

The other two options – continuing to operate based on approval by the PSC or some other solution that is not currently identifiable – are indeterminate and rely on potential future action by PSC or additional developments. Regardless, at this time, Danskammer is not specifically proposing to transition to either hydrogen or RNG. While the Application discusses and assumes that the Project will ultimately transition to hydrogen or RNG, these are essentially aspirational references, as the Application at issue before the Department here contemplates firing fossil fuels at the Project. While the overall implementation of the Climate Act by the State is ongoing and some details may be uncertain, it is already clear that the construction and operation of a new fossil fuel-fired power plant is inconsistent with the Climate Act, unless an adequate justification, assessment of alternatives, and GHG mitigation are provided.

vi. Projected Displacement of Other Electric Generation

The Applicant's assertions that the Project would be consistent with the Climate Act are primarily based on the projected displacement of other less efficient and higher emitting electric generation sources. In other words, while the Application describes substantial direct and upstream GHG emissions attributable to the Project itself, the Applicant also claims that other electric generation sources in the State would reduce GHG emissions by an even greater amount once the Project is operating. Thus, the Applicant relies upon projected actions at other locations by owners and operators of other electric generation sources to reduce the GHG impact of its facility, rather than specifically addressing the GHG emissions directly attributable to the Project or Danskammer.

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<sup>37</sup> Danskammer November 2020 GHG Supplement, pp. 8-9.

The purported displacement of less efficient fossil fuel generators by the Project is based on electricity sector modeling performed for the Applicant by ICF. As with any such electricity sector modeling, its outputs are largely determined by chosen inputs and assumptions. The Department cannot address or evaluate all the methodological assumptions or analytical decisions made by Danskammer or ICF for purposes of their own estimates of GHG emissions associated with the Project. The Department will not rely exclusively on such electricity sector modeling for purposes of assessing compliance with Climate Act Section 7(2). Electricity sector modeling, particularly to the extent it is utilized to project GHG emission from sources other than the Project at issue here, may not provide the level of precision necessary to serve as the primary basis for the Department to determine consistency with the Climate Act.

The fact that chosen assumptions used in electricity sector modeling can drastically change its results is illustrated by the fact that the Applicant itself initially projected the operation of the Project would result in Statewide GHG emission *increases* in 2030. The Applicant's own analysis initially projected that, in 2030, the Project would result in 191,000 short tons of additional direct CO<sub>2</sub> emissions in the State, along with 84,000 short tons of CO<sub>2e</sub> of additional upstream GHG emissions associated with the Project.<sup>38</sup> Only after DEC's Second NOIA did Danskammer update its modeling analysis such that the November 2020 GHG Supplement projected Statewide GHG emission *decreases* in 2030.

In the case of a new fossil fuel-fired electric generation facility, the projected displacement of other less-efficient and higher-emitting electric generating units is not a sufficient basis to determine consistency with the Statewide GHG emission limits established in ECL Article 75 pursuant to CLCPA Section 7(2). The Project itself would result in substantial direct and upstream GHG emissions due to the production, transmission, and combustion of fossil fuels. The extent to which the Project might displace other electric generating units is uncertain and dependent upon a number of factors that are not fully controlled by Danskammer, including the relative dispatch of the Project and other sources, as well as future market conditions. Regardless, Climate Act Section 7(2) requires the Department to make a determination in the context of a permitting action for an individual facility. As part of this review, because the Department is taking action with respect to one particular source – in this case, the Project – the Department does not specifically take into account actions that may or may not occur at other GHG emission sources. Other GHG emission sources are generally subject to requirements pursuant to separate Departmental permits and may require their own reviews pursuant to Section 7(2) of the Climate Act.

Overall, because it is at best uncertain whether the Project would actually displace other electric generation sources to the extent necessary to offset the direct and upstream GHG emissions attributable to the Project, the projected displacement of other electric generation is not a sufficient basis to determine consistency for a new fossil-fuel fired electric generation facility like the Project.

vii. Project Need and Justification

As indicated above, a determination of inconsistency is only the first of three elements required pursuant to Section 7(2) of the Climate Act. That is, when, as here, a permit decision

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<sup>38</sup> Danskammer July 2020 GHG Supplement, Tables 4-4 and 4-5, pp. 20-21.

would be inconsistent with or would interfere with the Statewide GHG emission limits established in ECL Article 75, the agency must also: (1) provide a detailed statement of justification notwithstanding the inconsistency; and (2) if such a justification is available, identify alternatives or GHG mitigation measures to be required. Thus, in order to ensure compliance with the Climate Act, the Department must address these two additional elements as part of its determination on the Title V Application for the Project.

Danskammer has not offered a sufficient basis for the Department to justify the Project notwithstanding its inconsistency with the Statewide GHG emission limits established in ECL Article 75 and the Climate Act. However, based upon publicly available studies and reports by the New York Independent System Operator (NYISO), any previous reliability deficiency has been resolved. Therefore, at least through 2030, there is no demonstrated reliability need or justification for the Project.

In New York State, NYISO studies and evaluates the long-term reliability needs of the State. In order to evaluate State reliability needs, NYISO has a Comprehensive Reliability Planning Process comprised of four components: (1) the Local Transmission Planning Process; (2) the Reliability Planning Process (RPP) along with parts of the Short Term Reliability Process; (3) the Congestion Assessment and Resource Integration Study; and (4) the Public Policy Transmission Planning Process. Under the RPP, NYISO conducts a Reliability Needs Assessment (RNA), which is a biennial study that evaluates the resource adequacy and transmission system security of New York's bulk power transmission facilities.

NYISO published its last RNA report in 2020, which covers the study period years 2024 through 2030.<sup>39</sup> The 2020 RNA initially found loss of load expectation (LOLE) violations occurred in years 2027 through 2030 of the study period. The identified deficiencies were driven by the compound effect of the increasing load forecast and loss of generation in Zone J (New York City). The 2020 RNA found that potential solutions to address the identified resource deficiency in Zone J could include a combination of increased transfer capability into Zone J, increased resources located within Zone J, or demand-side solutions.

The deficiencies identified in the 2020 RNA were resolved by the post-RNA Base Case updates as identified by NYISO in early 2021. These updates included a reduced peak load forecast in Zone J, decreasing peak load by 392 MW in 2030, updates submitted by Con Edison to its Local Transmission Plan, and operation procedures.<sup>40</sup> With these updates and resolved deficiencies, according to NYISO, up to 800 MW in zonal capacity can be removed from Zone G – where the Project is to be located – in 2030 without causing any LOLE violations.<sup>41</sup> As indicated above, the existing electric generating facility at the site of the Project has a capacity of 532 MW, while the proposed Project would have a capacity of 536 MW. Consequently, there is no demonstrated reliability need or justification for the Project.

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<sup>39</sup> NYISO 2020 RNA, Available at: <https://www.nyiso.com/documents/20142/2248793/2020-RNAREport-Nov2020.pdf/64053a7b-194e-17b0-20fb-f2489dec330d> (last visited October 27, 2021).

<sup>40</sup> NYISO Reliability Planning Process, Post-RNA Base Case Updates, February 23, 2021 Presentation, slide 13, Available at: [https://www.nyiso.com/documents/20142/19415353/07%202020-2021RPP\\_PostRNABaseCaseUpdates.pdf/](https://www.nyiso.com/documents/20142/19415353/07%202020-2021RPP_PostRNABaseCaseUpdates.pdf/) (last visited October 27, 2021).

<sup>41</sup> *Id.* at slide 16.

viii. GHG Mitigation and Alternatives

Because there is no justification for the Project notwithstanding its inconsistency with the Statewide GHG emission limits established in ECL Article 75, the Department need not reach this element of the Climate Act Section 7(2) analysis. In any case, Danskammer has not proposed any additional GHG mitigation measures pursuant to the CLCPA, beyond those required by other existing regulations.


**III. CONCLUSION**

For all of the reasons described above, the Department hereby denies the Title V Application for the Project (DEC ID: 3-3346-00011/00017).

Pursuant to 6 NYCRR Section 621.10(a)(2), Danskammer has the right to request an administrative adjudicatory hearing regarding the denial of its Title V 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, you may contact me or Michael Higgins in my office, or Mark D. Sanza, Esq. in the Office of General Counsel. Thank you.

Sincerely,



Daniel Whitehead, Director  
Division of Environmental Permits

cc: M. Keller, TRC  
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