



# **GARNET ENERGY CENTER**

**Case No. 20-F-0043**

**1001.10 Exhibit 10**

**Consistency with Energy Planning Objectives**

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## **Exhibit 10: Consistency with Energy Planning Objectives**

This Exhibit will track the requirements of Final Stipulation 10, dated March 5, 2021, and therefore, the requirements of 16 New York Codes, Rules and Regulations (NYCRR) § 1001.10.

### **10(a) Consistency with State Energy Planning**

The construction and operation of the Garnet Energy Center (the Project) is consistent with the energy policies and long-range energy planning objectives and strategies contained in the 2015 State Energy Plan (SEP), as amended in 2020 and related policies and plans.

#### ***State Energy Plan***

The SEP, adopted by the New York State Energy Planning Board pursuant to New York State Energy Law § 6-104 in June 2015, provides a wide range of goals for New York's energy system. The SEP is based on five Guiding Principles: market transformation, community engagement, private sector investment, innovation and technology, and customer value and choice. The SEP, among other things, "sets out specific initiatives to increase renewables and decrease [greenhouse gas (GHG)] emissions" (SEP at 11). Its goals include attracting private investment in New York's energy sector and combating climate change. The SEP calls for reducing statewide GHG emissions 40% from 1990 levels and generating 70% of the State's electricity from renewable resources by 2030 (SEP at 112). According to the SEP, large-scale renewables have several immediate benefits for the State: "economic development and jobs for communities across the State, greater stability in customer bills, [and] cleaner air..." (SEP at 71). The SEP also recognizes that pairing large-scale renewable projects with energy storage can maximize performance, reduce constraints on the electric grid, and avoid costly investments in new infrastructure (SEP at 58, 70). The SEP was recently amended to include the renewable energy goals of the New York State Climate Leadership and Community Protection Act (CLCPA), which are discussed below (SEP Amendment, 2020).

#### ***Clean Energy Standard (CES)***

In August 2016, the New York Public Service Commission (NYPSC) adopted the CES to ensure that New York will achieve the SEP's 50% by 2030 goal. "The chief focus of the CES initiative is on building new renewable resource power generation facilities" (NYPSC, 2016). The CES also sought to reduce the "total emissions of air pollutants resulting from fossil fuel combustion" (NYPSC 2016 at 3).

The CES employs two related mechanisms to reach the SEP's renewables goal. First, it requires load-serving entities (LSEs) to obtain an increasing percentage of their electricity needs from renewables. LSEs demonstrate compliance by purchasing renewable energy credits (RECs) from renewable resources (NYPSC 2016 at 14). Second, to ensure that an increasing amount of RECs are available to LSEs, the CES authorizes the New York State Energy Research and Development Authority (NYSERDA) to procure RECs from renewables (NYPSC 2016 at 16). Renewables sited within New York are eligible to sell RECs regardless of their location within the State (NYPSC 2016 at 106).

The NYSPSC's highest projection for the amount of utility-scale solar that would need to be installed to help reach the 50% renewables mandate was approximately 6,900 megawatts (MW) (NYPSC 2016, Appendix G at 17, 19). The NYSPSC noted that even if 100% of those projects were sited on New York agricultural lands, only about 0.16% of such lands would be converted to utility-scale solar (NYPSC 2016, Appendix G at 20).

The NYSPSC's 2016 analysis was recently updated to reflect the CLCPA's increased renewables goals (NYPSC 2020). While the 2016 analysis assumed that solar facilities require 2 acres per MW, the 2020 analysis increased this assumption to 5 acres per MW (NYPSC 2020 at 5-2). Nevertheless, the 2020 analysis found that increasing the State's renewables mandate from 50% to 70% by 2030 would only see approximately 0.2% to 0.5% more of New York's agricultural lands occupied by utility-scale solar facilities than the 2016 analysis's 0.16% (NYPSC 2020 at 5-2). In other words, at most 0.66% of New York's agricultural lands would host utility-scale solar facilities to achieve the 70% by 2030 mandate. Further, the 2020 analysis concluded that, "[g]iven the minor conversion of land compared to available crop and pastureland, project-specific agency guidelines, and restoration following decommissioning, significant adverse impacts on land use and land cover would not be expected from incremental utility-scale solar development" (NYPSC 2020 at 5-2).

### ***New York State Climate Leadership and Community Protection Act***

The CLCPA increases the State's renewable energy penetration goal to 70% by 2030, with 6 gigawatts (GW) of solar generation mandated by 2025. The CLCPA also requires 3 GW of statewide energy storage capacity by 2030. The CLCPA ultimately requires 100% carbon-free electricity by 2040.

New York's energy policies are geared toward increasing the amount of renewable generation and decarbonizing the energy sector. The State Legislature made this clear with the CLCPA. The Project will generate electricity without emissions and therefore is consistent with these policies. The Project employs solar generation coupled with energy storage, which is consistent with the CLCPA's 6 GW solar target and the 3 GW storage target. Further, the Project is consistent with the CES's goal of reducing total emissions of air pollutants that result from fossil fuel generation.

The Project is also consistent with the SEP's Guiding Principles. It will help transform New York's energy market by moving it further from fossil fuels to a more diverse, renewables-based market. The Applicant has and will continue to engage the local community as discussed in the Public Involvement Program (PIP) Plan. The Applicant is a private entity and is making a significant private investment to develop the Project. The Project will employ efficient, state-of-the-art solar technology.

New York State is also a member of the Regional Greenhouse Gas Initiative (RGGI) which is a regional marketplace that limits CO<sub>2</sub> emissions through a cap and trade program. The direct benefits of CO<sub>2</sub> emissions reductions are realized through the broader regional marketplace that New York participates in through RGGI.

#### **10(b) Impact on Reliability**

According to the SEP, the Facility will improve system reliability. The SEP stressed the need to install new technology to replace New York State's aging generation fleet to make the grid more reliable and resilient, and the Facility will assist in that regard (SEP at 34-35). The SEP explained that "promoting the development of clean, local energy resources" will "strengthen and improve the reliability of the grid" (SEP at 36).

The results presented in the System Reliability Impact Study (SRIS) indicate that the Garnet Energy Center will not adversely impact the reliability of the New York State Transmission System. Numerous analyses were performed for the SRIS, which are discussed in more detail in Exhibit 5. The SRIS is included in the Application as Appendix 5-1 but being submitted under trade secret and confidential commercial information protection as it contains critical infrastructure information.

#### **10(c) Impact on Fuel Diversity**

The Project will increase fuel diversity within New York State by increasing the amount of electricity produced by solar generation facilities. The New York electric utility system relies on

supply from numerous fuel sources, including natural gas, hydroelectric, nuclear, wind, oil, and solar, as well as interconnections with its neighbors and demand-response resources. Renewables other than hydro and wind (e.g., solar), however, currently only represent 359 MW of New York's 38,497 MW (less than 1%) of total installed capacity (New York Independent System Operator [NYISO] 2020). Renewable resources, such as hydro, wind, and solar energy have no fuel costs and are selected in wholesale market auctions to operate more frequently than older and less efficient fossil units (NYISO, 2020).

#### **10(d) Impact on Regional Capacity Requirements**

The Project's addition of renewable generation capacity to the region will not adversely affect regional requirements for capacity. As detailed in Exhibit 8, the Project is expected to displace energy production from fossil fuel facilities, thereby promoting the goals in the SEP.

#### **10(e) Impact on Electric Transmission Constraints**

In the SRIS, the NYISO did not identify any additional or new electric transmission system constraints that would be created by the Project. Exhibit 5 discusses the Project's effect on transfer capacity across affected interfaces.

#### **10(f) Fuel Use**

The Project will generate electricity without the use of fuel. Therefore, there will be no adverse fuel delivery impacts.

#### **10(g) Impact on Energy Policy and Planning**

As demonstrated above, the Project will help New York achieve other energy policy and long-range energy planning objectives and strategies in the SEP and related policies by increasing renewable energy penetration and reducing GHG emissions.

#### **10(h) Analysis of Reasonable and Available Alternative Locations**

As discussed in Exhibit 9, no reasonable and available alternative locations have been identified for the Project. Exhibit 9 also contains an evaluation of alternative Project designs within the Project Area, including alternative solar array locations and a no action (or no build) alternative. Notably, as explained in Exhibit 9, while the "no action" alternative to the Facility would eliminate the relatively minimal, potential environmental impacts associated with the construction and operation of the Facility, it would also do nothing to help New York achieve its aggressive carbon

emissions reduction and renewable energy goals as outlined in the SEP, CES, and the CLCPA. In addition, the local community would not receive the benefit of payments in lieu of taxes and/or a community host agreement, and the hiring of up to 231 people for construction jobs.

#### **10(i) Location and Source Suitability**

The proposed location and source are best suited to promote public health and welfare. As discussed in Exhibit 9, there are no reasonable and available alternate locations for the Facility. The Project was awarded a REC contract for a 200 MW solar facility at this location. As for the source, the CES notes that New York State requires aggressive deployment of all renewable technologies, including solar, to meet the SEP's emission targets. The CLCPA ramped up the need for renewables deployment by increasing the SEP's goal to 70% by 2030. Further, the CLCPA specifically increased the need for solar by requiring 6 GW of it by 2025. And, as discussed in Exhibit 8, the Facility is expected to displace carbon and other emissions associated with fossil fuel generation, thereby minimizing the public health and environmental impacts related to climate change.

## References

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