



SOMERSET SOLAR, LLC

MATTER NO. 22-00026

§900-2.18 Exhibit 17 Revised

Consistency with Energy Planning Objectives

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CES	Clean Energy Standard
CJWG	Climate Justice Working Group
CLCPA	Climate Leadership and Community Protection Act
DACs	Disadvantaged Communities
GHG	greenhouse gas
GWh	gigawatt hours
LOD	Limit of disturbance (approximately 700 acres that define the Facility Site)
MW	megawatts
MWh	megawatt-hours
NYISO	New York Independent System Operator
NYS	New York State
NYSEPB	New York State Energy Planning Board
NYSPSC	New York State Public Service Commission
POI	point of interconnection
RECs	Renewable Energy Credits
SEP	State Energy Plan
SRIS	System Reliability Impact Study

Glossary Terms

Applicant	Somerset Solar, LLC, a subsidiary of The AES Corporation, Inc. (AES), the entity seeking a siting permit for the Facility Site from the Office of Renewable Energy Siting (ORES) under Section (§) 94-c of the New York State Executive Law.
Application	Application under §94-c of the New York State Executive Law for review by the ORES for a Siting Permit.
Facility	The proposed components to be constructed for the collection and distribution of energy for the Somerset Solar Facility, which includes solar arrays, inverters, electric collection lines, and the collection substation.
Facility Site	The limit of disturbance (LOD) that will be utilized for construction and operation of the Facility, which totals about 700 acres on the Project Parcels in the Town of Somerset, Niagara County, New York (Figure 2-1).
Project Parcels	The parcels that are currently under agreement with the Applicant and Landowner, totaling about 1,784 acres in the Town of Somerset, Niagara County, New York, on which the Facility Site will be sited (Figure 3-1).
Project Site	The acreage of the Project Parcels under agreement between the Applicant and the Landowner, consisting of approximately 1,396 acres, in which the Applicant has performed diligence, surveys and assessments in support of Facility design and layout.

EXHIBIT 17 Consistency with Energy Planning Objectives

This exhibit addresses the requirements specified in New York Codes, Rules and Regulations §900-2.18. This exhibit discusses the Somerset Solar Facility (Facility) and its consistency with New York State (NYS) energy policies, including Climate Leadership and Community Protection Act (CLCPA) targets, long-range energy planning objectives, and strategies contained in the most recent State Energy Plan (SEP).

The proposed Facility aligns with the NYS SEP and ambitions and is consistent with the SEP's guiding principles of encouraging private sector investments and enabling market transformation. The Facility will serve a key role in contributing to improving the reliability of the NYS' electric energy system, reduce cost of electric energy, and minimize public health and environmental impacts. Specifically, the Facility will contribute towards NYS achieving its goal of 70% of electricity generated by renewable energy by 2030. It will make a significant contribution towards NYS reaching its goals of decarbonizing the economy and putting NYS at the forefront in addressing climate change.

The NYS Clean Energy Standard's (CES) main focus of building new renewable power generation resources will also be met through construction of the Facility. Additionally, it will advance goals of protecting natural resources, add to NYS' renewable electric energy capacity, reduce greenhouse gas (GHG) emissions, create jobs and business opportunities, and stabilize energy production and prices for New Yorkers. The northern half of the Facility is located at the site of a former coal plant, Somerset Station, that already has a strong transmission infrastructure that the Facility will utilize to interconnect to NYS' electric system, as well as repurpose the coal plant site and its former use of coal, for generation of clean energy, thereby reducing emissions that contribute to climate change and that impact health and the environment.

The Facility will have a nameplate capacity of 125 megawatts (MW) (alternating current), which will serve to contribute towards reducing NYS' dependence on fossil fuels and diversify the electricity market for consumers. The Facility has been designed to be consistent with energy planning objectives, which has been achieved to the maximum extent practicable through repurposing of a coal plant and industrial site for a portion of the Facility.

17(a) Consistency with New York State Energy Planning and Policies

The Office of Renewable Energy Siting regulations §900-2.18 require an analysis of the Facility's consistency with NYS energy policies, including the Climate Leadership and CLCPA targets and long-range energy planning objectives and strategies contained in the most recent SEP at the

time of filing. As demonstrated below, the Facility will contribute to the NYS' renewable electric generation capacity and advance important objectives of the CLCPA, the 2015 NYS SEP,¹ the CES, and other important NYS policies.

NYS' energy policies have for decades focused on the need to increase renewable energy electricity generation supplies, lower the cost of energy to consumers, increase efficiencies, drive investments in the electric system, and send market signals to support NYS efforts to boost renewable energy production. The culmination of these various policy efforts is the enactment of the CLCPA, a historic climate law that sets statewide GHG emission limits of 60% of 1990 emissions by 2030 and 15% of 1990 emissions by 2050. To reach these goals, the CLCPA creates a Climate Action Council, which must propose a suite of strategies for attaining deep decarbonization across the economy. The CLCPA also codifies several ambitious electric sector targets, many of which were originally proposed by Governor Cuomo as enhancements to NYS' existing CES. The targets include a requirement that 70% of the NYS' electricity come from renewable energy by 2030, while 100% of the NYS' electricity supply must be emissions free by 2040. By turning these goals into law, the CLCPA has turned aggressive NYS energy planning and policy into mandates requiring specific action to achieve the combined environmental benefits from increasing electrification of the economy and developing renewable energy generation to meet the demand. Along with the companion planning policies in the CES and SEP, which are interrelated and interdependent, NYS has created an environment to spur progress away from the fossil fuel-based utility market and toward cleaner, greener, cheaper, and more reliable market-based renewable energy. The Facility will play a key role in advancing this continuing market transformation and signify the responsiveness of the private sector to the NYS' articulated goals and promised reforms. The Facility's size, location, and interconnection make it an economical resource, for providing NYS with renewable energy.

Overview of State Energy Policies and Plans

NYS Energy Law §6-104 requires that the NYS Energy Planning Board (NYSEPB) adopt a SEP at minimum every 10 years. The SEP, among other things, accomplishes the following: forecasts NYS energy supply and demand and the NYS' ability to satisfy that demand; projects GHG emissions; identifies and assesses energy supply source alternatives and emerging trends relating to energy supply, price, and demand; assesses current energy policies and programs and their contributions to achieving long-range energy planning objectives; analyzes energy security

¹ As amended on April 8, 2020.

issues; and assesses the impacts of plan implementation on economic development, health, safety and welfare, environmental quality, and consumer energy costs. Under NYS Energy Law §6-102(5), these efforts must be guided by the following objectives: “improving the reliability of the NYS’ energy systems; insulating consumers from volatility in market prices; reducing the overall cost of energy in NYS; and minimizing public health and environmental impacts, in particular, environmental impacts related to climate change.”

The NYSEPB issued the most recent SEP in 2015. The 2015 SEP sets forth a broad range of goals for NYS’ energy system, from attracting private investment in NYS’ energy sector and encouraging competition and innovation within the electricity markets, to decarbonizing NYS’ economy and putting the Empire State at the forefront in the battle against climate change, with the stated goal of, by 2030, reducing statewide GHG emissions by 40% and increasing renewable generation such that 50% of NYS’ electricity is generated by renewable sources.

In August 2016, the NYS Public Service Commission (NYSPSC) adopted the CES to ensure, among other things, that the SEP goal of reaching 50% renewable energy consumption in NYS by 2030 is achieved. The CES, among other things, imposes mandatory renewable procurement requirements on the NYS’ electric utilities; establishes a system and market for awarding Renewable Energy Credits (RECs) to those projects injecting renewable or carbon-free power into the NYS grid; directs certain changes to the ways in which New Yorkers are permitted to purchase or generate their own energy; and adopts a number of measures designed to send market signals to encourage investment by renewable developers and others in the NYS’ energy sector with the goal of “transform[ing] the electric system” (NYSPSC 2016, p. 70). “The chief focus of the CES initiative is on building new renewable resource power generation facilities” (NYSPSC 2016, p. 78).

In June 2019, the NYS legislature passed the CLCPA – ambitious climate protection legislation designed to combat climate change and set NYS on a path to reach 100% zero-emission electricity generation by 2040 (NYS Climate Action Council 2021) and 85% reduction in GHG emissions by 2050. With the passage of the CLCPA, the NYS legislature made clear that NYS’ energy policy is focused on increased renewable energy generation in NYS with the elimination of all fossil fuel-fired power plants in NYS by 2040. The CLCPA requires that all NYS agencies consider whether their decisions regarding permits, licenses and other approvals are inconsistent with or interfere with achieving the CLCPA’s statewide GHG limits and, if so, identify alternatives or GHG mitigation to be required. Achieving these aggressive renewable energy generation goals

will require the development of thousands of megawatts of new utility-scale wind and solar generation.

On April 8, 2020, the SEP was amended by the NYSEPB to incorporate the CLCPA goals and now incorporates the CLCPA targets including:

- 85% reduction in GHG emissions by 2050
- 40% reduction in GHG emissions by 2030
- 100% carbon free electricity by 2040
- 70% electricity generation from renewable energy resources by 2030

The CLCPA also created the Climate Action Council and required the issuance of a Scoping Plan under the direction of the Council to be completed by January 1, 2023. The CLCPA requires that the Climate Action Council's Scoping Plan prioritize and maximize reduction of greenhouse gases and co-pollutants in disadvantaged communities. To accomplish this goal, the CLCPA established a Climate Justice Working Group (CJWG) charged with developing criteria to identify Disadvantaged Communities (DACs) in NYS to ensure that frontline and otherwise underserved communities benefit from NYS' transition to cleaner sources of energy. Draft DACs criteria developed by the CJWG was released for public comment on March 9, 2022. The CJWG identified the majority of DACs, at the census tract level, on the basis of 45 indicators regarding "Environmental and Climate Change Burdens and Risks" and "Population Characteristics and Health Vulnerabilities." The draft DAC list also includes 19 census tracts that are federally designated reservation territory or NYS-recognized Nation-owned land. Once finalized, the DACs criteria will be used by NYS entities to direct clean energy and/or energy efficiency investments in a manner to ensure that DACs receive no less than 35% of benefits of spending on clean energy and energy efficiency programs, with a goal of 40% (NYS Climate Action Council 2022).

The Climate Action Council initially released a draft Scoping Plan in December 2021 which provided an initial evaluation of technology and policy pathways across all sectors of the economy, including the energy sector, in order to identify the actions New York can take to meet the stated CLCPA goals. The final Scoping Plan (Scoping Plan) was issued in December 2022, recommends actions necessary to meet the CLCPA goals and requirements, including actions to achieve a reduction in economywide GHG emissions of 40% by 2030 and 85% by 2050 from 1990 levels, putting New York on the path toward carbon neutrality while ensuring equity, system reliability and a just transition from a fossil fuel economy to a clean energy economy. The Scoping Plan also sets the course for NYS to create new job opportunities, support healthier communities,

ensure benefits from investment in NYS' growing economy accrue to all New Yorkers, while also prioritizing DACs in the transition through the achievement of CLCPA goals and requirements.

The Scoping Plan identifies both sector-specific and economy-wide actions aimed towards achieving the CLCPA's goals and requirements by outlining a variety of regulatory and legal challenges, market mechanisms and technologies that have been determined to be essential to the achievement of said goals and requirements. The sectors addressed in the Scoping Plan include transportation, buildings, electricity, industry, agriculture, forestry and waste. It also addresses land use, local government, adaptation, and resilience and an economywide cap-and-invest program.

The Scoping Plan stresses the importance of a zero-emission electricity sector as a fundamental component to the achieving the GHG emissions limits and net zero GHG emissions, and notes that while current programs have made significant progress, NYS "must continue to aggressively deploy clean resources while continually evaluating the effectiveness of the programs and policies and amending them if renewable energy is not deployed at the pace necessary to achieve the requirements."² To achieve the goals and requirements of the CLCPA, the Scoping Plan identifies the following key electricity sector strategies:

- Retirement and/or repurposing of fossil fuel fired facilities
- Accelerate growth of large-scale renewable energy generation
- Facilitate distributed energy resources
- Support clean energy siting and community acceptance
- Promote community choice aggregation
- Deploy existing storage technologies
- Invest in transmission and distribution infrastructure upgrades
- Improve reliability planning and markets
- Advance demand side solutions
- Explore technology solutions

For the strategy directing accelerated growth of large-scale renewable energy generation, the Scoping Plan sets a number of components that are necessary to accomplish the desired outcome of this strategy. The specific components include, but are not limited to: directing the NYSPSC to continue to evaluate and adjust policies and procurement targets as needed to

² Scoping Plan, p. 13.

achieve the CLCPA requirements to deploy renewable energy systems including solar; recommending that NYS continue to support successful programs and regulatory changes to ensure rigorous but efficient timely procurement and permitting; directing the Office of Renewable Energy Siting to establish a non-binding metric or goal with respect to annual MWs permitting in an amount complementing the Tier 1 request for proposals procurements, and recommending, as part of clean energy infrastructure development, that workforce development actions include local and targeted hiring with a focus on hiring of workers from DACs and displaced or transitioning workers.³

Now that the Scoping Plan has been finalized, the CLCPA requires a number of actions that will revamp some of the NYS' pre-CLCPA climate and energy policies and plans and ensure NYS stays on track to achieving the CLCPA goals and requirements as the 2030 and 2040 milestones approach. These actions include, but are not limited to: an update to the SEP to incorporate Scoping Plan recommendations; an update of the Scoping Plan every 5 years as part of the ongoing process to meet the CLCPA targets and GHG emissions reduction limits; and by July 1, 2024, and every two years thereafter the NYSPSC will issue a comprehensive review of the renewable energy program, including progress to meeting the overall 70x30 and 100x40 targets.

General Consistency with State Policies

The foregoing documents, policies and legislation are collectively meant to encourage progress toward transitioning NYS away from the fossil fuel-based utility market and toward a cleaner, more diverse, and more reliable renewable energy landscape. The Applicant draws on significant, historic experience supporting the development of NYS' current renewable portfolio and seeks to leverage its extensive renewable energy development experience and capabilities to support the continued transformation of NYS' future energy sector consistent with the goals of the CLCPA, SEP and CES.

The proposed Facility is consistent with NYS policies that encourage the development of renewable energy projects, seek solutions to fight climate change, and emphasize the need to transition NYS' energy markets away from a reliance on fossil fuels for electricity generation. The proposed Facility will play a key role in advancing this market transformation and signifies the responsiveness of the private sector to the NYS' articulated goals. As of 2016, the total amount of energy needed for NYS to meet the 50% by 2030 renewable target was 33,700,000 MW hours (MWh) of additional renewable generation (NYSPSC 2016). The Facility will add up to 125 MW

³ *Id.* at p. 231-233.

of clean, green, NYS-based renewable power into the grid. This Facility will be located on portions of the site previously occupied by the former coal plant, a demolished⁴ electric generating facility, and adjacent parcels comprising approximately 1,396 acres of privately owned land in the Town of Somerset, Niagara County, New York (Project Site). The Facility will be replacing non-renewable fossil fuel energy production with renewable solar energy production and will utilize the existing strong transmission facilities located on the Somerset Station site. The Facility thus will aid in advancing the CLCPA goals, including reaching renewable energy generation of 70% by 2030 and 100% carbon-free electricity by 2040, and contributing towards the Scoping Plan's sector strategy of accelerating growth of large-scale renewable energy generation while repurposing a fossil fuel facility. The Facility also will protect NYS' natural resources, help grow clean energy innovation, and create new jobs and business opportunities.

The 2015 SEP plan states that “conversations about the energy system of tomorrow often start with renewable energy production, and renewable resources will indeed play a critical role in shaping NYS' energy future, providing resilient power, reducing fuel cost volatility, and lowering GHG emissions” (NYSEPB 2015). Accordingly, the SEP emphasizes the need to encourage additional “large-scale renewables” in NYS (NYSEPB 2015). The Scoping Plan also emphasizes the important role large-scale renewable energy generation plays in ensuring the achievement of the CLCPA targets. Like the SEP, the CES will rely primarily on LSR to achieve its goals relating to energy production from renewable sources. The CES has already increased the annual targets for renewable energy procurement to meet the CLCPA requirements, and NYS Energy Research & Development Authority's current procurement programs, including Tier 1, will expand and continue to procure the requisite renewable energy.

The immediate benefits of large-scale renewable projects identified include economic development and jobs, greater stability in customer bills, and cleaner air (NYSEPB 2015). Strong workforce growth between 2019 and 2040 is projected for more mature electricity subsectors, including solar, and specifically from the solar industry will add up to just over 28,000 jobs across NYS⁵. Additional direct and indirect benefits include increased property tax revenues, growth of

⁴ Demolition and removal of former coal plant structures are the responsibility of the Project Site landowners and these activities are ongoing. The Applicant understands these activities are expected to be completed prior to initiation of Facility construction. With the exception of the portion of the railroad line that is located within the Facility Site, all of the facilities that are part of the former coal plant that have been or will be demolished are located outside the Project Site. Portions of the railroad that are located on the Project Site have been removed, and any stockpiled materials associated with the former rail line that currently remain, are anticipated to be removed from the Project Site prior to initiation of Facility construction (J. Marabella, personal communication).

⁵ Scoping Plan, p. 221; Just Transition Working Group. 2021 Jobs Study, p. 33 (December 2021).

related industries and service-based businesses, investments in modernized infrastructure, and job creation and innovation in related fields, such as training programs, manufacturing, and other new opportunities in the green energy sector, as well as a number of health co-benefits associated with the transition away from fuel combustion.⁶

As highlighted in the Scoping Plan, in 2021, renewable resources accounted for approximately 27% of NYS' electricity generation.⁷ As NYS works towards the CLCPA 70x30 and 100x40 electricity sector targets, the transportation and building sectors will be transitioning to electric, increasing demand which will impact the amount of renewable electric generating capacity needed to meet the 70x30 and 100x40 requirements. Based on modeling outlined in the Scoping Plan, NYS anticipates annual electricity demand to grow by 100 to 110% by 2050, increasing overall electric load and shifting NYS' electricity system to a winter peaking system,⁸ with the electricity share of final energy demand estimated to grow from currently less than 20% to between 68% to 75% by 2050.⁹

To meet this rapid growth in electricity demand while decarbonizing electricity supply, significant expansion in generation is required across NYS and must continue to increase its Clean Energy Standard procurements for large scale renewables, including solar to do so.¹⁰ By 2030, the statewide electric load is forecast to be 151,678 gigawatt hours (GWh),¹¹ requiring an estimated 106,174 GWh of renewable electricity that must be in operation by 2030 to meet the CLCPA 70x30 target.¹² The incremental quantity of overall renewable energy that must be deployed to achieve this target is 42,858 GWh/yr,¹³ with 24,990 GWh/yr of that total to be achieved through resources other than offshore wind, primarily Tier 1.¹⁴ To meet NYS' minimum capacity requirement in 2040, approximately 9.5 gigawatts of newly contracted renewable resources will be required to come on-line, and to fully achieve the emission-free grid target by 2040 even more resources will likely be needed along with transmission to deliver clean power across NYS.¹⁵ By 2050, across all modeled pathways, NYS must install over 60 gigawatts of solar capacity (both

6 Scoping Plan, p. 103-106.

7 *Id.* at p. 219; NYSERDA. Clean Energy Standard Annual Progress Report: 2021 Compliance Year (January 2023), p. S-1.

8 *Id.* at p. 219.

9 Scoping Plan. Appendix G: Integration Analysis Technical Supplement New York State Climate Action Council Scoping Plan (Integration Analysis) (December 2022), Section I, p. 21.

10 *Id.* at Section I, p. 43.

11 NYSERDA and DPS. White Paper on Clean Energy Standard Procurement to Implement New York's Climate Leadership and Community Protection Act, p. 19 (June 18, 2020).

12 *Id.* at p. 20.

13 *Id.* at p. 21.

14 *Id.* at p. 22.

15 NYISO. 2021-2040 System & Resource Outlook, p. 16 (September 22, 2022).

utility-scale and distributed resources) to meet projected electricity demand, with an estimated annual generation of between 120,512 to 125,388 GWh.¹⁶ The Facility has the potential to diversify the energy sector in NYS and make a critical contribution toward meeting these goals.

In addition, one of the primary goals of the SEP and CES is encouraging fundamental changes in NYS' electricity markets to stimulate private sector investment and activity, increase competition, and send market signals that attract investment in NYS' electric energy system (NYSPSC 2016). To that end, the SEP stresses the need to move toward a market-based future where participants see the right price signals and decide to invest private capital into the system without the need for direct governmental or utility procurement of generation, thus increasing competition, building a dynamic electricity market, driving efficiencies and, ultimately, reducing costs. "Enabling private capital investment to drive self-sustaining independent clean energy markets" will allow NYS to "deliver true scale to the clean energy sector, which in turn is an essential component for meaningful economic development" (NYSEPB 2015). Greater competition among all types of project developers and owners will likely result in lower-cost projects, reducing electric rates for residents, businesses and industries, and freeing up capital for other purposes. Ultimately, the intention is to drive additional capital investment, such as the proposed Facility, in NYS and participation in NYS' energy market.

The Applicant will provide the power generated by the Facility into NYS' competitive wholesale electricity market. Not only will the Facility provide additional renewable power for consumption by New Yorkers, the Facility will contribute renewable capacity to the growing competitive electricity market in NYS, likely displace more expensive and less efficient units, reduce the amount of power NYS needs to import to meet its needs, increase reliability by providing additional generation capacity which the New York Independent System Operator (NYISO) can draw on to address congestion or ramp down other pollutant and expensive units, diversify the NYS' energy supply to reduce overdependence on natural gas generation, and provide NYS with additional capacity that does not depend on imported fuels subject to price volatility and disruptions in supply, as discussed further below.

Another important SEP core initiative and New York Power Authority's Reforming the Energy Vision Plan goal is building a more sustainable, modern, and resilient energy system—one that can respond to rapidly changing weather and consumption patterns, recover quickly from problems, and does not depend excessively on a single fuel source to fulfill all of its needs. NYS'

¹⁶ Integration Analysis, Section I, p. 46.

energy supply system suffers from “an over-dependency on natural gas” which can create significant financial and other problems for customers during cold weather events or other times of natural gas price volatility (NYSPSC 2016). Additions to NYS’ renewable capacity diversifies fuel sources, increases grid reliability and resiliency, and supports the modernization of grid infrastructure (NYSPSC 2016). This advances NYS energy planning objectives of “improving the reliability of the state’s energy systems, insulating customers from volatility in market prices” and “reducing the overall cost of energy in the state”, as outlined in NYS Energy Law §6-102(5).

As discussed in greater detail in section 17 (c) of this exhibit, the Facility is consistent with NYS’ policy of increasing fuel diversity. Currently, approximately 71% of NYS’ electricity is generated by fossil fuel-fired or nuclear generating facilities (NYISO 2022). The Facility will add up to 125 MW of solar to NYS’ generation capacity and so contribute to diversification of NYS’ energy resources.

Finally, as a generation facility that does not rely on fuels which must be sourced and delivered from other parts of the country or the world, the Facility can generate energy consistently and unencumbered by transportation problems, extraction-related complications or delays, or political unrest in foreign countries—all potential issues for traditional fossil fuel facilities which rely on price-volatile commodities sourced from outside NYS. This improves system resiliency and allows NYS to recover more quickly from significant disruptions to the grid, such as large storms or other incidents. As noted in the SEP, siting facilities throughout NYS that are capable of rapid recovery during periods of disruption allows those facilities to operate independently of the central grid until the rest of the system can recover.

17(b) Impact on Reliability in New York State

According to the SEP, renewable energy facilities will improve system reliability. The SEP stresses the need to install new technology to replace NYS’ aging generation fleet to make the grid more reliable and resilient, and the Facility will assist in that regard (NYSEPB 2015), by replacing the lost power that was being generated by the former coal plant. The SEP explains that “promoting the development of clean, local energy resources” will “strengthen and improve the reliability of the grid” (NYSEPB 2015).

Moreover, the results of the Facility’s System Reliability Impact Study (SRIS) demonstrate that the Facility will not adversely impact the reliability of the NYS transmission system or result in any degradation of system reliability or noncompliance with the North American Electric Reliability Corporation, Northeast Power Coordinating Council, or NYS Reliability Council reliability standards. Exhibit 21 further discusses the analysis and findings of the Facility SRIS.

17(c) Impact on Fuel Diversity in New York State

The Facility will increase fuel diversity in NYS. NYS' electric system relies on a variety of fuel sources, including oil, natural gas, hydroelectric, nuclear, wind, and solar. NYISO reported data for 2021 identifies zero-emission¹⁷ energy production consists of 50% of energy produced in NYS, with most of those sources consisting of nuclear and hydroelectric facilities. Other renewables, including solar, consisted of 1% of the energy produced in NYS in 2021. When viewed for the upstate region of New York (Load Zones A-E; Zone A is the Load Zone for western New York), zero emission energy for the region represents 91% of the energy produced, with other renewable energy sources contributing to 2% of the energy produced (NYISO 2022).

The Facility will increase the amount of solar generation in NYS, which is also consistent with the SEP and other related NYS policies that encourage the development of more renewable generation. Because renewable resources are cheaper than fossil fuel based generation, they are cleared to operate in the wholesale electricity market auctions more frequently than older and less efficient fossil based units (NYISO 2022).

17(d) Impact on Regional Capacity Requirements

The Facility will add renewable solar capacity to the Regional Capacity Requirements in the NYISO localities (Lower Hudson Valley, New York City and Long Island¹⁸) as well as to the overall NYS Control Area region capacity requirements. The Facility's renewable capacity contributions will displace capacities from pollutant resources thereby helping to decarbonize the environment.

17(e) Impact on Electric Transmission Constraints

A majority of NYS' renewable energy capabilities are located in upstate (Load Zones A-E) and northern New York (NYISO 2022). To accommodate for the anticipated requirements to serve these areas of New York, current public policy that addresses project needs for transmission infrastructure includes several large projects that have been approved or are being constructed that will address potential constraints on electric transmission.

The Facility is connecting to a location that has a strong electric transmission system that was previously being utilized by the former coal plant. As demonstrated by the SRIS Study, the

17 The NYISO 2022 Power Trends report limits zero-emission categories to nuclear, hydroelectricity, and wind energy. Solar energy is uncategorized, falling outside of both zero-emissions and fossil fuels categories.

18 Only localities (and whole state, New York Control Area) have regional capacity requirements (locational minimum installed capacity requirements or LCRs). Zones A-F (defining the rest of New York State) makes up for the balances beyond LCR amounts in localities and also for the overall New York Control Area requirement. Since the Facility is in Zone A, it will contribute to capacity in both the localities and the rest of New York State.

interconnection of the Facility will not result in new electric transmission constraints nor did the SRIS identify any adverse impacts to existing transmission constraints as a result of the Facility. According to NYISO, three main issues must be addressed with respect to system reliability before SEP and CES goals can be achieved: (1) additional transmission capability necessary to reliably transport energy from renewable resources developed in remote areas, mainly western and northern New York, to New York's southeast load centers, (2) additional energy and ancillary service requirements necessary to maintain system reliability with the level of intermittent resource penetration required by the CES, and (3) NYS' resource adequacy requirements resulting from the significant additional intermittent resource penetration required by the CES (NYISO 2022).

17(f) Analysis of Reasonable and Available Alternative Locations

Somerset, LLC is a private applicant and does not have the power of eminent domain to procure alternative solar sites.

As a part of site selection, preliminary evaluations were undertaken to consider factors to confirm the suitability of the selected approximately 1,784 acres of land (Project Parcels) secured to meet the Applicants' development objectives. In preliminary evaluations to confirm site suitability, the Applicant focused on the following criteria:

- A decommissioned, non-renewable electric generating facility (Somerset Station), with existing interconnection/transmission infrastructure; brownfield; landfill; and disturbed land for solar use.
- Strong solar energy potential – The Applicant confirmed, through an initial screening process using statewide solar resource mapping, that the Project Site has a strong solar energy potential. The area selected for development is primarily open land (previously developed and agricultural fields). By maximizing use of these open areas for the Facility, significant brush and tree clearing and grubbing and associated environmental impacts will not be required.
- Provision of clean distributed solar energy generated closer to end users, which increases efficiency and reduces carbon pollution compared to other generation facilities, and also improves grid resiliency and potentially curtailing the need for costly transmission investments. This directly supports the draft Scoping Plan developed by NYS Climate Action Council which identifies a directive of having 10,000 MW of distributed solar energy generation by 2030 (NYS Climate Action Council 2021, NYISO 2022).

- Proximity of adequate electrical interconnection – The ability of the Project Site to allow for on-site electrical interconnection via a point of interconnection (POI) to the existing New York State Electric and Gas Corporation 345-kiloVolt Kintigh Substation was an extremely favorable site attribute. The Kintigh Substation and proposed POI are wholly within the Project Site, with the POI connecting to the inside of Kintigh Substation via an existing 345 kiloVolt spare bay. This has limited the transmission line length to 159 feet, thereby limiting environmental impacts from the transmission line connection and reuse of previously disturbed lands.
- Compatible land use – The Project Site consists of relatively open, flat parcels of adequate size to support a 125-MW solar energy project. The predominance of open areas within the Project Site allows for maximizing sun exposure. The Project Site’s setting reflects a low density of surrounding development with considerable opportunity for buffering from surrounding land uses.
- Willing landowners and Siting – Sufficient acreage was secured at the Project Site for siting the Facility in a manner that minimizes environmental impacts, utilizing only approximately 50% of the available acreage.
- Limited environmental and engineering constraints – Initial screening review was conducted based on readily available public data to evaluate such issues as mapped wetlands (Exhibit 14), indicating that considerable usable area potentially existed within the Project Site pending more detailed field evaluations. In addition, the surrounding roadway network appeared adequate to support delivery of equipment and construction activities. Once the Facility is constructed, little need for community services will result. Due to the historic use and disturbance associated with a large portion of the Project Site, new areas of disturbance were minimized, and are primarily limited to areas requiring tree and brush clearing and grubbing, tree and brush selective cutting, and grading necessary to construct the Facility.

The selected Project Site was, therefore, secured for additional evaluation and development of the Facility.

No reasonable and available alternative site for the Facility is owned or under option by the Applicant. By repurposing the site of a decommissioned electric generating facility the Applicant has made a point to reduce and minimize environmental impacts associated with the development of large-scale renewable projects. NYS has established an aggressive renewable energy target, supported by NYS Energy and Research Development Authority’s annual solicitations for such

projects. Requiring a developer to forfeit its proposed Project Site, in favor of another site one of its affiliates is developing for another REC contract, is a policy that would discourage renewable development, making it difficult for NYS to meet its renewables target. Therefore, sites owned or under option to the Applicants' affiliates slated for renewables development are not reasonable or available alternate locations.

17(g) Public Health and Welfare, Climate Change

The proposed location and source are best suited to promote public health and welfare. As discussed in section 17(f) in this exhibit, there are no reasonable and available alternative locations for the Facility. As for the source, the CLCPA notes that NYS requires aggressive deployment of all renewable technologies, including solar, to meet the SEP's 70-by-30 goal. The Facility also will reduce carbon and other emissions associated with energy generation, thereby minimizing the public health and environmental impacts related to climate change. It is anticipated that the Facility will displace statewide emissions of approximately 177,068¹⁹ tons of carbon dioxide annually (United States Environmental Protection Agency 2023) and enhance air quality as a result of the Facility's generation of up to 125 MW of renewable, zero-emission energy.

¹⁹ Tons of carbon dioxide displaced annually was estimated as follows: 8,760 hrs/year (1) x 125 MW (2) x 0.207 capacity factor (3) x 1000kwh/mwh = 226,665,000 kwh per year of carbon dioxide emissions avoided by the Facility. Where 1 = 24 hrs/day x 365 days per year = 8760 hrs/year, 2 = electricity generated by the Facility, and 3 = capacity factor as determined by the Production Profile of the Facility The 226,655,000 kwh figure was entered into the EPA calculator for kwh of carbon emissions avoided (USEPA 2023). The resulting calculation gives an initial answer as 160,634 metric tons. The webpage has an option to convert the answer to pounds, kilograms, and tons and the Applicant has chosen to use tons as the unit. The final figure generated is 177, 068 tons of carbon dioxide emissions avoided.

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