

STATE OF NORTH CAROLINA  
UTILITIES COMMISSION  
RALEIGH

DOCKET NO. SP-100, SUB 35

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of  
Request for Declaratory Ruling by )  
Sunstone Energy Development LLC ) **SUNSTONE ENERGY**  
Regarding the Provision of Solar Energy ) **DEVELOPMENT LLC'S AND**  
and Energy Efficiency Service within ) **DUKE ENERGY PROGRESS,**  
Fort Bragg ) **LLC'S VERIFIED RESPONSES**  
 ) **TO COMMISSION QUESTIONS**

NOW COME Sunstone Energy Development LLC (“Sunstone”) and Duke Energy Progress, LLC (“DEP”), by and through the undersigned counsel, pursuant to the North Carolina Utilities Commission’s (“NCUC” or “Commission”) October 26, 2021, *Order Scheduling Oral Argument, Allowing Briefing, and Requiring Responses to Commission Questions* (“Scheduling Order”), and respectfully provide the following verified responses to the Commission’s questions in the Scheduling Order.

**Commission Question 1**

**Question:** Confirm the contractual and developmental status of the Proposed Project. Have there been any changes or developments since the last filings of the parties?

**Sunstone Response:** The Proposed Project is part of a broader, Army-approved alternative energy portfolio under which solar-generated electricity is to be provided to on-base housing areas at Aberdeen Proving Grounds (MD), Fort Meade (MD), Fort Bragg (NC), Fort Polk (LA), Fort Rucker (AL), Fort Sill (OK), and Fort Riley (KS). In order to develop solar energy projects for the on-base housing areas at individual military bases, Sunstone enters into a contract to provide solar energy and energy efficiency services to the privatized entity that owns and operates on-

base housing under the Army's Residential Communities Initiative ("RCI Program"). The RCI Program is the Army's implementation of the Military Housing Privatization Initiative ("MHPI") contained in the National Defense Authorization Act for Fiscal Year 1996.

To date, Sunstone has worked under the auspices of the Army's RCI Program to install solar energy capability at Aberdeen Proving Ground (7.1 MW of rooftop and ground mount), Fort Meade (8.7 MW, rooftop), and Fort Riley (10.5 MW, rooftop). An additional development phase at Fort Riley (1.7 MW, rooftop) is expected to be energized in December 2021.

Pursuant to an agreement between Sunstone and one of the Army's private partners in the RCI Program, Sunstone has deployed or has in development a total of 10 solar energy and energy efficiency programs at five military bases across two service branches. The only change in circumstance from Sunstone's last filing in this docket is its plan to enter a Fort Bragg-specific Letter of Intent that affirms its intention to execute the Proposed Project consistent with its inclusion in the Army-approved portfolio.

An exemplar of these contracts, the Solar Energy Services Contract with Riley Communities LLC (for the second phase at Fort Riley), is submitted here as CONFIDENTIAL Exhibit 1. Sunstone intends to enter a contract of similar form and substance with Bragg Communities, LLC ("BCL"), the owner and operator of the on-base housing at Fort Bragg, for the Proposed Project. Sunstone has entered ten (10) similar agreements with private entities that own and control housing on military bases across the country.

Sunstone and the privatized housing owner and operator at each on-base energy project have worked successfully with the local electricity providers to each of the impacted bases to allow the due diligence and construction of the projects to move forward. Duke Energy Progress, LLC declined such cooperation after discussions and meetings that included the Public Staff. DEP indicated to Sunstone that it would need to seek relief from the Commission or a court to receive clarity on its ability to proceed as against DEP's concerns of interference with its franchised service territory.

### **Commission Question 2**

**Question:** To date, what if any negotiated or executed obligations, service agreements, leases, or contracts exist that relate to or involve the Proposed Project, including for example those that may exist between Sunstone and BCL, BCL and the Fort Bragg Directorate of Public Works (FBDPW) or any other office, agency, subdivision, or unit of the Army or the United States Department of Defense (DOD), or Sunstone and any office, agency, subdivision, or unit of the Army or the DOD? Provide to the Commission (by way of a confidential filing if necessary) copies of any such obligations, service agreements, leases, or contracts between those entities that have not already been provided.

**Sunstone Response:** BCL has a Ground Lease with the United States of America, subject to an initial term of fifty (50) years from its 2003 entry, that includes areas on which on-base housing exists or will be improved or constructed by BCL (Exhibit 2). The solar energy and energy efficiency services Sunstone would afford to BCL under the Proposed Project would be generated and provided wholly within areas subject to BCL's Ground Lease with the United States. The offtaker of the

energy generated by the Proposed Project, BCL, is located within the bounds of the Ground Lease.

The United States and BCL also have entered a Municipal Services Agreement (“MSA”) that provides for the government to furnish electricity, natural gas, water, wastewater, police, and fire protection services to BCL. Paragraph 4 of the MSA provides that “[i]n the event that alternate source(s) of service become available to [BCL] at a more beneficial rate, then [BCL] may elect to seek an alternate source for the service or services and terminate this agreement in accordance” with the MSA’s other controlling terms. The MSA further allows BCL to “negotiate connection charges, relocation fees and construction standards directly with any privatized utility service provider.” The MSA is submitted here as Exhibit 3.

The Army has issued two approvals thus far that relate to the Proposed Project. On or about August 24, 2015, Paul D. Cramer, Deputy Assistant Secretary of the Army for Installations, Housing and Partnerships, issued an Approval of Concept for Corvias to Execute Renewable Energy Portfolio Project (“Portfolio Project”) to provide solar-generated electricity to the housing areas at Aberdeen Proving Grounds, Fort Meade, Fort Bragg, Fort Polk, Fort Rucker, Fort Sill, and Fort Riley. The Portfolio approval by the United States is submitted here as Exhibit 4. On or about March 21, 2016, Douglas G. Jackson, Chief of Housing Division, Director of Public Works, issued a Privatized Housing Renewable Energy Solar Project Major Decision Concept Memorandum recommending approval of Sunstone’s development of solar energy capacity for military housing at Fort



Bragg. The Fort Bragg-specific approval from its director of Public Works and Garrison Commander (executed by the latter) is submitted here as Exhibit 5. Pursuant to the Army's memorandum of approval of the Portfolio Project, a separate Major Decision approval is anticipated for the solar energy projects at each installation. The Major Decision approval for the Proposed Project has not yet been issued.

### Commission Question 3

**Question:** Explain the customer relationship between the FBDPW and DEP.

**DEP Response:** DEP is the regulated electric public utility service provider to Fort Bragg through the Fort Bragg Department of Public Works ("FBDPW")—the government entity responsible for managing on-base utilities and that purchases electricity from DEP. FBDPW is a retail customer of DEP. DEP provides transmission service to four DEP-owned points of delivery where electricity is stepped down from 230KV to 12KV and delivered to Sandhills Utility Services ("SUS") to then be distributed throughout Fort Bragg by SUS. DEP also provides transmission service to two points of delivery at which SUS owns the transformer. SUS owns, operates, and maintains the electrical distribution system at Fort Bragg through a 50-year privatization contract accomplished in accordance with 10 U.S.C. § 2688 - Utility Systems Conveyance Authority. DEP, in addition to providing transmission service to Fort Bragg, also delivers energy across DEP-owned distribution circuits to 23 distribution-level points of delivery on Fort Bragg.

#### Commission Question 4

**Question:** Explain the relationship between BCL, Sandhills Utility Services, LLC (Sandhills), and the FBDPW

**Sunstone Response:** BCL, the purchaser of electricity to be generated by the Proposed Project, is a business partner of the Department of Defense for the purposes of operation and management of on-base military housing. 10 U.S.C. § 2871(5). BCL is not a federal department, agency or instrumentality. By federal statute BCL is an “eligible entity” under 10 U.S.C. § 2871(5) that partners with the Secretary of Defense “for the construction of housing units and ancillary supporting facilities.” BCL will be the contracting party with SUS for an Interconnection Agreement. SUS is the federally regulated, privatized owner and operator of the on-base distribution system as well as the infrastructure that connects and distributes power between and among the military housing owned and managed by BCL. FBDPW furnishes electricity and other municipal services to BCL pursuant to the MSA.

#### Commission Question 5

**Question:** Sunstone states in its Reply Comments (at 15) that bi-directional metering will measure the amount of power generated by the Proposed Project, and that the FBDPW is to provide BCL a credit for that production against BCL’s monthly usage. Explain how that crediting mechanism or relationship is expected to operate in addition to how that relationship currently operates. Also, explain what is expected to occur if any amount to be credited exceeds BCL’s monthly usage. In other words, in addition to any crediting mechanism is there the future possibility of any payment flowing from FBDPW to BCL,

including assuming that the Proposed Project were to or could generate significantly more power?

**Sunstone Response:** FBDPW currently invoices BCL for electric consumption for metered housing units and electrical fixtures. Non-metered electrical fixtures are billed at a monthly square-footage rate as defined in the Municipal Services Agreement.

When the Proposed Project is operational, BCL will continue to read consumption meters and calculate billing for non-metered fixtures. The bi-directional meters installed with the Proposed Project will meter and report the generation within the monthly billing cycle. BCL, Sunstone, or an assigned party will send a monthly generation report to FBDPW no later than the 5<sup>th</sup> of each month for the previous month's generation. The generation will be credited on the monthly bill from FBDPW to BCL, reducing the consumption charged to BCL. This structure is currently being used at two other Army installations on which Sunstone has installed similar systems (Fort Riley and Aberdeen Proving Ground).

The Proposed Project will be sized to ensure that there will be not be a situation in which the amount to be credited exceeds BCL's monthly usage. Its design would furnish approximately 35% percent of BCL's electricity demand; the remainder to be provided by FBDPW. Based on information earlier provided by FBDPW that military housing accounted for approximately 25% of Fort Bragg's power demand, the Proposed Project was projected to furnish approximately 8.75% of that total demand. In October 2021 FBDPW informed Sunstone that BCL's on-base housing consumes 18.79% of Fort Bragg's power demand, meaning that the

Proposed Project would generate energy that met approximately 6.58% of total demand. Given that scope, neither Sunstone nor BCL anticipate a circumstance in which the amount to be credited by FBDPW would exceed BCL's monthly usage. In the extremely rare case of an emergency which results in little to no consumption from BCL, the generation will be curtailed within that monthly billing cycle to ensure that there is no over-generation. By contract, there will be no avenue under which FBDPW pays BCL for power in excess of BCL's monthly usage.

#### **Commission Question 6**

**Question:** Confirm that there will be no back feed beyond the Fort Bragg exclusive Sandhills' network onto DEP's system. Is any such confirmation dependent upon the amount of energy to be generated by the Proposed Project? In other words, assuming the Proposed Project (or another similar but larger-scale project) were to generate significantly more power and were to do it at non-peak times, is there the potential for back feed on DEP's system?

**Sunstone Response:** The Proposed Project would be, like others in the Army-approved portfolio, designed and sized to prevent back feed onto local utility grids. Sunstone will work with Sandhills to perform a detailed System Impact Study to (i) verify no back feed will take place, and (ii) highlight any design changes needed in order to prevent back feed. The study would identify the system upgrades, and/or need to modify the nameplate size of the project, that would accomplish this back feed objective. The Army has publicly disclosed that it is considering other alternative energy programs at Fort Bragg to offset other, non-housing critical loads on the installation. The scope, timeline and ownership of those projects are not



fully known to Sunstone or BCL. The System Impact Study will also consider the potential for other alternative energy generation projects at Fort Bragg, and how Sandhills' distribution system will accommodate such generation.

**DEP Response:** It is DEP's understanding from the Petition and subsequent information provided by counsel for Sunstone that Sunstone plans to install up to 25MW of photovoltaic generation, through a combination of ground-mount (~20 MW) and rooftop (~5MW) solar panels. An interconnection request has not yet been submitted to SUS.

Sunstone proposes for the ground mount system generating 20 MW to inject into either the Ft Bragg-Knox 230 substation, the Ft Bragg 3rd Brigade Substation, or both. Based upon historical hourly metering data, the proposed ground mount facility could potentially feedback on the Duke Energy Progress system. If the proposed project generates close to its nameplate electrical output and the Bragg Communities, LLC housing units that the solar facility is intended to serve has an estimated minimum load of 6.5MW for a given hour, excess electricity will ultimately back feed onto DEP's system unless controls are installed to prevent back feed. For example, the load profile for the Fort Bragg Knox 230 KV substation, which would be the primary substation supplying SUS for subsequent feed to the Biazza Ridge area of Ft Bragg has historically been lower at certain hours than what the proposed project would potentially generate. On March 14, 2020, and March 15, 2020, from 0900 to 1200 the total load at least two of the substations registered below 20MW (the estimated output of the proposed project). A minimum load of 6,473 kW was registered on 3/14/2020 at 0900. This would

result in back feed onto DEP's system and it is anticipated that protection devices would need to be installed to prevent this back feed.

Absent a final project design and interconnection study request, it is not possible for DEP to determine which of the two (or more) substations could experience back feed without a more in-depth knowledge of the various SUS feeders and SUS SCADA capabilities to shift load within the Fort Bragg system. To ensure the reliability of the DEP system, DEP will need to complete a System Impact Study or similar study processes and require protection from the PV Solar site.

### **CONCLUSION**

Sunstone and DEP appreciate the opportunity to provide these verified responses to the Commission. Both parties are prepared to provide further detail or to address additional questions from this Commission should it be requested.

Respectfully submitted this 9<sup>th</sup> day of November, 2021.

/s/ E. Brett Breitschwerdt

E. Brett Breitschwerdt

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*Attorneys for Sunstone Energy Development  
LLC*

VERIFICATION

Docket No. SP-100, Sub 35

I, Mark Tabert, Account Executive, Large Account Management, for Duke Progress, LLC do solemnly swear that the facts stated in the foregoing *Joint Responses to Commission Questions*, insofar as they relate to Duke Energy Progress, LLC, are true and correct to the best of my knowledge and belief.

  
\_\_\_\_\_  
Mark Tabert

STATE OF NORTH CAROLINA    )  
  )  
COUNTY OF WAKE                    )

The foregoing instrument was sworn to and acknowledged before me this 9 day of November, 2021.

  
\_\_\_\_\_  
Notary Public

My Commission Expires: 6/2/2024

**NEINEETA LYTLE QUASH**  
NOTARY PUBLIC  
WAKE COUNTY, NC  
My Commission Expires 6-2-2024



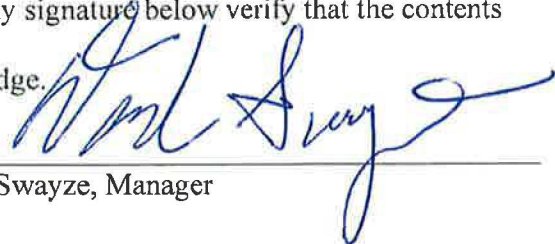
STATE OF NORTH CAROLINA  
UTILITIES COMMISSION  
RALEIGH

DOCKET NO. SP-100, SUB 35

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of: )  
Request for Declaratory Ruling by ) VERIFICATION  
Sunstone Energy Development LLC that the Jurisdiction )  
of the North Carolina Utilities Commission does not )  
extend to the Federal Enclave within Fort Bragg )

I, Daniel Swayze, being first duly sworn, depose and say that I am a Manager of Sunstone Energy Development LLC, and in such capacity, I have read the foregoing Sunstone Energy Development LLC's and Duke Energy Progress, LLC's Verified Responses to Commission Questions and, as to Sunstone's responses to Questions 1-2 and 4-6, know the contents thereof, and by my signature below verify that the contents are true and correct to the best of my knowledge.



Daniel Swayze, Manager

STATE OF NEW YORK

COUNTY OF NEW YORK

On the 9<sup>th</sup> day of November in the year 2021 before me personally came Daniel Swayze to me known, who, being by me duly sworn, did depose and say that he resides in Morris County, N.S; that he is a Manager of Sunstone Energy Development LLC, the company described in and which executed the above verification; and that he signed his name thereto by authority of the Management Committee of said company.

  
Notary Public

Printed Name: Justin Traino

My Commission Expires: 4/6/2023



**CERTIFICATE OF SERVICE**

This is to certify that the undersigned has this day served the foregoing verified Responses of Sunstone Energy Development, LLC and Duke Energy Progress, LLC to Commissions Questions upon North Carolina Public Staff by electronic mail as follows:

Christopher J. Ayers, Esq.  
Executive Director  
NC Public Staff  
Layla Cummings, Esq.  
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This the 9<sup>th</sup> day of November, 2021.

/s/ Bradley M. Risinger  
Bradley M. Risinger