

STATE OF NORTH CAROLINA UTILITIES COMMISSION RALEIGH

DOCKET NO. EMP-119, SUB 1

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of the)	
Application of Macadamia)	
Solar LLC for a Certificate)	MACADAMIA SOLAR LLC's
of Environmental)	APPLICATION FOR A
Compatibility and Public)	CERTIFICATE OF
Convenience and Necessity)	ENVIRONMENTAL
Pursuant to Construct)	COMPATIBILITY AND PUBLIC
Approximately 6.53 Miles of)	CONVENIENCE AND
New 230 kV Transmission)	NECESSITY
Line in the northeast corner)	
of Washington County)	

Macadamia Solar LLC (“Macadamia Solar” or the “Applicant”), through counsel, and pursuant to N.C.G.S. §§62-101, 62-102, and 62-104 and Commission Rule R8-62, hereby applies to the North Carolina Utilities Commission (“Commission”) for a Certificate of Environmental Compatibility and Public Convenience and Necessity (“CECPCN Application”) to construct a 230 kV transmission line, approximately 6.53 miles in length, in the northwest corner of Washington County, North Carolina (“Transmission Line”). The Transmission Line is necessary to allow interconnection of Applicant’s proposed solar photovoltaic (“PV”) generating facility to the transmission grid via an existing 230 kV/115 kV Trowbridge Substation (“Trowbridge Substation”) operated by Virginia Electric and Power Company, d/b/a/ Dominion Energy North Carolina (“Dominion” or “DENC”). Macadamia Solar LLC’s generating facility (“Facility”) is described further in NCUC Docket No. EMP-119, Sub 0.

In support of its CECPCN Application, Macadamia Solar shows the Commission as follows:

Applicant

1. The full and correct name, business address, business telephone number, and electronic mailing address of the Applicant are:

Macadamia Solar LLC
1930 Abbott Street, Suite 402
Charlotte, NC 28203
(980) 237-7926
Donna.Robichaud@geenexsolar.com

The names and addresses of the Applicant's attorneys are:

Benjamin L. Snowden
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434 Fayetteville Street, Suite 2800
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Copies of all pleadings, testimony, orders and correspondence in this proceeding should be served upon the attorneys listed above.

Description of the Applicant

2. Macadamia Solar LLC, formed April 15, 2015, is a North Carolina Limited Liability Company with its principal place of business located in Charlotte, North Carolina. A true and correct copy of Macadamia Solar's Limited Liability Company Articles of Organization is attached as **Schedule 1**. The principal participants of this Macadamia Solar entity are the two officers of Geenex Solar LLC ("Geenex Solar"): Georg Veit, Chief Executive Officer, and Juergen Fehr, Managing Director.

Geenex Solar, the direct owner of Macadamia Solar, is a solar developer based in Charlotte, North Carolina. Geenex Solar is a Delaware limited liability company formed on July 18, 2013. Macadamia Solar LLC and Geenex Solar LLC are wholly-owned subsidiaries of the same parent company, Geenex Holding LLC (“Geenex Holding”). An organizational chart depicting the relationship among Macadamia Solar, Geenex Solar, Geenex Holding, and other affiliated companies is attached as Schedule 2.

Additional information regarding Geenex Solar is included in the prefiled direct testimony of witness Kara Price filed in support of the Application this same day.

Purpose and Need for the Transmission Line

3. The Transmission Line is needed to interconnect a proposed 484 MWac merchant solar generating Facility to DENC’s transmission system. The proposed generating Facility is more fully described in the Certificate of Public Convenience and Necessity (“CPCN”) Application filed on August 31, 2021, by Macadamia Solar LLC in NCUC Docket No. EMP-119, Sub 0 (“CPCN Application”). The need for the Macadamia Solar Facility is further described in the CPCN Application and attachments thereto.

As described in the CPCN Application, the Facility will include 34.5 kV underground electrical collector cables that route to the Facility’s Substation. The principal function of the Facility’s Substation is to increase the voltage of the collector circuits from 34.5 kV to 230 kV. The Transmission Line connects the Facility’s Substation and transmits the electric output of the Facility to the DENC’s existing Trowbridge Substation. The Transmission Line needs to be operational by 2nd Quarter 2025 based on the anticipated commercial operation date of the Facility.

Location of the Transmission Line

4. The Transmission Line will be approximately 6.53 miles long, running from the Facility's Substation, which is approximately 0.25 miles northeast of intersection of Highway 32 and 45 (latitude 35.35.751548°; longitude -76.698616°), to the west side of DENC's Trowbridge Substation, which is approximately one mile southwest of Plymouth in Washington County. The Transmission Corridor will be sited with easement agreements and purchase options or easement agreements and purchase options that are in the process of being obtained through good faith negotiations with willing landowners and rights to acquire the real estate interests (the "Transmission Corridor"). The Transmission Corridor has a width of 100 feet. A U.S. Geological Survey map showing the proposed Transmission Line is included as **Schedule 3**. The siting of the Transmission Line within the Transmission Corridor has taken into consideration natural resources in order to mitigate any environmental impacts, as described in more detail below. Several preliminary routes were studied and pursued as indicated in **Schedule 4**. The near final Transmission Corridor was selected based upon: 1) environmental impacts and reducing the length to limit those impacts, 2) willing landowner interest since eminent domain isn't an option, and 3) title research that confirmed available landowners. Siting for the Transmission Corridor is approximately ninety percent complete. Selection of the near final Transmission Corridor was based the following factors: 1) minimizing environmental impacts by reducing the length of the Transmission Corridor, 2) willing and interested landowners, and 3) clear and unclouded ownership of the property in the proposed corridor.

Description of the Transmission Line

5. The Transmission Line will have a voltage of 230 kV. The Transmission Line will be used exclusively for the output of the Facility and will have a minimum capacity sufficient for the Facility's 484 MWac output.

6. The Transmission Line design uses three type of transmission structures:

- Dead end: used within the Facility's Substation and heavy angle turns (i.e., greater than 40 degrees) along the Transmission Corridor;
- Angle: used on locations where the alignment turns between 2 and 40 degrees along the Transmission Corridor; and
- Tangent: for in-line (straight) segments along the Transmission Corridor.

Between the Facility's Substation and the Trowbridge Substation, the Transmission Line will be located within the Transmission Corridor. In the Transmission Corridor, the Transmission Line will be supported by monopole transmission structures made of steel. The transmission structures will be approximately 90 to 145 feet tall and typically 250 to 900 feet apart, based on preliminary engineering.

Within the fenced areas of the Facility's Substation and the Trowbridge Substation, the Transmission Line will be supported by H-frame structures, which will be approximately 75 to 120 feet in height based on preliminary engineering.

Where crossing under DENC's existing transmission lines, the Transmission Line will be supported by 3-Pole structures, which will be approximately 40 to 65 feet in height.

Generally, the transmission structures will be directly embedded into the ground, unless poor soil or geotechnical conditions necessitate concrete foundations. Macadamia Solar anticipates that all transmission structures will be embedded approximately 10 to 15 feet deep and all concrete foundations to be approximately 30 to 45 feet deep.

Once the Transmission Line has been erected, the Transmission Corridor will be graded and revegetated with an herbaceous seed mix that includes grasses. Once operational, the general maintenance of the Transmission Corridor will consist of clearing vegetation within approximately 4 to 6 inches of the ground, unless an alternative land use is permitted to the landowner, such as agriculture activities.

Projected Cost of Transmission Line

7. An itemized estimate of the construction costs is included as **Confidential Schedule 5**.

Environmental Report and Factors Influencing Route Selection

8. Included as **Schedule 6** is an environmental report prepared by Terracon (“Environmental Report”). This report meets the requirements of G.S. § 62-102 and Commission Rule R8-62.

9. As described in the Environmental Report, the Transmission Corridor was identified through careful review and consideration of the residential, commercial, industrial and institutional development, other man-made features, and natural features, with a goal of minimal environmental impacts, and through discussion with willing landowners in an effort to locate the Transmission Corridor in a manner that maximizes the owners continued use of the remainder of the property. See the prefiled testimony of Amada Corll for additional information.

10. The anticipated permits for the Transmission Line are included in Table 1 below:

Table 1: Preliminary List of Potential Permits, Clearances and Approvals

Administering Agency	Potentially Required Permit, Clearance or Approval	Status
Federal		
U.S. Army Corps of Engineers	Clean Water Act (CWA) Section 404 Nationwide Permit(s)	The Applicant currently plans to either avoid impacts to regulated wetland or utilize USACE Nationwide Permits(s) (NWP) with no pre-construction notification required in the USACE.
U.S. Fish & Wildlife Service (USFWS)	Endangered Species Act (ESA) of 1973	The Applicant will conduct a habitat assessment and coordinate with USFWS to facilitate the process of assessing potential impacts to federally –listed species.
USFWS	Bald and Golden Eagle Protection Act of 1940, as amended (BGEPA)	A nest survey will be completed prior to construction.
USFWS	Migratory Bird Treaty Act (MBTA) of 1918	A nest survey will be completed prior to construction.
Federal Aviation Administration (FAA)	Determination of No Hazard to Air Navigation	Not Started
State		
North Carolina Department of Transportation	Utility Encroachment Agreement, Heavy Haul Permit, Street and Driveway Access Permit (Temporary)	Not Started
North Carolina Department of Environmental Quality (NCDEQ) – Division of Energy, Mineral, and Land Resources	Erosion and Sedimentation Control Plan	Not started

NCDEQ Tar-Pamlico Riparian Buffer Rules	Applicability of Rules	Not started
North Carolina Department of Environmental Quality – Division of Water Resources	Clean Water Act (Section 401) Water Quality Certification, NPDES General Permit for Storm water Discharges (Construction Activities)	Not started
North Carolina Natural Heritage Program	State-listed Threatened and Endangered Plant Species Consultation	Consulted and information received. See Appendix B of the Environmental Report.
North Carolina Wildlife Resource Commission	State-listed Threatened and Endangered Wildlife Species Consultation	Not Started
North Carolina State Historic Preservation Office	Cultural Resource Consultation and Review	Not started
North Carolina Office of State Archaeology	Archaeological Resource Consultation and Review	Consulted and information received. See the Environmental Report (Sec. 4.7)
Local		
CSX/Amtrak Railroad	Utility Crossing Agreement (Construction Activities)	Not started
Norfolk Southern Railroad	Utility Crossing Agreement (Construction Activities)	Not Started
Dominion Transmission line	Utility Crossing Agreement (Construction Activities)	Not started
Piedmont Gas Pipeline	Utility Crossing Agreement (Construction Activities)	Not started

11. The information and data required to be field by Commission Rule R8-62 is supported by the prefiled direct testimony of Kara Price, Donna Robichaud, Amanda Corll and Robert Turnbull, which is being filed simultaneously with this CECPCN Application and incorporated herein by reference.

WHEREFORE, Applicant respectfully requests that the Commission issue a Certificate of Environmental Compatibility and Public Convenience and Necessity pursuant to G.S. §§ 62-100 *et seq.*, and Commission Rule R8-62 for construction of the Transmission Line.

Respectfully submitted this 13th day of September 2021.

FOX ROTHSCHILD LLP

/s/ Benjamin L. Snowden

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Macadamia Solar LLC
Application for a Certificate of Environmental Compatibility
and Public Convenience and Necessity

Docket No. EMP-119, Sub 1 Schedules

Schedule 1 – Macadamia Solar’s Limited Liability Company Articles of Organization

Schedule 2 – Organizational Chart

Schedule 3 – Proposed Transmission Line Route

Schedule 4 – Transmission Corridor Routes

Schedule 5 – Estimated Construction Costs *CONFIDENTIAL*

Schedule 6 – Environmental Report

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VERIFICATION

STATE OF North Carolina COUNTY OF Mecklenburg

[Signature]
Signature of Owner's Representative or Agent

Senior Vice President - Permitting & Development
Title of Representative or Agent

Kara W. Price
Typed or Printed Name of Representative or Agent

The above named person personally appeared before me this day and, being first duly sworn, says that the facts stated in the foregoing application and any exhibits, documents, and statements thereto attached are true as he or she believes.

WITNESS my hand and notarial seal, this 7th day of September, 2021.

My Commission Expires: June 6, 2022

[Signature]
Signature of Notary Public

Brett Moulton
Name of Notary Public – Typed or Printed



This original verification must be affixed to the original application, and a copy of this verification must be affixed to each of the copies that are also submitted to the Commission.

CERTIFICATE OF SERVICE

This is to certify that the undersigned has this day served the foregoing
**APPLICATION FOR A CERTIFICATE OF ENVIRONMENTAL
COMPATIBILITY AND PUBLIC CONVENIENCE AND NECESSITY** upon the
following by electronic mail as follows:

Christopher Ayers, Esq.
Executive Director - NC Public Staff
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Heather Fennell
Commission Staff – Legal Division
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This 13th day of September, 2021.

FOX ROTHSCHILD LLP

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