Application for a Certificate of Public Convenience and Necessity – Rule R8-64

Pursuant to Commission Rule R8-64, this form is required for use in applying for a Certificate of Public Convenience and Necessity (CPCN) by a person, other than an electric public utility, who is an owner of a renewable energy facility that is participating in the Competitive Procurement of Renewable Energy Program established in G.S. 62-110.8, or by a person who is seeking the benefits of 16 U.S.C. 624-3 or G.S. 62-156 as a qualifying co-generator or a qualifying small power producer as defined in 16 U.S.C. 796(17) and (18), or as a small power producer as defined in G.S. 62-3(27a), except persons exempt from certification pursuant to G.S. 62-110.1(g). This form may be accompanied by any exhibits or additional responses incorporated by reference thereto and attached to this form. This form must be accompanied by the required filing fee of $250.00.

You may file this application electronically; please see www.ncuc.net for instructions.

If this form is filed by hard copy, the original plus 12 copies must be presented at or transmitted to the office of the Chief Clerk. Regardless of the method of delivery, this form is not deemed filed until it is received by the Chief Clerk, along with the required filing fee.

The mailing address is:

Chief Clerk
NC Utilities Commission
4325 Mail Service Center
Raleigh, NC 27699-4325

<table>
<thead>
<tr>
<th>Exhibits required by Rule R8-64(b)</th>
<th>Applicant’s Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)(i) Full and correct name of the owner of the facility</td>
<td>ZNC Turkey Creek, LLC</td>
</tr>
<tr>
<td>Facility name</td>
<td>Turkey Creek</td>
</tr>
<tr>
<td>Business address</td>
<td>7401 Turkey Hwy, Turkey, NC 28393</td>
</tr>
<tr>
<td>E-mail address</td>
<td><a href="mailto:jcarroll@montaukrenewables.com">jcarroll@montaukrenewables.com</a></td>
</tr>
<tr>
<td>Telephone number</td>
<td>(336) 840-6095</td>
</tr>
<tr>
<td>(ii) The owner is (check one)</td>
<td>☐ Individual ☐ Partnership ☑ Corporation</td>
</tr>
<tr>
<td>If a partnership, the name and business address of each general partner</td>
<td>N/A</td>
</tr>
<tr>
<td>If a corporation, the state and date of incorporation</td>
<td>March 29, 2022 (date of LLC formation), Delaware</td>
</tr>
<tr>
<td>If a partnership, the name and address of each general partner (add additional sheets if necessary)</td>
<td>N/A</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Owner’s agent for purposes of this application, if applicable:</td>
<td>Joe Carroll</td>
</tr>
<tr>
<td>Agent’s business address</td>
<td>3150 N. Elm Street, Ste. 206, Greensboro, NC 27408</td>
</tr>
<tr>
<td>Agent’s e-mail address</td>
<td><a href="mailto:jcarroll@montaukrenewables.com">jcarroll@montaukrenewables.com</a></td>
</tr>
<tr>
<td>Agent’s telephone number</td>
<td>(336) 840-6095</td>
</tr>
<tr>
<td>(iii) The full and correct name of the site owner and, if the site owner is other than the applicant, the applicant’s legal interest in the site</td>
<td>Turkey Creek Ag, LLC</td>
</tr>
</tbody>
</table>

(2)(i) Attach a color map or aerial photo showing the location of the generating facility site in relation to local highways, streets, rivers, streams, and other generally known local landmarks with the proposed location of major equipment indicated on the map or photo, including: the generator, fuel handling equipment, plant distribution system, startup equipment, the site boundary, planned and existing pipelines, planned and existing roads, planned and existing water supplies, and planned and existing electric facilities; A U.S. Geological Survey map or an aerial photo map prepared via the State’s geographic information system (found at www.gis.ncdcr.gov/hpoweb/) is preferred.

| (ii) E911 street address of the proposed facility | 7401 Turkey Hwy, Turkey, NC 28393 |
| County in which the proposed facility will be physically located | Sampson County |
| GPS coordinates of the approximate center of the proposed facility site to the nearest second or one thousandth of a degree | 34.991352, -78.194337 |

(3)(i) The nature of the facility, including its technology, and the source of its power and fuel(s) | The facility will convert swine waste into biogas which will be fed into microturbine genset for conversion into electricity. See Exhibit 1. |
| (ii) A description of the buildings, structures and equipment comprising the generating facility and the manner of its operation | See Exhibit 1. |
| (iii) | The gross and net projected maximum dependable capacity of the facility in megawatts – Alternating Current | Gross generating capacity: 7.2 MW  
Net generating capacity: 7.2 MW  
The actual output of the generation facility is expected to be, on average, 6.5 MW. See Exhibit 1. |
| (iv) | The projected date on which the facility will come on line | April 1, 2025 |
| (v) | The applicant’s general plan for sale of the electricity to be generated, including the name of utility to which the applicant plans to sell the electricity | Applicant anticipates sale of electricity to Duke Energy Progress, LLC |
| (vi) | Any provisions for wheeling of the electricity, if applicable | N/A |
| (vii) | Arrangements for firm, non-firm, or emergency generation, if applicable | N/A |
| (viii) | The service life of the project | 30 years (expected) |
| (ix) | The projected annual sales in kilowatt-hours | 47,000,000 kWh |
| (x) | Whether the applicant intends to produce renewable energy certificates that are eligible for compliance with the State’s renewable energy and energy efficiency portfolio standard | Yes | No |

(4)(i) A complete list of all federal and state licenses, permits and exemptions required for construction and operation of the generating facility and a statement of whether each has been obtained or applied for

 Applicant is not currently aware of any federal permits required. Applicant believes that a NCDAQ permit will be required and is currently in discussions with the agency concerning the necessity for this permit. (No formal application has been submitted at this time.)

(ii) Attach a copy of those licenses, permits and exemptions that have been obtained; a copy of those that have not been obtained at the time of the application should be filed with the Commission as soon as they are obtained

(5) The expected cost of the proposed facility

$ See Confidential Exhibit 3
(6) The following applicants shall complete this section with the information as described in R8-64(b)(6): 1) An applicant seeking to enter into a contract for the sale of electricity with a term of 5 years or more, and whose facility will have a projected generating capacity of 5 MW<sub>AC</sub> or greater and is not a solar photovoltaic facility, and 2) An applicant seeking to enter into a contract for the sale of electricity with a term of 5 years or more, and whose facility is a solar photovoltaic facility with a generating capacity of 25 MW<sub>AC</sub> or more.

(i)a A statement detailing the experience and expertise of the persons who will develop, design, construct, and operate the project to the extent such persons are known at the time of the application

b Information specifically identifying the extent to which any regulated utility will be involved in the actual operation of the project

c A statement obtained by the applicant from the electric utility to which the applicant plans to sell the electricity to be generated setting forth an assessment of the impact of such purchased power on the utility’s capacity, reserves, generation mix, capacity expansion plan, and avoided costs

(ii)a The most current available balance sheet of the applicant

b The most current available income statement of the applicant

c An economic feasibility study of the project

d A statement of the actual financing arrangements entered into in connection with the project to the extent known at the time of the application

(iii)a A detailed explanation of the anticipated kilowatt and kilowatt-hour outputs, on-peak and off-peak, for each month of the year. The explanation shall include a statement of the specific on-peak and off-peak hours underlying the applicant’s quantification of anticipated kilowatt and kilowatt-hour outputs

b A detailed explanation of all energy inputs and outputs, of whatever form, for the project, including the amount of energy and the form of energy to be sold to each purchaser

c A detailed explanation of arrangements for fuel supply, including the length of time covered by the arrangements, to the extent known at the time of the application

Confidentiality

If an applicant considers certain of the required information above to be confidential and entitled to protection from public disclosure, it may designate said information as confidential and file it under seal. Documents marked as confidential will be treated pursuant to applicable Commission rules, procedures, and orders dealing with filings made under seal and with nondisclosure agreements.

Please read the “After You File” instructions on the last page of this document.

All applications shall be signed and verified (notarized) by the applicant or by an individual duly authorized to act on behalf of the applicant for the purpose of the application. A blank verification page is attached below:
VERIFICATION

STATE OF North Carolina COUNTY OF Sampson

[Signature]

Signature of Owner's Representative or Agent

[Title]

Title of Representative or Agent

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 [date] day of [month], [year].

My Commission Expires: [date]

[Signature]

Signature of Notary Public

[Name] - Typed or Printed Name of Notary Public

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.
Response to Question (2)(i)

*Attach a color map or aerial photo showing the location of the generating facility site in relation to local highways, streets, rivers, streams, and other generally known local landmarks with the proposed location of major equipment indicated on the map or photo, including: the generator, fuel handling equipment, plant distribution system, startup equipment, the site boundary, planned and existing pipelines, planned and existing roads, planned and existing water supplies, and planned and existing electric facilities.* A U.S. Geological Survey map or an aerial photo map prepared via the State’s geographic information system (found at www.gis.ncdcr.gov/hpoweb/) is preferred.

See Exhibits 5 and 6.
ZNCTurkey Creek, LLC  
Application for a Certificate of Public Convenience and Necessity  
Docket No. SP-60808, Sub 0

Supporting Information Required by Commission Rule R8-64(b)(6)

* * *

(i)(a)  A statement detailing the experience and expertise of the persons who will develop, design, construct, and operate the project to the extent such persons are known at the time of the application

See Exhibit 1.

(i)(b) Information specifically identifying the extent to which any regulated utility will be involved in the actual operation of the project.

No regulated utility will be involved with the operation of the project.

(i)(c) A statement obtained by the applicant from the electric utility to which the applicant plans to sell the electricity to be generated setting forth an assessment of the impact of such purchased power on the utility’s capacity, reserves, generation mix, capacity expansion plan, and avoided costs.

See Exhibit 2.

(ii)(a) The most current available balance sheet of the applicant

The applicant is a subsidiary of Montauk Renewables, Inc. (see Exhibit 1 hereto). A copy of Montauk Renewables’ most recent annual report to stockholders (SEC Form 10-K, dated April 25, 2023) is available at https://ir.montaukrenewables.com/static-files/71f19311-c2ca-4869-9c8e-4a46ab8dc215.

(ii)(b) The most current available income statement of the applicant
The applicant is a subsidiary of Montauk Renewables, Inc. (see Exhibit 1 hereto). A copy of Montauk Renewables’ most recent annual report to stockholders (SEC Form 10-K, dated April 25, 2023) is available at https://ir.montaukrenewables.com/static-files/71f19311-c2ca-4869-9c8e-4a46ab8dc215.

(ii)c An economic feasibility study of the project

See Confidential Exhibit 3.

(ii)d A statement of the actual financing arrangements entered into in connection with the project to the extent known at the time of the application

Montauk anticipates self-financing this project based on existing arrangements with lending institutions and/or cash flows from operations.

(iii)a A detailed explanation of the anticipated kilowatt and kilowatt-hour outputs, on-peak and off-peak, for each month of the year. The explanation shall include a statement of the specific on-peak and off-peak hours underlying the applicant’s quantification of anticipated kilowatt and kilowatt-hour outputs.

See Exhibit 4.

(iii)b A detailed explanation of all energy inputs and outputs, of whatever form, for the project, including the amount of energy and the form of energy to be sold to each purchaser.

The energy inputs will be 100% swine-derived-biogas, and the energy outputs will be 100% grid connected electrical generation.

(iii)c A detailed explanation of arrangements for fuel supply, including the length of time covered by the arrangements, to the extent known at the time of the application.
The fuel supply will be 100% swine waste. The waste will come from swine barns and swine waste lagoons either owned by the applicant or under long-term contract to applicant.

* * *
Exhibit 1

Identification of Application

The name of the Applicant is ZNC Turkey Creek, LLC (“ZNC Turkey Creek”), which is a special purpose entity established to operate the Turkey Creek project. The owner of the physical facility at Turkey Creek is Turkey Creek Ag, LLC (“Turkey Creek Ag”). ZNC Turkey Creek and Turkey Creek Ag are each affiliates of Montauk Renewables, Inc., which, as discussed below, is a publicly traded, fully-integrated renewable energy company with extensive experience in the conversion of biogas into renewable energy.

Experience and Qualifications

The ultimate parent of the project is Montauk Renewables, Inc. (“Montauk Renewables”), a publicly-traded, fully-integrated renewable energy company specializing in the management, recovery, and conversion of biogas into renewable energy. Montauk Renewables and its subsidiaries have over 30 years of experience in the development, operation, and management of biogas-fueled renewable energy projects. Montauk Renewables currently owns and operates fifteen renewable energy facilities across the country, including three electric generating facilities with a combined total capacity of 30.2 MW, and twelve renewable natural gas (“RNG”) facilities with a combined total output of 33,850 MMBtu per day.

Among other things, Montauk Renewables currently owns and operates three electric generating facilities and twelve RNG facilities. Montauk Renewables’ three electric generating facilities supply a combined 30.2 MW of electric power, with facilities located in California (23.6 MW), Texas (3.4 MW), and Oklahoma (3.2 MW). All three facilities are landfill gas-to-electric power generation facilities. Additionally, Montauk Renewables operates twelve pipeline quality renewable natural gas facilities throughout the United States, including facilities in Ohio, Texas, Pennsylvania, and Idaho. These facilities have a combined total capacity of 33,850 MMBtu per day.

Collectively, this experience in developing, designing, constructing, and operating renewable energy facilities qualifies it to support the Turkey Creek project. More information about Montauk Renewables is available at http://montaukenergy.com/.

Nexus Engineering Group, LLC (“Nexus”), headquartered in Cleveland, OH will serve as engineer of record. Nexus is a full-service, independent engineering firm focused on supporting clients’ specific project goals, from concept to startup. With fifteen years of proven engineering and design successes and a growing team with more than 200 professionals Nexus provides experienced process, instrumentation, structural, electrical, mechanical, and piping professionals with decades of hands-on conceptual and detailed
system design experience. More information about Nexus is available at https://nexusegroup.com/.

Spirit Construction Services, Inc. (“Spirit”) will lead the procurement and construction phases of the project. Through a partnership with Spirit Fabs, Spirit Construction coordinates pipe spool deliveries to minimize lay down area. By further integrating these deliveries with concrete wall construction, Spirit minimizes time-consuming field welds. Spirit draws from a consistent welding crew, employing the same pool of proven craftsmen on projects nationwide. Spirit has erected over 30 similarly scaled projects in the last 20 years. Spirit meets precise tolerances, and their projects need little or no adjustment after startup. Spirit millwrights also set all ancillary equipment such as conveyors, hoppers, pump motors, tanks, and chemical systems. More information about Spirit is available at https://www.spiritconstruction.com/about-us/.

Vos Electric, Inc. (“Vos”) will lead the electrical installation. Vos is a licensed electrical contractor in approximately 30 states, with a proven ability to complete a wide range of projects. Vos installs hydraulic, lube oil, pneumatic machine, pneumatic valve, and instrument impulse tubing. Vos also has experience in working with poly, stainless steel (all grades), copper and specialty tubing. Vos has experience in telecommunication wiring, including fiber optics, Ethernet cabling in industrial offices, and industrial process communication wiring such as Profibus, Fieldbus, DeviceNet, Modbus, Controlnet, Industrial Ethernet, or other communication protocols. Vos has electrical engineers on staff that can assist in process controls programming, and their team of electrical engineers can assist clients with constructability issues early in the design phase. More information about Vos is available at https://www.voselectric.com/.

Description of Project

ZNC Turkey Creek is proposing to construct and operate a biogas facility for electricity generation and RNG pipeline injection. The facility will use a patented, continuous feed, pyrolysis-based technology to convert swine waste into biogas. The biogas will then be fed into a microturbine genset for conversion into electricity, to be sold to the serving public utility. The waste heat (or thermal heat) from the microturbines will be re-used to dry the swine waste biomass feedstock before it enters the conversion chamber.

The Applicant’s parent, Montauk Ag Renewables, LLC, was granted authority to participate in Piedmont’s natural gas pilot program using renewable natural gas generated at the Turkey Creek facility. See Order Approving Participation in Pilot Program With Conditions, Docket No. G-9, Sub 799 (April 1, 2022).

ZNC Turkey Creek plans to begin construction immediately upon the signing of the pending Power Purchase Agreement and Renewable Energy Certificate Agreement, and approval of Certificate of Public Need and Convenience. The facility is targeted for initial operations in Q1 2024 reaching full production capacity as of April 1, 2025.
The facility will use Capstone microturbines, each with a service life of approximately 25 years; the ultimate configuration and number of microturbines will be determined by waste heat recovery and balance of plant configuration as additional units are brought online during the construction and operation phases. Regardless of final configuration, the completed facility will have a gross generating capacity of 7.2 MW, net generating capacity of 7.2 MW, and aggregated nameplate generating capacity of the combined microturbines of 7.2 MW. The actual output of the generation facility is expected to be, on average, 6.5 MW.

It is expected that the facility will have a service life of approximately 30 years.

Description of Buildings, Structures and Equipment
Comprising the Project and the Manner of its Operation

The Turkey Creek Renewable Energy Plant site is a repurposed food and furniture distribution center in Turkey, NC with ten acres under roof and 146 acres of surrounding fenced-in property. The equipment on-site will be ZNC Waste-to-Renewable Energy conversion systems, Guild biogas clean-up skids, and Capstone Microturbine Gensets. Swine waste will be collected from hog farms in the surrounding counties and transported to the facility for processing. Once on-site, the waste will be conveyed into a patented zero-emissions, closed-loop system that will convert the swine waste into biogas, bio-oil, and biochar.

A site map for the facility is attached as Exhibit 6.

Corporate Organization and Structure

An organizational chart depicting the relationship among ZNC Turkey Creek, Turkey Creek Ag, Montauk Ag Renewables, LLC, Montauk Renewable Ag, LLC, Montauk Energy Holdings, LLC, and Montauk Renewables is attached as Exhibit 1.1.

ZNC Turkey Creek, LLC, formed on March 29, 2022, is a Delaware Limited Liability Company with its principal place of business located in Pittsburgh, Pennsylvania. A true and correct copy of ZNC Turkey Creek’s Limited Liability Company Articles of Organization is attached as Exhibit 1.2. ZNC Turkey Creek’s principal participants and officers are Sean McClain, Chief Executive Officer, Kevin Van Asdalan, Chief Financial Officer, Joe Carroll, President, Martin Redeker, Vice President, and John Ciroli, Chief Legal Officer and Secretary. ZNC Turkey Creek is a wholly-owned subsidiary of Zero Net Carbon Renewable Energy, LLC.

Zero Net Carbon Renewable Energy, LLC, formed on February 20, 2023, is a Delaware Limited Liability Company headquartered in Pittsburg, Pennsylvania, which is a wholly-owned subsidiary of Montauk Ag Renewables, LLC.
Montauk Ag Renewables, LLC, formed on April 23, 2021, is a Delaware Limited Liability Company with its principal place of business located in Pittsburgh, PA. Montauk Ag Renewables, LLC is a wholly-owned subsidiary of Montauk Renewable Ag, LLC.

Montauk Renewable Ag, LLC, formed on April 18, 2018, is a Delaware Limited Liability Company with its principal place of business located in Pittsburgh, PA. Montauk Renewable Ag, LLC is a wholly-owned subsidiary of Montauk Energy Holdings, LLC.

Montauk Energy Holdings, LLC, formed on November 17, 2010, is a Delaware Limited Liability Company with its principal place of business located in Pittsburgh, PA. Montauk Energy Holdings, LLC is a wholly-owned subsidiary of Montauk Renewables, Inc.

Montauk Renewables, Inc., formed on September 21, 2020, is a Delaware Corporation headquartered in Pittsburgh, Pennsylvania.

Turkey Creek Ag, LLC (“Turkey Creek Ag”), formed on October 27, 2021, is a Delaware Limited Liability Company with its principal place of business located in Pittsburgh, Pennsylvania. Turkey Creek Ag, LLC is a wholly-owned subsidiary of Montauk Ag Renewables, LLC.
ZNC Turkey Creek, LLC
Application for a Certificate of Public Convenience and Necessity
Docket No. SP-60808, Sub 0

Exhibit 1.1

Organizational Chart

Montauk Renewables, Inc.
(DE)
100%

Montauk Energy Holdings, LLC
(DE LLC)
100%

Montauk Renewable Ag, LLC
(DE LLC)
100%

Montauk Ag Renewables, LLC
(DE LLC)
100%

Zero Net Carbon Renewable Energy, LLC
(DE LLC)
100%

ZNC Turkey Creek, LLC
(DE LLC)
ZNC Turkey Creek, LLC
Application for a Certificate of Public Convenience and Necessity
Docket No. SP-60808, Sub 0

Exhibit 1.2

ZNC Turkey Creek Articles of Incorporation
STATE OF DELAWARE
CERTIFICATE OF FORMATION
OF LIMITED LIABILITY COMPANY

The undersigned authorized person, desiring to form a limited liability company pursuant to the Limited Liability Company Act of the State of Delaware, hereby certifies as follows:

1. The name of the limited liability company is ZNC Turkey Creek, LLC.

2. The Registered Office of the limited liability company in the State of Delaware is located at 251 Little Falls Drive, in the City of Wilmington, Zip Code 19808. The name of the Registered Agent at such address upon whom process against this limited liability company may be served is Corporation Service Company.

By: E6B066C0649184A7E9E31807A07E318
Authorized Person

Name: John Ciroli
Print or Type
ZNC Turkey Creek, LLC  
Application for a Certificate of Public Convenience and Necessity  
Docket No. SP-60808, Sub 0  

Exhibit 2  

Statement from Serving Utility
Via Email

jcarroll@MontaukRenewables.com

Date: June 16, 2023

Joseph P. Carroll, Jr.
President
Montauk Ag Renewables, LLC
A Division of Montauk Renewables, Inc. (NASDAQ: MNTK)

TURKEY CREEK SWINE CPCN STATEMENT

Re: Request for CPCN Statement

Dear Mr. Carroll,

The proposed 6.5 MW Turkey Creek Swine generation addition has been analyzed to determine the impact to DEP. It is prudent to analyze resources over a range of values for firm coincident capacity at the time of system peak. Assuming a 100% contribution to peak in the winter, the Turkey Creek Swine facility will add approximately 0.25% of DEP’s nominal reserves.

In addition, this capacity impacts DEP’s reserve margin by approximately 0.05%.

The collective generation impact of this facility would represent 0.07% of forecasted sales.

While alone, this facility does not have a significant impact on future DEP energy and capacity needs, when combined with other QF facilities being submitted for CPCNs, the impact to DEP’s hourly energy profile can be substantial and could alter the types of capacity additions that may be needed to ensure continued reliable electric service.

Sincerely,

Scott Tharp
As described in Exhibit 1, the Turkey Creek facility will use a patented, continuous feed, pyrolysis-based technology to convert swine waste into biogas, bio-oil, and biochar, each of which have ready, known commercial applications.

[BEGIN CONFIDENTIAL]

[END CONFIDENTIAL]
Montauk projects that the facility will general monthly electricity as follows:

[BEGIN CONFIDENTIAL]

[END CONFIDENTIAL]
Street Map Showing Location of Turkey Creek Facility
Turkey Creek Facility – Site Map

[BEGIN CONFIDENTIAL]

[END CONFIDENTIAL]
CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing APPLICATION FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY has been served this day upon the following, by electronic mail or by delivery to the United States Post Office, first-class postage pre-paid.

Christopher Ayers
Executive Director, NC Public Staff
Chris.Ayers@psncuc.nc.gov

Jessica Heironimus
NC Public Staff - Legal Division
jessica.heironimus@psncuc.nc.gov

NC Public Staff - Legal Division
4326 Mail Service Center
Raleigh, NC 27699-4300
Lucy.Edmondson@psncuc.nc.gov

This the 19th day of June, 2023.

By:  /s/ Marcus Trathen