

**STATE OF NORTH CAROLINA  
UTILITIES COMMISSION  
RALEIGH**

DOCKET NO. EMP-107, SUB 0

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

	)	<b>APPLICATION FOR A</b>
<b>In the Matter of the Application of</b>	)	<b>CERTIFICATE OF PUBLIC</b>
<b>Halifax County Solar LLC for a</b>	)	<b>CONVENIENCE AND</b>
<b>Certificate of Public Convenience and</b>	)	<b>NECESSITY FOR A MERCHANT</b>
<b>Necessity</b>	)	<b>PLANT</b>

Halifax County Solar LLC (“Halifax” or the “Applicant”), by and through counsel, hereby applies to the North Carolina Utilities Commission (the “Commission”) pursuant to G.S. § 62-110.1 and Commission Rule R8-63 for a Certificate of Public Convenience and Necessity authorizing construction of a solar photovoltaic (“PV”) facility with a capacity of 80 megawatts (“MW”) to be located in Halifax County (the “Facility”). In support of its application, Applicant provides the Commission the attached exhibits in compliance with Rule R8-63.

WHEREFORE, Halifax County Solar LLC respectfully requests that the Commission issue a Certificate of Public Convenience and Necessity pursuant to G.S. § 62-110.1 and Commission Rule R8-63 for the Facility, as more specifically described herein.

Respectfully submitted this 30th day of August, 2019.

KILPATRICK TOWNSEND & STOCKTON LLP

By: Benjamin L. Snowden

Benjamin L. Snowden

N.C. Bar No. 51745

4208 Six Forks Road, Suite 1400

Raleigh, North Carolina 27609

Telephone: (919) 420-1700

Email: bsnowden@kilpatricktownsend.com

*Attorney for Halifax County Solar LLC*

**Halifax County Solar LLC**  
**Application Exhibit 1 [R8-63(b)(1)]**

(i) The full and correct name, business address, business telephone number, and electronic mailing address of the Applicant are:

Halifax County Solar LLC  
Three Radnor Corporate Center, Suite 300  
100 Matsonford Rd.  
Radnor, PA 19087  
(866) 946-3123  
brent.beerley@communityenergyinc.com

(ii) Description of Applicant: Halifax County Solar LLC (“Halifax”) is a Delaware limited liability company with its principal place of business in Radnor, Pennsylvania. Halifax was formed on November 28, 2016. A true and correct copy of Halifax’s Limited Liability Company Articles of Organization is attached as **Schedule 1**. Halifax is a wholly owned subsidiary of Community Energy Solar, LLC, a Delaware limited liability company, and Community Energy, Inc., a Delaware corporation (together, “Community Energy”). The principal participants of Halifax are Brent Beerley, Manager (also President of Community Energy Solar, LLC) and Christopher Killenberg, Special Manager (also Director, Business Development – Southeast for Community Energy Solar, LLC). An organizational chart depicting the relationship between Halifax, Community Energy Solar, LLC, and Community Energy, Inc. is attached as **Schedule 2**.

Community Energy, the direct owner of Halifax, is a developer of solar PV facilities throughout the United States. Community Energy’s projects have delivered an aggregate capacity in excess of 700 MW to date, across the following states: Massachusetts, New York, New Jersey, Pennsylvania, Maryland, Virginia, North

Carolina, Georgia, Indiana, Illinois, Minnesota, and Colorado. Community Energy has an aggregate pipeline in excess of 3.0 GW of additional projects across the United States.

Community Energy has undertaken the initial development of the Facility, including obtaining site control for the properties on which the Facility shall be built, conducting initial environmental reviews, and securing local land use permits.

Correspondence, documents, and filings regarding this application should be addressed as follows:

Christopher Killenberg  
Community Energy Solar, LLC  
151 E. Rosemary St., Suite 202  
Chapel Hill, NC 27514  
(919) 976-7063  
[chris.killenberg@communityenergyinc.com](mailto:chris.killenberg@communityenergyinc.com)

with copies to:

Benjamin L. Snowden  
Kilpatrick Townsend & Stockton  
4208 Six Forks Road, Suite 1400  
Raleigh, North Carolina 27609  
(919) 420-1700  
[bsnowden@kilpatricktownsend.com](mailto:bsnowden@kilpatricktownsend.com)

(iii) A copy of Community Energy's most recent consolidated financial statements, is attached as **Schedule 3**.

(iv) Applicant's other affiliated generating facilities: Community Energy, through its wholly-owned subsidiary Mount Olive Solar LLC, owns one other solar PV facility in Mount Olive, NC in the Southeastern Electric Reliability Council ("SERC") region, with a system capacity of 1.99 MW. This project is interconnected with Duke Energy Progress. Community Energy, through its wholly-owned subsidiary Williamsburg Solar LLC, is also developing a solar PV facility in Rockingham County, NC, with a

planned capacity of 80 MW. The Williamsburg Solar project was issued a CPCN by the Commission on October 16, 2018, in Docket No. SP-11809 Sub 0. However, that project has not yet been constructed.

**Halifax County Solar LLC**  
**Application Exhibit 2 [R8-63(b)(2)]**

(i) Nature of proposed generating facility: Halifax is proposing to construct an 80 MW solar PV facility that will interconnect to Dominion Energy North Carolina's transmission system. The nameplate generating capacity of the Facility will be 80 MW, with an anticipated generation of 190,000,000 kWh per year.<sup>1</sup> Because solar power is subject to intermittent solar irradiance, the Facility's maximum dependable capacity is projected to be 0 MW by definition. Construction for the project is expected to begin on or about the third quarter of 2021, with an estimated date of commercial operation date in fourth quarter of 2022. An itemized estimate of the construction costs is included as **Confidential Schedule 4**.<sup>2</sup> The expected service life of the Facility is 20 years, with an additional 15-year service life, assuming equipment updates are made, for a total of 35 years.

(ii) Site plan: A color vicinity map ("Site Plan") showing the proposed site boundary and layout with all major equipment, planned and existing roads, and planned and existing electric facilities is attached as **Schedule 5**.

(iii) Locational information: The Facility will be located on approximately 900 acres in Halifax County, North Carolina, across seven (7) contiguous parcels of land. The GPS coordinates of the approximate center of the facility are 36°15'5.43"N / 77°41'47.22"W. An e911 address for the facility will be requested from the county, and

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<sup>1</sup> Nameplate capacity, or "net capacity," is generally defined as the gross capacity of the facility minus plant parasitic loads. See <https://www.nrel.gov/docs/fy13osti/57582.pdf>.

<sup>2</sup> Schedule 5 has been designated as confidential because the construction estimate contains confidential information within the scope of G.S. § 132.1.2.

the Applicant will notify the Commission of the e911 street address when it is received. Access to the site is via Neville Farm Road and Beaverdam Road.

(iv) The Facility is not a natural gas-fired facility.

(v) Required approvals: The following is a list of all necessary federal, state, and local approvals related to the Facility and the site and the status of such approval or a copy thereof, if obtained.

Federal:

1. Halifax has secured an Approved Jurisdictional Determination from the U.S. Army Corps of Engineers, identifying those streams and wetlands on the site which are jurisdictional waters and/or Waters of the United States, requiring a permit for construction under Section 404 of the federal Clean Water Act.
2. Halifax may apply for Market-Based Rate Authorization from the Federal Energy Regulatory Commission (“FERC”), pursuant to Sections 205 and 206 of the Federal Power Act.
3. Halifax may seek to self-certify with FERC as an Exempt Wholesale Generator pursuant to the Public Utility Holding Company Act of 2005.

State:

1. Halifax will require the approval of an erosion and sedimentation control plan for its construction activities from the North Carolina Department of Environmental Quality.
2. Halifax will require a driveway permit from the North Carolina Department of Transportation.

Local:

1. Halifax has secured a Conditional Use Permit (“SUP”) from Halifax County. The Halifax County Board of Adjustment, which has final authority to approve the Halifax CUP, unanimously voted to approve the CUP at a public hearing held on August 13, 2019. A copy of the final Order approving the CUP is attached to this application as **Schedule 6**.
2. Halifax will require a stormwater permit from Halifax County.
3. Halifax will require a Building Permit from Halifax County.
4. Halifax will require an Electrical Permit from Halifax County.

**Other:**

1. Halifax recorded a Decommissioning Plan as part of the requirements for a Conditional Use Permit, a copy of which is attached to this application as **Schedule 7**.
2. Halifax may register as a Generator-Owner with the North American Electric Reliability Council (“NERC”).

(vi) **Description of transmission facilities:**

The Facility will utilize approximately 294,700 PV modules attached to a ground-mounted single-axis tracking system. The trackers will be installed on a North-South axis tilting in an East-West direction to enable the modules to follow the sun throughout the day. The trackers will consist of galvanized steel and will be anchored on H-shaped steel posts driven approximately six feet into the ground. The trackers will not have a concrete foundation.

The system will feed 32 central inverters, each with a nominal power capacity of 2700 kw AC, configured to transform the DC power generated by the solar modules into a



maximum 80 MW of AC capacity. The inverters will feed 32 step-up transformers which will increase the voltage of the generated power to 34.5kV. Power from these 32 step-up transformers will be collected at a main transformer, which will further increase voltage to 115kV, so as to align with the voltage at the point of interconnection.

The Facility will interconnect with Dominion's transmission grid via a new three-breaker ring bus switching station that connects on the Halifax - South Justice Branch 115kV line #81. A color map showing the location of the interconnection point and transmission facilities is included on Page 2 of the Site Plan attached as **Schedule 5**.

Halifax first submitted an Interconnection Request to PJM in October 2016 and was assigned queue number AC1-208. Halifax is currently awaiting the Facilities Study Report from PJM, due no later than December 15, 2019.

**Halifax County Solar LLC**  
**Exhibit 3 [R8-63(b)(3)]**  
*Description of the need for the facility in the state and/or region*

Halifax expects to benefit North Carolina and its surrounding region by satisfying a present and growing demand for renewable power in the region, and by providing economic development and other benefits in Halifax County.

The Facility will interconnect with the Dominion Energy transmission grid, affording it access to PJM, a Regional Transmission Organization (“RTO”) that coordinates the movement of electricity through all or parts of Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia, and the District of Columbia. Community Energy has substantial experience with offtake in the PJM market having previously secured approximately 200 MW of offtake within the PJM market.

Halifax is actively negotiating a power purchase agreement (“PPA”) with an out-of-state corporate buyer for all of the 80 MW Facility’s output, and is expecting the PPA to be executed in the fourth quarter of 2019. The Renewable Energy Certificates (“RECs”), which will be registered through NC-RETS, will be bundled with the energy and capacity from the Facility, and sold as part of the PPA.

Alternately, Halifax is confident in its ability to secure offtake from the Facility in the PJM market. As demonstrated by the chart produced by the Business Renewables Center and attached as **Schedule 8**, projections for corporate demand for renewable energy and RECs from solar facilities in the southeast market of PJM is expected to increase over the next few years. In addition, Dominion Energy has committed to increasing its use of renewable power to generate 5,000 MW of electricity by 2028.

Dominion's commitment is consistent with state-level policy set by the Virginia General Assembly, which affirmed the growing importance of renewable energy generation in passing the Grid Transformation and Security Act of 2018 (the "GTSA"), signed into law by Governor Ralph Northam on March 9, 2018. The GTSA finds that up to an additional 5,000 MW of utility-scale electric generating facilities powered by solar and wind energy is in the public interest.

Load growth for the PJM RTO as a whole, and more specifically for the Dominion Virginia power zone, which serves parts of Eastern North Carolina and Virginia, is expected to increase over the next ten to fifteen years as described below for both winter and summer months.

Summer peak load in PJM is expected to grow by 0.3% per year over the next ten years, and by 0.3% over the next 15 years.<sup>3</sup> For the Dominion Virginia Power zone, summer peak load growth is expected to grow by 0.9% per year over the next ten years, and 0.8% per year over the next fifteen years.<sup>4</sup> The anticipated ten year summer peak load growth in the Dominion Virginia Power zone represents 1.4% growth over the January 2018 load forecast report.<sup>5</sup>

Winter peak load growth in PJM is projected to average 0.4% per year over the next 10-year period, and 0.4% over the next 15-years.<sup>6</sup> Winter peak load growth for the Dominion Virginia Power zone is expected to grow by 0.9% per year over the ten years,

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<sup>3</sup> 2019 PJM Load Forecast Report (Mar. 2019 – RPM Update), available at <https://www.pjm.com/-/media/library/reports-notices/load-forecast/2019-rpm-load-forecast.ashx?la=en>.

, at 43-44.

<sup>4</sup> *Id.*

<sup>5</sup> *Id.* at 40.

<sup>6</sup> *Id.* at 47-48.

and 0.9% per year over the next nine to fifteen years.<sup>7</sup> The anticipated ten year winter peak load growth in the Dominion Virginia Power zone represents 1.4% growth over the January 2018 load forecast report.<sup>8</sup>

The PJM service area of North Carolina has slightly higher projected load growth than Virginia. North Carolina is expected to average between 0.9 and 1.1% per year over the next 10 years versus the PJM RTO load growth projections to average between 0.3% and 0.4% over the next ten years.<sup>9</sup>

Generation retirement also demonstrates the need for new sources of electricity in the region, and in North Carolina in particular. Approximately 209 MW of capacity in North Carolina was retired in 2017. This represents more than 10 percent of the 2,084 MW that retired RTO-wide in 2017.<sup>10</sup>

In addition to satisfying in part the growing demand for renewable energy, Halifax also anticipates bringing economic benefits to Halifax County, primarily in the form of income to participating landowners, increased taxes paid to Halifax County, employment, and increased economic activity in the area.

The landowners who contracted to sell or lease their land for the Facility, all of whom are currently operating sizable farming and/or timbering concerns on other land they own, will gain income that will allow them to continue agricultural activities on their remaining properties.

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<sup>7</sup> *Id.*

<sup>8</sup> *Id.*

<sup>9</sup> PJM, 2018 North Carolina State Infrastructure Report (January 1, 2018 – December 31, 2018), May 2019, 21, available at <https://www.pjm.com/-/media/library/reports-notice/state-specific-reports/2018/2018-north-carolina-state-data.ashx?la=en>.

<sup>10</sup> *Id.* at 21


Halifax County will realize a substantial increase in tax revenue generated from the participating properties. Currently, Halifax County collects less than \$5,000 per year in taxes from the 6 affected parcels. Subsequent to the construction of the Facility, Halifax County will collect a one-time payment of approximately \$31,000 in “roll-back” taxes for the conversion of the land to non-agricultural use, and annual real property tax estimated to be \$45,000 per year (depending on Halifax County’s re-assessment of the underlying land), and an annual business personal property tax estimated to be \$168,000 in year 1 (assuming system construction costs of approximately \$84,000,000, and factoring in North Carolina’s 80% property tax abatement on commercial solar systems under G.S. § 105-275).

The construction of the Facility will bring short-term and long-term employment opportunities. During the anticipated 9-month construction period, approximately 200 jobs will be created. These jobs require no specialized skills and will therefore be available to any able-bodied person seeking work. Given the growth of the solar industry in eastern North Carolina, and the expectation of continued development of similar projects in the area, experience gained during the construction of the Facility may translate into future employment opportunities constructing other solar facilities. Once operational, the Facility will require 4-6 full-time employees for its operation and maintenance.

In addition to employment, the construction and operation of the Facility will generate substantial local economic activity. This includes the subcontracting of certain trades that are typically sourced locally, including civil, landscaping, and fencing. This also includes purchases of certain materials such as stone and concrete, as well as the “casual” purchases of the many construction employees including food, gas, and lodging.

VERIFICATION

STATE OF North Carolina COUNTY OF Orange

  
Signature of Owner's Representative or Agent

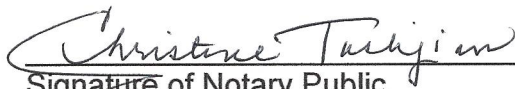
SPECIAL MANAGER  
Title of Representative or Agent

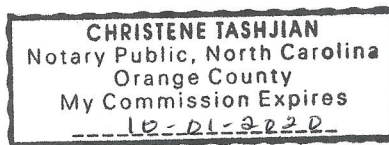
CHRISTOPHER KILLENBERL  
Typed or Printed Name of Representative or Agent

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 30<sup>th</sup> day of August, 2019.

My Commission Expires: 10-01-2020

  
Signature of Notary Public



CHRISTENE TASHJIAN  
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.

**Halifax County Solar LLC**  
**Application for a Certificate of Public Convenience and Necessity**  
**for a Merchant Plant**  
**Docket No. E-104, Sub 0**

**Schedules**

Schedule 1 – Articles of Organization and Annual Report

Schedule 2 – Organizational Chart

Schedule 3 – Balance Sheet and Income Statement \***CONFIDENTIAL**\*

Schedule 4 – Estimated Construction Costs \***CONFIDENTIAL**\*

Schedule 5 – Site Plan

Schedule 6 – Conditional Use Permit

Schedule 7 – Decommissioning Plan

Schedule 8 – Renewables Demand Forecast

Schedule 1

Articles of Organization of Halifax County Solar LLC  
Annual Report of Halifax County Solar LLC



STATE of DELAWARE  
LIMITED LIABILITY COMPANY  
CERTIFICATE of FORMATION

State of Delaware  
Secretary of State  
Division of Corporations  
Delivered 03:48 PM 11/28/2016  
FILED 03:48 PM 11/28/2016  
SR 20166801271 - File Number 62310

First: The name of the limited liability company is \_\_\_\_\_  
Halifax County Solar LLC

Second: The address of its registered office in the State of Delaware is \_\_\_\_\_  
1209 Orange Street in the City of Wilmington  
Zip code 19801. The name of its Registered agent at such address is  
The Corporation Trust Company

Third: (Use this paragraph only if the company is to have a specific effective date of  
dissolution: "The latest date on which the limited liability company is to dissolve is  
\_\_\_\_\_".)

Fourth: (Insert any other matters the members determine to include herein.)

The initial managers of the LLC are Brent Beerley, R.  
Brent Alderfer, and Eric Blank.

In Witness Whereof, the undersigned have executed this Certificate of Formation this  
28th day of November, 2016.

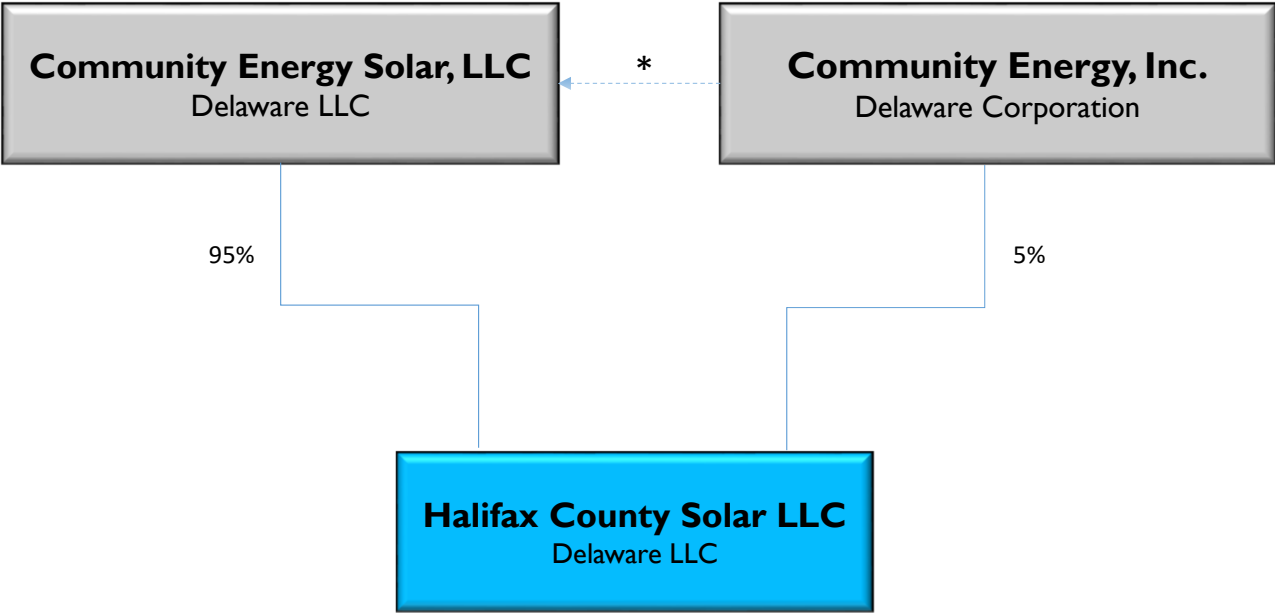
By:   
Authorized Person (s)

Name: Eric Blank



Schedule 2

Organizational Chart of Community Energy Solar, LLC and Affiliates



\* Community Energy, Inc. is a minority owner of Community Energy Solar, LLC

Schedule 3

Consolidated Financial Statements of Community Energy Solar, LLC and Affiliates

**\*CONFIDENTIAL\***

Schedule 4

Estimated Construction Costs

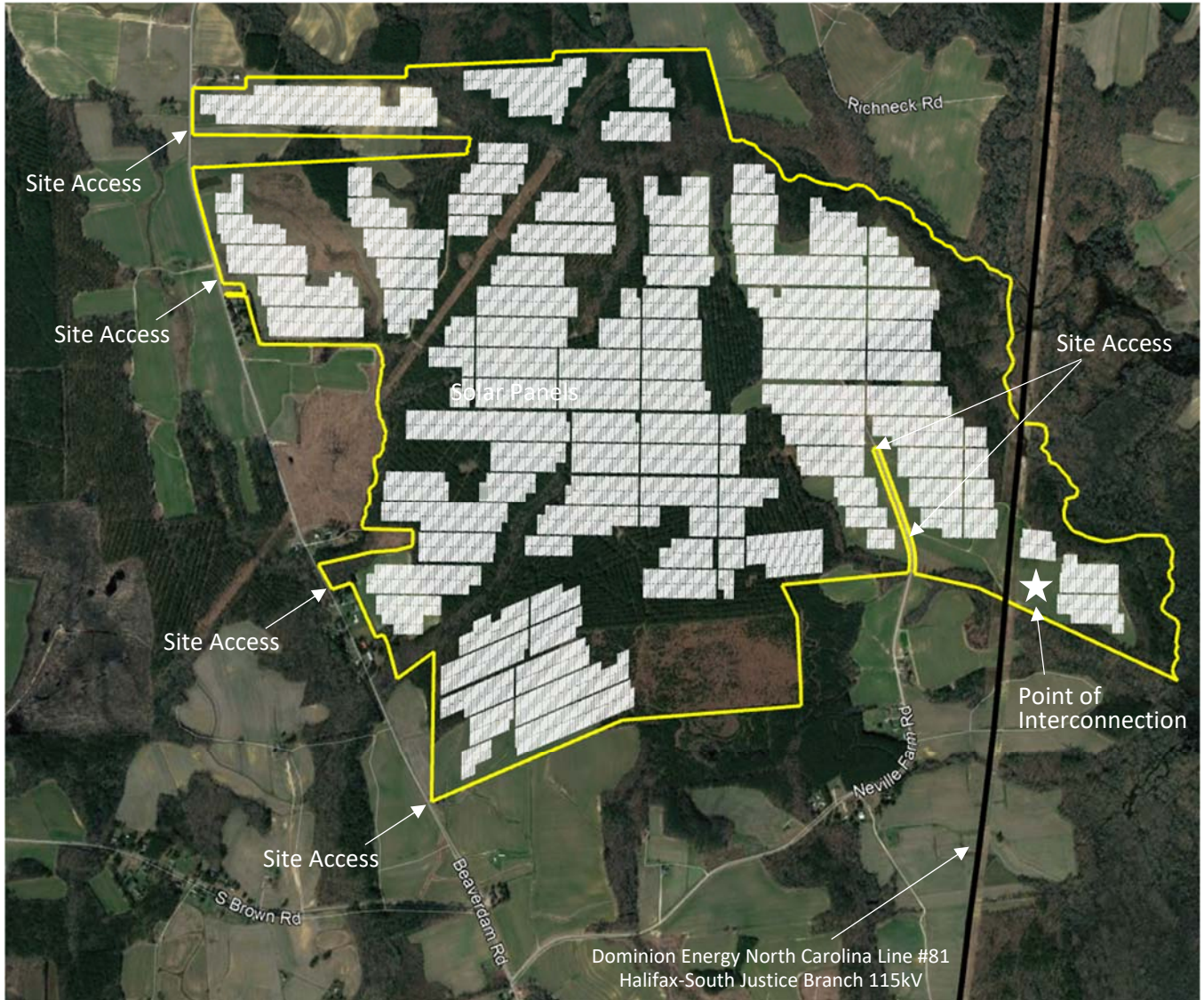
**\*\*CONFIDENTIAL\*\***

Schedule 5

Site Plan

# EMP-107 Sub 0 Site Plan

Halifax County Solar  
Neville Farm Rd.  
Enfield, NC 27823





Schedule 6

Conditional Use Permit



## Halifax County Planning & Development Services

PO Box 69 - 15 W. Pittsylvania Street, Halifax, NC 27839  
(252) 583-1082 Planning & Zoning (252) 583-4891 Building Inspections  
(252) 583-2288 E911 Addressing (252) 583-2735 Fax

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August 15, 2019

Halifax County Solar, LLC  
Three Radnor Corp Ctr - Ste 300, 100 Matsonford Rd  
Radnor, PA 19087

Re: Conditional Use Permit #2019-11

Dear Mr. Killenberg:

On August 13, 2019, the Board of Adjustment approved your Conditional Use Permit to construct and operate a Level 3 Solar Energy System along Beaverdam Road and a portion of Neville Farm Road, just north of the Town of Enfield. The properties involved in the project are identified as parcels #04-03659, #04-02946, #04-01208, #04-05468, #04-01923, #04-00469 and #04-03887 containing 958 ± acres and located in the Enfield Township.

The conditions approved by the Board for the request are as follows:

1. All federal, state, and local regulations and requirements shall be complied with.
2. Vegetative screening with landscape buffers for the project shall conform to Section 46-43 of the Solar Energy Systems ordinance. The screening shall be maintained for the entire period the property is used as a solar farm.
3. The applicant shall submit final site and construction plans for the Halifax County Solar project to the Planning & Development department for approval prior to construction.
4. Halifax County Solar shall submit a final decommissioning plan with updated cost estimate, signed by all property owners and Halifax County Solar and recorded in the Register of Deeds prior to issuance of any construction related permits for the project.

A Zoning Permit is enclosed for the proposed project. In addition, please contact the Building Inspector at #252-583-4891 for submittal of the required site & construction plans.

If you have any questions, please contact our office at (252) 583-1082.

Sincerely,



Chris D. Rountree, Director  
Planning and Development Services



# HALIFAX COUNTY

## CERTIFICATE OF ZONING COMPLIANCE

P.O. BOX 69, HALIFAX, NC 27839  
PHONE # (252)583-1082 FAX # (252)583-2735

(Article V, Section 501 – Halifax County Zoning Ordinance)

**GENERAL DATA: APP #9994**

**CERTIFICATE NO.: 13642**

**Application Date: 07/23/2019**

**Previous Certificate No.:**

**Applicant:** HALIFAX COUNTY SOLAR LLC  
THREE RADNOR CORP CTR -STE 300  
100 MATSONFORD RD  
RADNOR, PA 19087

**Owner:** MULTIPLE PROPERTY OWNERS  
SEE ATTACHED LIST

**Contractor:**

**Location :** BEAVERDAM RD & NEVILLE FARM RD -VARIOUS  
ADDRESSES - TBD

**Parcel Id Number:**  
SEE ATTACHED LIST

**Tax Map Number**

**Lot Number:**

**Alt. Parcel Number**

**SITE DATA:** Zoning District: RA – RESIDENTIAL / AGRICULTURE  
**Permit(s) :** CUP, ZONING, BLDG/ELECTRICAL, FED /STATE AGENCIES

**Description :** CONSTRUCT & OPERATE A LEVEL 3 SOLAR ENERGY SYSTEM  
**Existing Use :** FARMLAND & TIMBER  
**Proposed Use:** HALIFAX COUNTY SOLAR LLC – LEVEL 3 SOLAR ENERGY SYSTEM – 80 Mw

<u>SETBACK REQUIREMENTS</u>	<u>Principle Structure</u>	<u>Accessory Structure</u>
	FRONT: 40.00	FRONT: 40.00
	REAR: 30.00	REAR: 30.00
	LEFT SIDE: 15.00	LEFT SIDE: 15.00
	RIGHT SIDE: 15.00	RIGHT SIDE: 15.00

**Lot Size in sq. ft./Acres : 958± ACRES**

**Is lot located in 100 yr floodplain : NO**

**FEMA Panel No.:**3703273981J  
3703273980J

**\*\*Is lot located in watershed area: NO**

**Watershed Area : N/A**

**Source of Water : N/A**

**Type of Sewer Disposal: N/A**

**Will structure be in R-O-W : NO**

**Right of Way : PUBLIC**

**Is this a subdivision or part thereof: NO**

**Type :**

**No. of Lots:**

**Does lot have proper access: YES**

**\*\* Will you be disturbing (grading) one (1) acre or more of land: YES**

# HALIFAX COUNTY CERTIFICATE OF ZONING COMPLIANCE

(Article V, Section 501 – Halifax County Zoning Ordinance)

NO PERMIT SHALL BE ISSUED UNTIL APPLICABLE FEDERAL, STATE AND LOCAL PERMITS ARE GRANTED. THESE PERMITS MAY INCLUDE, BUT ARE NOT LIMITED TO, DRIVEWAY PERMIT (NCDOT); SOIL EROSION CONTROL PERMIT (NC DEPT. OF ENVIRONMENTAL HEALTH).

ONLY ONE (1) PRINCIPLE STRUCTURE IS PERMITTED PER LOT. (Article III, Section 1203.02 of the Halifax County Zoning Ordinance.)

\*\* If lot is within the 100 year floodplain, Volume I, Chapter XXXIV, Section 3408, of the North Carolina Building Code will have to be complied with.

\*\* If one (1) acre or more of land is being disturbed, a permit from the Division of Land Resources will have to be obtained. (919) 571-4700.

IF YOU HAVE QUESTIONS CONCERNING THE ZONING DISTRICT THAT YOUR PROPERTY IS LOCATED, THE SETBACK REQUIREMENTS OR ANY OTHER QUESTIONS/CONCERNING THIS PERMIT, PLEASE ASK NOW OR CALL LATER. (252) 583-1082. BE SURE THAT THE STRUCTURE COMPLIES WITH THE SETBACK REQUIREMENTS AS STATED HEREIN. (THIS HAS TO DO WITH THE DISTANCES OF THE STURCTURE FROM THE PROPERTY LINES.)

I HEREBY CERTIFY THAT THE INFORMATION HEREIN IS CORRECT TO THE BEST OF MY KNOWLEDGE. THIS PERMIT SHALL EXPIRE UNLESS THE WORK AUTHORIZED IN IT IS BEGUN WITHIN TWELVE (12) MONTHS FROM THE DATE OF ISSUANCE.

ON FILE

Date: 08/15/2019

(Applicant Signature)

**Application: APPROVED**

**Date: 08/15/2019**

**Inspector: CDR**

PLEASE BE SURE THAT WHOEVER WILL BE RESPONSIBLE FOR SETTING UP YOUR MOBILE HOME OR BUILDING YOUR STRUCTURE IS AWARE OF THE SETBACK REQUIREMENTS AND UNDERSTANDS THE SAME. IF THERE ARE QUESTIONS PLEASE CALL. DO NOT ASSUME THAT SOMEONE KNOWS THIS INFORMATION.

Comments: CUP 2019-11 APPROVED BY BOA ON 8-13-19 SUBJECT TO CONDITIONS

Inspector name

Zoning Department

- 1- Original Certificate to: Zoning Department.
- 2- Copy of Certificate to Health Department (If Applicable) take by applicant.
- 3- Copy of Certificate to Building Inspector.
- 4- Copy of Certificate to the Applicant

# CONDITIONAL USE PERMIT HALIFAX COUNTY

**THIS SIGNIFIES THAT THIS LAND AND / OR BUILDING, LOCATED IN THE RA – Residential / Agriculture DISTRICT, Enfield TOWNSHIP, HAS BEEN APPROVED BY THE HALIFAX COUNTY BOARD OF ADJUSTMENT TO BE USED IN ACCORDANCE WITH THE CONDITIONS LISTED BELOW:**

Applicant: Halifax County Solar, LLC

Name of Business: Halifax County Solar, LLC

Address: Three Radnor Corp. Center – Suite 300, 100 Matsonford Rd, Radnor, PA 19087

Property Owners: see attached list

Address: see attached list

Location of Property: Beaverdam Rd & Neville Farm Road, Enfield, NC 27839 – Parcel #04-03659, #04-02946, #04-01208, #04-05468, #04-01923, #04-00469 and #04-03887

Request: To construct & operate a Level 3 Solar Energy System - 80Mw

Condition(s) of Approval: (See attached sheet)

Approval Date: August 13, 2019



Zoning Administrator

If at any time after a conditional use permit has been issued, the Board of Adjustment finds that the conditions imposed and agreements made have not been or are not being fulfilled by the holder of a conditional use permit, the permit shall immediately be revoked and the operation of such a use discontinued. Violations of such conditions, when made part of the ordinance and punishable under Section 907 thereof. If a conditional use permit is terminated for any reason, it may be reinstated only after a public hearing is held. **THIS PERMIT SHALL BE RETURNED TO THE ZONING ADMINISTRATOR'S OFFICE WHEN THE BUSINESS IS TERMINATED.**

# Halifax County Solar LLC – Conditional Use Application

## Page 1 (5) Property Owner Info and Parcel IDs

Parcel ID #	0403659
Acreage	339
Parcel Address	Beaverdam Rd., Enfield NC 27823
Owner(s)	Quentin Gregory Jr. Trust (Anne Gregory, trustee)
Owner Address	606 Wofford Rd., Durham NC 27707-3934
Owner Phone	919-672-0404
Parcel ID #	0403887
Acreage	74.43
Parcel Address	Beaverdam Rd., Enfield NC 27823
Owner(s)	Reginald H. Collins
Owner Address	1118 Carolina Ave., Roanoke Rapids NC 27870-4012
Owner Phone	252-308-0764
Parcel ID #	0401208
Acreage	148.5
Parcel Address	757 Beaverdam Rd., Enfield NC 27823
Owner(s)	Michael A. & Starlette J. Hedgepeth
Owner Address	670 Perdue Dr., Halifax NC 27839-9426
Owner Phone	252-308-74009 (Michael) 252-813-3917 (Starlette)
Parcel ID#	0400469
Acreage	94.42
Parcel Address	Beaverdam Rd., Enfield NC 27823
Owner(s)	Aubrey N. Dickens Jr.
Owner Address	89 Poplar Lane, Halifax NC 27839-9348
Owner Phone	252-985-8747
Parcel ID#	0402946
Acreage	20
Parcel Address	Beaverdam Rd., Enfield NC 27823
Owner(s)	Aubrey N. Dickens Jr.
Owner Address	89 Poplar Lane, Halifax NC 27839-9348
Owner Phone	252-985-8747
Parcel ID#	0401923
Acreage	331.23
Parcel Address	Neville Farm Rd., Enfield NC 27823
Owner(s)	Maurice G. Barnhill 3/5, Mrs. Dallas Neville heirs 2/5 (Andrew Thomas Neville & Thomas J. Logan)
Owner Address	Barnhill (primary contact): 610 Sherrod Heights, Enfield NC 27823-1538
Owner Phone	Barnhill 252-903-4738
Neville Address	507 Randolph Pines Rd., Enfield NC 27823-8076
Neville Phone	252-445-3315
Logan Address	913 Shellbrook Ct., #3, Raleigh NC 27609-4231
Logan Phone	919-787-5979

Schedule 7

Decommissioning Plan



env ✓

Return to:  
Chris Killenberg  
Community Energy Solar, LLC  
151 E. Rosemary St., Suite 202  
Chapel Hill, NC 27514



Doc ID: 004460770014 Type: CRP  
Recorded: 08/13/2019 at 04:44:07 PM  
Receipt#: 2019-00001126  
Fee Amt: \$26.00 Page 1 of 14  
Revenue Tax: \$0.00  
Instr# 201900001452  
Halifax, NC  
Christie C Avens Register of Deeds

BK **2596** PG **610-623**

NORTH CAROLINA

HALIFAX COUNTY

**Halifax County Solar LLC  
Decommissioning Plan**

Pursuant to an application by Halifax County Solar LLC for a Conditional Use Permit for a proposed Level 3 Solar Energy System to be constructed in Halifax County, Halifax County Solar LLC hereby files its Decommissioning Plan.

Compliance

As the owner/operator of the proposed Level 3 Solar Energy System, Halifax County Solar LLC agrees to fully comply with the decommissioning requirements set forth in the Halifax County Solar Energy Systems Ordinance, Section 46-43(e) and 46-43(f) (the "Solar Ordinance").

Leased Property

A portion of the proposed Solar Energy System project site will be leased from the following landowners:

- Quentin Gregory, Jr., Revocable Trust, dated December 27, 2013  
Parcel 0403659, comprising approximately 339 acres
- Reginald H. Collins  
Parcel 0403887, comprising approximately 74.43 acres

Under the leases, the removal of the solar equipment and restoration of the leased property will be the legal responsibility of Halifax County Solar LLC.

In addition to the decommissioning requirements established by the Solar Ordinance, Halifax County Solar LLC is bound by decommissioning obligations set forth in the leases. The decommissioning language in the leases reads as follows:

**7. Removal of Solar Equipment and Restoration of Property.**

7.1. Upon Termination. As soon as reasonably practicable but in no event later than six (6) months following the expiration or earlier termination of this Lease, Company shall, at Company's sole cost and expense,

- a. remove all above-ground Solar Facility Equipment,
- b. remove all Solar Facility Equipment installed below-grade, and
- c. restore the soil surface of the Leased Property to a condition reasonably

similar to its original condition.

7.2. Landowner Right to Perform. If Company fails to so remove the Solar Facility Equipment within six (6) months after the termination or expiration of this Lease, Landowner may do so and Company shall reimburse Landowner for the reasonable and actual costs of removal incurred by Landowner, less any salvage value received by Landowner, within thirty (30) days after receipt of an invoice from Landowner.

7.3. Decommissioning Cost. No more than 90 days in advance of the Commercialization Date, Company shall provide to Landowner an estimate of the cost, calculated by a reputable, mutually agreed upon third-party engineer not associated with the engineer or engineering firm that prepared the site plan or construction plans for the Solar Facility, for the removal of the Solar Facility Equipment from the Leased Property (the "Decommissioning Cost Estimate"). The estimated market value of scrap or recyclable materials shall be considered in calculating the Decommissioning Cost Estimate. The Decommissioning Cost Estimate shall be updated every five (5) years.

7.4. Posting of Security. No later than the Commercialization Date, and for the remaining duration of the Commercial Term (as it may be extended), Company shall post or arrange for the posting of security funds in a manner and amount sufficient to ensure decommissioning of the Solar Facility and removal of the Solar Facility Equipment from the Leased Property consistent with the Decommissioning Cost Estimate, as it may be updated ("Decommissioning Security"). The Decommissioning Security may be posted with an appropriate commercial entity, or if required, a local government agency. The form of the Decommissioning Security shall be in the form of a guaranty, bond, letter of credit, or other form of surety from an entity with an investment grade rating. Notwithstanding the foregoing, in the event that a governmental entity with jurisdiction over the Solar Facility requires Company to post a bond or security to secure its performance in removing the Solar Facility Equipment and restoring the Leased Property, then Company's posting of such bond or security shall be deemed to satisfy its obligations arising under this Section 7.4 to the extent of the amount of such bond or security posted. To the extent of any deficiency between the Decommissioning Cost Estimate and the amount required to be posted by the governmental authority, then Company shall post security in the amount of the deficiency consistent with acceptable forms of such security listed in this Section 7.4

### Purchased Property

A portion of the proposed Solar Energy System project site will be purchased by Halifax County Solar LLC prior to construction. Halifax County Solar LLC currently holds purchase options on the following parcels:

- Parcel 0401923, comprising approximately 331.23 acres  
Currently owned by Maurice G. Barnhill (3/5), Andrew Thomas Neville (1/5), and Thomas J. Logan (1/5)
- Parcel 0400469, comprising approximately 94.42 acres  
Currently owned by Aubrey N. Dickens Jr.
- Parcel 0402946, comprising approximately 20 acres  
Currently owned by Aubrey N. Dickens Jr.
- A portion of Parcel 0401208, comprising approximately 91 acres  
Currently owned by Michael Hedgepeth and Starlette Hedgepeth
- Parcel 0405468, comprising approximately 1.01 acres  
Currently owned by Michael Hedgepeth and Starlette Hedgepeth

As the landowner of the parcels listed above at the time of construction, the removal of the solar equipment and restoration of the property will be the legal responsibility of Halifax County Solar LLC.

As the landowner of the parcels listed above at the time of construction, Halifax County Solar LLC agrees to fully comply with the decommissioning requirements set forth in the Solar Ordinance.

### Solar Energy System Components

The major components currently scoped for the proposed Solar Energy System include:

- Mono-crystalline solar panels mounted to a single-axis tracking system
- Central inverters and transformers
- Associated aluminum and copper wiring
- Six (6) foot high chain-link security fence

### Decommissioning Cost Estimate

Halifax County Solar LLC commissioned Ballentine Associates, P.A., a third-party engineer not associated with the engineer or engineering firm that prepared the site plan, to provide an estimate of the cost of removal and restoration, net of salvage value. Ballentine's report indicates the likelihood that the salvage value will exceed the cost of removal and restoration. The report is as follows:

SOLAR FARM: Halifax County Solar, LLC  
 SITE ADDRESS: Beaverdam Rd. Enfield, NC  
 PREPARED FOR: Community Energy Solar  
 PROJECT NUMBER: 115006.09  
 DATE: 18-Jul-19



**Ballentine  
 Associates, P.A.**  
 221 Providence Road  
 Chapel Hill, NC 27514  
 (919) 929-0481

**OPINION OF PROBABLE COST FOR SOLAR FARM DECOMMISSIONING**

Assumptions: System Size Conversion Factor: 16  
 80.0 MW AC  
 -- Tracker Racking 112 MW DC  
 -- Poly Modules 380W 1.40 DC/AC Ratio  
 -- Dual Inverters

Summary:

ITEM	QUANTITY	UNIT	SALVAGE UNIT PRICE	TOTAL SALVAGE VALUE	COST TO REMOVE/RESTORE	NET GAIN/LOSS	COMMENTS
Wire (Copper)	634,692	LB	\$2.72	\$1,728,790.66	\$126,938.43	\$1,601,852.23	See Note 1
Wire (Aluminum)	17,407	LB	\$0.82	\$14,228.07	\$3,481.41	\$10,746.66	See Note 1
Racking System	14,589,700	LB	\$0.13	\$1,905,921.93	\$476,480.48	\$1,429,441.45	See Note 2
Solar Modules (Thin-Film)*	294,750	EA	\$0.00	\$0.00	\$589,500.00	-\$589,500.00	See Note 3*
Solar Modules (Crystalline)*	294,750	EA	\$3.80	\$1,120,050.00	\$589,500.00	\$530,550.00	See Note 3*
Inverters	65,968	LB of Metal	\$0.92	\$60,426.69	\$72,000.00	-\$11,573.31	See Note 4
Transformers	86,400	kVA	\$5.00	\$432,000.00	\$160,000.00	\$272,000.00	See Note 5
Concrete Pad	32	EA	\$0.00	\$0.00	\$48,000.00	-\$48,000.00	See Note 6
6' Chain Link Fencing	193,930	LB	\$0.04	\$7,757.20	\$678,755.00	-\$670,997.80	See Note 7
Substation	1	EA	20% Cost to Remove	\$17,000.00	\$85,000.00	-\$68,000.00	See Note 8
Land Restoration	975	AC	\$0.00	\$0.00	\$487,500.00	-\$487,500.00	See Note 9
<b>TOTAL</b>				<b>\$5,286,174.55</b>	<b>\$2,727,655.32</b>	<b>\$2,558,519.22</b>	
10% Contingency/Salvage Credit**				<b>\$4,757,557.09</b>	<b>\$3,000,420.86</b>	<b>\$1,757,136.24</b>	

\*\*Increase gross cost by 10% in order to eliminate discrepancy in cost estimation techniques. Reduce salvage value by 10% such that only 90 of salvage value can be used as a credit against the Gross cost and Admin factor.

Notes:

1. Wire	Length	lbs/1000 FT	Total LBS
MV - 1/0 AWG (Copper)	42,560	363.013	15,450
MV - 1/3 (AL)	42,560	409	17,407
AC output (Copper)	107,040	99.181	10,616
DC output (Copper)	9,200,000	66.155	608,626
Total Copper			<b>634,692</b>
Total Aluminium			<b>17,407</b>
Cost to Remove:	\$0.20	per pound	

2. Racking System

Racks: 5810  
 Posts (10' W6x9) per rack: 13  
 Total Posts: 75,530  
 Total post weight (LBS): 6,797,700  
 Total Racking Weight (LBS): 7,792,000  
 Total Structure Weight: 14,589,700  
 Cost to Remove Racking System: Assumes 25% of salvage value

3. Solar Modules

Cost to Remove Modules: \$2.00 Per module \*Crystalline assumed for cost estimation; thin film shown for reference.  
 Salvage Value: \$0.01 Per Watt \*For crystalline modules only

		Total LBS	\$/LB	Total
4. Inverters				
Number of Inverters:	32	131,936		
Weight Per Inverter (LBS):	4123	26,387		
% Steel:	20%	26,387	0.13	\$3,447
% Aluminum:	20%	13,194	0.82	\$21,568
% Copper:	10%	65,968	2.72	\$35,937
Total:				\$60,952
Cost to Remove Inverters	\$2,250 Each			

5. Transformers

Total Transformers: 32  
 Transformer: 2,700 kVA  
 Total kVA: 86,400  
 Value: \$5/kVA  
 Cost to Remove Transformer: \$5,000

6. Concrete Pad

Cost to remove pad: \$1,500 Assumes 1 pad per transformer

7. Chain Link Fencing

1 Post per 10 LF, Fence post weighs 3lbs each with a value of \$0.04/LB  
 Fence Posts: 6' tall fence weighs 4lbs per LF of fence with salvage value of \$0.04/LB  
 Fencing: Post weight = 13530 lbs  
 Total LF on Project: 45,100 Fence Weight = 180400 lbs  
 Total Weight: 193,930 lbs  
 Cost to remove fencing: \$3.50/LF

8. Substation & Substation Equipment

Cost to Remove: \$85,000  
 Salvage Value: 20% of Cost to Remove

9. Land Restoration

\$500/Acre Includes erosion control

## NON-FERROUS

[Trading summary](#)   [Current year summary](#)   [Price graph](#)   [Average prices](#)   [Useful links](#)

Data valid from 26 June 2015

### LME OFFICIAL PRICES, US\$ PER TONNE

CONTRACT	ALUMINIUM ALLOY	ALUMINIUM	COPPER	LEAD
Cash/Baker	12710.00	18972.00	4005.00	1916.00

## LME STEEL SCRAP

[Trading summary](#)   [Current year summary](#)   [Price graph](#)   [Average prices](#)   [Contract specs](#)

Data valid from 27 June 2015

### LME CLOSING PRICES, US\$ PER TONNE

CONTRACT	PRICE
2000000	404.50

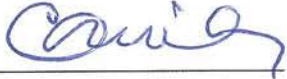
1 Tonne = 2204.62 LBs

Price Conversion:

<u>Metal</u>	<u>\$/LB</u>
Aluminium:	0.82
Copper:	2.72
Steel:	0.13

**IN WITNESS WHEREOF**, the following parties have caused this Halifax County Solar LLC Decommissioning Plan to be executed and delivered by their duly authorized representatives.

**Halifax County Solar LLC**



\_\_\_\_\_  
Christopher Killenberg  
Special Manager

**Quentin Gregory, Jr., Revocable Trust, dated December 27, 2013**

\_\_\_\_\_  
Anne H. Gregory  
Trustee

\_\_\_\_\_  
David J. Bradley  
Trustee

**Reginald H. Collins**

\_\_\_\_\_  
Reginald H. Collins  
Individual

**IN WITNESS WHEREOF**, the following parties have caused this Halifax County Solar LLC Decommissioning Plan to be executed and delivered by their duly authorized representatives.

**Halifax County Solar LLC**

\_\_\_\_\_  
Christopher Killenberg  
Special Manager

**Quentin Gregory, Jr., Revocable Trust, dated December 27, 2013**

*Anne H. Gregory*  
\_\_\_\_\_  
Anne H. Gregory  
Trustee

\_\_\_\_\_  
David J. Bradley  
Trustee

**Reginald H. Collins**

\_\_\_\_\_  
Reginald H. Collins  
Individual



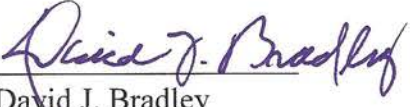
**IN WITNESS WHEREOF**, the following parties have caused this Halifax County Solar LLC Decommissioning Plan to be executed and delivered by their duly authorized representatives.

**Halifax County Solar LLC**

\_\_\_\_\_  
Christopher Killenberg  
Special Manager

**Quentin Gregory, Jr., Revocable Trust, dated December 27, 2013**

\_\_\_\_\_  
Anne H. Gregory  
Trustee

  
\_\_\_\_\_  
David J. Bradley  
Trustee

**Reginald H. Collins**

\_\_\_\_\_  
Reginald H. Collins  
Individual

**IN WITNESS WHEREOF**, the following parties have caused this Halifax County Solar LLC Decommissioning Plan to be executed and delivered by their duly authorized representatives.

**Halifax County Solar LLC**

\_\_\_\_\_  
Christopher Killenberg  
Special Manager

**Quentin Gregory, Jr., Revocable Trust, dated December 27, 2013**

\_\_\_\_\_  
Anne H. Gregory  
Trustee

\_\_\_\_\_  
David J. Bradley  
Trustee

**Reginald H. Collins**

*Reginald Collins*  
\_\_\_\_\_  
Reginald H. Collins  
Individual

STATE OF North Carolina )

) ss.

COUNTY OF Orange )

On the 13 day of August, 2019, before the undersigned, personally appeared Christopher Killenberg, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument, and acknowledged to me that he executed the same in his capacity as Special Manager of Halifax County Solar LLC.



Notary Public

My commission expires: 10-01-2020



STATE OF NC )

) ss.

COUNTY OF Durham )

On the 2 day of August, 2019, before the undersigned, personally appeared Anne H. Gregory, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument, and acknowledged to me that she executed the same in her capacity as Trustee of the Quentin Gregory, Jr., Revocable Trust, dated December 27, 2013.



Aaron H. Maye

Notary Public

My commission expires: 08/27/2021

STATE OF North Carolina )

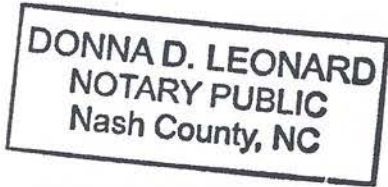
) ss.

COUNTY OF Nash )

On the 9<sup>th</sup> day of August, 2019, before the undersigned, personally appeared David J. Bradley, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument, and acknowledged to me that he executed the same in his capacity as Trustee of the Quentin Gregory, Jr., Revocable Trust, dated December 27, 2013.

Donna D. Leonard

Notary Public



My commission expires: 12-12-2022

STATE OF North Carolina )

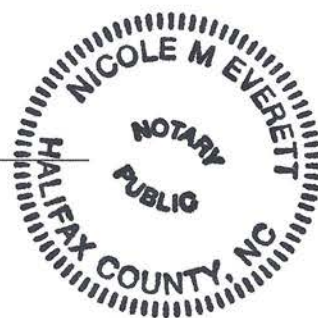
) ss.

COUNTY OF Halifax )

On the 17th day of August, 2019, before the undersigned, personally appeared Reginald H. Collins, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument, and acknowledged to me that he executed the same in his capacity an individual.

Nicole M. Everett

Notary Public

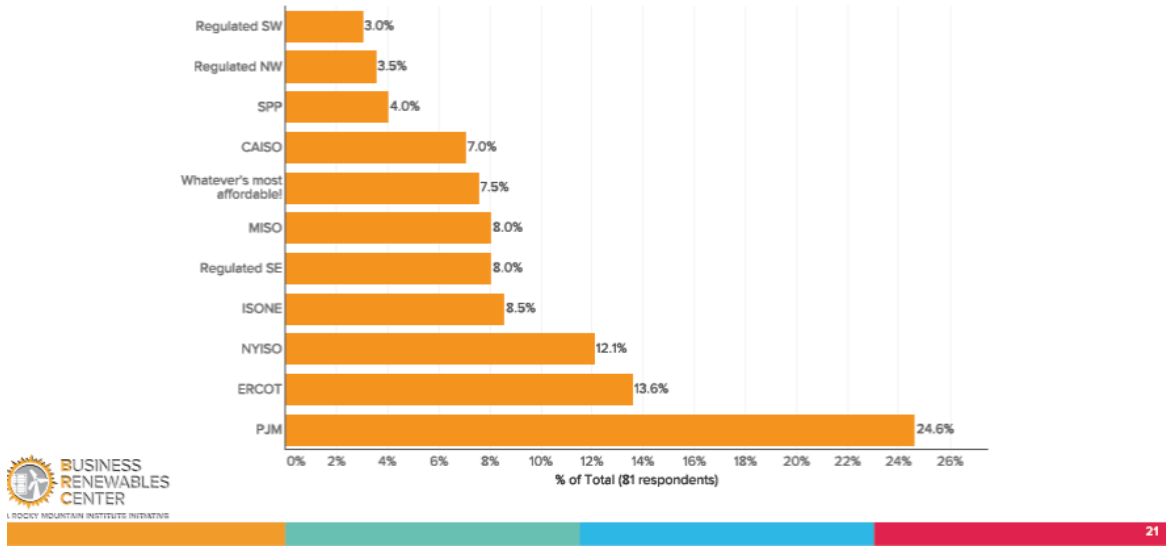


My commission expires: 12/11/2019

Schedule 8

Renewables Demand Projections

Buyers only: In the next year, what 3 regions are you most interested in procuring renewables?



Source: Business Renewables Center

**CERTIFICATE OF SERVICE**

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

*Christopher Ayers, Esq.*  
Executive Director - NC Public Staff  
[Chris.Ayers@psncuc.nc.gov](mailto:Chris.Ayers@psncuc.nc.gov)

Megan Jost  
NC Public Staff - Legal Division  
[megan.jost@psncuc.nc.gov](mailto:megan.jost@psncuc.nc.gov)

NC Public Staff- Legal Division  
4326 Mail Service Center  
Raleigh, NC 27599

This the 30th day of August, 2019.

A handwritten signature in blue ink that reads "Benjamin L. Snowden". The signature is written in a cursive style and is positioned above a horizontal line.

Benjamin L. Snowden