



OFFICIAL COPY

FILED
JAN 23 2015
Clerk's Office
N.C. Utilities Commission

January 21, 2015

VIA USPS 2-DAY DELIVERY

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

Amendment

Re: ~~Docket No. SP-3475 Sub O~~
Eden Solar, LLC *SP-5189, Sub O*

Dear Chief Clerk:

This letter and the enclosed document is notification of amendments to the CPCN for Eden Solar, LLC, fka Innovative Solar 34, LLC, under the docket number noted above.

The substantial amendments are as follows (and are noted in the enclosed document):

- 47.7 MW AC capacity
- E911 Address is now available (2252 Derby Road, Ellerbe, North Carolina, 28338)
- Contact person is now Veronika Gunter or Patty Mandaro at interconnect@flsenergy.com or 828.350.3993
- Mailing address is now 130 Roberts Street, Asheville, North Carolina, 28801
- Eden Solar, LLC is an affiliate of FLS Energy, Inc.

Thank you for your assistance, should you have any questions or need further information, please contact our office.

Sincerely,

Veronika Gunter
vgunter@flsenergy.com

Enclosures

828.350.3993
www.flsenergy.com

130 Roberts Street
Asheville, NC 28801

MAKING SOLAR MAINSTREAM

OFFICIAL COPY



FILED

JAN 23 2015

Clerk's Office
N.C. Utilities Commission

SP-5789, Sub 0

Eden Solar, LLC (formerly known as Innovative Solar 34, LLC) SP-3475, Sub 0
50 MW Solar Photovoltaic Project

Application for
Certificate of Public Convenience and Necessity
By a Qualifying Small Power Producer

As Administered by the
North Carolina Utilities Commission

January 8, 2015

Prepared for:

North Carolina Utilities Commission
Dobbs Building
430 N. Salisbury St. | Raleigh, NC 27603-5918

Prepared by:

FLS Energy, Inc., on behalf of its affiliate, Eden Solar, LLC

130 Roberts Street, Asheville NC 28801

interconnect@flsenergy.com 828.350.3993

TABLE OF CONTENTS

EXECUTIVE SUMMARY	3
APPLICATION REQUIREMENTS, PART 1	
1- I APPLICANT NAME AND CONTACT INFORMATION	4
1 - II APPLICANT INCORPORATION	4
1 -- III NATURE OF GENERATING FACILITY	5
1-- IV LOCATION OF GENERATING FACILITY	5
1--V SITE OWNERSHIP	5
1 - VI DESCRIPTION OF GENERATING FACILITY	6
1 -- VII MAXIMUM CAPACITY	6
1 -- VIII PROJECTED COST	6
1-- IX PROJECTED IN-SERVICE DATE	7
1-- X SALE OF ELECTRICITY	7
1 -- XI LICENSES, PERMITS, AND EXEMPTIONS	8
APPLICATION REQUIREMENTS, PART 2	
2 -- I EXPERIENCE AND EXPERTISE	9
2 -- II INVOLVEMENT OF REGULATED UTILITY	10
2 -- III STATEMENT FROM ELECTRIC UTILITY	10
2 -- IV BALANCE SHEET	11
2 -- V INCOME STATEMENT	11
2 -- VI ECONOMIC FEASIBILITY STUDY	11
2 - VII FINANCING ARRANGEMENTS	11
2 -- VIII MONTHLY OUTPUTS	12, 13
2 -- IX ENERGY INPUTS AND OUTPUTS	14
2 -- X FUEL SUPPLY ARRANGEMENTS	14
SIGNATURE PAGE	15
ATTACHMENTS	
A1. MAP OF PROJECT SITE	16
A2. PRELIMINARY SYSTEM LAYOUT	17
A3. ECONOMIC FEASIBILITY STUDY (PROJECT PRO FORMA)	18
A4. STATEMENT FROM ELECTRIC UTILITY	19

EXECUTIVE SUMMARY

On behalf of its affiliate **Eden Solar, LLC, FLS Energy, Inc.** is pleased to submit to the North Carolina Utilities Commission the enclosed Amended application for a Certificate of Public Convenience and Necessity on behalf of our solar project currently under development, **Eden Solar, LLC F/K/A Innovative Solar 34, LLC (All updates and amendments to the original filing are represented in bold throughout this filing).**

FLS Energy is a fully-integrated company that develops, constructs, owns and operates

Eden Solar will be a **47.7 MW AC** solar photovoltaic system located at **2252 Derby Rd., Ellerbe, NC 28338.** The system will be ground mounted and comprised of major system components considered "Tier 1" quality in the solar industry. This distinction is required by the institutional investment community who need for the manufacturers to be "bankable" with enough to service the warranties that accompany their products.

Eden Solar will be located on privately owned land that is currently under a long-term land lease which demonstrates site control. The lease agreement provides Eden Solar with the legal right to develop, construct, own, operate and maintain a solar energy system on the property for a base period of 20 years after the commencement of electrical generation. In addition, Eden Solar has two (2) five (5) year option periods available.

Eden Solar has already submitted a Self-Certification Filing to the Federal Energy Regulatory Commission (FERC). Eden Solar will obtain Qualifying Facility (QF) certification through FERC as recognized under the Public Utility Regulatory Policies Act of 1978 (PURPA). At such time, the facility will be eligible to sell energy production directly to Duke Energy.

Thank you for your time and consideration.

Should you have any questions, please contact **Veronika Gunter or Patty Mandaro at interconnect@flsenergy.com or by calling 828.350.3993.**

Eden Solar, LLC, an affiliate of FLS Energy, Inc.

PART 1

1- I APPLICANT NAME AND CONTACT INFORMATION

The full and correct name, business address and business telephone number of the applicant.

Applicant: Eden Solar, LLC, a limited liability company formed August 14, 2014 with its Manager being FLS Energy, Inc.

Office Address: 130 Roberts Street, Asheville NC 28801

Mailing Address: same

Office Phone: (828) 350-3993

Email Address: interconnect@flsenergy.com

1-- II APPLICANT INCORPORATION

A statement of whether the applicant is an individual, a partnership, or a corporation and, if a partnership, the name and business address of each general partner and, if a corporation, the state and date of incorporation and the name and business address of an individual duly authorized to act as corporate agent for the purpose of the application and, if a foreign corporation, whether domesticated in North Carolina.

Eden Solar, LLC is a North Carolina Limited Liability Company with the business address: **130 Roberts Street, Asheville NC 28801. The company was organized in the State of North Carolina on August 14, 2014.**

The Applicant is a single purpose vehicle (SPV) limited liability company with its **Manager being FLS Energy, Inc. a North Carolina corporation. The address for FLS Energy, Inc. and the Applicant is the same.**

The members and officers of FLS Energy, Inc. are as follows:

Dale Freudenberger, CEO

Eden Solar, LLC, an affiliate of FLS Energy, Inc.

1— III NATURE OF GENERATING FACILITY

The nature of the generating facility, including the type and source of its power or fuel.

The applying facility is a ground mounted solar photovoltaic (PV) facility. The photovoltaic modules absorb sunlight and convert it into direct current electricity, which is then converted to alternating current through on-site solar inverters. **The nameplate of the facility will be 47.70 MW AC.**

1— IV LOCATION OF GENERATING FACILITY

The location of the generating facility set forth in terms of local highways, streets, rivers, streams, or other generally known local landmarks together with a map, such as a county road map, with the location indicated on the map.

Eden Solar is located at 2252 Derby Rd., Ellerbe, NC 28338.

Please see the attachments at the end of this application package for maps providing further clarity on the location of the generating facility:

Attachment 1: Map of the property where the project will be sited

Attachment 2: Preliminary System Layout of the solar project

1— V SITE OWNERSHIP

The ownership of the site and, if the owner is other than the applicant, the applicant's interest in the site.

The applying facility is located on a site owned by Robert L. Currie, Jr., William O. Currie, John A. Currie and Nancy Elizabeth C. Pittman. The landowner's mailing address is Robert L. Currie, Jr. at 1311 W. Fifth Street, Lumberton, NC 28358. The applicant has secured a long-term land lease with a base period of 20 years with two (2) five year option periods.

1— VI DESCRIPTION OF GENERATING FACILITY

A description of the buildings, structures and equipment comprising the generating facility and the manner of its operation.

The facility will consist of approximately 200,000 solar photovoltaic modules on an aluminum or steel racking structure. The facility will have a nameplate capacity of 47.70 MW AC. The entire site area will be approximately 243 acres, which will be surrounded by a 6-foot high chain link fence with barbed wire on the top for security and safety purposes. The racking system will be approximately 12 feet off the ground at its tallest point and it will tilt the modules at approximately a 30-degree tilt. Depending on the final system design, the racking system may rotate to efficiently track the solar energy. The modules will be certified by UL 1703 or another comparable UL rating and comply with IEC 61215 and 61730 or other comparable IEC Codes.

Each of the fifty concrete pads will hold a 1,000 kW inverter and switchgear. All inverters will be certified by UL 1741 or another comparable UL rating and comply with IEEE 1547 and NEC 690 or other comparable Codes. The approximate dimensions for each pad are 40' x 20' x 10" thick. Therefore, the maximum height of the pad plus the inverter will not likely exceed 15' above the ground. The point of Common Coupling with the grid will include the appropriate switchgear, which will be determined during the Interconnection Facilities Study with Duke Energy.

The facility will produce power during daylight hours all year. The system will be producing its maximum power in the summer months when the grid load is at its peak. The facility will have minimal audio and aesthetic impact on the surrounding area due to the design of the system and the nature of solar photovoltaic technology.

1— VII MAXIMUM CAPACITY

The projected maximum dependable capacity of the facility in megawatts. The applying facility is sized at 47.70 MW AC.

1— VIII PROJECTED COST

The projected cost of the facility.

The applying facility is estimated to cost \$90,000,000. A comprehensive pro forma is enclosed.

1— IX PROJECTED IN-SERVICE DATE

The Eden Solar project is estimated to have a commercial operation date of November 1, 2015. The facility will reach substantial completion by October 1, 2015.

1— X SALE OF ELECTRICITY

The applicant's general plan for sale of the electricity to be generated, including the utility to which the applicant plans to sell the electricity; any provision for wheeling of the electricity; arrangements for firm, non-firm or emergency generation; the service life of the project; and the projected annual sales in kilowatt-hours.

The Eden Solar project will be interconnecting to Duke Energy at the transmission level and selling electricity via a 15 year Power Purchase Agreement to Duke Energy with the Qualified Facilities Tariff. The service life of the facility will be at least 25 years. Actual productive life for the facility will be more than 30 years. However, Eden Solar uses the manufacturer's warranty for solar modules as a conservative estimate for service life. The solar modules selected for this project include a 25-year manufacturer's warranty.

Forecasted annual sales for the facility are 82,683,127 kilowatt-hours in Year 1, with an expected 0.5% reduction in sales each year thereafter, as per the standard expected long-term degradation of photovoltaic systems.

The project does intend to produce Renewable Energy Credits (REC's) pursuant to the State's renewable energy and energy efficiency portfolio standard. The project will utilize NC-RETS (Renewable Energy Tracking System).

STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

DOCKET NO. SP-3475, SUB 0

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of
Application by Innovative Solar 34, LLC,) ORDER ISSUING CERTIFICATE
for a Certificate of Public Convenience and) AND ACCEPTING
Necessity to Construct a 50-MW Solar) REGISTRATION OF NEW
Facility in Richmond County, North Carolina,) RENEWABLE ENERGY
and Registration Statement) FACILITY

BY THE COMMISSION: On April 23, 2014, Innovative Solar 34, LLC (Applicant), filed an application with the Commission seeking a certificate of public convenience and necessity pursuant to G.S. 62-110.1 for construction of a 50-MW_{AC} solar photovoltaic electric generating facility to be located at the intersection of Currie Road and Derby Road in Jackson Springs, Richmond County, North Carolina. The Applicant plans to sell the electricity generated by this facility to Duke Energy Progress, Inc. (DEP).

Contemporaneously with the application, the Applicant filed a registration statement for a new renewable energy facility. The registration statement included certified attestations that (1) the facility is in substantial compliance with all federal and state laws, regulations, and rules for the protection of the environment and conservation of natural resources; (2) the facility will be operated as a new renewable energy facility; (3) the Applicant will not remarket or otherwise resell any renewable energy certificates (RECs) sold to an electric power supplier to comply with G.S. 62-133.8; and (4) the Applicant will consent to the auditing of its books and records by the Public Staff insofar as those records relate to transactions with North Carolina electric power suppliers.

On April 30, 2014, the Commission issued an Order Requiring Publication of Notice, which required the Applicant to (1) publish notice of the application as required by G.S. 62-82(a) and file an affidavit of publication with the Commission, (2) mail a copy of the application and notice, no later than the first date that such notice is published, to the electric utility to which the Applicant plans to sell and distribute the electricity, and (3) file a certificate of service of the mailing to the utility. The Order also specified that if a complaint was received within 10 days after the last date of the publication of the notice, the Commission would schedule a public hearing to determine whether a certificate of public convenience and necessity should be awarded. The Order further specified that if the Commission received no complaints within the time specified above and if the Commission did not order a hearing upon its own initiative, it would enter an order awarding the certificate.

On May 26, 2014, the Applicant filed a certificate of service stating that a copy of the application and the related public notice were provided to DEP.

On June 5, 2014, the State Clearinghouse filed comments. Because of the nature of the comments, the cover letter indicated that no further State Clearinghouse review action by the Commission was required for compliance with the North Carolina Environmental Policy Act.

On June 30, 2014, the Applicant filed an affidavit of publication from The Richmond County Daily Journal stating that the publication of notice was completed on June 20, 2014. No complaints have been received.

The Public Staff presented this matter to the Commission at its Regular Staff Conference on August 4, 2014. The Public Staff recommended that the Commission approve the application, issue the requested certificate, and accept the registration statement.

After careful consideration, the Commission finds good cause to approve the application and issue the attached certificate of public convenience and necessity for the proposed solar photovoltaic electric generating facility. The Commission further finds good cause, based upon the foregoing and the entire record in this proceeding, to accept registration of the facility as a new renewable energy facility. The Applicant should annually file the information required by Commission Rule R8-66 on or before April 1 of each year and will be required to participate in the NC-RETS REC tracking system (<http://www.ncrets.org>) in order to facilitate the issuance of RECs.

IT IS, THEREFORE, ORDERED as follows:

1. That the application filed by Innovative Solar 34, LLC, for a certificate of public convenience and necessity shall be, and is hereby, approved.
2. That Appendix A shall constitute the certificate of public convenience and necessity issued to Innovative Solar 34, LLC, for the 50-MW_{AC} solar photovoltaic electric generating facility located at the intersection of Currie Road and Derby Road in Jackson Springs, Richmond County, North Carolina.
3. That the registration statement filed by Innovative Solar 34, LLC, for its solar photovoltaic facility located in Richmond County, North Carolina, as a new renewable energy facility shall be, and is hereby, accepted.

4. That Innovative Solar 34, LLC, annually file the information required by Commission Rule R8-66 on or before April 1 of each year.

ISSUED BY ORDER OF THE COMMISSION.

This the 6th day of August, 2014.

NORTH CAROLINA UTILITIES COMMISSION

Gail L. Mount

Gail L. Mount, Chief Clerk

Commissioner Jerry C. Dockham did not participate in this decision.

STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

DOCKET NO. SP-3475, SUB 0

Innovative Solar 34, LLC
171 Rolling Meadows Road
Fletcher, North Carolina 28732

is hereby issued this

CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY
PURSUANT TO G.S. 62-110.1

for a 50-MW_{AC} solar photovoltaic electric generating facility

located at

the intersection of Currie Road and Derby Road in Jackson Springs,
Richmond County, North Carolina,

subject to all orders, rules, regulations and conditions
as are now or may hereafter be lawfully made
by the North Carolina Utilities Commission.

ISSUED BY ORDER OF THE COMMISSION.

This the 6th day of August, 2014.

NORTH CAROLINA UTILITIES COMMISSION

Gail L. Mount

Gail L. Mount, Chief Clerk