

# Statement of Qualifications & Experience

April 2016



## COMMUNITY ENERGY SOLAR

### **Pennsylvania Headquarters:**

Three Radnor Corporate Center, Suite 300  
100 Matsonford Road, Radnor, PA 19087

### **Colorado Office:**

1120 Pearl Street, Suite 200  
Boulder, CO 80302

### **North Carolina Office:**

151 E. Rosemary Street, Suite 202  
Chapel Hill, NC 27514

[www.communityenergysolar.com](http://www.communityenergysolar.com)

484.654.1877

## TABLE OF CONTENTS

WWW.COMMUNITYENERGYSOLAR.COM 484.654.1877 .....	0
COMPANY DESCRIPTION: A VETERAN IN RENEWABLE ENERGY .....	2
RECOGNITION.....	3
STRATEGIC ADVANTAGE .....	3
WHY COMMUNITY ENERGY?.....	4
A BRIEF HISTORY OF WIND TO SOLAR DEVELOPMENT .....	5
<b>SELECTED SOLAR PROJECTS.....</b>	<b>6</b>
AMAZON SOLAR FARM US EAST – 105 MW (DC), ACCOMACK COUNTY, VA.....	7
KEYSTONE SOLAR – 6 MW (DC), LANCASTER COUNTY, PA .....	8
COMANCHE SOLAR – 156 MW (DC), PUEBLO, CO .....	9
BERKLEY EAST SOLAR – 3.88 MW (DC), BERKLEY, MA.....	10
BUTLER SOLAR – 130 MW (DC), BUTLER, GA .....	11
NORTH STAR SOLAR – 100 MW (AC), CHISAGO COUNTY, MN .....	12
NEW JERSEY SOLAR PORTFOLIO – 42 MW (DC).....	13
NORTH VINELAND SOLAR – 3 MW (DC), VINELAND, NJ.....	14
WEST VINELAND SOLAR – 4.8 MW (DC), VINELAND, NJ.....	15
NORTH CAROLINA SOLAR PORTFOLIO – 73 MW (DC) .....	16
DUNN SOLAR – 2.5 MW (DC), DUNN, NC .....	17
ROSE HILL SOLAR – 2.5 MW (DC), ROSE HILL, NC .....	18
FRANKLIN SOLAR – 2.5 MW (DC), LOUISBURG, NC .....	19
LAKE COUNTY SOLAR – 2.7 MW (DC), EAST CHICAGO, IN .....	20
LAKE COUNTY SOLAR – 2.7 MW (DC), GRIFFITH, IN .....	21
MARION COUNTY SOLAR – 7.1 MW (DC), INDIANAPOLIS, IN .....	22
<b>SELECTED COMMUNITY STYLE SOLAR PROJECTS.....</b>	<b>23</b>
LAFAYETTE SOLAR GARDENS – 1 MW (DC), LAFAYETTE, CO .....	24
ANTONITO SOLAR GARDEN – 500 kW (DC), ANTONITO, CO.....	25
STERLING SOLAR – 2.5 MW (DC), STERLING, MA.....	26
CLARKSON SOLAR – 2.5 MW (DC), POTSDAM, NY .....	27
ELIZABETHTOWN COLLEGE SOLAR – 2.6 MW (DC), ELIZABETHTOWN, PA .....	28
TEMPLE UNIVERSITY SOLAR – 63 kW (DC), PHILADELPHIA, PA.....	29
EASTERN UNIVERSITY SOLAR – 56 kW (DC), DELAWARE COUNTY, PA .....	30
SMITH COLLEGE SOLAR – 28 kW (DC), NORTHAMPTON, MA.....	31
<b>OUR TEAM.....</b>	<b>32</b>
<b>APPENDIX.....</b>	<b>40</b>
CONSTRUCTED WIND PROJECTS.....	41
AMAZON SOLAR FARM US EAST: PRESS RELEASE .....	42
COMANCHE SOLAR: PRESS RELEASE.....	44
BUTLER SOLAR: PRESS RELEASE.....	46
SOLAR INDUSTRY MAGAZINE: STERLING SOLAR .....	48

### ***Company Description: A Veteran in Renewable Energy***

Community Energy Solar (CES) is the solar development division of Community Energy Holdings, Inc. (“Community Energy” or “the Company”). We develop large scale solar energy projects in the East, Midwest, and Mountain states. To date, we have developed some 70 utility-scale solar projects across many states, including: New Jersey, Indiana, Illinois, Massachusetts, Colorado, North Carolina, Pennsylvania, Maryland, Minnesota, Georgia, Utah, Virginia, and New York.



### ***Typical Projects***

Most projects fit in a 2 to 12 megawatts (MW) range with total projects built or under construction totaling nearly 700 MW.

### **Several large-scale projects are in construction:**

- Our **Comanche Solar** project in Colorado, a 156 MW (DC) facility, will be the largest solar project east of the Rockies when completed in summer 2016.
- In addition, both the 130 MW (DC) **Butler Solar** project in Georgia and our 105 MW (DC) **Amazon Solar Farm US East** in Accomack County, Virginia are in construction for completion by the end of 2016.
- The Minnesota Public Utilities Commission has approved our 100 MW (AC) **North Star Solar** project to provide power to Xcel Energy in 2017.

Community Energy also has many quality projects in New Jersey and will have dozens of projects in North Carolina by the end of 2016. Our pipeline exceeds 1,000 MW of projects in development, secured by land and interconnection rights across 15 states.

Built projects cover the broad range of solar site development from green fields to brownfields, ground mounted to roof top, urban and rural, accommodating endangered species and agricultural preservation. Our offtake customers include major electric utilities, municipal governments, colleges and universities, commercial institutions, and grid based open markets.

The Company is always working towards the higher business goal of addressing climate change. Community Energy has a special comfort zone in creating projects that contribute at a meaningful scale. On one hand, we develop some of the largest utility-scale projects that feed directly into the power grid. And on the other hand, a focused effort on building and operating smaller scale “Community Style” projects that are supported by hundreds of residential customers and businesses that choose solar energy. [\*\(See Community Style Solar Section starting on page 23.\)\*](#)



Community Energy has a unique and proven development approach that effectively addresses permitting, market, regulatory and financial barriers to consistently deliver projects at scale in the U.S. We have years of experience in tax equity and project finance, having developed the first third-party tax-equity financed wind projects in Pennsylvania and New Jersey. We continued to build out projects under tax-finance structures, with the non-US acquirer of our wind projects. We employ innovative utility offtake agreements, renewable energy credit (REC) marketing programs, new financing structures, development expertise, and public and regulatory policy participation. Community Energy is the leading and most experienced independent U.S. solar project developer.

### **Recognition**

Our efforts and “do it right the first time” culture have been well recognized.

- The 6 MW Keystone Solar project in the fabled farm land of Lancaster County, Pennsylvania was awarded one of only 3 PV America 2013 Distinguished Project awards from a national field of 130 submittals.
- The Keystone Solar project was the lead article in the June 2014 issue of enerG magazine and the subject of the only business school case study of utility-scale solar by Columbia University.
- Our Sterling Solar project in Massachusetts was on the cover of Solar Industry magazine.

### **Strategic Advantage**



The other operating divisions of Community Energy include Community Energy Wind, LLC (CE Wind) and Community Energy, Inc. (CEI).

**CE Wind** has developed over 700 MW of operating wind projects. Many of the same electric utilities that purchase our wind production also purchase our solar production. The same is true for the sources of capital that are now financing our solar projects.

These long term relationships are critical not only to power purchase and finance, but to navigating the highly complex process of interconnecting power to the grid and delivering it to market.

**CEI** is our retail energy marketing division that supplies 100,000 customers with clean energy, including some 50 colleges and universities. We are the only developer with such an advantage.

Community Energy is a veteran in the relatively new renewable energy generation space. With over \$2 billion in capital deployed, our geographic footprint covers a number of states, including: New Jersey,

Indiana, Illinois, Colorado, Arizona, New Mexico, North Carolina, Pennsylvania, New Hampshire, Iowa, Massachusetts, New York, Virginia, Maryland, Arizona, Missouri, Georgia, Minnesota, New Mexico, Utah, and Puerto Rico.

### ***Why Community Energy?***

- The veteran's advantage
- Only developer with a retail market capability to make a project whole
- Independent, technology agnostic produces the best results
- Market understanding and short chain of command

***The veteran's advantage.*** The principals of CES have been with the organization from the beginning. Of course know-how is important, but in development, access to decision makers trust based on performance, and familiarity with staff and procedures make a huge difference. This applies to securing power purchase agreements, navigating grid/utility interconnection rules, securing equipment, or capital to finance. Community Energy's deep partner relationships with the larger and best purchasers of power (and sources of finance) are a key asset in project development. Anyone can start a project; as a veteran, we complete projects. Few can match our veteran line up of principals and senior developers. They are backed by a staff of 40 with in-house expertise in engineering, environment, law, energy off-take and finance.

***Only developer with a retail market capability to make a project whole.*** Our retail marketing division supplies 100,000 customers with clean energy. We are the only developer with such a capability. When the Keystone Solar project was short of power purchase, we were able to go to our retail markets, including our historic base of 50 colleges and universities, to secure a number of voluntary purchase agreements that pushed the project into viability. It allows us to deliver maximum value for a project and to complete projects that would otherwise fall short.

***Independent and technology agnostic produces the best results.*** Our independence allows us to bid into the equipment market, contract with the best value construction firms, and secure the least expensive available capital.

***Market understanding and short chain of command.*** We constantly monitor emerging policy, tax incentives, equipment trends and capital sources. A short chain of command allows us to move fast to take advantage of changing market conditions.



**Jersey-Atlantic Wind Farm, NJ**

### ***A Brief History of Wind to Solar Development***

Community Energy is a market-leading renewable energy development and marketing company with over 15 years of experience and success in project development. Founded in 1999, by principals Brent Alderfer and Eric Blank, Community Energy led the development, finance, and construction of more than 450 MW of wind projects in Illinois, Missouri, New Hampshire, New Jersey and Pennsylvania.

In 2006, the wind development company was successfully acquired by Iberdrola, the Spanish utility and largest renewable energy owner in the world. Community Energy was the company's first footprint in North America that has since expanded to well over 10,000 employees. Over the next three years the



team worked for Iberdrola as it built U.S. renewable assets of approximately \$3 billion through mid-2009.

In 2009, Community Energy's original development team launched into solar development; continuing on with our proven development and market-based approach. Under the mutually agreeable spin-out, the Company retained the well-recognized Community Energy brand and built on the credibility of the proven development team, together for almost 10 years. The Company has no non-compete restrictions nor

continuing performance or service obligations from its past transactions and is well regarded in the industry for its quality development practices and track record. Community Energy is headquartered in Radnor, Pennsylvania and has 40 full-time personnel.

### ***Community Energy Online/Social Media***



**Community Energy Inc.**  
[www.communityenergyinc.com](http://www.communityenergyinc.com)



**Community Energy Solar**  
[www.communityenergysolar.com](http://www.communityenergysolar.com)



**Twitter**  
[www.twitter.com/commenergyinc](http://www.twitter.com/commenergyinc)



**Facebook**  
[www.facebook.com/communityenergy](http://www.facebook.com/communityenergy)



**YouTube**  
[www.youtube.com/user/communityenergyinc](http://www.youtube.com/user/communityenergyinc)



## Selected Solar Projects



*The Philadelphia Phillies Phanatic in attendance at the Keystone Solar “Turn the Power On” event on October 2012 in Lancaster County, PA.*

***Amazon Solar Farm US East – 105 MW (DC), Accomack County, VA***



**Distinguishing Features**

- *A cluster of projects across roughly 1,000 acres in the vicinity of the Oak Hall substation*
- *Will generate 171,000 Megawatt-hours of electricity per year – enough to power 15,000 homes*
- *Energy purchased by Amazon Web Services for data centers in Northern Virginia*
- *Acquired by Dominion Energy, Inc., a subsidiary of Dominion (NYSE: D) in 2015*

Amazon Solar Farm US East is a solar project on the Delmarva Peninsula in Accomack County, Virginia that will supply Amazon Web Services data centers in Virginia under a long-term Power Purchase Agreement. Community Energy Solar chose the Delmarva Peninsula for the project site because it offers excellent solar resource and flat land ideal for constructing a solar project of this size. In addition, Community Energy Solar is utilizing single-axis tracker technology, which follows the sun's path providing high peak production.

Community Energy Solar will include an educational "Solar Walk" designed for school children and the public to visit. Amazon Solar Farm US East was approved for a Conditional Use Permit by a unanimous vote from the Accomack County Board of Supervisors. This was the first project ever approved under the Virginia Permit by Rule for Renewable Energy.

The June 2015 press release covering the announcement of Amazon Solar Farm US East is included in the appendix.

*Construction for this project is underway and expected to be complete in 2016.*



### ***Keystone Solar – 6 MW (DC), Lancaster County, PA***



#### **Distinguishing Features**

- *Winner of the PV America 2013 Project of Distinction Award*
- *Largest customer-driven utility scale solar project in PA*
- *Enabled by voluntary SREC retail buyers*
- *Attracted significant public grant support*
- *Subject of Columbia University Business School case study*

Keystone Solar is the largest customer driven utility-scale solar project in PA. Exelon Generation and Community Energy's retail marketing division committed to buy the output and back the financing for the project, which supplies the highest-quality green electricity – local solar power – to customers who sign up for a share of the generation. Several high-profile customers signed up for a share of the renewable energy credits, including Drexel University, Franklin & Marshall College, Eastern University, Clean Air Council, the Philadelphia Phillies, Millersville University, Marywood University and Juniata College.

The project was the recipient of the PV America East 2013 Project of Distinction Award. This is a national award that recognizes major achievements in the U.S. solar market. Keystone Solar was one of three projects selected out of more than 130 submitted. Columbia University School of Business produced a business case study on the project, the first case study in the U.S. on a utility-scale solar project.

*Keystone Solar has been online since 2012.*

### *Comanche Solar – 156 MW (DC), Pueblo, CO*



*Fly over of Comanche Solar construction progress. Scheduled for completion in 2016.*

*PHOTO CREDIT: Comanche Solar Aerial Image from SunEdison*

#### **Distinguishing Features**

- *Upon completion it will be the largest solar project east of the Rockies at 156 MW (DC)*
- *Project generation will be enough to power more than 31,000 homes*
- *6 billion kilowatt hours of clean energy generated and 3.5 million tons of CO<sub>2</sub> reduction over 25 year lifecycle*

The Comanche Solar project was selected by Xcel Energy through a competitive bid process to supply the majority of its solar generation portfolio. The project was found to be more cost effective than natural gas on a dollar per megawatt hour basis.

The March 2014 press release covering the announcement of Comanche Solar is included in the appendix.

*Construction is currently underway and the project is scheduled to go online in June 2016.*

***Berkley East Solar – 3.88 MW (DC), Berkley, MA***



**Distinguishing Features**

- *Endangered Species Habitat Plan*
- *Supplies energy to Taunton Municipal Lighting Plant, the largest municipal utility in MA*
- *Payment in Lieu of Taxes (PILOT) - Annual payments to Town of Berkley*

Berkley East Solar, located in the Town of Berkley, Massachusetts, is a 3.88 Megawatt (DC) photovoltaic solar project. The total generation of the project is purchased by the Taunton Municipal Lighting Plant (TMLP) through a long term power purchase agreement. TMLP, the state's largest municipal utility, will pass along the economic benefits of purchasing competitively priced solar energy to its 36,000 customers. The project also provides annual revenue to the Town of Berkley through a payment in lieu of taxes (PILOT) agreement and to landowners through lease payments; all without any additional burden to the local infrastructure.

Community Energy Solar worked closely with the Massachusetts Division of Fisheries and Wildlife to develop and install special habitat and protections for the Eastern Box Turtle, a Species of Special Concern under the Massachusetts Natural Heritage and Endangered Species Program. The turtle habitat is planted with a conservation grass seed mix native to New England and includes special nesting areas to promote reproduction.

*Berkley East Solar has been online since September 2012.*



***Butler Solar – 130 MW (DC), Butler, GA***



**Distinguishing Features**

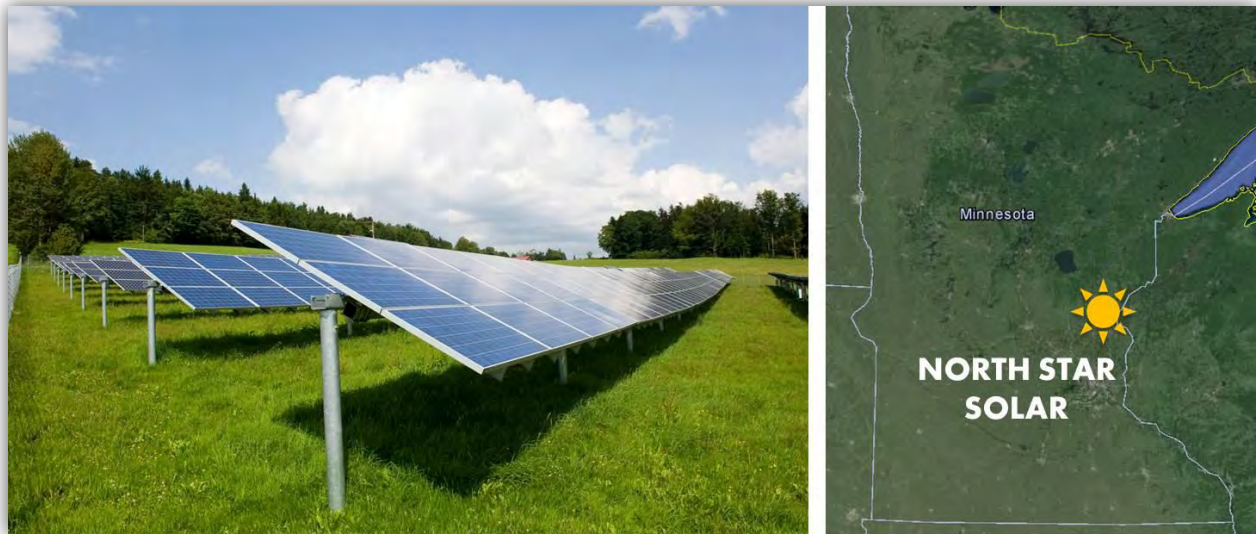
- *At 130 MW (DC) the project will be built on approximately 1,050 acres of land and will deliver enough energy to power more than 25,000 homes*
- *Originated through a competitive bid process announced by Georgia Power*
- *Employs tracker technology, which follows the sun's path to optimize production*
- *Purchased in 2015 by Southern Power, subsidiary of Southern Company (NYSE: SO)*

The Butler Solar project was selected by Georgia Power through a competitive bid process. The utility determined that the project was competitive and cost effective and decided to include it in its 2015 energy portfolio.

The June 2015 press release covering the announcement of Butler Solar is included in the appendix.

*Butler Solar is scheduled to come online in 2016.*

***North Star Solar – 100 MW (AC), Chisago County, MN***



**Distinguishing Features**

- *Selected by Northern States Power (Xcel Energy), through a competitive bid process as one of the most cost effective solar projects in Minnesota*
- *Utilizes linear tracking technology to maximize energy production, particularly during summer afternoons when electricity demand is highest*

The 100 MW (AC) North Star Solar Project is located in Chisago County, Minnesota – approximately four miles southeast of North Branch, MN. The project will connect to the grid at the Chisago Substation, a point of significant transmission infrastructure and strong electrical ties to Xcel Energy load. The North Star Solar Project provides Xcel Energy with a cost-effective and efficient solution to meeting their 1.5 percent solar energy requirement in Minnesota. The Project has been approved by the Minnesota Public Utilities Commission and construction is expected in 2016. Upon completion, the North Star Solar Project will be the largest solar energy facility in the Midwest, producing enough energy to power approximately 20,000 homes.

*North Star Solar is expected to achieve commercial operation in 2017.*

### ***New Jersey Solar Portfolio – 42 MW (DC)***



#### **Portfolio Overview**

- *7 NJ Solar projects totaling 42 MW have been developed through the state's three major utilities (PSE&G, JCP&L and ACE)*
- *Low mow turf-grass reduces storm water and improves organic content for future agricultural use*
- *The projects are designed to respect the agricultural character of the community*
- *A 200-Year old oak tree was saved at one of the projects*
- *The New Jersey Board of Public Utilities approved these projects under Subsection Q of the 2012 NJ Solar Act*
- *Construction is complete for 5 of 7 of projects with the remaining 2 projects under construction and expecting completion in 2016*



***North Vineland Solar – 3 MW (DC), Vineland, NJ***



**Distinguishing Features**

- *Supplies energy to the Vineland Municipal Electric Utility (VMEU)*
- *Early project in NJ SREC Program*

Community Energy Solar developed and arranged for the construction of the 3 MW (DC) North Vineland Solar facility in conjunction with Vineland Municipal Electric Utility (VMEU) and Constellation Energy Group. The energy is sold to the VMEU through a 25 year power purchase agreement.

*North Vineland Solar has been online since 2011.*

***West Vineland Solar – 4.8 MW (DC), Vineland, NJ***



**Distinguishing Features**

- *Project sited at the Landis Sewage Authority and integrated into operations*
- *Supplies energy to the Vineland Municipal Electric Utility (VMEU)*
- *Early project in NJ SREC Program*

Community Energy developed and arranged for the construction of the 4.8 MW (DC) West Vineland Solar facility in conjunction with Vineland Municipal Electric Utility (VMEU) and Constellation Energy Group. The energy is sold to the VMEU through a 25 year power purchase agreement.

*West Vineland Solar has been online since 2011.*



### ***North Carolina Solar Portfolio – 73 MW (DC)***



#### **Portfolio Overview**

- *73 Megawatts (DC) currently online in Progress Energy and Dominion Power utility territories*
- *An additional 42 Megawatts (DC) is under construction and scheduled to come online in mid-2016*
- *Construction is scheduled to commence on another 47 Megawatts (DC) in middle-to-late 2016*
- *Individual projects are in the 2.5 MW to 6.25 MW range*

Community Energy has successfully developed a sizable solar portfolio in North Carolina. Projects are grid-connected into the Progress Energy Carolinas and Dominion North Carolina Power service territories.

North Carolina provides a favorable environment for solar energy development through a 35% state investment tax credit on the eligible costs of the project, which is in addition to the federal investment tax credit. In addition, a large portion of the solar facility value is exempt from personal property tax.



***Dunn Solar – 2.5 MW (DC), Dunn, NC***



**Distinguishing Features**

- *High profile project adjacent to I-95, where 49,000 cars pass every day*
- *Offtake under guaranteed Progress Energy Carolinas standard offer Feed-In-Tariff*
- *Financial structure to take advantage of 35% state investment tax credit in addition to the 30% federal investment tax credit*

Dunn Solar is a 2.5 MW (DC) solar project located in Dunn, North Carolina. The electricity generated from the solar arrays is purchased by Progress Energy Carolinas through a standard contract power purchase agreement. This agreement provides guaranteed offtake for the power and a fixed across-the-board energy rate for solar power. This eliminates the competitive bid process from the equation and minimizes the economic uncertainty related to renewable energy development.

North Carolina provides a favorable environment for solar energy development through a 35% state investment tax credit on the eligible costs of the project, which is in addition to the federal investment tax credit. In addition, a large portion of the solar facility value is exempt from personal property tax.

*Dunn Solar has been online since August 2012.*

***Rose Hill Solar – 2.5 MW (DC), Rose Hill, NC***



**Distinguishing Features**

- *Features solar modules manufactured by Suniva Inc., a U.S. manufacturer based in Georgia*
- *Developed in an unincorporated area of NC with expedited site development process*
- *Offtake under guaranteed Progress Energy Carolinas standard offer Feed-In-Tariff*
- *Financial structure to take advantage of 35% state investment tax credit in addition to the 30% federal investment tax credit*

Rose Hill Solar is a 2.5 MW (DC) solar project located in Rose Hill, North Carolina. The electricity generated from the solar array is purchased by Progress Energy Carolinas through a standard contract power purchase agreement. This agreement provides guaranteed offtake for the power and a fixed across-the-board energy rate for solar power. This eliminates the competitive bid process from the equation and minimizes the economic uncertainty related to renewable energy development.

*Rose Hill Solar has been online since August 2012.*

### ***Franklin Solar – 2.5 MW (DC), Louisburg, NC***



#### **Distinguishing Features**

- *Design compatible with neighboring elementary school*
- *Offtake under guaranteed Progress Energy Carolinas standard offer Feed-In-Tariff*
- *Financial structure to take advantage of 35% state investment tax credit in addition to the 30% federal investment tax credit*

Franklin Solar is a 2.5 MW (DC) solar project located in Louisburg, North Carolina. The electricity generated from the solar array is purchased by Progress Energy Carolinas through a standard contract power purchase agreement. This agreement provides guaranteed offtake for the power and a fixed across-the-board energy rate for solar power. This eliminates the competitive bid process from the equation and minimizes the economic uncertainty related to renewable energy development.

North Carolina provides a favorable environment for solar energy development through a 35% state investment tax credit on the eligible costs of the project, which is in addition to the federal investment tax credit. In addition, a large portion of the solar facility value is exempt from personal property tax.

*Franklin Solar has been online since April 2013.*



### ***Lake County Solar – 2.7 MW (DC), East Chicago, IN***



#### **Distinguishing Features**

- *Developed under national account with a major pipeline company*
- *Ballasted technology*
- *Power production secured by a guaranteed Feed-In-Tariff (FIT) with Northern Indiana Public Service Company (NIPSCO)*

The 2.7 MW (DC) Lake County Solar East Chicago Project is located on an industrial site in Northern Indiana which is owned and operated by Buckeye Partners, L.P., a leading national energy pipeline and storage company. The array is interconnected into the Northern Indiana Public Service Company (NIPSCO) grid in East Chicago, Illinois. Lake County Solar is enabled by a feed-in-tariff, or guaranteed long term standard offer contract, offered by NIPSCO. Community Energy and Buckeye have entered into such an agreement, which establishes NIPSCO as the both the power purchaser and SREC off-taker.

The project site is located on industrial land. Land that was previously underutilized has now been redeveloped to support the production of clean renewable energy. It is expected to produce approximately 3,120 Megawatt hours annually, avoiding 2,615 tons of carbon dioxide emissions each year and the equivalent of removing over 7,410 cars from Indiana's roads over the 15-year term of the power purchase agreement.

*Lake County Solar (East Chicago, IN) has been online since August 2013.*

### *Lake County Solar – 2.7 MW (DC), Griffith, IN*



#### **Distinguishing Features**

- *Safety analysis and plan integrated with pipeline operations*
- *Ballasted technology*
- *Power production secured by a guaranteed Feed-In-Tariff (FIT) with Northern Indiana Public Service Company (NIPSCO)*

The 2.7 MW (DC) Lake County Solar Griffith Project is located on an industrial site in Northern Indiana which is owned and operated by Buckeye Partners, L.P., a leading national energy pipeline and storage company. The array is interconnected into the Northern Indiana Public Service Company (NIPSCO) grid in the town of Griffith, Indiana. Lake County Solar is enabled by a feed-in-tariff, or guaranteed long term standard offer contract, offered by NIPSCO. Community Energy and Buckeye have entered into such an agreement, which establishes NIPSCO as the both the power purchaser and SREC off-taker.

The project site is located on industrial land. Land that was previously underutilized has now been redeveloped to support the production of clean renewable energy. It is expected to produce approximately 3,120 Megawatt hours annually, avoiding 2,615 tons of carbon dioxide emissions each year and the equivalent of removing over 7,410 cars from Indiana's roads over the 15-year term of the power purchase agreement.

*Lake County Solar (Griffith, IN) has been online since August 2013.*



### ***Marion County Solar – 7.1 MW (DC), Indianapolis, IN***



#### **Distinguishing Features**

- Consists of two separate sites hosted by Citizens Energy Group:
  - 1.9 MW (DC) next to the Citizens Liquid Natural Gas plant
  - 5.2 MW (DC) Belmont site
- The projects utilize ballasted fixed tilt arrays with near zero soil penetration
- The power is sold into the Indiana Power and Light electric grid

The 7.1 MW (DC) Marion County Solar project consists of two sites, the 1.9 MW Citizens Liquid Natural Gas site and the 5.2 MW Belmont site. Citizens Energy Group, a public charitable trust that distributes natural gas, water, and wastewater services to more than 300,000 customers, hosts the sites. Community Energy has a power purchase agreement with Citizens Energy and Indiana Power & Light.

*Marion County Solar has been online since 2015.*



## Selected Community Style Solar Projects



### ***Lafayette Solar Gardens – 1 MW (DC), Lafayette, CO***



#### **Distinguishing Features**

- *One of the first community solar models in the U.S.*
- *Part of Xcel Energy's performance based Solar\*Rewards Community Program*
- *In-house design and finance*

The Lafayette Solar Gardens consist of two 500 kilowatt solar arrays located in Lafayette, Colorado. These projects were the result of a cooperative effort between Community Energy and the City of Lafayette. Within this program, Xcel Energy purchases the total generated output of the facility as well as the renewable energy credits.

Lafayette Solar is unique in that the capacity of the project is allocated to off-site participants. These participants are assigned a portion of the project based on their electricity usage and receive a monthly bill credit from Xcel related to the performance of the system. Off-site participants include several City of Lafayette facilities, local businesses, and individual households. A portion of the project is designated to low-income residents who will receive the outputted energy at no cost. The 1 Megawatt solar gardens have produced \$1.2 million in energy improvements, which will result in a significant energy cost savings to the city.

*The Lafayette Solar Gardens have been online since December 2013.*

***Antonito Solar Garden – 500 kW (DC), Antonito, CO***



**Distinguishing Features**

- *Part of Xcel Energy’s performance based Solar\*Rewards Community Program*
- *In-house design and finance*

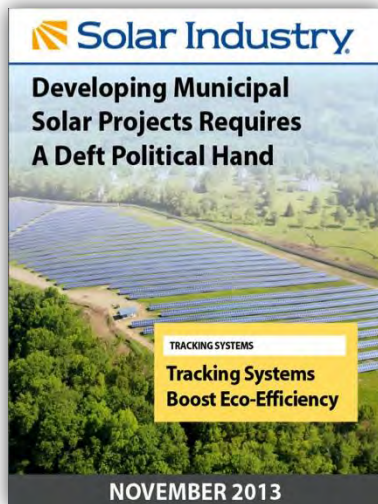
The Antonito Solar Garden is a 500 kilowatt solar array located in Antonito, Colorado. This project was the result of a cooperative effort between Community Energy and the Town of Antonito. Within this program, Xcel Energy purchases the total generated output of the facility as well as the renewable energy credits.

Antonito Solar utilizes the same community solar model as the Lafayette projects. Off-site participants include several Town of Antonito facilities, local businesses, and individual households. A portion of the project is designated to low-income residents who receive the outputted energy at no cost.

*The Antonito Solar Garden has been online since November 2014.*



***Sterling Solar – 2.5 MW (DC), Sterling, MA***



**Distinguishing Features**

- *Cover of Solar Industry Magazine, November 2013: “Developing Municipal Solar Projects Requires A Deft Political Hand” (See last page of appendix for article)*
- *Supplies energy to Sterling Municipal Light Department*
- *Payment in Lieu of Taxes (PILOT) - Annual payments to Town of Sterling*
- *Educational Program*

Sterling Solar, located in the Town of Sterling, Massachusetts, consists of two 1.25 Megawatt solar projects with a total capacity of 2.5 Megawatts (DC).

The total generation of the projects is purchased by Sterling Municipal Light Department (SMLD) through a long-term power purchase agreement. SMLD hand-picked Community Energy out of 30 potential candidates to develop the projects for the town. Development of the Sterling Solar projects was heavily influenced by the town and its residents as CES sought their input on how to best integrate the project into the community. Consequently, a custom landscaping buffer was designed and implemented on the perimeter of the solar array, which complements the rural surroundings of the facility.

In cooperation with the Town of Sterling and SMLD, a solar energy based educational initiative was developed featuring components like an informational display kiosk that includes real time energy production data for the solar array. The display is located at the landowner’s nearby business, Davis Farmland, a popular family destination.

*Sterling Solar has been online since January 2013.*

***Clarkson Solar – 2.5 MW (DC), Potsdam, NY***



**Distinguishing Features**

- *Won a performance based incentive through the NY-Sun Competitive PV Program administered by the New York State Energy Research and Development Authority (NYSERDA)*
- *Designed for extreme weather and snow conditions*
- *Adjacent to a municipal airport*
- *Energy supplied to Clarkson University under a long term power purchase agreement*

The 2.5 MW Clarkson Solar project is on land owned by Clarkson University. The site is located adjacent to a municipal airport, which required a detailed glare analysis to be performed.

Clarkson University purchased the power produced by the facility through a long-term, fixed-rate contract which will act as a hedge to future rising energy costs.

*Clarkson Solar has been online since late 2014.*

***Elizabethtown College Solar – 2.6 MW (DC), Elizabethtown, PA***



*Example of agricultural style fencing*

**Distinguishing Features**

- *Sited on land owned by Elizabethtown College who is also purchasing the output from the project over a 20 year power purchase agreement*
- *The project is enabled by a grant issued by the Pennsylvania Economic Development Association (PEDA)*
- *Surrounded by an agricultural style fence to better integrate the project with the surrounding community*

The 2.6 MW (DC) Elizabethtown College Solar project utilizes a fixed-tilt racking system and is expected to produce around 3,300 Megawatt-hours annually. The power is delivered to Elizabethtown College, who also hosts the site.

*Elizabethtown College Solar has been online since early 2016.*



***Temple University Solar – 63 kW (DC), Philadelphia, PA***



**Distinguishing Features**

- *SRECs are purchased by 1,600 of Community Energy's residential customers*
- *First and largest project at a college or university in Philadelphia*
- *The project was built in Pennsylvania at a time when SRECs were priced at \$15/MWh when little (if any) other solar was being built*
- *The project is owned and operated by Community Energy*

The Temple University Solar project, built on the roof of Edberg-Olson Hall (Temple's football practice facility), was enabled through the support of Community Energy's residential customer base. This customer driven project, which is the first and largest photovoltaic system built at college or university in Philadelphia, was built at a time when Pennsylvania SREC values were such that no other developers were able to build solar. The project is owned and operated by Community Energy.

*Temple University Solar has been online since January 2013.*

***Eastern University Solar – 56 kW (DC), Delaware County, PA***



**Distinguishing Features**

- *Pilot project for Eastern University*
- *One of the first PA Sunshine Energy Rebate program projects*
- *Power sold to Eastern University through a 20 year energy-only power purchase agreement*

The Eastern University Solar project is a 56 kW (DC) system mounted on the roof of the Eagle Learning Center in St. David's, PA. It was not only a pilot project for the University but also one of the first to take part in the PA Sunshine Energy Rebate program. The solar system was financed through a 20-year power purchase agreement with Eastern University, in which the university purchases the power at a locked-in rate, insulating them from rising energy costs. Community Energy owns and operates the project.

*Eastern University Solar has been online since 2009.*

***Smith College Solar – 28 kW (DC), Northampton, MA***



**Distinguishing Features**

- *Seamlessly integrated into the modern architecture of the campus center*
- *Part of the Massachusetts Commonwealth Solar Rebate program*
- *Power sold to Smith College through a 20 year power purchase agreement*

The Smith College project is a 28 kW system installed on the rooftop of the College's Campus Center in Northampton, MA. This was a pilot project for the university which was enabled through the MA Commonwealth Solar Rebate program. The energy is purchased by Smith College at a fixed rate through a 20-year power purchase agreement. Under the agreement, Community Energy owns and operates the system, allowing the College to take advantage of the renewable power without funding the purchase of the system up front.

*Smith College Solar has been online since 2009.*



## Our Team



**Eric Blank – President and Co-Founder**

Eric is president of Community Energy Solar, LLC and co-founder of Community Energy, Inc. Eric has responsibility for overall strategic direction and executive management. He oversees project development, including project finance, project timelines and criteria, and construction. Under an executive employment agreement, Eric served as an executive vice president leading US wind development for Iberdrola, overseeing the development to construction of 700 MW of wind energy, including, but not limited to, the build out of the CEI pipeline. Eric led CEI's wind development efforts from inception. Before CEI, Eric served as the Director of the Energy Project of the Land and Water Fund, where he helped pioneer the field of wind energy marketing, launching one of the first, and most successful, wind energy marketing programs in the country in partnership with several Colorado utilities. Prior to that experience, Eric spent six years providing economic consulting and legal support primarily to independent power producers and energy project developers. With over thirty years of experience in the electric utility industry, Blank holds a Master's degree in economics from the London School of Economics and a J.D. from Yale Law School.

**Brent Beerley – Executive Vice President, Business Development**

Brent is Executive Vice President and part of the Executive Management team that sets strategic direction and directs implementation. He directly manages origination and public policy efforts. Brent has fifteen years of experience in the renewable energy industry in project off-take contracts and development and was also part of the original management team that built CEI prior to the sale to Iberdrola Renewables in 2006. At Iberdrola, he led off-take and origination efforts as a Managing Director until 2009. He has led the negotiation and execution of over 600 MW of long-term renewable energy supply agreements with utilities, wholesale power marketers, and banks. Prior to CEI, Brent worked for the Federal Energy Department's Distributed Energy and Wind Energy programs. Brent received a B.S. in Integrated Science and Technology from James Madison University.

**Tom Tuffey – Vice President, Project Development**

Tom is Vice President for Project Development, and he is responsible for land acquisition, site layout, community relations, and regulatory approvals. He has worked on over 20 solar projects in half a dozen states. He has 40 years of experience in energy and environment and served as Executive Vice President of a 3,000 person global environmental engineering company. Dr. Tuffey has his Ph.D. in Environmental Sciences, is a graduate of the Wharton School of Business Advanced Management Program, and served on the faculty of Rutgers University in the Water Resources Research Institute and the Bureau of Engineering Research. Tom was the Founder and Executive Director of the Sustainable Energy Fund and Director of the Center for Energy, Enterprise and the Environment. He has served on a dozen company Boards and received honors throughout his career, including the award by the US Department of Energy as the Wind Advocate of the Year 2009-East Coast. He is a founding member of the Middle Atlantic Renewable Energy Coalition and served on the Executive Committee of the Clean Energy States Alliance.

**R. Brent Alderfer – Chief Executive Officer and Co-Founder**

Brent Alderfer is CEO and co-founder of Community Energy, and is responsible for overall strategic direction, executive management and operations. He is highly involved in project finance and policy development for the solar division. Alderfer also directs corporate capital, finance and legal, and heads up the Marketing Division. Alderfer served as a former Colorado Public Utility Commissioner and is well known in the renewable energy industry for his leadership in markets for new and renewable energy technologies, and brings that regulatory and policy expertise to the executive management team. Prior to co-founding the Company, Alderfer was a principal in the consulting firm of Competitive Utility Strategies, advising on renewable and distributed renewable generation projects in both regulated and competitive markets. In that role, Alderfer consulted to the U.S. Department of Energy in 1999 on utility interconnection policy for renewable and distributed generation. As a Commissioner from 1996 to early 1999, Alderfer chaired the Energy Resources Committee of the National Association of Regulatory Utility Commissioners, where he led several initiatives on opening competitive electric markets, specifically directed to marketing clean and renewable electric supply. An electrical engineer and a lawyer, Alderfer headed a general commercial law practice for fifteen years representing development stage companies through start up and public offering. Alderfer holds an electrical engineering degree from Northeastern University and a law degree from Georgetown University.

**David Krupp – Senior Developer**

As lead developer for Community Energy's solar projects across the 13-state PJM region, David is responsible for coordinating the team's efforts from site identification, acquisition, engineering, permitting, design optimization and interconnection, and all aspects of each project to the point that the projects may be fully funded and construction may commence. David has led development of 11 grid-tied solar projects totaling approximately 150 MW (DC). This includes a portfolio of 7 grid-connected projects throughout three utility service areas in New Jersey. Five of these projects are now operational, with the remaining two expected to complete construction in 2016. David also led development of the 105 MW (DC) Amazon Solar Farm US East, on the Eastern shore of Virginia, which covers roughly 1,000 acres and is the first renewable energy project to obtain a Permit by Rule in Virginia. David continues to evaluate and pursue development of hundreds of megawatts of large-scale projects in various stages of development across the PJM region. Prior to joining Community Energy, David provided project management for real estate development and financing projects in PA and MD. David is recognized by the US green building council as a LEED (Leadership in Energy and Environmental Design) Accredited Professional. David has also worked for Booz Allen Hamilton providing strategy and technology consulting to the US Army, Missile Defense Agency and Joint Chiefs of Staff. David holds a B.S. in Information Systems from Carnegie Mellon University with minors in Business and Architecture.



**Sam Sours – Senior Developer**

Sam Sours joined Community Energy in the summer of 2010 and brings his multi-faceted skill-set of over 20 years of experience in development, real estate, entitlement, governmental process and engineering to the team. As Regional Development Director, Sam guides strategic and business development through a collaborative approach of off-take opportunity, real estate procurement, corporate partnering, utility and community coordination and project entitlement management in the Midwest and West. Sam developed the recently constructed Lake County Solar projects (IL/IN) as well as building a pipeline of over 200MW of projects in the Midwest and West regions. Sam draws from his experience in the development and construction of over \$500 million of commercial assets and public and private infrastructure improvements, to establish and build long term relationships with corporate, institutional and private parties. Prior to CES, Sam was a Development Manager for Panattoni Development Company, an international leader in commercial real estate; and the Rocky Mountain Division Manager for an ENR Top 50 Civil Engineering Firm where he managed a staff of more than 40 engineers and technical staff and established the firm as one of the top development consulting firms in Colorado. Sam holds a B.S. in Civil Engineering from the Old Dominion University, in Norfolk, VA and is a Licensed Professional Engineer in the State of Colorado (other licenses previously held have since been retired). Sam is the President of a Water and Sanitation District in Colorado and volunteers his time as a board member and coach of the local youth soccer club.

**Chris Killenberg – Senior Developer**

Chris directs Community Energy's solar development activities in North Carolina and other southeastern US markets. His responsibilities include strategy, project origination, development execution, and sales. Through 2013, successful North Carolina projects include eight projects in operation (16MW) and eight projects in construction (16 MW). In 2014, Chris began growing the pipeline of North Carolina and Georgia projects now in excess of 75 MW. Prior to joining Community Energy in 2011, Chris was the founder, owner, and operator of multiple start-ups. He is a graduate of Yale University with a BA in Economics.

**Ryan Irwin – Project Developer**

As a Project Developer for Community Energy, Ryan is involved in site analysis, land acquisition, community relations, permitting, interconnection, and design for utility scale solar projects. He brings expertise from the company's wind development team where he has been working on the early stage development of a large wind farm in the Midwest. He has developed solar projects in Massachusetts, New York, and the Mid-Atlantic. In Massachusetts, Ryan played a key role in the development, permitting, and design of the Sterling 2.5 MW (DC) and Berkley East 3.88 MW (DC) projects. The Sterling project achieved commercial operation in January 2013 and the Berkley East project in September 2013. In addition to project development, Ryan manages the company's interconnection pipeline and geographic information systems.

**Ryan Irwin – Project Developer (Continued)**

Prior to joining Community Energy, Ryan was a project manager for an environmental contractor working on commercial remediation projects. He has a B.A. in Anthropology and a B.A. in History from Syracuse University and a Post Baccalaureate Certificate in Geographic Information Systems from Penn State University.

**Tom Anderson – Development Director**

Tom has more than 20 years as a technical project and program management professional including 7 years in the solar industry. He spent four years in lead operations management roles, including three years as Chief Operating Officer for American Capital Energy, a large-scale commercial and small-scale utility solar PV developer and installer. During this time, American Capital Energy's Operations division grew from 5 to 25 engineers, project managers, construction managers, and technical support staff, while executing on more than \$155,000,000 in contracted revenue. While at ACE, Tom guided the development, installation, operation and maintenance for more than 25 large-scale commercial and small utility rooftop and ground mount projects in 7 states, ranging in size from less than 100 kW up to 20 MW and totaling more than 60 MW installed.

**Gabe Romano, RA – Senior Solar Engineer**

As Community Energy's Senior Solar Engineer, Gabe Romano is responsible for the design, engineering, implementation, and oversight of all technical aspects of a solar installation. With a fine eye for detail and over six years of practical solar experience, he brings precision and viability to the teams' projections. He has extensive knowledge of PV system components and a proven track record of running projects through the pipeline. Gabe holds a B.A. in Architecture from Philadelphia University, is OSHA certified, and is a Registered Architect in the state of Pennsylvania.

**Katie Fuller – Director, REC Supply and Offtake Analysis**

Katie Fuller is the Director of REC Supply at Community Energy, Inc. (CEI), and since joining the company in 2006, she has become one of the nation's premier REC market experts. She currently directs all aspects of REC procurement, portfolio management, verification, and product delivery for CEI. This effort includes the management of over 12.5 million MWh in the PJM, NEPOOL, MRETS, ERCOT, and National REC markets. Her detail-oriented administration of this portfolio ensures the highest quality of REC supply to 24 utility green power programs, and over 700 wholesale and large commercial and institutional customer contracts, including the University of Pennsylvania, the Philadelphia Phillies, and Washington Gas Energy Services (WGES). In order to support this high level of service, Katie led the development of an innovative and industry-leading portfolio management system, proprietary and unique to CEI. She also executes REC and SREC registration for CEI energy projects. She has successfully registered projects in multiple states, including, MA, PA, OH, and NJ, and manages their accounts in the respective electronic tracking systems.

**Katie Fuller – Director, REC Supply and Offtake Analysis (Continued)**

Prior to joining Community Energy, Katie worked in environmental consulting. She holds a B.S. in Environmental Science and a B.S. in Policy Management Studies from Dickinson College in Carlisle, PA.

**Mike Reed – Solar Development Analyst**

As a solar development analyst for Community Energy, Mike works through market analysis, site prospecting, energy production simulations, and preliminary site design. He is responsible for managing the company's land pipeline, investor data rooms, and contributes to the company's geographic information systems. During his five years in the renewable energy industry, Mike has supported the development of a sizeable solar pipeline, consisting of projects across the country. Before joining Community Energy he performed energy audits both stateside and abroad, as well as researching the efficacy of several renewable energy sources and technologies including solar. Mike holds a B.S. in Integrated Science and Technology with a concentration in Energy from James Madison University.

**Emily Burks – Counsel**

As Senior Counsel to Community Energy, Emily brings 10 years of legal experience to the Community Energy team. She assists the Company in quantifying risks associated with entering new markets and develops innovative approaches to legal issues in support of strategic business initiatives and objectives. Her practice is informed by a growing understanding of the solar industry and a watchful eye toward emerging solar markets influenced by state renewable portfolio standards, utilities responding thereto and unique market conditions and opportunities. She has served as lead deal counsel on the sale of approximately 15 MW of the Company's solar energy assets. Emily's practice includes drafting, reviewing and negotiating agreements related to the Company's solar utility-scale and rooftop project pipeline, including, among others, leases, easements, PILOT agreements, power purchase agreements, EPC agreements, decommissioning agreements and financing documents. Emily obtained her Bachelor of Arts degree from Cornell University and her J.D. from University of California Los Angeles.

**Jay Carlis – Vice-President, Retail**

Jay Carlis leads sales of solar power to non-utility offtakers. He led the execution of Community Energy's 80MW PPA with Amazon Web Services. Jay also developed Community Energy's first behind-the-meter solar projects at Eastern University and Smith College. Jay has over ten years' experience in the clean energy and environmental fields, with three years in communications at New England's Conservation Law Foundation and two terms as President of the Renewable Energy Markets Association. He has an MBA in Marketing and Sustainable Enterprise from the Kenan-Flagler Business School at UNC-Chapel Hill and a BA in Sociology from Haverford College.



**Joel Thomas – Project Manager, Community Solar**

Joel is a solar project developer focusing on projects in the Midwest and Mid-Atlantic regions. Previously at CEI, Joel led the product development and marketing for multiple products, including Community Solar Shares, Keystone SRECs and residential and commercial competitive green electricity. He was integral in development of the Lafayette Solar Gardens and the Temple University rooftop solar project. Joel also serves as professor of the practice at the University of North Carolina Kenan-Flagler, teaching Renewable Energy Project Development and Finance in Kenan-Flagler's MBA program. Prior to Community Energy, Joel co-founded and served as the Executive Director of Nourish International, which engages college students and empowers students to eradicate global poverty. Joel holds a BS in Biology from UNC-Chapel Hill and an MBA from UNC Kenan-Flagler.

**Derek Sheehan – Manager, Community Solar Sales**

Derek is a multifaceted, leading member of the Community Energy team with over five years of experience in clean energy and environmental fields. The breadth of his experience includes project development, residential and utility scale EPC as well as residential, commercial, and institutional sales and marketing. Since 2014, Derek has played a crucial role in the emergence of the Community Solar team at CEI, and is currently working to develop and acquire offtake for a 25+ MW pipeline of community solar projects across several states. Previously at CEI, Derek led the Pennsylvania Green Power outreach team for residential supply, and assisted in institutional and commercial project-offtake. He brings leadership, problem-solving, analytical and marketing skills developed as an analyst and sales executive to the team. Before CEI, Derek served as the assistant site superintendent on the 3 MW Fairless Hills solar project, one of the first utility scale solar projects in Pennsylvania. Derek holds a B.S. from Penn State.

**Amy Failing – Manager, Sales and Marketing Operations**

Amy directs marketing and communications for all operating divisions of Community Energy, including Community Energy Solar. Under Community Energy, Amy has led sales and marketing teams with considerable budgets responsible for developing and executing new market development strategies and customer retention programs. She has managed relationships with a spectrum of commercial and institutional partners for Community Energy's solar development division and contributed to business strategy, product development, and entry into new markets for the Company's renewable energy retail programs. She currently leads Community Energy's community solar program operations. Amy also serves on the Board of Directors for the Sustainable Business Network of Greater Philadelphia. Prior to joining Community Energy, she worked in the consumer health and food industries both stateside and abroad in Dublin, Ireland. Amy holds a B.S. in Business Administration and Marketing, Magna Cum Laude, from the Haub School of Business at Saint Joseph's University.

**Bill Finch – Consultant, Land Acquisition**

Bill is a land specialist focusing on projects in the Mid-Atlantic region. He specializes in early phase development including site selection, lease negotiations, government / public relations and local permitting. Bill was pivotal in the early stages of the Keystone Solar project, being heavily involved with permitting and community relations. Currently he is involved in land acquisition and community relations on projects in Virginia, Pennsylvania, and New York. Prior to working for Community Energy he served as global HR Communications Manager and registered lobbyist for Hewlett Packard. He is a former Corporate Fellow to the National Governors Association, serving five years on the environmental advisory committee and is recognized as a Green Power Hero by PennFuture. Bill holds a Bachelor's degree in Geography and Environmental Studies and a Master's of Science in Media Communications.

**John Fowler – Consultant, Environmental Services**

Mr. Fowler is a Registered Professional Geologist with over 35 years of experience in property evaluation, permitting and large-scale project management. John manages environmental permitting for utility scale solar and wind facilities. He assists the Community Energy Solar development team in the evaluation and selection of appropriate properties for development as solar and wind energy generating facilities. He routinely provides expert testimony to public officials involved in the approval of development plans. Mr. Fowler has served for over 15 years on his local planning commission in Bucks County, Pennsylvania. Many times this has involved interpretation of detailed scientific studies and the interpretation of results to stakeholders.



## Appendix



### Constructed Wind Projects

Project Name	State	Size (MW)	Interconnect	Developer	Owner	Finance	Off-Take	Completion
Crescent Ridge 1	IL	54	ComEd	MWE / CEI	Eurus	Term Debt	ComEd	2004
Bear Creek	PA	24	PPL	CEI / GWH	BB / CEI	Tax Equity	PPL	2005
Jersey Atlantic	NJ	7.5	ACE	CEI / GWH	BB / CEI	Tax Equity	ACUA / LMP	2005
Locust Ridge 1	PA	26	PPL	CEI / Joe Green	IBR	Bal. Sheet	PPL	2006
Crescent Ridge 2	IL	72	ComEd	CEI / MWE	IBR	Bal. Sheet	Multiple	2007
Top of Iowa 2	IA	80	Alliant	MREC / IBR	IBR	Bal. Sheet	Multiple	2007
Locust Ridge 2	PA	102	PPL	CEI	IBR	Bal. Sheet	Multiple	2008
Lempster	NH	24	PSNH	CEI	IBR	Bal. Sheet	PSNH	2008
Winnebago	IA	20	Coop	MREC / IBR	IBR	Bal. Sheet	Coop	2008
Barton 1 & 2	IA	160	Alliant	MREC / IBR	IBR	Bal. Sheet	Multiple	2008
Farmers City	MO	144	Mid Am	CEI	IBR	Bal. Sheet	Multiple	2008



Jersey-Atlantic Wind Farm, NJ



## **Amazon Web Services Signs Long-Term Solar Power Purchase Agreement with Community Energy**

### **Amazon Web Services Announces New Renewable Energy Project in Virginia**

#### **Amazon Solar Farm US East Will Be Virginia's Largest Solar Farm, Expected to Produce Approximately 170,000 MWh of Energy Annually**

June 10, 2015 08:39 AM Eastern Daylight Time

**SEATTLE--(BUSINESS WIRE)**--Amazon Web Services, Inc. (AWS), an Amazon.com company (NASDAQ:AMZN), today announced that it has teamed with Community Energy, Inc. to support the construction and operation of an 80 megawatt (MW) solar farm in Accomack County, Virginia, called Amazon Solar Farm US East. This new solar farm is expected to start generating approximately 170,000 megawatt hours (MWh) of solar power annually as early as October 2016 – or the equivalent of that used by approximately 15,000 US homes<sup>1</sup> in a year. Amazon Solar Farm US East will be the largest solar farm in the state of Virginia, with all energy generated delivered into the electrical grids that supply both current and future AWS Cloud datacenters. For more information, go to <http://aws.amazon.com/about-aws/sustainable-energy/>.

“We continue to make significant progress towards our long-term commitment to power the global AWS infrastructure with 100 percent renewable energy”

In November 2014, AWS shared its long-term commitment to achieve 100 percent renewable energy usage for the global AWS infrastructure footprint. As of April 2015, AWS announced that approximately 25 percent<sup>2</sup> of the power consumed by its global infrastructure comes from renewable energy sources with an interim goal of increasing that percentage to at least 40 percent by the end of 2016. The Power Purchase Agreement (PPA) for Amazon Solar Farm US East follows a similar PPA for Amazon Wind Farm (Fowler Ridge) in Benton County, Indiana, that was announced in January 2015 and is expected to generate approximately 500,000 MWh of wind power annually. Both represent key steps toward meeting these goals.

“We continue to make significant progress towards our long-term commitment to power the global AWS infrastructure with 100 percent renewable energy,” said Jerry Hunter, Vice President of Infrastructure at Amazon Web Services. “Amazon Solar Farm US East – the second PPA that will serve both existing and planned AWS datacenters in the central and eastern US – has the added benefit of working to increase the availability of renewable energy in the Commonwealth of Virginia.”

Virginia Governor Terry McAuliffe commented, “Amazon’s new solar project will create good jobs on the Eastern Shore and generate more clean, renewable energy to fuel the new Virginia economy. I look forward to working with Amazon and Accomack to get this project online as we continue our efforts to make Virginia a global leader in the renewable energy sector.”

Community Energy is a pioneer in developing renewable energy with a long history in solar and wind energy. Community’s CEO, Brent Alderfer, said, “We are pleased to work with Amazon Web Services to build the largest solar farm in Virginia and one of the largest east of the Mississippi. This project, which wouldn’t have

been possible without AWS' leadership, helps accelerate the commercialization and deployment of solar photovoltaic (PV) technologies at scale in Virginia.”

### **About Amazon Web Services**

Launched in 2006, Amazon Web Services offers a robust, fully featured technology infrastructure platform in the cloud comprised of a broad set of compute, storage, database, analytics, application, and deployment services from datacenter locations in the U.S., Australia, Brazil, China, Germany, Ireland, Japan, and Singapore. More than a million customers, including fast-growing startups, large enterprises, and government agencies across 190 countries, rely on AWS services to innovate quickly, lower IT costs and scale applications globally. To learn more about AWS, visit <http://aws.amazon.com>.

### **About Amazon**

Amazon.com opened on the World Wide Web in July 1995. The company is guided by four principles: customer obsession rather than competitor focus, passion for invention, commitment to operational excellence, and long-term thinking. Customer reviews, 1-Click shopping, personalized recommendations, Prime, Fulfillment by Amazon, AWS, Kindle Direct Publishing, Kindle, Fire phone, Fire tablets, and Fire TV are some of the products and services pioneered by Amazon.

1 In 2012, the average annual electricity consumption for a U.S. residential utility customer was 10,837 kWh, an average of 903 kilowatt-hours (kWh) per month. <http://www.eia.gov/tools/faqs/faq.cfm?id=97&t=3>

2 AWS considers this to mean electric power generated from naturally replenished resources, which are delivered into the electrical grids that supply our datacenters.

### **Contacts**

Amazon.com, Inc.  
Media Hotline, 206-266-7180  
[www.amazon.com/pr](http://www.amazon.com/pr)





## ***Community Energy's 120 MW Comanche Solar Project Provides Bulk of Solar Power in Approved Xcel Energy Resource Plan***

**When completed, Comanche Solar would be the largest solar project east of the Rockies**

March 04, 2014 11:11 AM Eastern Standard Time

BOULDER, Colo.--([BUSINESS WIRE](#))--Community Energy announced today that its Comanche Solar project will supply 120 megawatts of solar generation to Xcel Energy comprising the largest part of a 170 megawatt portfolio of solar generation approved by the Colorado Public Utilities Commission in December, 2013.

Upon completion, the Comanche Solar project would be the largest solar generating facility in Colorado, the largest east of the Rocky Mountains, and one of the largest in the US. When it's placed in service, the project also has the potential to more than double Xcel Energy's current 87 MW of purchases from large central station solar plants.

The Comanche Solar project will ultimately be comprised of more than 450,000 mono-crystalline PV modules utilizing a single-axis tracking technology. The tracking technology will follow the sun as it rises in the east and sets in the west, producing power during Xcel Energy's peak demand periods and generally providing a nice match to daily summer air conditioning loads. In total, the project will generate enough power for more than 31,000 homes in its first year. Over the course of the project's 25 year life, it will produce more than 6 billion kilowatt hours of clean solar energy and is expected to reduce CO2 emissions by approximately 3.5 million tons.

*"We believe strongly that solar is for everyone and it is clear that many of our customers and fellow Colorado citizens share our passion for solar energy. This large-scale generating facility provides the advantage of renewable energy at a price that is right"*

"This project is part of our vision begun in 2010 to bring utility scale solar at a competitive price to Front Range Colorado," said Eric Blank, President of Community Energy Solar, LLC. "We were drawn to Pueblo County and the Comanche sub-station as a great combination of high solar insolation, a welcoming community with open land, and a strong interconnection point with existing infrastructure close to Front Range load centers."

The Solar project will be located near Xcel Energy's Comanche Generating Station, about 2 miles southeast of Pueblo, CO, on approximately 900 acres of under-utilized grazing land surrounded by existing and future industrial land. The site is gently sloping and will require minimal grading to prepare it for the solar installation. The project is anticipated to become operational mid-summer 2016.

“The solar array that will be constructed by Community Energy is a huge win for our community,” Pueblo County Economic Development Director Chris Markuson said. “This project demonstrates that renewable energy is ready for prime-time, and Pueblo County is perfectly positioned to be the center of utility-scale renewable energy production in Colorado. The clean energy produced by solar arrays in Pueblo is both profitable and sustainable, while reducing our dependence on fossil fuels. This project is a tremendous 'shot in the arm' for our local economy, and we're thrilled to be partners in this exciting venture.”

Community Energy recently began the final development permitting process for the Comanche Solar project through Pueblo County. The choice of project equipment and financing has been committed and will be announced at the time the power purchase agreement with Xcel Energy is executed, currently expected in mid-2014.

“We believe strongly that solar is for everyone and it is clear that many of our customers and fellow Colorado citizens share our passion for solar energy. This large-scale generating facility provides the advantage of renewable energy at a price that is right,” said David Eves president and CEO of Public Service Company of Colorado. “Solar energy is a part of our future, and we want to make sure that solar energy policy encourages the development of solar technology.”

### **About Community Energy**

Since its inception in 1999, Community Energy has led the development and construction of more than 800 MW of wind and solar generating facilities. Community Energy has used a pioneering mix of utility off-take approaches, renewable energy marketing programs, new financing structures, development expertise, and public funding and policy support to accelerate the deployment of renewable energy technologies at scale. With offices in Boulder, Colorado and headquarters in Radnor, PA, Community Energy has a strong presence in both western and eastern renewable energy markets. For more information about Community Energy, please visit [www.communityenergysolar.com](http://www.communityenergysolar.com).

### **About Xcel Energy**

Xcel Energy is a major US electricity and natural gas company with regulated operations in eight Western and Midwestern states. Xcel Energy provides a comprehensive portfolio of energy-related products and services to

3.4 million electricity customers and 1.9 million natural gas customers through its regulated operating companies. For more information about Xcel Energy, please visit [www.xcelenergy.com](http://www.xcelenergy.com).

### **Contacts**

#### **Community Energy**

**Eric Blank**

#### **Xcel Energy**

**Gabriel Romero, 303-294-2300**



## **COMMUNITY ENERGY DELIVERS ITS SECOND 100 PLUS MEGAWATT SOLAR PROJECT**

June 2, 2015

**FOR IMMEDIATE RELEASE**

### **Utility Scale Solar Gains Ground Outside of California As Community Energy Delivers Large-Scale Solar Projects**

**RADNOR, PA** – Community Energy announced today that it had delivered its second 100-plus megawatt solar project for construction, with the acquisition by Southern Company subsidiary Southern Power of its 103 megawatt (MW AC) Butler solar facility in Georgia. The Butler Project will supply solar generation to Southern Company subsidiary Georgia Power under a 30-year power purchase agreement. Georgia Power will have the option to keep or sell the RECs, for the benefit of its customers or renewable energy programs.

Community Energy also originated and developed the 120 megawatt Comanche Solar Project in Colorado, which will supply solar generation to Xcel Energy under a 25-year purchase agreement approved by the Colorado Public Utilities Commission.

Community Energy has a pipeline of large solar projects in the East, Midwest and Rocky Mountain regions, a significant number of which are on track for completion before the end of 2016. First brought on line by California utilities, large-scale solar projects are now proving economic in other regions of the country. With a track record over the last decade in wind development, Community Energy launched its large-scale solar development effort in 2010.

“By developing projects on optimum solar sites with advanced tracking technology, we’ve been able to make solar energy a cost-effective choice for utilities and large energy users in multiple regions outside California,” said Brent Alderfer, President of Community Energy, Inc. “By building solar at scale we reduce costs, increase efficiencies and deliver significant environmental benefit.”

Each large solar project is ultimately comprised of more than 400,000 PV modules utilizing single-axis tracking technology to follow the sun as it rises in the east and sets in the west. That combination produces power during peak demand periods matching daily summer air conditioning loads.

In general each 100 MW project will generate enough power for more than 25,000 homes in its first year. Over the course of the project’s 25 year life, it will produce more than 5 billion kilowatt hours of clean solar energy.

“We are pleased to be part of a new era in solar generation,” Mr. Alderfer concluded.





**Contacts:**

Brent Alderfer, Community Energy, Inc.

**About Community Energy**

Since its inception in 1999, Community Energy has led the development and construction of more than 1,000 MW of wind and solar generating facilities. Community Energy has used a pioneering mix of utility off-take approaches, renewable energy marketing programs, new financing structures, development expertise, and public funding and policy support to accelerate the deployment of renewable energy technologies at scale. With offices in Boulder, Colorado and headquarters in Radnor, PA, Community Energy has a strong presence in both western and eastern renewable energy markets. For more information about Community Energy, please visit [www.communityenergysolar.com](http://www.communityenergysolar.com).

# Solar Industry

## Developing Municipal Solar Projects Requires A Deft Political Hand

Many local governments are interested in solar power; however, dealing with their processes is a challenge.

■ Michael Puttré

Solar projects for municipal customers are typically on a similar scale as those for commercial enterprises but come with their own sets of rules. Developers seeking to serve this active and growing market must master a rigorous and often long procedure-driven process. Moreover, this process is by definition under intense and even skeptical public scrutiny because such projects are



One of two 1 MW solar projects Community Energy developed for the Town of Sterling, Mass. Photo courtesy of Community Energy

financed by taxes and bonds.

Successful developers of solar projects for municipal customers report that preparing their own organizations for the effort is essential to play, let alone score winning bids and profitable outcomes. Such efforts include acquiring in-house expertise in public works that are specific to the style of county, city or town government involved. Securing local partners and project champions are also vital for successfully navigating the rules of the game.

“There are pros and cons to working with municipal customers,” says Joe Harrison, senior project developer in the Boston office of San Diego-based Borrego Solar Systems. “The private sector is able to move quicker when they make a decision.

On the other hand, the private sector is not obligated to follow through. You are always one phone call away from having the customer go with someone else.”

### Engage the political process

Borrego Solar pursues municipal solar customers because their requirements tend to fall within what the company describes as its “sweet spot” of 1 MW to 10 MW. Harrison notes that the customer base here consists of Fortune 1,000 companies, colleges and municipalities. “These are big users motivated to do the right thing for the community,” he says.

Of that group of large commercial-scale customers, the municipal solar

See Municipal Solar PAGE 8



market is also incredibly diverse.

"It is important to note that a municipal customer may be a stand-alone authority that supplies energy to a city of 100,000 plus half a dozen surrounding towns, or a small department in a town of 3,000 residents," says Tom Tuffey, vice president of Radnor, Pa.-based Community Energy Solar LLC. "The former will have a full staff with departmental coordination and reporting structure, while the latter has one principal and a board to keep informed."

Tuffey says large local governments, such as counties and cities, will likely use a full-blown request for proposals (RFP) process, while smaller entities, such as towns, may have an abbreviated process. In either case, he says, the customers are knowledgeable and committed, although specific knowledge of the ins and outs of solar projects might be outside their experience. Also, when a local government begins mulling over a possible solar project, everybody knows about it, and the customer soon has a lot to sort through.

"In some cases, we have had municipalities with up to 40 solar developers that have approached them," Tuffey says. "Municipal customers have all expressed the challenge of choosing the right partner in a technology new to them."

According to Ryan Work, business development manager at REC Solar, to a large degree, solar power projects are not so dissimilar from other infrastructure improvements. Most of the work translates well. There are structural engineers, electrical engineers, and structures and connections have to follow codes. However, solar project definition does not necessarily come naturally to municipalities, although this is changing. Many municipalities are adopting solar bylaws as an overlay to land management and zoning.

"We can help with some of the project definition but don't want to mess with the bidding process," Work says.

In October, REC Solar completed the installation of a 1 MW solar energy system for the Ventura County Todd Road Jail facility in California. Work says this project proved to be an excellent case study for appreciating the nuances of developing solar for a municipal customer. The law in California required multiple bid responses from qualified firms, which

were selected as part of a request for qualification (RFQ) process.

In the case of the \$4 million Todd Road Jail project, the RFQ phase drew applications from about 30 firms. The top five qualified firms were then invited to respond to an RFP.

Work says REC Solar had the resources to put together a feasibility study of the proposed project on its own dime as part of its qualification submission. For its part, the county hired a third-party engineering consulting firm, AECOM, to develop its evaluation scorecard and produce a feasibility study of its own. The firm also managed the qualification process and helped evaluate and inter-



REC Solar developed this 1 MW PV installation for a jail facility in Ventura County, Calif. Photo courtesy of REC Solar

pret qualification proposals.

"The customer had a good level of sophistication," Work says. "The \$4 million represented a large chunk of the Ventura County budget."

The project was being financed through the county budget and bond process, Work says, so cost was an issue. The project had to be cash-flow positive, or at least a cashflow-neutral vehicle. Adding to the cost pressure, municipal agencies are not able to monetize the benefits of a solar installation like a commercial customer can. The federal tax credit and depreciation are major financial incentives for a commercial customer that a municipal customer is not eligible for.

The cost issues and technical sophistication of the customer required a commensurate level of process sophistication from the bidding firms to get to the RFP round. Because the municipal market is a significant part of the company's business strategy, REC Solar maintains in-house talent with experience working with local government.

"There is a process for every as-

pect of working with a municipal agency," Work says. "Ultimately, there is a city council and subcommittees to meet with. There are more stakeholders involved. What's more, it is a very transparent process. Everything is on the public record. You can track the entire project through its various stages."

#### Hurry up and wait

Borrego Solar's Harrison says he encountered many of the unique aspects of dealing with municipalities as customers in developing a 2.7 MW project for the City of Beverly, Mass. The array is on a private site, but the city is purchasing the net metering credits. Harrison says the approval

process says local governments have a tendency to want to continue matters to the next meeting and give the residents a chance to have their say.

Harrison says the key to establishing a successful relationship with a municipality as a customer is appreciating that some of the frustrations are necessary and even laudable by-products of representative government. That said, there are ways of managing this process.

"We have made a concerted effort to bring in experts in this area," he says, adding Borrego Solar has two civil engineers on staff in Massachusetts who have long track records of projects in the commonwealth. "We always partner with a local civil engineering firm."

Also invaluable is an advocate or champion within the government who takes the role of guiding the solar development project through the process.

"You always need a champion to push for your project," Mikos says. "That champion can come from almost any department but must believe in the project and have the political pop to keep it moving up the chain."

#### Solar in the public interest

Cost, not surprisingly, hovers over everything. Harrison says negotiating power purchase agreements with municipal customers, which generally retain outside counsel for the purpose, has been among the most intense he has ever been involved with.

Community Energy's Tuffey says understanding the financial incentive structure of a given municipality is an important aspect for developing solar projects in the public sector.

"Some form of incentive is pretty much a must in most of the markets where we've had success," Tuffey says. In Massachusetts and New Jersey, he says a strong solar renewable energy credits market has been key. In Indiana, it has been a feed-in tariff. In New York and Pennsylvania, it has been grants and performance incentives. In North Carolina, it has been an additional state investment tax credit and a solid off-take tariff. "All of these help the economics such that the municipality gets an attractive long-term price at a discount to their long-term energy price forecast."

Despite all of the rigors of dealing with municipalities, solar developers with experience in this sector see tremendous opportunities for growth. ☞