



Project Matching: Facilitating New Renewable Energy Projects Project Proposal Submittal Form

The EPA Green Power Partnership's (GPP's) <u>Project Matching Initiative</u> works to connect stakeholders with new, not-yet-built renewable energy projects that may align with their energy, environmental, and financial objectives. The initiative's goal is to spur the development of new renewable generation by facilitating the signing of long-term green power contracts between end-users and project developers, thereby providing a guaranteed stream of revenue that developers can use to secure project financing.

The GPP, in collaboration with EPA's <u>RE-Powering America's Land Initiative</u>, will host a project matching webinar on Wednesday, June 24, 2015. Project developers are invited to submit project proposals to GPP for possible inclusion in the webinar. This form includes all anticipated criteria that EPA will use to select projects for the webinar. All projects submitted for review that meet minimum requirements for data completeness and basic eligibility will be posted on the GPP website. A renewable energy project's inclusion in this initiative does not constitute endorsement or recommendation by EPA.

Project proposals are due by June 5, 2015 and must be submitted electronically to James Critchfield, <u>critchfield.james@epa.gov</u>.

Contact Information

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Project Summary

Project name: Blue Star Solar

Developer name: OneEnergy Renewables in partnership with SunEdison

Renewable energy type: Solar Photovoltaic (PV)

Project city/state: Kent County, MD

Project geographic coordinates (To find, use: www.latlong.net/):

Latitude: 39.31552

Longitude: -75.827214

Total planned megawatt (MW DC) size: 8.09 MW DC

Are there phases? If so, how many and in what size traunches? This is planned to be a single-phase development.

What is the expected annual output of the completed project (MWh)? ~12,500 MWh

Expected date of construction commencement: Q2, 2016

Expected date of commercial operation: Q3, 2016

What is the largest development hurdle and how is it anticipated to be overcome?

The project will require a Maryland CPCN permit and site plan approval from Kent County. The land is zoned industrial, and thus, only site plan review will be required from the County.

Can you provide examples of similar projects you have developed?

OneEnergy Renewables:

OneEnergy Renewables developed the 4.3-MW Cambridge Solar project in Cambridge, Maryland. The project achieved full commercial operation in May of this year. OneEnergy helped arrange an innovative electricity supply agreement between the National Aquarium in Baltimore and its electricity supplier, Constellation, through which the Aquarium will receive 100% of the energy and 40% of the solar renewable energy certificates (SRECs) produced by the project over the next 25 years.

The project owner will retain the SRECs generated by the project in years one to 15 of the agreement, while the National Aquarium will retain the SRECs generated in years 16 to 25 of the agreement. To help the National Aquarium's further it's commitment to green power in association with this deal, OneEnergy is also retiring national Green-e RECs in a volume that will exceed the output of the project for at least the first 5 years, earning the Aquarium a position in the EPA's Green Power Leadership Club, and recognition on the Green Power Program's Long-Term Commitments list (> 5 years.)

More info available here.

SunEdison:

NEVADA ENERGY - APEX

SunEdison developed the 26 MW Apex solar PV system in Clark County, Nevada on a 200-acre parcel in the City of North Las Vegas. The facility utilizes over 88,000 solar PV modules, mounted on single-axis trackers, which follow the sun across the sky to optimize power generation. Apex was energized in June 2012 and is currently providing power to the Las Vegas Metropolitan area through a long-term contract with Nevada Energy. SunEdison built the Apex project and is responsible for ongoing operations and maintenance for the facility. Electricity generated by the plant serves a 25-year power purchase agreement with Nevada Power Company, a wholly owned unit of NV Energy. Headquartered in Las Vegas, NV Energy, Inc. provides a wide range of energy services and products to approximately 2.4 million citizens of Nevada and nearly 40 million tourists annually.

TUCSON ELECTRIC POWER – PIMA COUNTY

SunEdison completed its 25-MW solar PV system in Pima County, AZ in December 2012. The system is located on a 305-acre site owned by Tucson Water Authority, a subsidiary of Tucson Electric Power. SunEdison leases the property and utilizes 199 acres for the solar facility, with 106 acres of the property dedicated to habitat enhancement and restoration. Of the 106 acres, approximately 45 acres has been used to provide burrowing owl habitat. The site is located one-half mile from TEP's distribution line which minimizes the additional transmission infrastructure required to deliver power generated to the electricity grid.

EL PASO ELECTRIC - LAS CRUCES

The 13.625 MW DC Las Cruces Centennial Solar Farm (Las Cruces) is comprised of more than 48,000 of SunEdison's high-performance Silvantis P280 photovoltaic modules and covers approximately 140 acres. It produced more than 33 million kilowatt hours of clean solar energy in the first full year of operation alone, and is expected to produce over 773 million kilowatt hours over 25 years — enough energy to power more than 72,000 average-sized US homes for one year. This solar farm was possible through a power purchase agreement between SunEdison and El Paso Electric (EPE). SunEdison was responsible for the construction and financing of the project and oversees operation and maintenance of the power plant over the 25 year contract period.

Site Readiness

Has the project received all necessary federal, state, and local permits to proceed with construction and operation? If not, please outline the key permits required to proceed with project construction/operation and describe the steps you have taken in order to evaluate and address permitting risk for this project.

A Maryland CPCN permit will be required along with County site plan review (see above).

Have you secured long-term site control? If so, please describe the nature of the agreement (lease, ownership, etc.)?

Yes, OneEnergy has secured site control through a long-term lease that includes an initial 5-year development option followed by a 26-year term with a 10-year extension option.

Have land leases been filed with the county?

Yes.

Does the project require either an Environmental Impact Statement or Environmental Assessment? If so, what is the status?

No.

Is this project sited on a current or formerly contaminated land, landfill or mine site?¹ If so, has the site addressed the related environmental issues?

No.

Interconnection

What is the status of interconnection, and have system impact and facility studies been completed? (Distribution or transmission level projects are both eligible)

PJM has a 3-stage interconnection study process that consists of the following: (1) Feasibility Study, (2) System Impact Study, and (3) Facilities Study.

PJM has completed the Feasibility and System Impact Studies on the Blue Star project as of March 2015. OneEnergy submitted the Facilities Study application for this project in April 2015 and expects to receive the completed study back from PJM in September 2015.

¹ Examples of such properties could include brownfields, municipal solid waste landfills, abandoned mine lands, and Superfund sites, among others subject to state or federal authorities or cleanup programs.

When do you expect the interconnection study process will be complete?

We expect the interconnection process to be complete in October/November 2015.

Does the transmission owner (TO) or independent system operator (ISO) have a process to study the project's impact on the local or regional grid and the subsequent cost to interconnect?

See above.

Operation & Financing

Is any element of the project – technology or systems – experimental or pilot-phase or proven technology?

No.

What is the long- and short-term plan for operating and maintaining the project?

SunEdison will operate and maintain this project.

SunEdison maintains the largest operating fleet of solar systems in the world, backed by the industry's most sophisticated hardware and software monitoring platform. SunEdison has developed more than 2,700 MW of solar projects and manages more than 1,000 photovoltaic plants with a total power output of 4 GW.

SunEdison's knowledge spans the project cycle from project design to program management and postinstallation operations with over 100 in-house experts in these areas alone. Its Renewable Operations Center (ROC) is the core of SunEdison's Operations and Maintenance (O&M) capabilities. ROC solar technicians commission new PV systems, monitor active power plants, dispatch and manage service staff, and analyze plant performance – 24 hours a day, 7 days per weeks.

For wind projects, has a meteorological tower been installed? If yes, when was the tower installed and how much data has been collected?

N/A.

Provide a short summary of how you view project finance and structure/ownership taking shape for this project:

SunEdison will finance and own the project.

SunEdison's unparalleled financing expertise is one of our key competitive strengths. SunEdison's access to capital, strong financial relationships, and proven track record allow the company to enjoy one of the highest contract execution rates in the industry. To date, SunEdison has secured over \$7.5 billion in project finance facilities, with additional facilities and partnerships under negotiation. In 2014, SunEdison launched a new subsidiary, TerraForm Power, Inc. to acquire solar power plants from SunEdison and other companies in order to offer its clients the lowest PPA rates possible.

SunEdison pioneered the solar project finance arena with its inaugural SunE Solar Fund I in June 2005, with financing provided by Goldman Sachs. Since then SunEdison has closed numerous additional funds and, as mentioned, has raised more than \$7.5 billion in project financing.

SunEdison also just completed the acquisition of First Wind, a global renewable energy company, making it the largest renewable energy developer in the world.

Partners

In what ways can organizations participate in the project? (Check all that Apply)

- **A** X Power purchase agreement for bundled power and RECs
- □ X Financial hedge or contract for differences
- □ X Long term REC offtake
- **G** Financial investment / ownership stake
- □ X Other, please specify: Partially-bundled power & REC offtake. The compliance market for SRECs in Maryland provides a strong incentive that drives the economics of utility-scale solar projects. We would propose a customer take a portion of the project SRECs while also retiring replacement National Green-e RECs.

What are some of the characteristics of your ideal power purchaser, investor, or other partner?

- Investment grade credit
- Long-term load in PJM in excess of 40,000 MWh/year
- Desire to hedge on-peak electricity costs while catalyzing the development of a new, large-scale renewable energy project.

What marketing opportunities exist at the project?

- Live feed of weather and output data that can be integrated into a branded, web-based project profile.
- Signage at the project site.
- Naming rights.