

Solar Proposal Evaluation Report
Somerset County Renewable Energy Program
Proposals of September 28, 2010

Prepared for
Somerset County Improvement Authority

Prepared by:
Somerset County Evaluation Team
October 11, 2010

Evaluation Report

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Somerset County Improvement Authority Somerset County Renewable Energy Program

2. Executive Summary

This Report is being provided pursuant to the requirements of the competitive contracting provisions of the Local Public Contracts Law (N.J.S.A. 40A:11-4.1(k)).

Somerset County Improvement Authority (SCIA) issued a Request for Proposals (RFP) for a Power Purchase Agreement (PPA) for the design, acquisition, installation, tax ownership, commissioning, operation and maintenance of solar systems (Solar Systems) to be located at the following County Local Unit Facilities (Local Unit Facilities):

1. Borough of Manville
2. Borough of Somerville
3. Borough of Bound Brook
4. Branchburg Township Board of Education
5. Bridgewater Township
6. Bridgewater-Raritan Regional School District
7. Franklin Township
8. Franklin Township Board of Education
9. Green Brook Board of Education
10. Manville School District
11. Montgomery Township Board of Education:
12. Raritan Valley Community College
13. Somerset County
14. Somerville Public School District Board of Education
15. Township of Montgomery

The goal of the SCIA is to implement solar systems that are environmentally responsible and economically beneficial to the County, its Local Units and its citizens.

SCIA intends to enter into a long-term (fifteen year) PPA with the Successful Solar Respondent (Successful Respondent) to purchase solar electric power produced from installations located on the Local Unit Facilities identified above. The SCIA will only enter into a PPA if the PPA price is lower than the delivered cost of power from the local electric utility company; i.e. Public Service Electric and Gas (PSE&G) or Jersey Central Power and Light (JCP&L). Through a PPA, a Local Unit will save on its energy bills, and will be, to the greatest extent practicable, insulated from energy market fluctuation, operational, and financial risks.

The Somerset Evaluation Team (Evaluation Team), comprised of: Steve Pearlman, Esq. of Inglesino, Pearlman, Wyciskala & Taylor, LLC; Ryan Scerbo, Esq. of DeCotiis, FitzPatrick & Cole, LLP; Dan Swayze, Jessica Vogel, and LeeAnn Beebe of Birdsall Services Group; Anthony Inverso, of Phoenix Advisors, LLC; Yvonne Childress of the SCIA; and, Alexis Kennedy, Joe Santaiti and Steve Gabel of Gabel Associates, was retained by the SCIA to assist in developing and implementing this procurement process and undertaking a comprehensive evaluation of Phase II and Phase III qualified proposals on the basis of price and non-price criteria, in accordance with competitive contracting provisions of the Local Public Contracts Law (N.J.S.A. 40A:11-4.1(k)) and on behalf of the board of education Local Units, the Public Schools Contracts Law (N.J.S.A. 18A:18A-4.1(k)) of the State of New Jersey (the "State"), all pursuant to (i) Local Finance Board Notice 2008-20, December 3, 2008, Contracting for Renewable Energy Services, (ii) the Board of Public Utilities protocol for measuring energy savings in PPA agreements (Public Entity Energy Efficiency and Renewable Energy Cost Savings Guidelines, Dated February 20, 2009), (iii) Local Finance Board Notice 2009-10 dated June 12, 2009, Contracting for Renewable Energy Services: Update on Power Purchase Agreements and applicable law.

SCIA received proposals from nine Solar Respondents (Respondents): BP Solar International, Inc.; HRS Energy Solutions; Mercury Solar Systems; Ray Angelini, Inc. and Nautilus Solar; NFI Solar; Power Grid Capital, LLC; SunEdison; Tioga Energy, Inc.; and, Vanguard Energy Partners, LLC.

Upon direction of counsel the following proposals failed to meet the requirements of the RFP and, therefore, disqualified the Respondents from further consideration: Ray Angelini, Inc. and Nautilus Solar; BP Solar International, Inc.; Mercury Solar Systems; NFI Solar; SunEdison; and, HRS Energy Solutions. Power Grid Capital, LLC voluntarily withdrew its proposal.

The proposals that are qualified to receive Phase II and Phase III evaluation are Vanguard Energy Partners, LLC and Tioga Energy, Inc. The Evaluation Team has undertaken an economic and technical review of the proposals to evaluate them in accordance with established criteria which consider and weigh:

- Financial benefits;
- Technical design;
- Project experience;
- Vendor qualifications; and,
- Financial strength.

After reviewing all aspects of the submitted proposals, the Evaluation Team recommends that the proposal of Vanguard Energy Partners, LLC (Vanguard) be accepted. The Vanguard proposal results in significantly greater economic benefits for the SCIA and meets all technical requirements of the RFP.

Both Respondents that submitted proposals that qualified for Phase II review possess high quality management, installation capabilities and sound solar development experience. However, Vanguard's proposal differentiated itself in two key areas: providing materially greater direct economic benefits and providing greater protection for the SCIA (and the County) from financing risk.

The Vanguard proposal yields nominal benefits of \$18.35 million or net present value (NPV) benefits of over \$13.23 million, which is more than 17% higher than the next highest proposal. In addition, by offering to pay \$20 million at the time of project completion, the Vanguard proposal protects the SCIA from the potential risk of reductions in the price of Solar Renewable Energy Certificates (SRECs) thereby substantially protecting the SCIA and the County from this key area of project financial risk, in a manner that the two Tioga proposals do not possess.

The scoring in the evaluation matrix identified Vanguard Energy as the Respondent providing the greatest value to SCIA. The evaluation indicated that Vanguard's proposal scored 117 out of 125 points and the Tioga proposal scored 106 and 108 points for its fifteen year and thirteen year proposals, respectively. Accordingly, the Evaluation Team recommends that the SCIA select Vanguard as the Successful Respondent.

Vanguard has proposed to install and operate solar systems on the thirty-one Local Unit Facilities. The basic terms and benefits of the Vanguard proposal are as follows:

1. A fifteen year PPA, with a first year rate of \$0.04835 per kWh and annual escalation of 2.75% which results in a final price of \$0.0707 in Year 15.
2. A 7.618 MW solar system that will generate approximately 9.7 million kWh per year. The solar energy will serve approximately 33.5% of the combined load for all Local Unit Facilities (see **Attachment 5**).
3. Participating Local Unit Facilities will realize an annual energy cost savings of approximately \$932,651 in the first year and these savings are expected to grow to approximately \$1,528,159 in the last year of the PPA, based on the proposal (see **Attachment 4**).
4. Over the fifteen year term of the PPA, the Local Units will realize \$18.35 million in energy cost savings nominally (\$13.23 million on a net present value basis).
5. A payment of \$20 million from Vanguard, as projects are completed in and around the first year, creates a significant long term financial security to the SCIA and the County with approximately half of the project debt being repaid well ahead of schedule.

6. A stable and known cost of electricity for fifteen years allows for budgetary certainty for the participating Local Units.
7. Use of all American made equipment.
8. An educational component with the ability to access operational data for the solar systems via a web enabled system.

This will result in estimated annual benefits of \$932,651 in the first year, total savings of \$18.35 million on a nominal basis (or an NPV of \$13.23 million) and an average rate reduction for electricity purchased through this program of 60% relative to utility delivered power in the first year. These benefits will be recalculated after the sale of the SCIA County-guaranteed bonds and may likely increase due to the conservative assumption used in this analysis. These conservative assumptions are outlined in Section 9.a.

3. Overview of the Somerset County Renewable Energy Program

The following is a brief synopsis describing the Somerset County Renewable Energy Program (Solar Initiative) as outlined in the RFP.

SCIA issued a RFP dated July 30, 2010, as amended, for a PPA for the design, permit, acquisition, construction, installation, tax ownership, commissioning, operation, and maintenance of Solar Systems to be located at all of the following thirty-one Local Unit Facilities.

The goal of the SCIA is to implement Renewable Energy Projects including Solar Systems that are both environmentally responsible and economically beneficial.

The total size (kW dc) of the Solar Systems at the SCIA's thirty-one Local Unit Facilities was estimated to be 7.047MW and would generate solar renewable energy that will offset approximately 26% of the current electric power usage at those Local Unit Facilities, thus, reducing the carbon footprints of the Local Unit Facilities for the term of the agreement and, potentially, beyond.

The SCIA intends to enter into a long-term (fifteen year) PPA with the Successful Respondent to purchase solar electric power produced from installations located on some, or all, of the Local Unit Facilities identified above. The SCIA does not intend to enter into a PPA unless the cost of the PPA is lower than the delivered cost of power from the local electric utility companies, PSE&G or JCP&L.

In evaluating Proposals, the Evaluation Team used a Proposal Evaluation Matrix (Matrix) to rank Respondents. The Matrix includes a three step process:

1. Phase I is a checklist to determine if the Respondent has included all required documentation and information in their proposal. Once all requirements have been met, a Respondent qualifies to move to the Phase II of the evaluation. As the RFP makes clear, if a Respondent does not meet the Phase I requirements, it does not receive further consideration.
2. Phase II is a weighted rating of the value provided by the proposal across several categories (financial benefits, technical design, experience, qualifications and financial strength) and evaluation factors within those categories.
3. Phase III is an interview of all Respondents and final evaluation.

The Respondent with the top ranking in Phase II and III will be recommended for award as the Successful Respondent. The purpose of this Evaluation Report is to provide the SCIA with a full evaluation of qualified proposals to recommend which one provides the greatest value to the County, the SCIA and the Local Units.

4. Financial Structure for the Somerset County Renewable Energy Program

The following is a brief synopsis of the financial structure as required in the RFP.

The SCIA will issue Somerset County guaranteed taxable bonds to finance the solar systems to be designed and installed by a private solar developer for the benefit of the Local Units. This structure offers the opportunity to the Successful Respondent to maintain the tax ownership of the investment and will allow them to access the low cost of capital available in the public markets, through Somerset County's "Aaa" credit rating.

This structure provides the Successful Respondent with the opportunity to take advantage of federal tax benefits (such as the 30% renewable energy investment tax credit and five year accelerated depreciation). The Successful Respondent will also own and monetize SRECs realized through New Jersey's Renewable Portfolio Standard (RPS) Program. The value realized from the sale of SRECs in the competitive market is a major component supporting the financing of a solar project. The Successful Respondent will take on the responsibility, and risk, of managing SREC sales.

These benefits have been combined in SCIA's Solar Initiative. SCIA will enter into a series of license agreements with the local governments that want renewable energy, to gain access to their roof and/or ground space for the installation of solar panels. After SCIA issues its Aaa rated County guaranteed bonds to finance the solar projects, SCIA will lease the solar panels to the competitively procured Successful Respondent, structuring that lease in such a way as to provide the Successful Respondent with an opportunity to become the tax owner of the solar projects.

The Successful Respondent, in turn, makes lease payments to SCIA to fully pay the debt service on the SCIA bonds. Through a PPA, the Successful Respondent sells the electricity generated by the solar panels through SCIA back to the local government entities at a rate below the local utility tariff. The Successful Respondent must either provide some form of security to SCIA, or eliminate the need for it, (competitively procured under the RFP process in the amount of the County Deficiency Amount calculation) to provide security that the lease payments will be made and that the SCIA and County have adequate financial security.

This financing structure, in effect, allows the Successful Respondent to design, construct, own and operate the solar systems, assume the burdens of the project (pay the debt service and provide security) and embed its costs and revenue streams into a fixed, indexed sales price for the solar energy generated that is beneficial to the Local Units.

The Local Units demonstrate environmental responsibility, while realizing economic benefits. The PPA offers a reduction in current energy costs and long term stability of energy prices.

5. RFP Preliminary Solar System Size

A preliminary feasibility assessment, as provided in the RFP and performed by SCIA's Energy Consultants estimated the technical potential for Solar Systems at each site as follows:

1. Borough of Manville:	Manville Library (54.28 kW)
2. Borough of Somerville:	Engine Company (17.71 kW)
3. Borough of Bound Brook:	Public Works (108 kW)
4. Branchburg Twp Board of Ed.:	Central Middle School (356.04 kW) Whiton School (50.83 kW) Old York School (167.67kW)
5. Bridgewater Township:	County Library (143.4 kW) Bridgewater Senior Center (64 kW)
6. Bridgewater-Raritan Schools:	Hamilton School (208.84 kW) Middle School (347.3 kW) Adamsville School (188.83 kW)
7. Franklin Township:	Municipal Building (67.85 kW) Berry Street Garage (48.3 kW)
8. Franklin Township Board of Ed:	Franklin Park School (288.19 kW) Elizabeth Avenue School (83.26 kW) Pine Grove Manor School (64.63 kW) Franklin High School (533.14 kW)
9. Green Brook Board of Education:	Green Brook Middle School (340.17 kW) Irene E. Feldkirchner School (145.82 kW)
10. Manville School District:	Weston Elementary School (224.02 kW) Manville High School (264.96 kW)
11. Montgomery Twp. Board of Ed:	Montgomery High School (1,030.4 kW) Montgomery Upper Middle (426.42 kW) Orchard Hill Elementary School (667 kW)
12. Raritan Valley Community College:	Arts Bldg Walkway (318.32 kW)
13. Somerset County:	Somerset County Court House (40.94 kW) Emer. Services Training Academy (69.23 kW)
14. Somerville Board of Ed:	Somerville Middle School (96.6 kW) Somerville High School (210.91 kW) Vanderveer Elementary School (403.88 kW)
15. Township of Montgomery:	Otto Kaufman Community Center (15.87 kW)
Total	7.047MW

6. PPA Pricing Design

SCIA has requested one PPA Price and index from the Respondents for the entire project. Respondents are required to insure that every Local Unit Facility is included in the response. Respondents which provided base proposals in accordance with the RFP were also permitted to submit alternate proposals. Respondents were also required to provide a price adjustment factor to be used to adjust PPA rates upward or downward based on the final interest rate determined at the closing of project finance.

7. Respondent Response to RFP

SCIA received proposals in response to the RFP from the following nine Respondents:

1. BP Solar International, Inc.
2. HRS Energy Solutions
3. Mercury Solar Systems
4. NFI Solar
5. Power Grid Capital, LLC
6. Ray Angelini, Inc. and Nautilus Solar
7. SunEdison
8. Tioga Energy, Inc.
9. Vanguard Energy Partners, LLC

The proposals from Ray Angelini, Inc. and Nautilus Solar, Mercury Solar Systems, SunEdison, NFI Solar and HRS Energy Solutions were determined by counsel to SCIA to have failed to meet the requirements of the RFP with material defects, due to their failure to provide the "Consent of Surety" form at the time of submittal of their proposals as required pursuant to Section 7.2 and Exhibit 2, Sealed Proposal Checklist, of the RFP, and as such were removed from further consideration and analysis. The proposal from BP Solar International, Inc. was determined by legal counsel to SCIA to have failed to meet the minimum requirements of the RFP with material defects, due to its failure to provide the "County Security" at the time of submittal of its proposal as required pursuant to Form A-1 of Appendix D of the RFP, and as such was removed from further consideration and analysis. Power Grid Capital, LLC elected to withdraw its proposal and removed itself from consideration.

Accordingly, the Phase II and III evaluations in this Evaluation Report address only the conforming fifteen year PPA proposals received by the SCIA in response to the RFP.

Attachment 1 is a summary of the key information from the three conforming proposals submitted by; Vanguard Energy Partners, LLC (Vanguard) and Tioga Energy Company (Tioga), as further summarized below:

Vanguard Energy Partners, LLC

Vanguard proposed a fifteen year PPA term to install solar at all thirty-one Local Unit Facilities. The total size of the solar systems to be installed is 7.6 MW dc. The total project cost is \$40.1 million.

Vanguard's first year PPA price is \$0.04835 per kWh. The annual escalation rate is 2.75%. Vanguard did not offer any SREC sharing but did include a payment to the SCIA in the amount of \$20 million at the time of project completion.

Tioga Energy, Inc.

Tioga proposed two base proposals and two alternative proposals. The two alternate proposals were removed from consideration by SCIA (as permitted by the RFP) because they included solar system designs which were not approved by the Local Units, and not within the footprints provided for in the RFP.

The two base proposals included a fifteen year amortization schedule and a thirteen year amortization schedule. Tioga's PPA price is \$0.048 per kWh for the fifteen year amortization schedule and \$0.043 per kWh for the thirteen year amortization schedule. The annual escalation rate in both proposals is 2%. Tioga also included 50% sharing of SRECs in Year 11 through Year 15, whereby the SCIA can purchase one-half of the SRECs produced by the system for \$200 each and realize the revenue from market sales.

The total size of the solar systems to be installed is 6.6 MW dc. The total project cost is \$35.5 million.

8. Proposal Evaluation Matrix

The Tioga and Vanguard proposals were subject to Phase II and III evaluation in accordance with the process defined in the RFP. The evaluation was conducted in accordance with an evaluation matrix, which is based on a total potential score of 125. The Matrix is broken into the following criteria and weighting factors

Financial Benefits (50)	NPV of Benefits Profile of Benefits End of Contract Provisions Option - Sharing of Benefits Form of Security Material Changes to Program Documents
Technical Design / Approach (10)	Output Guarantee (kWh) Equipment Warranty Construction Schedule Project Team Approach O&M Plan
Respondent Experience (15)	Project Types Similar Size Number of Projects Years of Experience New Jersey Experience
Respondent Qualifications (10)	Management Supervisory Key Staff Contractors
Financial Strength (15)	Bonding Requirements Financial Capability County Security County Deficiency Amount Restoration Performance Security
Short List Evaluation (25)	Presentation Explanation Key Factors Understanding Financial Factors

9. Financial Benefits Evaluation

a. NPV of Benefits

Local Units realize economic benefits from the installation of the Solar Systems through the savings in energy costs realized by purchasing electricity from the solar project rather than from the local electric utility.

In calculating energy cost savings, the Evaluation Team compares a forecast of the cost of the local utility tariff rate electricity delivered to the Local Unit Facility that is avoided by purchasing the solar generation from the Solar Systems at the PPA rate proposed by the Respondent and multiplies the difference by the expected solar output. This yields the projected savings in energy costs realized through the installation of the Solar Systems.

The forecast of the avoided cost of the local utility tariff rate is the result of a detailed analysis of each utility tariff by each of its components over the fifteen year term of the PPA. This detailed analysis takes into account many factors, including the following:

1. Those components of the utility tariff rate that are not avoided as a result of the solar installation. By way of example, the customer charge and the major portion of the demand charges are not avoided through the purchase of solar energy generated by the solar systems.
2. The most recent energy market fundamentals (ex. New York Mercantile Exchange futures, Energy Information Administration long term escalation rates and environmental and RPS programs such as the SREC program) are incorporated to provide the best indication of future energy market costs.
3. The impact on future energy costs of national, state and regional environmental initiatives currently being considered (ex. carbon credits). The forecast includes the low Environmental Protection Agency estimate for carbon legislation originally slated to start in 2012 but pushed out to 2015.
4. The impact that general energy market escalation will have upon long-term energy prices.

Attachment 1 summarizes the PPA pricing (first year PPA price and annual escalation) proposed by the conforming Respondents.

The PPA pricing offered by Vanguard and Tioga are less than the avoided utility cost for all Local Unit Facilities.

SCIA's energy cost savings are shown on **Attachment 2**. The savings calculations in **Attachment 2** are shown in both net present value and nominal dollars, however, the most appropriate way to compare the value of projects is on a net present value basis to recognize the time value of money and the opportunity cost of capital.

On a net present value basis, the SCIA energy savings offered by the Vanguard proposal is approximately \$13.23 million, and the energy savings offered by the Tioga proposal is approximately \$10.50 million for the fifteen year amortization proposal and \$10.96 million for the thirteen year amortization proposal.

The Vanguard proposal offered the most financial security to the SCIA and the County through buying down the principal investment amount by half of the debt, or \$20 million. This first year equity contribution enables the County to have sufficient project generated revenue (PPA payments and SRECs) in each year even with very conservative SREC values (as low as \$60/SREC), so that the need to fund a County deficiency amount is eliminated. Vanguard/Citi covenanted, in the interview, that the only substantive conditions precedent to payment of the equity contribution were the completion of the construction, and initial operation and performance, of the solar projects (for which SCIA will receive a construction performance and payment bond). Accordingly, SCIA was satisfied that the equity contribution shall materialize, thereby eliminating the need to fund a County deficiency amount, even in a severely depressed SREC market, which in turn protects the County to the maximum extent of any proposal submitted. As such, Vanguard's proposal provides the SCIA and the County with the greatest financial security, protecting the County's guarantee and bond rating against significant reductions in project reserves.

We have also completed sensitivity analyses associated with changes in the escalation of the retail electric rates and on discount rates to evaluate such impact on proposal responses (see **Attachment 6**). The sensitivity analyses also demonstrate that the Vanguard proposal provides substantially more benefit to the Local Units than either of the Tioga proposals.

b. Profile of Benefits

The profile of benefits takes into consideration broader economic benefits beyond the NPV analysis discussed above. These considerations include whether the proposals use American-Made equipment to provide greater benefit to the United States economy; the level of financial risk avoidance offered by the proposal; the level of price index provided in the proposal; and, the distribution of benefits over time. While both price indexes are acceptable and help support the level of NPV benefit shown above, the Tioga index is lower (2.00% versus 2.75%). Due to the "Made in America" source of the equipment in the Vanguard proposal and the "risk avoidance" elements of the proposal, it scores higher in this criteria.

c. End of Contract Provisions

SCIA requested that the Respondents include the following end of contract provisions in their bids: (a) renegotiation of an extension of the PPA if allowable by law, (b) removal

of the solar panels at no cost to SCIA, and (c) purchase of the solar facility by SCIA at fair market value or a discounted value.

1. Vanguard – All options offered, with purchase at fair market value or termination payment established in contract. Vanguard also provided an option to finance the fair market value of the solar system as determined at the end of the contract from Year 16 through Year 20. The buyout amount will be 60 monthly payments during Year 16 through Year 20, each payment at 85% of the final per kWh PPA rate during the fifteenth year of the term multiplied by the kWh production each month.
2. Tioga – All options offered, with purchase at fair market value or termination payment established in the contract.

Both proposals are acceptable.

d. Option – Sharing of Benefits

As provided in the RFP responses and then confirmed during the interview process, the Evaluation Team asked the Respondents whether they would be willing to share SREC value with SCIA.

Solar developers typically heavily discount SRECs in the later years due to greater uncertainty in the SREC market over a longer time frame. In reviewing the Respondents' calculation of the County Deficiency Amount, there is a heavy discount on the SREC value in the later years.

Tioga offered SREC purchase options in their proposal. Tioga offered sharing 50% of the SRECs in Year 11 through Year 15 of the PPA to the extent the value of SRECs exceeds \$200 per SREC in any such year. This is a potential additional benefit for the SCIA and the local governments, depending on the SREC market in those years, without passing along any additional SREC risk to the SCIA or Local Units.

The level of this potential benefit and the probability of it occurring is very difficult to identify since it depends on SREC prices eleven to fifteen years into the future. SREC prices will depend on the level of SREC supply and the cost and efficiency of new solar projects at that time. At a \$250 SREC price in Year 11 through Year 15 of the PPA, the SCIA would realize \$750,000 NPV benefit from this provision. Accordingly, while it does provide sharing of some SREC upside, the proposal offers no upside in Year 1 through Year 10 and does not offer large upside.

Vanguard did not offer any SREC sharing options in its proposal.

e. Form of Security

The form of security offered in the Vanguard proposal is the significant differentiator from the other proposals, providing risk containment to the County. Vanguard's proposal included an equity investment in Year 1 of \$20 million upon project installation completion. By offering to pay \$20 million at the time of project completion, the Vanguard proposal largely extinguishes the potential risk of significant reductions in the price of SRECs, in a manner that the other proposals do not possess.

The Tioga proposal provides for significant County Deficiency Amounts totaling \$7.4 million in Year 1 and over \$2.4 million in Year 15. The initial value of the fund will be satisfied through receipt of the 1603 Treasury Grant and will be \$7.5 million. The Tioga proposal also used conservative SREC values (\$348/SREC in Year 1) in each year adding additional financial security.

f. Material Changes to Program Documents

Vanguard and Tioga proposed no material changes to the program documents.

10. Technical Design/Approach

The evaluation of technical design/approach has several elements including output guarantees, equipment warranties, construction schedules, project term approach and operation and maintenance plans.

a. Output Guarantee (MWH)

Both Respondents, Tioga and Vanguard, provided the output guarantees required in the RFP of 90%.

b. Equipment Warrantees

Tioga's proposed warrantees are as follows:

Major System Components

System Component	Manufacturer	Compliance with Project Technical Specifications
PV Modules	Yingli 235 WATT	Yes
Inverters	PV Power	Yes
Mounting Systems	Panel Claw Ballasted 10 deg	Yes
Canopy System	Baja Solar Parking Canopy 10 deg	Yes (See Note 1. Below)
DAS	Energy Recommerce	Yes

Notes:

1. During the oral interview, Tioga stated that it would be willing to provide the solar carport style/design of the County's choice.

Vanguard equipment warranties are as follows:

System Component	Manufacturer	Compliance with Project Technical Specifications
PV Modules	Solar World 245 WATT	Yes
Inverters	PV Power & Satcon & SMA	Yes
Mounting Systems	Unirac Rapid Rack 10 deg	Yes
Canopy System	Custom Design	Yes (See Note 1. Below)
DAS	Noveda SunFlow DAS	Yes

Notes:

1. Carport or Parking Lot Canopy cut sheets were not provided in the proposal. During the oral interview, Vanguard stated that it would be willing to provide the solar carport style/design of the County’s choice.
2. All of the system components which are being proposed appear to be made in the USA.

c. Construction Schedule

A written construction schedule and project timeline was included in the Tioga proposal. The timeline, although preliminary, is applicable to this multi-site project and showed a logical progression of construction to the completion goal in one year. Additional information regarding the construction process was described in the oral interview. The construction of the project will be phased and will be managed out of approximately four construction field office “home bases” with five or more projects being run out of each construction office. Each field office will have at least two field engineers, a superintendent and a project manager who will be dedicated to the projects conducted from that office.

Although a written construction schedule or project timeline was not included in Vanguard's proposal, the following clarification was provided during the oral interview process. The construction of the project will be phased with four to five project teams dedicated to the completion deadline goal of one year. During the construction process, timelines will be submitted to the SCIA.

d. Project Team Approach

Tioga is very experienced in the construction of large, multifaceted solar projects.

Vanguard is well organized and sound. They are experienced and have completed large, complicated projects.

e. Operations and Maintenance

A written Operations and Maintenance (O&M) section was provided in the Tioga proposal which addressed the O&M of the project. Although all of the O&M will be provided by SunDurance (Tioga's subcontractor), each site will be provided with an individualized O&M manual and a training session will be provided to instruct the onsite staff on basic O&M procedures.

Although a written O&M section was not provided by Vanguard in the proposal, the following clarification was provided during the oral interview process: two maintenance people with two separate maintenance vehicles will be dedicated to providing continuous maintenance to the PV systems.

11. Respondent Experience

Both Respondents demonstrated extensive project experience with respect to project types, similar types of projects, number of projects, years of experience and New Jersey experience. As such, Vanguard and Tioga received the maximum number of points for this section of the evaluation matrix.

12. Respondent Qualifications

Both Respondents provided well qualified management, supervisory, key staff and contractors. As such, Vanguard and Tioga received the maximum number of points for this section of the evaluation matrix.

13. Financial Strength

a. Bonding Requirements

Tioga provided the required proposal security and consent of surety, as a precursor to the required construction performance bond, in sufficient form and amount and from a reputable source in order to achieve the highest mark for this category.

Vanguard provided the required proposal security and consent of surety, as a precursor to the required construction performance bond, in sufficient form and amount and from a reputable source in order to achieve the highest mark for this category.

b. Financial Capability

Tioga is receiving a dual obligee bond from SunDurance, its subcontractor, and the SCIA will be a beneficiary of that bond. SunDurance is an affiliate of the Conti Group, which has been performing construction and construction management services since 1906, and has sufficient annual revenues to receive the highest score for this category.

The Vanguard proposal relies, in large part, on a \$20 million equity contribution of Citigroup Global Markets Inc. (Citi) and Vanguard. As 90% of the equity contribution is due from Citi, the financial capability of Citi is of particular importance to this proposal. Citi represented in the interview that their share of this equity contribution will, at closing, be set aside and earmarked for this transaction, from unrestricted Citi funds, as opposed to having to be raised from tax equity or other investors. Accordingly, the SCIA will, in large part be reliant on the financial capability of Citi to perform. In addition, Vanguard has demonstrated sufficient experience and financial wherewithal to be considered financially capable in its own right. As Citi is one of the largest financial institutions in the world, teamed with Vanguard's solar experience (detailed elsewhere in this report), the Vanguard approach receives the highest score in this category.

c. County Security

The County security afforded through Tioga's County Deficiency Amount (see County Deficiency Amount below) is satisfactory, and would have otherwise earned the highest score for this category. However, based on a comparison to the significantly greater protection provided by the Vanguard proposal (a \$20 million payment), the Tioga score has been reduced.

Vanguard, through its rapid accelerated amortization structure (see County Deficiency Amount below), has effectively eliminated the need to fund a County Deficiency Amount. Accordingly, this approach has, to the greatest extent possible of any of the proposals, reduced the County's exposure on its Authority Bond Guaranty, thereby providing the County the greatest security. For this reason, Vanguard receives the highest mark for this category.

d. County Deficiency Amount

Tioga's County Deficiency Reserve, funded through a pledge of its 1603 Treasury Grant payable prior to its first lease payment, in an amount approaching \$8,000,000 (and drawn down over time as Bond principal is repaid) would provide a great deal of security to the County. This approach is a satisfactory County Deficiency Amount approach, and would have earned the highest mark for this category. However, since the Vanguard approach is so demonstrably better, in comparison, the Tioga score has been reduced.

The Vanguard approach to the County Deficiency Amount was novel, and it goes the furthest among all proposals to limiting the County's guarantee exposure on its Bonds. By making a large amortization payment on the Bonds (roughly half of the principal amount of the Bonds) at the Respondent's first lease payment obligation date, approximately thirteen months from the date of Bond issue, Vanguard has effectively eliminated any remaining deficiency for the balance of the amortization of the Bond issue. For the following fourteen years, the sum of the PPA payments to be made by the Local Units, at the Vanguard PPA prices (as escalated), plus a modest SREC value entirely eliminates any County Deficiency in those last fourteen years of the transaction. In fact our analysis indicates that SREC prices can fall to as low as \$60 per MWH and the remaining Bond debt service will still be paid by the sum of PPA payments from the Local Units and a minimal SREC value. Accordingly, Vanguard has effectively eliminated the need to fund a County Deficiency Amount, thereby earning it the highest score for this category.

e. Restoration Performance Security

The Tioga proposal did not provide any restoration performance security, and was graded accordingly.

The Vanguard proposal did not provide any restoration performance security, and was graded accordingly.

14. Phase III Evaluation

Respondents who were qualified to be interviewed were evaluated with respect to their presentation and answers in the interview. This included evaluation of their presentation, explanation of key factors and understanding of financial factors.

Both Respondents did an excellent job during their presentations and were able to explain all key issues as well as demonstrating an understanding of financial matters. As such, Vanguard and Tioga received the maximum number of points for this criteria of the evaluation matrix.

15. Recommendation – Successful Respondent

In recommending a Successful Respondent, the Evaluation Team used the Proposal Evaluation Matrix to rank the Respondents.

Both Respondents that submitted proposals that qualified for Phase II review possess high quality management and installation resources and sound solar development experience. However, the proposal of Vanguard differentiated itself in two key areas: providing greater direct economic benefits to the Local Units and protecting the SCIA (and the County and the Local Units) from financial risk.

The overall evaluation matrix scoring identified Vanguard Energy as the Respondent providing the greatest value. Based on the above discussions, the evaluation indicated that Vanguard's proposal scored 117 out of a total of 125 points which is a higher overall score than Tioga's proposals which scored 106 for the fifteen year amortization and 108 for the thirteen year amortization. The proposal scoring is shown in Attachment 5.

The Vanguard proposal yields NPV economic benefits of over \$13.23 million, which is more than 17% higher than the next highest proposal. In addition, by offering to pay \$20 million at the time of project completion, the Vanguard proposal protects the SCIA from future risks of significant reductions in the price of SRECs thereby substantially protecting the SCIA from this key area of project financial risk, in a manner that the other proposals do not possess.

Accordingly, the Evaluation Team recommends that the SCIA select Vanguard as the Successful Respondent. This will result in estimated annual benefits of \$932,651 in the first year, total savings of \$13.23 million (NPV) and average rate reductions for electricity purchased through this program of 60% relative to utility delivered power. These benefits will be recalculated after the sale of bonds and may likely increase due to the conservative assumptions used in this analysis.

Attachment 1
Solar Proposal Summary
Somerset County Improvement Authority
Solar Initiative
Proposal Summary
October 11, 2010

Original Proposal	Solar System Size		Guaranteed KWH (first year)	% of projected	Capital Cost \$/watt	Purchase Power Agreement Pricing			Escalation	Security	Restoration	SREC Sharing
	KW	KWH (first year)				\$/KWH (first year)	Adj. Rate	\$/kwh (first year)				
Tioga Energy 15 Years	6,626	7,460,615	6,714,551	90%	\$35,488,495	\$5.36	\$0.0480	\$0.00009	\$0.03000	2.00%		SREC purchase option in yr 11-15 up to 50% @200
Tioga Energy 13 Years	6,626	7,460,726	6,714,653	90%	\$35,488,495	\$5.36	\$0.0430	\$0.00009	\$0.03000	2.00%		1.3 year amort, 50% SREC sharing for yr 11-15 @ 200
Vanguard	7,618	9,744,579	8,770,121	90%	\$40,051,042	\$5.26	\$0.04835	\$0.000115	\$0.027243	2.75%	none	None

Attachment 2

SCIA Program Solar Savings Summary

**Somerset County Improvement Authority
Solar Initiative
Savings Summary
October 11, 2010**

Proposer	Solar Savings	
	NPV (\$)	Nominal (\$)
Tioga Energy 15 Years	\$10,500,007	\$14,582,643
Tioga Energy 13 Years	\$10,957,484	\$15,205,746
Vanguard	\$13,230,573	\$18,347,493

Attachment 3

Evaluation Matrix

**Somerset County Improvement Authority
Solar Initiative
Proposal Evaluation Matrix
October 11, 2010**

Phase II Category	Evaluation Factor	WEIGHTING	Vanguard	Tioga 13	Tioga 15
Financial Benefits (50)	NPV of Benefits	25	25	21	20
	Profile of Benefits	5	5	4	3
	End of Contract Provisions	5	5	5	5
	Option - Sharing of Benefits	5	0	2	2
	Form of Security	5	5	3	3
	Material Changes to Program Documents	5	5	5	5
Technical Design / Approach (10)	Output Guarantee (KWH)	2	2	2	2
	Equipment Warranty	2	2	2	2
	Construction Schedule	2	2	2	2
	Project Team Approach	2	2	2	2
	O&M Plan	2	2	2	2
Respondent Experience (15)	Project Types	3	3	3	3
	Similar Size	3	3	3	3
	Number of Projects	3	3	3	3
	Years of Experience	3	3	3	3
	New Jersey Experience	3	3	3	3
Respondent Qualifications (10)	Management	3	3	3	3
	Supervisory	2	2	2	2
	Key Staff	2	2	2	2
	Contractors	3	3	3	3
Financial Strength (15)	Bonding Requirements	3	3	3	3
	Financial Capability	3	3	3	3
	County Security	3	3	1	1
	County Deficiency Amount	3	3	1	1
	Restoration Performance Security	3	0	0	0
TOTAL PHASE II		100	92	83	81

All Respondents that submit complete proposals will be required to take part in an interview that will be scored on a 25 point basis

Phase III Category	Evaluation Factor	WEIGHTING	Vanguard	Tioga 13	Tioga 15
Short List Evaluation (25)	Presentation	5	5	5	5
	Explanation Key Factors	10	10	10	10
	Understanding Financial Factors	10	10	10	10
TOTAL PHASE III		25	25	25	25
Overall Evaluation			Vanguard	Tioga 13	Tioga 15
TOTAL PHASE II and III		125	117	108	106

Attachment 4

Savings by Local Unit Facility

Somerset County Improvement Authority
Solar Initiative
Forecasted Energy Cost Savings by Local Unit Facility
October 11, 2010
Based on Vanguard's Proposal

Local Unit Facility	Life of Project		Nominal Annual Savings		Nominal Savings on Solar Energy Purchased		Nominal Savings Total Electric Costs	
	Nominal Savings	NPV Savings	Year 1	Year 15	Year 1	Year 15	Year 1	Year 15
Bound Brook Public Works	\$337,489	\$243,871	\$17,786	\$27,686	69%	73%	35%	35%
BR Adams	\$694,536	\$500,759	\$34,653	\$57,781	53%	60%	40%	42%
BR Hamilton	\$550,003	\$394,804	\$25,487	\$47,175	60%	68%	56%	59%
BR MS	\$979,733	\$706,135	\$48,702	\$81,921	67%	73%	28%	29%
Branchburg Central MS	\$970,665	\$697,050	\$47,599	\$83,568	65%	71%	30%	30%
Branchburg Old York	\$400,684	\$288,032	\$19,852	\$34,174	62%	68%	45%	46%
Branchburg Whiton School	\$200,002	\$144,234	\$10,246	\$16,635	71%	72%	6%	6%
Bridgewater Library	\$458,254	\$330,932	\$24,432	\$37,880	58%	63%	16%	16%
Bridgewater Senior Center	\$159,210	\$115,019	\$8,376	\$13,067	54%	59%	52%	53%
Emergency Services Training	\$217,120	\$156,944	\$11,483	\$17,756	67%	71%	16%	16%
Franklin Berry St.	\$20,879	\$15,078	\$1,093	\$1,719	57%	62%	56%	57%
Franklin Elizabeth Ave.	\$226,714	\$163,734	\$12,093	\$18,713	54%	59%	19%	20%
Franklin HS	\$1,979,814	\$1,429,605	\$105,456	\$163,792	57%	62%	15%	15%
Franklin Municipal Bldg	\$166,020	\$119,899	\$8,856	\$13,714	57%	62%	8%	8%
Franklin Park School	\$734,854	\$530,794	\$38,559	\$60,541	76%	79%	25%	24%
Franklin Pine Grove	\$177,762	\$128,504	\$9,408	\$14,517	61%	65%	14%	14%
Green Brook Irene	\$371,158	\$268,049	\$19,797	\$30,642	53%	58%	15%	15%
Green Brook MS	\$995,233	\$718,252	\$52,625	\$82,603	53%	59%	31%	32%
Manville HS	\$680,947	\$491,133	\$33,504	\$56,439	73%	78%	51%	50%
Manville Library	\$105,532	\$76,297	\$5,590	\$8,600	44%	49%	25%	26%
Manville Weston	\$347,869	\$250,997	\$17,142	\$28,676	62%	68%	58%	59%
Montgomery HS	\$2,655,412	\$1,915,299	\$133,387	\$220,744	63%	68%	17%	17%
Montgomery Orchard Hill	\$1,692,000	\$1,220,033	\$84,576	\$140,818	56%	62%	32%	33%
Montgomery Otto Kaufman	\$16,210	\$11,718	\$858	\$1,324	60%	64%	3%	3%
Montgomery Upper MS	\$1,089,784	\$785,877	\$54,562	\$90,602	55%	61%	28%	30%
RVCC Arts Building	\$850,261	\$611,799	\$42,572	\$71,916	61%	66%	47%	48%
Somerville County Courthouse	\$124,302	\$89,758	\$6,622	\$10,292	63%	67%	1%	1%
Somerville Engine Co.	\$24,297	\$17,564	\$1,286	\$1,985	60%	64%	14%	14%
Somerville HS	\$56,865	\$40,955	\$2,758	\$4,748	39%	48%	39%	45%
Somerville MS	\$208,139	\$150,318	\$10,429	\$17,049	61%	66%	6%	6%
Somerville Vanderveer	\$855,747	\$617,129	\$42,862	\$71,086	52%	59%	31%	32%
TOTAL	\$18,347,493	\$13,230,573	\$932,651	\$1,528,159	60%	65%	20%	20%

Attachment 5

Load Served by Solar by Local Unit Facility

Somerset County Improvement Authority

Solar Initiative

Local Unit Facility - Solar Statistics

October 11, 2010

Based on Vanguard's Proposal

Local Unit Facility	Annual Electric Load (KWH)	Solar System Size		Electric Load Served by Solar Generation (%)
		Annual Generation (KWH)	Annual Generation (KW)	
Bound Brook Public Works	335,280	171,894	147	51.3%
Branchburg Central Middle School	1,126,400	514,343	405	45.7%
Branchburg Old York	285,920	97,348	166	34.0%
Branchburg Whiton School	1,147,840	208,973	73	18.2%
Bridgewater Library	853,800	240,312	191	28.1%
Bridgewater Senior Center	86,060	82,436	64	95.8%
Bridgewater Adamsville	497,400	376,838	226	75.8%
Bridgewater Middle School	1,268,480	539,217	296	42.5%
Bridgewater Hamilton	307,040	288,790	420	94.1%
Franklin Berry St.	11,237	11,185	9	99.5%
Franklin Municipal Bldg	604,900	86,714	70	14.3%
Franklin Elizabeth Ave.	325,800	118,507	299	36.4%
Franklin High School	4,118,427	1,046,651	70	25.4%
Franklin Park School	1,175,990	386,538	806	32.9%
Franklin Pine Grove	377,200	88,876	96	23.6%
Green Brook Middle School	940,480	548,807	433	58.4%
Green Brook Irene	670,380	194,119	156	29.0%
Manville Library	93,270	52,896	41	56.7%
Manville High School	527,120	364,666	150	69.2%
Manville Weston	198,585	186,616	282	94.0%
Montgomery Orchard Hill	1,618,240	915,545	453	56.6%
Montgomery Otto Kaufman	161,680	8,112	6	5.0%
Montgomery High School	5,267,894	1,409,539	1,099	26.8%
Montgomery Upper Middle School	1,128,480	586,109	709	51.9%
RVCC Arts Building	556,373	432,018	338	77.6%
Somerset Emergency Services Training	449,760	108,985	51	24.2%
Somerset County Courthouse	2,761,260	65,544	86	2.4%
Somerville Engine Co.	52,737	12,154	10	23.0%
Somerville High School*	23,972	37,062	83	154.6%
Somerville Middle School	1,121,518	104,168	356	9.3%
Somerville Vanderveer	778,320	459,617	29	59.1%
Total	28,536,563	9,572,685	7,472	33.5%

* Utility data for Somerville High School was incomplete and therefore, the above ratio will change based on complete data.

Attachment 6

Sensitivity Analysis

Somerset County Improvement Authority
 Solar Initiative
 October 11, 2010
 Savings Summary Sensitivity Analysis

Savings Summary @ 3% Electric Escalation

Proposer	Solar Savings			Nominal (\$)
	NPV @ 4.03% (\$)	NPV @ 5% (\$)	NPV @ 3% (\$)	
Tioga Energy 15 Years	\$10,500,007	\$9,761,079	\$11,374,592	\$14,582,643
Tioga Energy 13 Years	\$10,957,484	\$10,188,357	\$11,867,712	\$15,205,746
Vanguard	\$13,230,573	\$12,303,791	\$14,327,203	\$18,347,493

Savings Summary @ 6.5% Electric Escalation

Proposer	Solar Savings			Nominal (\$)
	NPV @ 4.03% (\$)	NPV @ 5% (\$)	NPV @ 3% (\$)	
Tioga Energy 15 Years	\$14,330,226	\$13,229,085	\$15,639,836	\$20,491,184
Tioga Energy 13 Years	\$14,787,704	\$13,656,363	\$16,132,956	\$21,114,288
Vanguard	\$18,346,935	\$16,936,312	\$20,024,666	\$26,240,053

Savings Summary @ 0% Electric Escalation

Proposer	Solar Savings			Nominal (\$)
	NPV @ 4.03% (\$)	NPV @ 5% (\$)	NPV @ 3% (\$)	
Tioga Energy 15 Years	\$7,295,035	\$6,846,695	\$7,821,605	\$9,722,571
Tioga Energy 13 Years	\$7,752,513	\$7,273,973	\$8,314,725	\$10,345,674
Vanguard	\$8,949,411	\$8,410,791	\$9,581,166	\$11,855,467