

Solar Proposal Evaluation Report
Morris County Renewable Energy Program,
Series 2011
Proposals of September 8, 2011

Prepared for
Morris County Improvement Authority

Prepared by:
Morris County Evaluation Team
September 28, 2011

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Morris County Improvement Authority Morris County Renewable Energy Program Series 2011

1. 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)), Public School Contracts Law, specifically, (N.J.S.A. 18A:18A-4.1(k)); Local Finance Board Notice 2008-20, December 3, 2008, *Contracting for Renewable Energy Services* (LFB Notice 2008-20); the Board of Public Utilities (BPU) protocol for measuring energy savings in PPA agreements (*Public Entity Energy Efficiency and Renewable Energy Cost Savings Guidelines, Dated February 20, 2009*), and Local Finance Board Notice 2009-10, dated June 12, 2009, *Contracting for Renewable Energy Services: Update on Power Purchase Agreements* (LFB Notice 2009-10).

On July 7, 2011, Morris County Improvement Authority (MCIA) issued a Request for Proposals (RFP), as amended, 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 certain County and local government facilities (Local Unit Facilities) across Morris County. Below is a complete list of all participating Local Units included in the RFP:

1. Township of Hanover
2. Township of Parsippany - Troy Hills
3. Chester Board of Education
4. Kinnelon Board of Education
5. Mine Hill Board of Education
6. Montville Township Board of Education
7. Morris Hills Regional District Board of Education
8. Morris School District Board of Education
9. Randolph Township Board of Education
10. Washington Township Board of Education
11. County College of Morris

The goal of the MCIA is to implement solar renewable energy projects that are environmentally responsible and economically beneficial to the County, its Local Units, and its citizens.

MCIA intends to enter into a long-term (fifteen (15) year) PPA with the Successful Solar Respondent (Successful Respondent) to purchase solar electric power produced from installed renewable energy projects located at certain Local Unit Facilities for the Local

Units identified above. Under a PPA, a developer designs and installs solar projects and the site energy user purchases the electricity produced at a fixed rate per kilowatt hour (kWh). A county or local government can 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. Jersey Central Power and Light (JCP&L). In a typical PPA, a Local Unit will, for a portion of its energy needs, save on its energy bills, and will be, to the greatest extent possible, insulated from energy market fluctuation, construction risks, operational risks, and financial risks.

The Morris Evaluation Team (Evaluation Team) is comprised of: John Bonanni and Glenn Roe of the MCIA; Steve Pearlman, Esq. and Deborah Verderame, Esq. of Inglesino, Pearlman, Wyciskala & Taylor, LLC; Tom Brys and Jessica Vogel, of Birdsell Services Group; Douglas Bacher and Heather Litzebauer of NW Financial Group, LLC; and Steven Gabel, Richard Preiss and Isaac Gabel-Frank of Gabel Associates. The Evaluation Team assisted in developing and implementing the RFP, and administered the procurement process as well as a comprehensive evaluation of qualified proposals on the basis of price and non-price criteria.

This process was undertaken 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.

MCIA received proposals from two (2) Solar Respondents (Respondents): SunEdison and Ray Angelini, Inc. (SunEdison/RAI); and SunLight General Capital and Power Partners MasTec (SunLight/MasTec).

The two (2) Respondents submitted the required RFP documents and, based on Phase I requirements (compliance with the minimum terms of the RFP), were deemed compliant. The two (2) proposals, therefore, qualified to be further evaluated under Phase II (technical and economic evaluation) requirements. The Evaluation Team has undertaken an economic and technical review of the proposals to evaluate them in accordance with established criteria under Phase II evaluation. The Evaluation Team considered and weighed the following:

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

The two (2) Respondents possess high quality management, installation capabilities, and sound solar development experience. However, SunLight/MasTec's proposal differentiated itself in five (5) key areas:

1. It provides substantial direct energy cost savings that were not available under the SunEdison/RAI proposal;
2. It provides the Local Units the potential for additional savings through the sharing of revenues from the sale of Solar Renewable Energy Certificates (SRECs) and other environmental benefits;
3. Due to SunLight/MasTec's proposed capital investment, which reduces the required size of the MCIA bonds, it provides a strong level of protection for the MCIA (and the County) from financial risk;
4. It provided additional financial protection for MCIA (and the County) in the form of a Debt Service Reserve Fund; and,
5. It includes a restoration security providing for additional Local Unit protection at the end of contract.

Over the fifteen (15) years of the PPA, the SunLight/MasTec proposal yields nominal benefits of \$7.9 million or net present value (NPV) benefits of \$5.7 million.

Each Respondent provided a financial structure limiting the financial risk to the MCIA and the County. By offering to self-finance a substantial portion of the overall cost of the renewable energy projects in the amount of \$11.5 million, the SunLight/MasTec proposal allows the MCIA to significantly reduce its bond size. The MCIA's \$31.5 million in bonds will be combined with SunLight/MasTec's \$11.5 million self-financing to finance the total project cost (\$43.0 million). The SunLight/MasTec proposal also protects the MCIA and the County (which will be providing its guaranty on MCIA bonds) from the potential risk of reductions in the price of SRECs. Moreover, by self-financing a portion of the total cost of the project (and making these funds available at MCIA bond closing), this protection has a very high degree of certainty. In addition, SunLight/MasTec proposed to post a \$2.5 million reserve, funded with an equity contribution from the company, to provide additional financial protection to MCIA and the County.

The Evaluation Team recognizes the value of the financial provisions of the SunLight/MasTec proposal in terms of the protection of the County, its guaranty and its bond rating. The preservation of this bond rating provides future economic benefits to the County and its citizens and businesses by allowing the County to borrow money at low interest rates due to its "Aaa/AAA" rating. Accordingly, a high premium is placed on its protection. The financial protections of the SunLight/MasTec proposal, including a significant reduction in the size of the MCIA bond amounts, provides a strong and

distinguishing level of protection which, in combination with other factors considered, lead to the recommended selection.

The RFP reserves the right for MCIA to conduct interviews with qualified Respondents. After reviewing all aspects of the submitted proposals, in particular the savings in energy costs preferred by MCIA and as required under applicable law (see the details in Section 8(a) and as reflected in the Evaluation Matrix through Phase II), the Evaluation Team decided not to conduct an interview with SunEdison/RAI. The Evaluation Team did conduct an interview with SunLight/MasTec to better understand their proposal. Based on the results of the Phase II and Phase III evaluation, the Evaluation Team recommends that the proposal of SunLight/MasTec be accepted (see **Attachment 2** for the Evaluation Matrix). The SunLight/MasTec proposal results in significant savings on energy costs for the participating Local Units, and strong financial protections for the MCIA and the County that distinguish it from the other proposal.

The scoring in the Evaluation Matrix (see **Attachment 2**) identified SunLight/MasTec as the Respondent providing the greatest overall value to MCIA. Through Phases I and II, the evaluation indicated that SunLight/MasTec's proposal scored 85 out of 90 points while the SunEdison/RAI proposal had a score of 45 out of 90 points. The Phase III interview process provided further support to the SunLight/MasTec proposal. **Accordingly, the Evaluation Team recommends that the MCIA select SunLight/MasTec as the Successful Respondent.**

The evaluation of "price and non-price" factors allowed by law permits and supports this recommendation.

SunLight/MasTec has proposed to install and operate solar systems at **twenty-three Local Unit Facilities**. The basic terms and benefits of the SunLight/MasTec proposal are as follows:

1. A fifteen (15) year PPA, with a first year rate of \$0.075 per kWh and annual escalation of 3% which results in a final price of \$0.113 in Year 15.
2. A 8.598 MW solar system. This will generate approximately 9.8 million kWh per year. The solar energy will serve approximately 15% of the combined load for all Local Unit Facilities (see **Attachment 4**).
3. Participating Local Unit Facilities will realize, in aggregate, an annual energy cost savings of approximately \$395,000 in the first year and these savings are expected to grow to approximately \$670,000 in the last year of the PPA (see **Attachment 3**).
4. Over the fifteen year term of the PPA, the Local Units, in aggregate, will realize \$7.9 million in energy cost savings on a nominal basis (\$5.7 million on a NPV basis) (see **Attachment 5**).

5. Participating Local Unit Facilities will realize an average rate reduction, for the portion of their electricity purchased through this program, of 35% relative to utility delivered power in the first year.
6. A significant reduction in the amount of MCIA bonds required to fund the renewable energy projects, to an amount of approximately \$31.5 million; which creates significant financial security to the MCIA and the County.
7. A \$2.5 million reserve fund, funded with an equity contribution from the company, provides additional financial protection to the MCIA.
8. A stable and known cost of electricity for fifteen years allows for budgetary certainty for the participating Local Units.
9. Partial use of the locally manufactured solar panels of MX Solar, a Morris County based solar panel company.
10. Restoration Security of \$375,000 to provide additional protection to the Local Units that will be set aside to cover the cost of system removal at the end of the term if such option is selected.
11. Sharing of SREC revenue benefits.
12. An educational component including an educational program, with the ability to access operational data for the solar systems via a web enabled system.

The above benefits will be recalculated after the sale of the MCIA County-guaranteed bonds and may likely increase due to the conservative assumptions used in this analysis. These conservative assumptions are outlined in Section 8.a.

2. Overview of the Morris County Renewable Energy Program

The following is a brief synopsis describing the Morris County Renewable Energy Program, Series 2011 (Solar Initiative) as outlined in the RFP.

MCIA issued a RFP dated July 7, 2011, 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 twenty-three Local Unit Facilities (See Section 4 for a list of the final participating Local Units and Local Unit Facilities).

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

The RFP's total size (kW dc) of the Solar Systems at the MCIA's eleven (11) local units and twenty-three (23) Local Unit Facilities was estimated to be 7.7 MW (Note - The SunLight/MasTec proposal actually included a 8.6 MW solar system) thus, reducing the carbon footprints of the Local Unit Facilities for the term of the agreement and, potentially, beyond.

The MCIA intends to enter into a long-term (fifteen (15) 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 MCIA 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 company, JCP&L.

In evaluating proposals, the Evaluation Team used a Proposal Evaluation Matrix (Matrix) to rank Respondents (see **Attachment 2**). 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 is deemed compliant and 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 the Respondents and final evaluation.

The Respondent with the top ranking in Phase II and III, after being determined to be in compliance with the requirements of Phase I, will be recommended for award as the Successful Respondent. The purpose of this Evaluation Report is to provide the MCIA

with a full evaluation of qualified proposals, and to recommend which proposal provides the greatest value to the County, the MCIA, and the Local Units.

3. Financial Structure for the Morris County Renewable Energy Program

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

The MCIA will issue Morris 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 for 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 Morris County's "Aaa/AAA" credit rating.

The benefits of the federal tax benefits (which the MCIA cannot take as a public entity) and low cost county debt have been combined in MCIA's Solar Initiative.

This structure provides the Successful Respondent with the opportunity to take advantage of federal tax benefits (such as the 1603 Treasure Grant or 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.

MCIA 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 and parking lots for the installation of solar panels. After MCIA issues its Aaa rated County guaranteed bonds to finance the solar projects, MCIA 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 MCIA to fully pay the debt service on the MCIA bonds. Through a PPA, the Successful Respondent sells the electricity generated by the solar projects through MCIA 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 MCIA, or eliminate the need for it. As part of the RFP process, the Respondents had to include either a County Security Amount (CSA), or an alternate structure that would minimize or eliminate the CSA, to provide security that the lease payments will be made and that the MCIA and County have adequate financial protection.¹ The CSA calculates the difference between the lease payments and the revenue the Successful Respondent earns through SREC sales and PPA payments. This is to ensure that if the Successful Respondent defaults in any year during the fifteen

¹ See page 9 of the RFP Section 1.3.

year contract, the MCIA will have sufficient reserve in the form of the CSA, together with remaining SREC and PPA revenues, to pay the remaining debt service (assuming the continuation of certain conservatively estimated SREC and PPA payment revenue streams).

The RFP also permitted Respondents to propose alternate structures using their own sources of financing.

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.

The program allows Local Units to demonstrate environmental responsibility while realizing economic benefits. The PPA offers a reduction in current energy costs for a portion of the Local Units energy needs and long term stability of energy prices.

4. RFP Preliminary Solar System Size

The original RFP, as released on July 7, 2011, contained the results of a preliminary feasibility assessment, as performed by MCIA's Energy Consultants. This assessment estimated the technical potential for Solar Systems at eleven (11) Local Units and twenty-five (25) Local Unit Facilities. Released on August 5, 2011 Addendum 1, provided changes to the original Local Unit Facility list and system sizes. The tranche list as included in the original RFP was as follows:

MCIA2 Solar					
Local Unit / Local Unit Facility					
Estimated Solar Size (KW)					
June 28, 2011					
Local Units	Local Unit Facility	Estimated Solar Size (KW)			
		Roof	Canopy	Ground	LUF Total
Township of Hanover	Municipal Building / Police	0.00	0.00	172.94	172.94
Parsippany-Troy Hills	Library	60.49	144.90	0.00	205.39
Chester BOE	Dickerson School	77.97	0.00	0.00	77.97
	Bragg Intermediate School (A)	0.00	200.10	0.00	200.10
	Black River Middle School	0.00	0.00	404.80	404.80
Kinnelon BOE	Kinnelon High School	131.56	0.00	0.00	131.56
	Pearl Miller Middle School	197.11	0.00	0.00	197.11
	Stonybrook School	147.20	0.00	0.00	147.20
Mine Hill BOE	Canfield Avenue School	245.87	0.00	0.00	245.87
Morris School District BOE	Frelinghuysen Middle School	0.00	151.80	0.00	151.80
	Morristown High School	0.00	317.40	0.00	317.40
Randolph BOE	Randolph High School	229.08	938.40	0.00	1,167.48
	Randolph Middle School	168.13	0.00	132.48	300.61
	Ironia School	134.78	0.00	0.00	134.78
Montville Township BOE	Montville High School	200.79	593.40	0.00	794.19
	Lazar Middle School	160.08	138.00	0.00	298.08
	Hilldale School	0.00	165.60	0.00	165.60
	Valley View School	97.98	0.00	0.00	97.98
	Woodmont School	142.37	0.00	0.00	142.37
Morris Knolls BOE	Morris Knolls High School	214.36	0.00	0.00	214.36
Washington Township Board of Education	Long Valley Middle School	397.44	165.60	0.00	563.04
County College of Morris	Demare Hall Penthouse	46.46	0.00	0.00	46.46
	Parking Lot One	0.00	1,483.50	0.00	1,483.50
	Parling Lots 7 & 8	0.00	897.00	0.00	897.00
	Student Community Center (SCC)	136.62	0.00	0.00	136.62
TOTAL		2,788.29	5,195.70	710.22	8,694.21

The total system size across the above eleven (11) local units was 8.694 MW. However, Addendum 1 released on August 5, 2011 decreased the system size from 8.694 MW to 7.699 MW. The following Local Unit Facilities were removed or amended as part of Addendum 1 (Note - Montville Township High School and Valley View Elementary School are still part of the Series 2011 Local Units since they both have roof mounted solar systems):

- Valley View Elementary School - (98 KW roof mounted)
- Hilldale School - (166 KW parking canopy)
- Lazar Middle School - (138 KW parking canopy)
- Montville Township High School - (593 KW parking canopy)

MCIA2 Solar					
Local Unit / Local Unit Facility					
Estimated Solar Size (KW)					
August 1, 2011					
Local Units	Local Unit Facility	Estimated Solar Size (KW)			LUF Total
		Roof	Canopy	Ground	
Township of Hanover	Municipal Building / Police	0.00	0.00	172.94	172.94
Parsippany-Troy Hills	Library	60.49	144.90	0.00	205.39
Chester School District	Dickerson School	77.97	0.00	0.00	77.97
	Bragg Intermediate School (A)	0.00	200.10	0.00	200.10
	Black River Middle School	0.00	0.00	404.80	404.80
Kinneton BOE	Kinneton High School	131.56	0.00	0.00	131.56
	Pearl Miller Middle School	197.11	0.00	0.00	197.11
	Stonybrook School	147.20	0.00	0.00	147.20
Mine Hill BOE	Canfield Avenue School	245.87	0.00	0.00	245.87
Morris School District	Frelinghuysen Middle School	0.00	151.80	0.00	151.80
	Morristown High School	0.00	317.40	0.00	317.40
Randolph BOE	Randolph High School	229.08	938.40	0.00	1,167.48
	Randolph Middle School	168.13	0.00	132.48	300.61
	Ironia School	134.78	0.00	0.00	134.78
Montville Township BOE	Montville High School	200.79	0.00	0.00	200.79
	Lazar Middle School	160.08	0.00	0.00	160.08
	Woodmont School	142.37	0.00	0.00	142.37
Morris Knolls BOE	Morris Knolls High School	214.36	0.00	0.00	214.36
Washington Township Schools	Long Valley Middle School	397.44	165.60	0.00	563.04
County College of Morris	Demare Hall Penthouse	46.46	0.00	0.00	46.46
	Parking Lot One	0.00	1,483.50	0.00	1,483.50
	Parling Lots 7 & 8	0.00	897.00	0.00	897.00
	Student Community Center (SCC)	136.62	0.00	0.00	136.62
TOTAL		2,690.31	4,298.70	710.22	7,699.23

The following represents the tranche list as updated through Addendum 1 to the RFP:

Therefore, after the Addendum 1 changes, the total system size of the MCIA Solar Initiative includes eleven (11) Local Units and twenty-three (23) Local Unit Facilities, with a solar system size of 7.699 MW.

5. PPA Pricing Design

MCIA 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 were provided the option of submitting a proposal based upon public (County) financing, private financing or a combination in accordance with the RFP. Respondents were also required to provide two price adjustment factors to be used to adjust PPA rates upward or downward based on the final project development costs and the final interest rate on the debt service determined at the closing of project finance.

6. Respondent Response to RFP

MCIA received proposals in response to the RFP from the following two (2) Respondents:

1. SunEdison and Ray Angelini, Inc. (SunEdison/RAI)
2. SunLight General Capital and Power Partners MasTec (SunLight/MasTec)

Both proposals were determined by counsel to MCIA to have met the Phase I requirements of the RFP and were further evaluated under the Phase II evaluation.

Key information from the two conforming proposals submitted by SunEdison/RAI and SunLight/MasTec is summarized below.

SunEdison/RAI

SunEdison/RAI proposed a privately financed fifteen (15) year PPA term to install solar at all twenty-three (23) Local Unit Facilities. The total size of the solar systems to be installed is 7.742 MW dc.

SunEdison/RAI's first year PPA price for the privately financed proposal is \$0.1520 per kWh. The annual escalation rate for is 3%. SunEdison/RAI did not offer any sharing of additional benefits (ex. SREC and future environmental benefits).

SunLight/MasTec

SunLight/MasTec proposed a fifteen (15) year PPA term to install solar at all twenty-three (23) Local Unit Facilities. The total size of the solar systems to be installed is 8.6 MW dc. The total project cost is \$43.0 million although SunLight/MasTec offered to reduce the bond size to \$31.5 million through a \$11.5 million capital investment in the project. The capital investment would be provided in conjunction with the issuance of the MCIA bonds.

SunLight/MasTec's first year PPA price is \$0.075 per kWh. The annual escalation rate is 3%. SunLight/MasTec offered SREC sharing at 50% of the upside on SRECs above \$300 after Year 5 to maturity, a debt service reserve fund of \$2.5 million, and restoration security of \$375,000.

7. Proposal Evaluation Matrix

Once the proposals were deemed compliant based on Phase I requirements, the 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 100. The Matrix is broken into the following criteria and weighting factors:

Financial Benefits (50)	NPV of Benefits Option - Sharing of Benefits Non-Material Changes to Program Documents
Technical Design/Approach (10)	Output Guarantee (kWh) Design Strategy Project Team Approach O&M Plan and Approach
Respondent Experience (10)	Project Management Contractor Expertise Project Experience New Jersey Experience
Financial Strength (20)	Financial Capability/Strength of Provider Financial Risk to the County
Oral Interview Evaluation (10)	Presentation Explanation Key Factors Understanding Financial Factors/SREC Market

8. Financial Benefits Evaluation

Below is a summary of the financial benefits section of the Phase II evaluation. Proposals were evaluated and awarded points in the Matrix based on their responses to the following criteria: NPV of benefits; sharing of benefits; and, non-material changes to documents.

a. NPV of Benefits

Local Units realize economic benefits from the installation of renewable energy projects through the savings in energy costs 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 renewable energy projects 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 renewable energy projects.

It is important to note that the energy cost savings are calculated at the guaranteed level of solar generation (90% of the expected level). The level of energy cost savings are stated on a conservative basis. Actual energy cost savings to the Local Unit Facilities are likely to exceed the levels indicated in this Evaluation Report.

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. For example, the customer charge and a portion of demand charges are not avoided through the purchase of solar energy generated by the solar systems. In addition, if the local unit facility is purchasing the commodity component of electric supply in the competitive market, it is assumed that the local utility will continue this practice in the development of their non-solar electricity costs.
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.

To calculate the NPV benefits provided by each proposal, guaranteed production values were used. In addition, a 5.00% discount rate was assumed to calculate NPV of benefits; which was the assumed interest cost of the MCIA bonds in the RFP. This also assumes an average retail electric escalation of 3.6%.

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

MCIA's energy cost savings are also shown in **Attachment 1**. The savings calculations in **Attachment 1** are shown in both NPV and nominal dollars, however, the most appropriate way to compare the value of projects is on a NPV basis to recognize the time value of money and the opportunity cost of capital.

On a NPV basis, the MCIA energy savings offered by the SunLight/MasTec proposal using a reduced level of public financing is approximately \$5.7 million; while the SunEdison/RAI proposal would actually result in higher energy costs of \$3.2 million since their proposed PPA rate is higher than the energy cost that would be avoided by purchasing energy from their solar project.

The Respondent with the highest NPV of benefits (SunLight/MasTec) earned the maximum number of points (40) in the Matrix for this criterion. The SunEdison/RAI proposal was awarded zero (0) points based upon their proposal resulting in an increase in energy costs for the Local Units.

A sensitivity analysis of the NPV benefits was also conducted by evaluating changes in the average electric rate escalation and is provided in **Attachment 5**. The results show that the SunLight/MasTec proposal will provide significant levels of energy cost savings, even assuming no escalation in the average electric rate.

a. Option – Sharing of Benefits

The RFP asked the Respondents whether they would be willing to share additional benefits with MCIA. As an example of such benefits, the RFP listed (a) sharing of SREC market revenues, (b) sharing in any Federal or State tax benefits, (c) sharing in other financial / environmental market value, (d) end on contract provisions beyond those identified in the RFP and (e) any other additional services that would provide value to MCIA.

As it relates to the sharing in SREC market revenues, the level of this potential benefit and the probability of it occurring are very difficult to determine since it depends on

future SREC prices. SREC prices will depend on the level of SREC supply and the cost and efficiency of new solar projects at that time. Scoring was based on whether or not SREC sharing was proposed and how beneficial the sharing was to the County.

SunLight/MasTec

SunLight/MasTec offered the following additional benefits:

1. SREC sharing in the amount of 50% of the upside of SRECs above \$300 after Year 5.
2. Should other environmental attributes arise in the future from these projects, SunLight/MasTec proposed to share in 50% of the proceeds from the sale of such attributes.
3. Should a change in law result in significantly more favorable tax treatment, SunLight/MasTec would use best efforts to share with MCIA.
4. Finally, they would deliver an educational program about the science and benefits of solar systems, including solar energy science kits, teacher training about renewable energy, the ability to access operational data and personnel to promote the educational program.

SunLight/MasTec was awarded the maximum value of five (5) points for this sharing proposal.

SunEdison/RAI

SunEdison/RAI did not offer any additional sharing benefits in its proposal and was rated accordingly.

b. Non-Material Changes to Program Documents

Both SunEdison/RAI and SunLight/MasTec proposed no changes to the program documents and received the maximum number of points in this section of the Matrix.

9. Technical Design/Approach

The evaluation of the technical design/approach has several elements including output guarantees, construction schedules, project team approach, and operation and maintenance plans. Below is a technical review of the proposals. Proposals were evaluated and awarded points in the Matrix based on their responses to the following criteria: output guarantee, design strategy, project team approach, and operations and maintenance (O&M) plan and approach.

a. Output Guarantee (MWH)

Both Respondents provided the output guarantees required in the RFP of 90% and were therefore awarded maximum points for this requirement. Below is a description of each Respondents design strategy including their total system size and output.

SunLight/MasTec

Total System Size	Total System Output
8.598 MW	9,870 MWh

SunLight/MasTec's proposed capacity was compared with the conceptual site plans provided in the RFP. These indicate an 11.7% increase in kW, which is acceptable.

The Chester School District Bragg Intermediate School 421.85 kW system appears to be oversized based upon the annual consumption of the site. Usage data provided in the RFP documents states that the annual consumption of the facility is 416,640 kWh. Sunlight/Power Partners' system is estimated to produce 478,916 kWh annually. From this information, BSG concludes Sunlight/Power Partners' 421.85 kW system must be slightly downsized so that PV system production does not exceed facility annual consumption.

The Proposal response drawings include a larger option of 10,511 MW including a PV carport canopy at Randolph Middle School and larger parking lot canopies in Parking lot one, 7 and 8 at County College of Morris. However total annual kWh, guaranteed kWh, system sizing, and pricing is based upon the 8,598 MW total.

Using PV Watts calculations, SunLight/MasTec's kWh/kW ratio is acceptable and considered reasonable.

SunEdison/RAI

Total System Size	Total System Output
-------------------	---------------------

7.254 MW	8.279 MWh
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SunEdison/RAI's proposed capacity was compared with the conceptual site plans provided in the RFP. These indicate a 0.2% increase in kW, which is acceptable.

Using PV Watts calculations, SunEdison/RAI's kWh/kW ratio is acceptable and considered reasonable.

b. Design Strategy

Below is a description of each proposal’s design strategy. Respondents were evaluated based on the major system components; both Respondents were awarded maximum points for this requirement.

SunLight/MasTec

SunLight/MasTec designed an acceptable Solar System. Below is a description of the major system components proposed by SunLight/MasTec. All information was not included in the proposal but was provided in the oral interview. The Evaluation Team accepts SunLight/MasTec’s design.

System Component	Manufacturer
PV Modules	Canadian Solar/MX Solar
Inverters	PV Powered/SMA
Mounting Systems	Panel Claw
Canopy System	Cantilever
DAS	Deck Monitoring

SunEdison/RAI

SunEdison/RAI designed an acceptable Solar System. Below is a description of the major system components proposed by SunEdison/RAI. The Evaluation Team accepts the SunEdison/RAI design.

System Component	Manufacturer	Compliance with Project Technical Specifications
PV Modules	Sharp 245	Yes
Inverters	PV Powered	Yes

Mounting Systems	SunLink, Schletter, Protek Park	Yes
DAS	Draker Laboratories	Yes

c. Project Team Approach

Below is a description of each proposal’s project team approach. Based on their responses, both Respondents were awarded the maximum points for this requirement.

SunLight/MasTec

Sunlight/ MasTec project team approach seemed well organized and complete. They have an experienced team which has completed large complicated projects. In addition, they have also been the successful Proposer at Somerset County Improvement Authority Tranche 2 and a potential successful Proposer at Mercer County Improvement Authority - Mercer County Community College. All of the design and engineering will be completed by MasTec.

Although a written construction schedule or project timeline was not included in the proposal, SunEdison/RAI provided a clarification during the oral interview process. The construction of the project will be broken down into several tasks, including the following main tasks: survey ground and roof sites; create electrical and structural drawings for permit; develop construction schedule to County; install racking/materials; and, conduit, testing and commissioning.

SunEdison/RAI

The project team approach seemed well organized. The team includes RAI for engineering and electric work, and SunEdison for financing. All entities are well versed in education and municipal marketplaces.

A construction schedule provided in the proposal indicated that the total time is estimated to take 288 days. The staging and its duration includes: notice to proceed – 1 day, engineering - 60 days, submittals – 20 days, complete designs – 1 day, approvals and permits – 60 days, material procurement/delivery – 60 days, installation – 157 days, startup and testing – 20 days, substantial completion – 1 day, final completion/closeout – 20 days, and start up & training - 10 days.

d. Operations and Maintenance Plan and Approach

Below is a description of each proposal’s O&M plan and approach. Based on their responses, both Respondents were awarded the maximum points for this requirement.

SunLight/MasTec

The operations and maintenance will be monitored on a daily basis by the inverter level monitoring package in order to obtain the latest data for system performance and availability. It will also provide the error messages from inverters regarding the system operation, mal-function, and inverter status or system fault. The data acquisition system (DAS) will be designed for remote web based operation and the data will be transferred to third party server via the internet. Clarification was also provided during the oral interview process, all sites will be monitored by local NJ facilities personnel 24/7.

SunEdison/RAI

The O&M overview will include daily remote monitoring of system performance; alerts dispatched to customer or customer proxy. Monthly generation reports for solar electric facility, semi annual inspection of SEF's general site conditions, PV arrays, electrical equipment, mounting structure, DAS, and balance of system. Annual system testing will include DC string level open circuit voltage and operating current readings as well as cleaning. O&M also includes, biennially recalibration or replacement of DAS sensors and meters per manufacturer's instructions.

10. Respondent Experience

The evaluation of respondent experience has several elements including project management; contractor experience; project experience; and, New Jersey experience. Below is a summary of the Respondents' proposals.

a. Project Management

Both Respondents demonstrated their ability to successfully manage the project through the involvement of well qualified management, supervisory, and key staff. Each Respondent was awarded maximum points for this requirement.

b. Contractor Experience

Both Respondents have teamed with very experienced EPCs (SunLight - Power Partners / MasTec and SunEdison - RAI), therefore, they both received the maximum number of points for this section of the evaluation matrix.

c. Project Experience

Both Respondents demonstrated extensive project experience with respect to project types, similar types of projects, number of projects, and years of experience. Each Respondent was awarded the maximum points for this requirement.

d. New Jersey Experience

Both Respondents received the maximum number of points for this section of the evaluation matrix based on their New Jersey experience.

11. Financial Strength

The evaluation of the financial strength of the proposals has two (2) elements including financial capability/strength of provider and financial risk to the County. Below is a summary of the Respondents' proposals.

a. Financial Capability/Strength of Respondent

Below is a description of the financial capability and the financial strength of each Respondent. Both Respondents received the maximum amount of points for this section.

SunLight/MasTec

SunLight has financed 3.7 MW of projects since 2009 and has an additional 12.1 MW scheduled over the next year. SunLight's current equity is over \$10 million and they recently launched the SunLight General Solar Fund Two in the amount of \$30 million. Power Partners MasTec, LLC is a wholly-owned subsidiary of MasTec, Inc. a minority business enterprise with over 9,000 employees and annual revenues of \$2.3 billion (2010). MasTec has over \$500 million in bonding capacity. MasTec will provide the construction bond for the project installation. SunLight/MasTec has provided sufficient financial information and an adequate finance package.

SunEdison/RAI

SunEdison is a wholly owned subsidiary of a \$4.6 billion parent company, MEMC Electronic Materials, Inc., with annual revenues of \$2.2 billion and limited debt on its balance sheet. SunEdison has constructed over 15 MW of solar generation facilities SunEdison has access to credit lines in excess of \$400 million through its parent company. RAI has been a going concern for more than 37 years, with a bonding capacity of over \$150 million. RAI has installed over 100 MW of solar projects and currently has 5.6 MW of solar projects under construction. SunEdison/RAI has provided sufficient financial information and an adequate financing package.

b. County Security/Deficiency Amount

Financial risk to MCIA and the County specifically concerns proposals where MCIA is committing funds to the solar project and the County is committing its guaranty on those funds. A second, but much less significant, financial risk involves whether the solar developer is willing to offer a restoration security.

SunLight/MasTec has proposed to use the public financing approach which imposes a financial risk upon MCIA and the County, however, their proposal to self-finance a substantial portion of the overall cost of the renewable energy projects has significantly reduced that risk by effectively eliminating the need to fund a County Security Amount

(CSA). In addition, SunLight/MasTec has proposed a \$2.5 million reserve fund to provide additional financial protection to the County. Finally, the SunLight/MasTec proposal offered a performance security of \$375,000 which would be built up through setting aside \$75,000 a year for five years beginning in Year 11 (a positive for MCIA). The SunLight/MasTec proposal allows the MCIA to significantly reduce its bond size and limit its risk with a very high degree of certainty. Since there is still some financing risk to MCIA and the County, the SunLight/MasTec proposal has been awarded less than the maximum number of points in this rating category.

SunEdison/RAI has offered a private financing approach which does not require MCIA to issue any bonds, thus, insulating the County from financing risk. The SunEdison/RAI proposal did not provide any restoration performance security. SunEdison/RAI received the maximum points in this rating category.

SunLight/MasTec

The SunLight/MasTec Proposal reduced the MCIA bond size from \$43.0 million to approximately \$31.5 million by proposing to self finance \$11.5 million, which will be funded at MCIA bond closing. This approach reduces financial risk to MCIA and the County by reducing the amount of the MCIA bond to approximately \$25.5 million. The smaller size of the MCIA bond reduces MCIA and County exposure and provides strong SREC price risk protection as the balance of transaction revenues (i.e. SRECs and PPA payments) should this Respondent default, are estimated to be fully sufficient to make all debt service payments on the MCIA bonds. In addition, the SunLight/MasTec proposal includes a \$2.5 million reserve fund to provide additional financial protection to the County.

SunEdison/RAI

The SunEdison/RAI proposal is based upon a private financing approach. Under such an approach, MCIA will not issue bonds and the County is insulated from financing risk. The SunEdison/RAI proposal did not provide any restoration performance security.

12. Phase III Evaluation

The RFP reserves the right for MCIA to conduct interviews with qualified Respondents. After reviewing all aspects of the submitted proposals, in particular the savings in energy costs preferred by MCIA and as required under applicable law (see the details in Section 8(a) and as reflected in the Evaluation Matrix through Phase II), the Evaluation Team decided not to conduct an interview with SunEdison/RAI base upon the results of the evaluation in Phase II. The Evaluation Team did conduct an interview with SunLight/MasTec to better understand their proposal.

Prior to the interview, the Evaluation Team provided a list of issues that they wanted SunLight/MasTec to address at the interview. SunLight/MasTec did an excellent job during their presentation and were able to explain all key issues as well as demonstrating an understanding of financial matters. As such, it received the maximum number of points for this criteria of the Evaluation Matrix.

13. 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 SunLight/MasTec differentiated itself in several areas:

1. It provides substantial direct energy cost savings that were not available under the SunEdison/RAI proposal;
2. It provides the Local Units the potential for additional savings through the sharing of revenues from the sale of Solar Renewable Energy Certificates (SRECs) and other environmental benefits;
3. Due to SunLight/MasTec's proposed capital investment, which reduces the required size of the MCIA bonds, it provides a strong level of protection for the MCIA (and the County) from financial risk;
4. It provided additional financial protection for MCIA (and the County) in the form of a Debt Service Reserve Fund; and,
5. It includes a restoration security providing for additional Local Unit protection at the end of contract.

The overall Matrix scoring identified SunLight/MasTec as the Respondent providing the greatest value. Based on the above discussions, the evaluation indicates that SunLight/MasTec's proposal scored 95 out of a total of 100 points. The proposal scoring is shown in **Attachment 4**.

The SunLight/MasTec proposal yields nominal benefits of \$7.9 million or net present value (NPV) benefits of \$5.7 million.

Each Respondent provided a financial structure limiting the financial risk to the MCIA and the County. By offering to self-finance a substantial portion of the overall cost of the renewable energy projects in the amount of \$11.5 million, the SunLight/MasTec proposal allows the MCIA to significantly reduce its bond size. The MCIA's \$31.5 million in bonds will be combined with SunLight/MasTec's \$11.5 million self-financing to finance the total project cost (\$43.0 million). The SunLight/MasTec proposal also protects the MCIA and the County (which will be providing its guaranty on MCIA bonds) from the potential risk of reductions in the price of SRECs. Moreover, by self-financing a portion of the total cost of the project (and making these funds available at MCIA bond closing), this protection has a very high degree of certainty. In addition, SunLight/MasTec proposed to post a \$2.5 million reserve, funded with an equity

contribution from the company, to provide additional financial protection to MCIA and the County.

The Evaluation Team recognizes the value of the financial provisions of the SunLight/MasTec proposal in terms of the protection of the County, its guaranty and its bond rating. The preservation of this bond rating provides future economic benefits to the County and its citizens and businesses by allowing the County to borrow money at low interest rates due to its "Aaa/AAA" rating. Accordingly, a high premium is placed on its protection. The financial protections of the SunLight/MasTec proposal, including a significant reduction in the size of the MCIA bond amounts, provides a strong level of protection which, in combination with other factors considered, lead to the recommended selection.

The evaluation of "price and non-price" factors allowed by law permits and supports this recommendation.

Accordingly, the Evaluation Team recommends that MCIA select SunLight/MasTec as the Successful Respondent. This will result in estimated aggregate annual benefits of approximately \$395,000 in the first year, total savings of \$5.7 million (NPV) over the life of the PPA, and average rate reductions for electricity purchased through this program of 35% 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

MCIA Program Solar Savings Summary

**Morris County Improvement Authority
Solar Initiative
Proposal Evaluation
September 20, 2011**

Respondent	KW	PPA Rate	Escalation	Solar Savings	
				Nominal (\$)	NPV (\$)
SunEdison/RAI	7,742	\$0.152	3.0%	-\$4,220,761	-\$3,150,478
SunLight General/Mastec	8,597	\$0.075	3.0%	\$7,930,664	\$5,701,642

Attachment 2

Evaluation Matrix

Morris County Improvement Authority Solar Initiative Proposal Evaluation Matrix

Attachment 2
Page 1 of 2

Phase I - RFP Requirements Checklist
Phase II - Proposal Evaluation
Phase III - Short List Evaluation

September 23, 2011

Requirement Checklist	SunLight/MasTec	SunEdison/RAI
PPA Price Quotation Sheet (Form A-1):		
- PPA Price & Escalation	Y	Y
- Total Project Cost	Y	N
- Amortization Schedule	Y	N
- Structural/Interconnection Adjustment Factor	Y	Y
- Additional Economic Benefits	Y	N
Appendix D Forms:		
- Respondent Information (Form A-2)	Y	Y
- Proposal Security in lieu of Bond (Form A-4)	Y	Y
- Proposal Bond (Form A- 5)	Y	Y
- Ownership Disclosure Statement (Form A-6)	Y	Y
- Non-Collusion Affidavit (Form A-7)	Y	Y
- Consent to Investigation (Form A-8)	Y	Y
- Relevant Experience	Y	Y
- Respondent's Qualifications (Form A-9)	Y	Y
- Receipt of Addenda (Form A-10)	Y	Y
- Sealed Proposal Checklist (Form A-11)	Y	Y
- County Deficiency Amount (Exhibit F)	Y	N
Form of PPA (Private Option Only)	Y	
Business Registration Certificate	Y	Y
QUALIFY (Y/N)	Y	Y

**Morris County Improvement Authority
Solar Initiative
Proposal Evaluation Matrix**

**Phase I - RFP Requirements Checklist
Phase II - Proposal Evaluation
Phase III - Short List Evaluation**

September 23, 2011

Phase II Category	Evaluation Factor	WEIGHTING	SunLight/MasTec	SunEdison/RAI
Financial Benefits (50)	NPV of Benefits	40	40	0
	Option - Sharing of Benefits	5	5	0
	Material Changes to Program Documents	5	5	5
Technical Design / Approach (10)	Output Guarantee (KWH)	3	3	3
	Design Strategy	3	3	3
	Project Team Approach	2	2	2
	O&M Plan and Approach	2	2	2
Proposer Experience (10)	Project Management	2	2	2
	Contractor Expertise	3	3	3
	Project Experience	3	3	3
	New Jersey Experience	2	2	2
Financial Strength (20)	Financial Capability / Strength of Provider	5	5	5
	Financial Risk to the County	15	10	15
TOTAL PHASE II		90	85	45

Phase III Category	Evaluation Factor	WEIGHTING	SunLight/MasTec	SunEdison/RAI
Short List Evaluation (10)	Presentation	2	2	N/A
	Explanation Key Factors	3	3	N/A
	Understanding Financial Factors / SREC Market	5	5	N/A
TOTAL PHASE III		10	10	N/A

Overall Evaluation		WEIGHTING	SunLight/MasTec	SunEdison/RAI
TOTAL PHASE II and III		100	95	N/A

Attachment 3

Savings by Local Unit Facility

Morris County Improvement Authority Solar Initiative Forecasted Energy Cost Savings by Local Unit Facility September 20, 2011

Respondent	Local Unit Facility		Life of Project		Annual Savings		Nominal Savings on Solar Energy Purchased		Nominal Savings Total Electric Costs	
	Life of Project	Project NPV Savings	Year 1	Year 15	Year 1	Year 15	Year 1	Year 15	Year 1	Year 15
SunLight General/Power Partners	Chester School District - Black River Middle School	\$648,098	\$465,961	\$54,592	\$32,345	\$54,592	30%	34%	21%	22%
	Chester School District - Bragg Intermediate School	\$319,385	\$228,822	\$27,501	\$15,537	\$27,501	27%	32%	24%	27%
	Chester School District - Dickerson School	\$102,418	\$74,471	\$8,045	\$5,616	\$8,045	40%	39%	7%	6%
	Count College of Morris - All Facilities	\$1,509,695	\$1,071,414	\$137,478	\$66,415	\$137,478	25%	31%	7%	8%
	Kinnelon BOE - Kinnelon High School	\$174,490	\$126,389	\$9,328	\$9,328	\$14,258	58%	60%	4%	4%
	Kinnelon BOE - Pearl Miller Middle School	\$332,258	\$240,665	\$17,762	\$17,762	\$27,149	57%	59%	15%	14%
	Kinnelon BOE - Stonybrook School	\$329,202	\$238,462	\$26,899	\$17,589	\$26,899	58%	59%	13%	12%
	Mine Hill BOE - Canfield Ave School	\$214,512	\$154,737	\$11,023	\$11,023	\$17,734	35%	38%	22%	22%
	Montville Township BOE - Lazar Middle School	\$165,308	\$120,184	\$9,057	\$9,057	\$13,015	42%	40%	6%	5%
	Montville Township BOE - Montville High School	\$173,572	\$126,181	\$9,504	\$9,504	\$13,687	44%	41%	3%	2%
	Montville Township BOE - Woodmont School	\$142,591	\$103,233	\$7,551	\$7,551	\$11,499	35%	36%	16%	16%
	Morris Hills Regional District - Morris Knolls High School	\$381,706	\$277,512	\$20,914	\$20,914	\$30,428	42%	41%	5%	5%
	Morris School District - Frelighuysen Middle School	\$371,066	\$268,055	\$19,292	\$19,292	\$30,428	36%	38%	15%	14%
	Morris School District - Morristown High School	\$361,851	\$258,159	\$16,729	\$16,729	\$31,979	27%	32%	6%	6%
	Parsippany-Troy Hills - Library	\$399,788	\$288,205	\$20,364	\$20,364	\$33,098	34%	38%	26%	27%
	Randolph BOE - Ironta School	\$150,111	\$108,816	\$8,027	\$8,027	\$12,007	36%	36%	14%	13%
Randolph BOE - Randolph High School	\$1,135,590	\$817,211	\$57,028	\$57,028	\$95,173	34%	37%	15%	15%	
Randolph BOE - Randolph Middle School	\$370,574	\$266,083	\$18,275	\$18,275	\$31,333	26%	31%	20%	22%	
Township of Hanover - Municipal Building/Police	\$135,732	\$98,562	\$7,370	\$7,370	\$10,764	41%	40%	9%	8%	
Washington Township Schools - Long Valley Middle School	\$512,698	\$368,532	\$25,528	\$25,528	\$43,212	29%	33%	21%	22%	
Total	\$7,930,664	\$5,701,642	\$395,261	\$669,898	\$37%	35%	37%	14%	14%	

* Chester School District's Bragg Intermediate School was oversized by 3%. It has been resized to 90% of consumption.

Attachment 4

Load Served by Solar by Local Unit Facility

Morris County Improvement Authority

Solar Initiative

Local Unit Facility - Solar Statistics

September 20, 2011

Based on BSG's Estimates

Local Unit	Annual Electric	SunLight General Proposal		Electric Load Served by	
	Metered Load* (KWH)	Expected	Guaranteed	Solar Generation*	
		kW	kWh	kWh	(%)
Township of Hanover - Municipal Building/Police	475,920	94.4	117,855	106,069	22%
Parsippany-Troy Hills - Library	452,320	345.45	385,015	346,513	77%
Chester School District - Dickerson School	547,360	88.21	99,754	89,778	16%
Chester School District - Bragg Intermediate School	416,640	421.85	478,916	431,024	103%
Chester School District - Black River Middle School	1,001,360	615.08	767,907	691,116	69%
Kinnelon Board of Education - Kinnelon High School	1,327,800	87.91	99,606	89,645	7%
Kinnelon Board of Education - Pearl R. Miller Middle School	658,560	166.97	189,665	170,699	26%
Kinnelon Board of Education - Stonybrook School	775,200	166.09	187,921	169,129	22%
Mine Hill Board of Education - Canfield Avenue School	307,440	184.97	210,397	189,357	62%
Morris School District - Frelinghuysen Middle School	901,040	356.56	408,297	367,468	41%
Morris School District - Morristown High School	2,726,845	580.56	643,340	579,006	21%
Randolph Board of Education - Randolph High School	2,738,400	1310.4	1,288,322	1,159,490	42%
Randolph Board of Education - Randolph Middle School	701,120	187.62	447,838	403,054	57%
Randolph Board of Education - Ironia School	363,300	136.59	155,049	139,544	38%
Montville Township Board of Education - Montville High School	2,442,480	148.68	169,540	152,586	6%
Montville Township Board of Education - Lazar Middle School	1,043,040	141.9	161,291	145,162	14%
Montville Township Board of Education - Woodmont School	291,760	132.46	150,848	135,764	47%
Morris Knolls Board of Education - Morris Knolls High School	2,595,900	327.75	372,356	335,121	13%
Washington Township Schools - Long Valley Middle School	782,880	551.66	627,076	564,369	72%
County College of Morris - Demare Hall Penthouse	9,406,312	31.86	36,188	32,569	0%
County College of Morris - Parking Lot 1	9,406,312	1483.5	1,710,939	1,539,845	16%
County College of Morris - Parking Lot 7 & 8	9,406,312	897	1,002,503	902,253	10%
County College of Morris - Student Community Center (SCC)	9,406,312	140.42	159,772	143,795	2%
total	58,174,613	8,597.89	9,870,395	8,883,356	15%

"Metered Load and percent of total load based on specific meter interconnected to. Some facilities have multiple meters which would increase the total Annual Electric Metered Load.

Attachment 5

Sensitivity Analysis

Morris County Improvement Authority Solar Initiative Estimated Savings Summary September 20, 2011

Discount Rate of 5%, Average Retail Electric Rate of 3.6%

Respondent	Solar Savings	
	Nominal (\$)	NPV (\$)
SunLight General/Power Partners	\$7,930,664	\$5,701,642

Discount Rate of 5%, Average Retail Electric Rate of 6%

Respondent	Solar Savings	
	Nominal (\$)	NPV (\$)
SunLight General/Power Partners	\$8,221,003	\$5,756,984

Discount Rate of 5%, Average Retail Electric Rate of 0%

Respondent	Solar Savings	
	Nominal (\$)	NPV (\$)
SunLight General/Power Partners	\$6,678,457	\$4,666,936