# **EVALUATION REPORT**

Evaluation Of Proposals Received on January 15, 2016 in Response to Request for Proposals for a Developer of Photovoltaic Systems to be Located on Certain Lands Owned by Readington Township Board of Education, Hunterdon County, State of New Jersey



# **Prepared for:**

**Readington Township Board of Education (BOE)** 

# **By**:

The Readington Township BOE Evaluation Team

# **Dated:**

**April 20, 2016** 

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#### **Executive Summary**

This Report is being provided pursuant to the requirements of the competitive contracting provisions of the Public School Contracts Law, specifically, N.J.S.A. 18A:18A-4.1(k); LFN 2008-20, dated December 3, 2008, Contracting for Renewable Energy Services; BPU protocol for measuring energy savings in PPA agreements (Public Entity Energy Efficiency and Renewable Energy Cost Savings Guidelines, dated February 20, 2009); LFN 2009-10, dated June 12, 2009, Contracting for Renewable Energy Services: Update on Power Purchase Agreements, and all other applicable law.

The purpose of the Evaluation Report is to provide the Readington Township Regional Board of Education (hereafter referred to as "Readington" or "BOE"), with an evaluation of proposals received for its planned solar project, and to provide a recommendation to the BOE.

The goal of the BOE is to implement a solar energy project that is environmentally responsible, visually appealing and economically beneficial to the BOE. To this end, on December 16, 2015, Readington issued a Request for Proposals ("RFP"), as amended, for a Power Purchase Agreement ("PPA") for the purchase by the BOE of electricity generated by photovoltaic solar energy systems ("Systems") implemented by the successful respondent to the RFP, at its sole cost and expense ("Successful Respondent"), to be located on certain facilities and lands owned by Readington Township Board of Education, in the County of Hunterdon, State of New Jersey.

The RFP contained a preliminary feasibility assessment performed by the BOE's energy consultant, Gabel Associates, which estimated the technical potential for the Systems at the BOE's facilities. Readington sought proposals for a mandatory "Option 1" as set forth in Article II of the RFP, which included a combination of traditional ground-mount and roof arrays to be developed on specified land and roof areas at Holland Brook School, Readington Middle School and Three Bridges School. Additionally, Readington strongly encouraged (but did not require) Respondents to submit proposals for "Option 2" which, in addition to the arrays proposed in Option 1, sought installation of a carport canopy-mount arrays at Middle School and Whitehouse School. Two options were included in the RFP to separate the economic and aesthetic impacts of the canopy solutions from the other more common roof and ground array solutions, thereby allowing for informed decision making by the BOE between these two project configurations.

Additionally, Respondents which submitted compliant Option 1 proposals were also permitted to provide additional proposals based on their own due diligence, feasibility assessments and alternate strategies. Under the RFP, the BOE retained sole discretion to select the proposal option under which the PPA, if any, will be awarded.

As set forth in the RFP, the Successful Respondent and the BOE will enter into a 15 year PPA under which the BOE will purchase electricity produced from the Systems at a scheduled rate per kWh. Pursuant to law, the PPA price must be lower than the delivered cost of power from the local electric utility company; i.e. Jersey Central Power and Light Company ("JCP&L")<sup>1</sup>. This

<sup>&</sup>lt;sup>1</sup> This requirement is certain to be met in the initial year, and is projected to be met for the term of the agreement using a conservative methodology to estimate future utility prices.

PPA structure provides Readington with a reduction in its energy expenditures and minimizes the uncertainty that may result from price increases in the electricity market during the 15-year term of the PPA, in addition to other benefits that may be realized by the BOE. At the conclusion of the PPA Term, the BOE will have various options for continued operation, some of which are likely to result in significant long term savings for the remaining life of the equipment. The RFP also encouraged respondents to include STEM-related educational content as part of the solution.

Pursuant to the RFP, the Successful Respondent will finance, design, permit, acquire, construct, install, operate and maintain the Systems through a third-part ownership structure, all in accordance with the terms set forth on the Successful Respondent's PPA Price Quotation Proposal Forms. The Successful Respondent will also have all ownership rights to the Solar Renewable Energy Credits ("SRECs") generated by the Systems at the Readington BOE Schools and will monetize the SRECs.

The Readington BOE Board was particularly concerned about aesthetic impact of the solar installation, and therefore desired significant landscaping to be included as part of some of the Systems. As specified in the RFP, all proposals included a landscaping budget, the detailed use of which will be worked out with the BOE as part of final design. The landscaping budgets varied with each proposal, which was a factor considered in the evaluation.

To evaluate proposals, the BOE organized an evaluation team comprised of BOE staff, a Board member, and supporting legal and energy professionals (collectively, "Evaluation Team"). The Evaluation Team developed the RFP, administered the procurement process (including site visits, RFP amendments, and written Q&A), determined legal completeness and technical compliance of the proposals received, conducted oral interviews with proposing teams, completed a detailed evaluation and proposal ranking, and drafted this consensus Evaluation Report for consideration by the BOE in making an award decision.

Readington received proposals from four (4) solution providers (hereafter referred to as "Respondents") on January 15, 2016 in response to the RFP, including:

- Ameresco/EZNergy
- Greenskies
- HESP Solar
- SolarCity

Following a legal and technical review, three proposals (from Ameresco, Greenskies, and HESP) were determined to be complete and legally and technically compliant with the requirements of the RFP. The proposal from SolarCity was based an Option 1 solution that significantly deviated from the mandatory configuration specified in the RFP. For this reason Solar City's proposal was deemed to be non-responsive to the RFP and as a result Solar City's proposal was removed from further consideration by the Evaluation Team.

In addition, Greenskies and Solar City indicated that they could provide optional battery storage enhancement with the solar solution, but specifics of that solution were not fully provided. As a result, storage options were not considered in the evaluation.

Based on an initial review, the Evaluation Team presented a summary of proposals received, along with preliminary analysis of economic merit, in closed session to the BOE Board on February 16, 2016. Based on these initial results, the Board gave its approval to proceed with more detailed evaluation. The Evaluation Team then completed oral interviews with all three compliant Respondents, detailed technical and financial analysis, formal ranking of the proposals as per the evaluation criteria published in the RFP, and development of this Evaluation Report.

Evaluation of the proposals was based on point-ranking in a variety of categories, including financial benefits, capability of the Respondent, technical design factors, Respondent experience, and other factors as defined in the Evaluation Matrix included in the RFP<sup>2</sup>. The full Evaluation Team developed a consensus ranking of each proposal within each evaluation category, leading to an overall score for each proposal between 0 and 100. The proposal with the highest score represents the strongest weighted-balance of all factors considered.

Given that there were two options, the Evaluation Team identified a winning proposal within each option group. It also identified the economic and other trade-offs between the Option One and Option Two configurations. The BOE will be able to determine their preference between the two proposal options, and will then be able to consider an award to the highest ranked proposal within the preferred option group.

Based on information contained within the proposals, and additional information collected during the oral interviews, the Evaluation Team scored all six proposals in accordance with the evaluation criteria specified in the RFP. The Tables 1 and 2 below summarize the scores for each of the "Option 1" and "Option 2" proposal groups:

**Table 1: Evaluation of Option 1 Proposals** 

| Respondent | Option | PPA Rate  | Annual Escalation<br>Rate | Score |
|------------|--------|-----------|---------------------------|-------|
| HESP Solar | 1      | \$0.0590  | 1.90%                     | 83.0  |
| Ameresco   | 1      | \$0.06799 | 1.99%                     | 84.3  |
| Greenskies | 1      | \$0.0880  | 1.00%                     | 60.1  |

**Table 2: Evaluation of Option 2 Proposals** 

| Respondent | Option | PPA Rate | Annual<br>Escalation Rate | Score |
|------------|--------|----------|---------------------------|-------|
| HESP Solar | 2      | \$0.0799 | 2.50%                     | 77.5  |
| Ameresco   | 2      | \$0.0790 | 1.99%                     | 86.7  |
| Greenskies | 2      | \$0.1080 | 1.00%                     | 44.5  |

Note: proposal rankings should only be compared within their option group; ranking comparisons are not valid across option groups.

<sup>&</sup>lt;sup>2</sup> In accordance with the Competitive Contracting requirements of the Public School Contracts Law, the Evaluation Matrix was developed by the Evaluation Team prior to the receipt of proposals in response to the RFP.

Based on this consensus ranking by the Evaluation Team, Ameresco provides the strongest proposal for both Option One and Option Two scenarios.

Economics, particularly regarding savings through reduced utility bill payments, were specifically evaluated for each proposal. All proposals provide savings, measured as the difference between the solar PPA rate and what it would cost to purchase the same electricity from the utility. The strongest ranked proposal in Option One provides savings of approximately \$51,567 in the first year, and a 15-yr Net Present Value of savings of \$595,652. Option Two includes canopy solutions which are more expensive to construct, and therefore provide strong but slightly lower savings: the strongest ranked proposal provides approximately \$44,061 in first year savings, and about \$543,945 in 15-yr NPV of savings. In the case of the Option Two group, the highest ranked proposal also provided the greatest savings. For the option One group, the highest ranked proposal was the second strongest in economic value, but benefited from strong ranking in other dimensions of evaluation.

The Option One and Option Two solutions provide both pro and con trade-offs. The Evaluation Team recommends the following factors in considering a decision between the two options:

#### **Option One:**

- Provides the strongest financials (greatest absolute 15-yr NPV of savings, approximately \$595,652 over 15 years for the highest ranked option in the Option One group).
- Does not include all four schools (no solar at the Whitehouse School).
- Is smaller in size, and provides for lower displacement of utility electricity purchase.
- Since it is smaller and produces less electricity, has a smaller impact on carbon footprint reductions by the district resulting from the solar project.
- Since it does not include any canopy, it avoids the potential complications associated with that solution (aesthetics, parking lot impacts, etc).
- Although both roof and ground array solutions will be provided, no canopy would be installed at the Middle School under Option One. This option therefore avoids the need to coordinate the solar project construction with the paving planned for that school this summer. Option One therefore has lower construction complexity and risk.

#### Option Two:

- Provides strong but slightly lower economic value (savings) compared with the Option One Solution (\$543,945 15-yr NPV for the highest ranked proposal).
- Is the most inclusive, since it provides for solar at all four schools.
- Is larger in size, and provides for maximum displacement of utility electricity purchase.
- Since it is larger and produces more electricity, has a larger impact on carbon footprint reductions by the district resulting from the solar project.
- Since it includes canopy systems, there are aesthetic, community impact, and parking lot impact considerations involved.
- Since a canopy will be installed at the Middle School, it will be necessary to coordinate the solar project construction with the paving planned for that school this summer. Although all Respondents have agreed to coordinate their solar construction with the Paving contractor, Option Two has higher construction complexity and risk.

#### 1. Overview of the RFP

On December 16, 2015, Readington issued an RFP for a PPA for the purchase by the BOE of electricity generated by the Systems to be financed, designed, installed, operated and maintained by the Successful Respondent at the Readington Township School District under a third party ownership structure. Readington sought proposals for a mandatory "Option 1" as set forth in Article II of the RFP, which included a traditional roof and ground-mount solar array to be developed in the available roof and land area at the Middle School, Holland Brook and Three Bridges School. Additionally, Readington strongly encouraged Respondents to submit proposals for "Option 2" which sought installation of additional carport canopy arrays at Middle School and Whitehouse School. Two options were included in the RFP to separate the economic and aesthetic impacts of the canopy solutions from the other more common roof and ground array solutions, thereby allowing for informed decision making by the BOE between these two project configurations.

The Successful Respondent and the BOE will enter into a PPA for 15 years, the maximum duration permitted by State law, under which Readington will purchase the electricity produced from the Systems at a specified rate per kWh. The PPA rate must be less than the local utility electric tariff in its initial year. It is anticipated that the Successful Respondent will finance the project through a combination of revenues derived from the sale to the BOE of the electrical output of the Systems, the sale of Solar Renewable Energy Certificates ("SRECs") in the competitive SREC market, federal tax benefits (i.e. both investment tax credits and timing benefits associated with accelerated depreciation) and investor capital. At the end of the PPA term, the BOE will have the following three options:

- 1. Have the System removed at the Successful Respondent's expense; or
- 2. Renegotiation of an extension of the PPA, if then allowable by law; or
- 3. Purchase the System at fair market value ("FMV").

Proposals were to be evaluated on the basis of price and non-price criteria, in accordance with competitive contracting provisions of the Public School Contracts Law, specifically, N.J.S.A. 18A:18A-4.1(k); LFN 2008-20, dated December 3, 2008, Contracting for Renewable Energy Services; BPU protocol for measuring energy savings in PPA agreements (Public Entity Energy Efficiency and Renewable Energy Cost Savings Guidelines, dated February 20, 2009); LFN 2009-10, dated June 12, 2009, Contracting for Renewable Energy Services: Update on Power Purchase Agreements, and all other applicable law. Components of the RFP are as follows:

#### a) Size of Solar Systems

A preliminary feasibility assessment was performed by the BOE's energy consultant, Gabel Associates, to identify the technical potential for solar systems at the Readington Township School District. Based upon this preliminary assessment, the Systems were estimated to have a total capacity of approximately 1,652 kW DC. The preliminary system size was capped at no greater than 80% of the total onsite electricity usage at all sites with the exception of Holland Brook School

where the system was capped at 70%. The cap was implemented to ensure that the Systems would not generate more electricity than was needed in a given year. The RFP required that all proposals not exceed these annual generation caps.

The RFP provided Respondents with twelve months of electric usage data, utility tariff information and cost information for the four schools.

#### b) Pricing And Other Commercial Requirements

The RFP required the Respondents to propose a PPA Price, and an annual escalation rate, if any, for a mandatory Option 1 proposal, which provided for roof and ground-mounted arrays only. Additionally, Readington strongly encouraged Respondents to submit the same information for "Option 2" proposals which sought additional carport canopy arrays.

In addition, all Respondents were required to provide a price adjustment factor to account for any unforeseen structural and/or electrical interconnection costs. These adjustment factors provide a controlled way for limited unforeseen cost changes to be handled after award, if required.

The RFP also contained specific standard commercial terms that were to be included in the PPA agreement, as well as standard requirements for bonding, insurance, etc.

The Readington BOE Board was particularly concerned about aesthetic impact of the solar installation, and therefore desired significant landscaping to be included as part of certain Systems. As specified in the RFP, all proposals included a landscaping budget, the detailed use of which will be worked out with the BOE as part of final design. The landscaping budgets varied with each proposal, which was a factor considered in the evaluation.

#### c) Technical Requirements

The RFP provided Technical Specifications as well as special site conditions as a preliminary guide for the Respondents' proposed Systems. These Exhibits were to be used as the minimum requirements to satisfy the RFP.

Proposals were required to include the following information about each Respondent:

Proposal Option 1 - PPA Price Quotation (roof and ground-mount systems)

Proposal Option 2 - PPA Price Quotation (roof, ground-mount and carport canopy systems)

Respondent Information/Cover Letter

Consent of Surety

Form of Construction Performance Bond

Agreement for Proposal Security in Lieu of Proposal Bond

**Proposal Bond** 

Ownership Disclosure Statement

Statement of Respondent's Qualifications

Acknowledgement of Receipt of Addenda

Disclosure of Investment Activities in Iran

Non-Collusion Affidavit

Consent to Investigation

Affirmative Action Compliance/Mandatory EEO Language

Proposal Checklist

Public Works Contractor Certificate (*N.J.S.A 34:11 56.51*)

Notice of Classification (RFP Section 4.14)

Total Amount of Uncompleted Contracts Form DPMC701 (RFP Section 4.14)

Business Registration Certificate (RFP Section 4.12)

#### e) Evaluation Process

To evaluate proposals, the BOE organized an evaluation team comprised of: Steffi-Jo DeCasas, Readington Business Administrator; Eric Zwerling, Board Member, Jodi Betterman, Readington Energy Efficiency Coordinator; Don Race, Readington Facilities Manager; Ryan J. Scerbo, Esq., of Decotiis, FitzPatrick, & Cole, LLP, Board Special Energy Counsel; and Mark Warner, Olivia Corkedale, Bojan Mitrovic and Brian Bizjak of Gabel Associates (collectively, "Evaluation Team"). The Evaluation Team developed the RFP, administered the procurement process (including site visits, RFP amendments, and written Q&A), determined legal completeness and technical compliance of the proposals received, conducted oral interviews with proposing teams, completed a detailed evaluation and proposal ranking, and drafted this consensus Evaluation Report for consideration by the BOE in making an award decision.

Note: when the RFP process was started, the federal Investment Tax Credit (ITC) was due to expire. A compressed process schedule was developed to ensure the solar project would be completed in time to maximize economic value to the BOE by giving the Successful Respondent sufficient time to make full use of the federal ITC. In December 2015, the ITC deadline was extended, thereby removing schedule pressure on the process. The RFP and evaluation process was adjusted slightly to allow better proposal development and a more complete evaluation.

The following milestones capture the RFP development and evaluation process:

- End Of October Executed Agreements To Begin The RFP Process
- 11/12/15 Project Formation Meeting
- 12/08/15 RFP Scope Review With Board
- 12/16/15 RFP Issued
- 12/22/15 Pre-proposal Conference and Site Tours
- 1/6/16 & 1/15/16 Formal Written Addenda Issued
- 1/6/16, 1/12/16 & 1/15/16 Formal Written Q&A Issued
- 1/29/16 Proposals Received
- 2/16/16 Preliminary Review With Board In Closed Session, Approval To Proceed Into Detailed Evaluation
- 2/29/16 Oral Interviews With Compliant Respondents
- 4/4/16 Meeting Of Evaluation Team To Rank Proposals
- 4/8/16 Draft of Evaluation Report Issued
- 4/20/16 FINAL Evaluation Report Issued

## 2. Responses to RFP

Readington received three (3) compliant proposals in response to the RFP as outlined in Table 3. Each proposal consisted of a team made up of, at a minimum, a project developer (typically the PPA Provider) and an Engineering, Procurement and Construction ("EPC") company. Under this structure, the PPA Provider is responsible for the financing, design, permitting, acquisition, construction, installation, operation and maintenance of the Systems. To accomplish this task, the PPA Provider will contract with an EPC to complete the required engineering and construction work.

| PPA Provider       | EPC              | Other   |
|--------------------|------------------|---------|
| *Ameresco          | Ameresco         | EZnergy |
| *HESP Solar (HESP) | Barrier Electric |         |
| *Greenskies        | Lighton          |         |

**Table 3: Overview of Proposed Teams** 

The compliant proposals provided all of the necessary documentation as required of Respondents by the RFP. Table 4 provides an overview of the three Respondents and the six proposal options that were submitted to Readington.

**Table 4: Overview of Received Proposals** 

| Respondent | Option | KW       | PPA Rate  | Escalation |
|------------|--------|----------|-----------|------------|
| Ameresco   | 1      | 1,244.48 | \$0.06799 | 1.99%      |
| Ameresco   | 2      | 1,826.24 | \$0.0799  | 1.99%      |
| HESP Solar | 1      | 1,048.96 | \$0.0590  | 1.9%       |
| HESP Solar | 2      | 1,657.92 | \$0.0790  | 2.5%       |
| Greenskies | 1      | 847.70   | \$0.0880  | 1.0%       |
| Greenskies | 2      | 1,446.83 | \$0.1080  | 1.0%       |

**Attachment 1** is a detailed summary of the key information from the proposal submitted by each Respondent.

Note that a fourth proposal was received from Solar City. The proposal from SolarCity was based an Option 1 solution that significantly deviated from the mandatory configuration specified in the RFP. For this reason Solar City's proposal was deemed to be non-responsive to the RFP and as a result Solar City's proposal was removed from further consideration by the Evaluation Team.

<sup>\*</sup> Asterisk indicates the firm responsible for submitting the RFP on behalf of the proposal team ("Respondent") and hereafter referenced as the PPA Provider for the purposes of this evaluation report.

## 3. Decision Making Strategy and Proposal Evaluation Matrix

Evaluation of the proposals was based on point-ranking in a variety of categories, including financial benefits, capability of the Respondent, technical design factors, Respondent experience, and other factors. The full Evaluation Team developed a consensus ranking of each proposal within each evaluation category, leading to an overall score for each proposal between 0 and 100. The proposal with the highest score represents the strongest weighted-balance of all factors considered.

Economic merit, as determined by projected net savings realized by the project, was a dominant factor in the evaluation. As allowed by Competitive Contracting law, it is not the only factor considered in the evaluation. Other considerations, such as risk and design merit, as well as very project specific factors such as landscaping budget, are also part of the evaluation. The strongest ranked proposal is based on a combination of relative economic strength along with these other factors.

The Evaluation Matrix used for proposal ranking, which was also included in the RFP, is as follows:

| Category                       | Evaluation Factor                  | WEIGHTING |
|--------------------------------|------------------------------------|-----------|
| Financial Benefits             | Financial Benefits NPV of Benefits |           |
| Capability                     | Financial Strength and Capability  | 20        |
|                                | Design Strategy                    | 5         |
| Technical Design /<br>Approach | Meeting Design Goals               | 5         |
| 11                             | O&M Plan and Approach              | 5         |
|                                | Project Management Approach        | 5         |
| Respondent's Experience        | Contractor Expertise               | 5         |
|                                | Project Experience                 | 5         |
| Landscaping Approach           | Landscaping Budget                 | 5         |
| Lanuscaping Approach           | Landscaping Plan                   | 5         |
| Total Proposal                 |                                    | 100       |

Given that there were two options, the Evaluation Team identified a winning proposal within each option group. It also identified the economic and other trade-offs between the Option One and

Option Two configurations. The BOE will be able to determine their preference between the two options, and will then be able to consider an award to the highest ranked proposal within the preferred option group.

The Evaluation Matrix scoring is provided in **Attachment 2**. The following sections of this Evaluation Report provide a review of the evaluation criteria for each Respondent and proposal.

#### 4. Evaluation: Economic Benefits

Readington realizes economic benefits from the installation of a solar project through the savings in energy costs realized by purchasing electricity from the solar project through a PPA rather than from the local electric utility.

In calculating energy cost savings for the BOE, Gabel Associates prepared a forecast of the local utility tariff rate for Jersey Central Power and Light ("JCP&L") and compared it to the PPA rates proposed by each Respondent. The difference between the forecasted utility rate (considering only those components that are no longer paid to the local delivery utility as a result of purchasing solar energy from the solar developer) and the PPA rate is then multiplied by the expected solar output to yield the projected savings in energy costs realized through the installation of the System.

The Gabel Associates' forecast of the local utility tariff rates is the result of a detailed analysis of the tariff, by component, over the term of the PPA. The BOE currently procures electricity from a competitive third party electric supplier, as part of the ACES purchasing cooperative, and Gabel Associates has also considered this when conducting the tariff analysis. This detailed analysis takes into account the following factors:

- Those components of the utility tariff rate that are not avoided as a result of the solar installation. For 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 (i.e., 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 prices.
- 3. The impact on future energy costs of national, state and regional environmental initiatives.
- 4. The impact that general energy market escalation will have upon long-term energy prices.

All Proposal Options were evaluated based on the Net Present Value (NPV) of benefits, which is a widely adopted methodology that recognizes the time value of money and the opportunity cost of capital, to the BOE. To calculate the NPV benefits provided by each Proposal, Gabel utilized the amount of electricity each Respondent's proposed System would generate (i.e., based on the

guaranteed solar production during the term of the PPA) multiplied by the per-kwhr savings recognized between the part of the utility rate offset by solar generation and the solar PPA rate. All savings in future years are discounted back to present value using a 5% discount rate, consistent with standard accounting practice for NPV calculations. Note that NPV is a function not just of first year PPA rate, and the annual escalator, but also of the size of the Systems and the fraction of the utility purchase displaced by solar generation. All designs were limited to no more than 80% displacement as per guidelines provided in the RFP. Gabel Associates' evaluation also assumes an average annual retail electric rate escalation of 3%. The economic evaluation also considered first year savings, and nominal (non-discounted) savings over the 15-year term. Please see Attachment 3 for a summary of the economic analysis.

The Evaluation Matrix weights Economic Merit at 40 points, which are awarded proportionally based on 15-yr NPV within each option group. The proposal with the strongest NPV is awarded the full 40 points for economic merit, and the remaining projects with the group are awarded points in proportion to their savings NPV relative to the best proposal in the group. Within the Option One group, HESP had the highest NPV and was awarded the full 40 points. Ameresco had the second best NPV and was awarded 37.6 points, followed by GreenSkies with 16.8 points. Within the Option Two group, Ameresco had the strongest NPV and was awarded the full 40 points, followed by HESP 34.5 points, and GreenSkies with 1.2 points. Points for economic merit are assigned exclusively based on relative NPV ranking by proportion.

Beyond the basic economic merit, it should be noted that Ameresco proposed lower "adjustment factors" than the other two Respondents. While this has no direct bearing on the economic evaluation, it is an important factor to consider since it means the BOE would be faced with lower PPA rate changes should unforeseen cost factors arise in the project after award.

As noted above, the district currently purchases electricity through the ACES aggregation program. Once the solar system is in service, it may be prudent to transition the district back to default utility supply (from the Basic Generation Service) at the end of its current ACES contract commitment. This determination can be made at that time.

## 5. Evaluation: Capability

The capability of each Respondent is considered as indicator for ability to execute on the project, with a focus on three particular risks:

- 1) **Failure To Contract and/or Close Financing**: assessing risks related to successfully achieving contracting, including closure on all needed financing, if awarded. The biggest risks in this case are either inability to reach agreement on standard terms (like performance guarantees or bonding), or a failure to arrange for the necessary PPA financing. This risk is partially addressed by the Proposal Bond.
- 2) **Failure to construct:** Once awarded and contracted, identify risks that could prevent the developer and their EPC contractor from delivering the needed construction, achieving commercial operation as planned. The evaluation already assess other factors (like project management experience), so the "capability" component is concerned

primarily with the credit and cashflow strain associated with construction, or risks associated with potential disputes between the project partners (where there are more than one).

3) **Long term viability:** given that this PPA contract will be a 15 year agreement, the financial assessment is intended to determine whether the contracted party will exist to honor their warranties, production guarantees, and O&M responsibilities.

Cutting across all three of these dimensions are not just the financial health of the entities involved, but the structural ownership arrangements. For example, will the contracted party be responsible for the project long term, or are they going to be "flipping" the project soon after execution of the PPA, potentially even before construction is completed? Given operating practice in the current solar industry, these risks are difficult to assess. In particular, almost all PPAs are implemented through a "Special Purpose Entity", which is a legal construct used to provide structured ownership of the project. Knowledge about a Respondent's financial status does not provide direct insight into the health (or risk) associated with the Special Purpose Entities that may ultimately be used by the Respondent to own and operate the project.

Nonetheless, financial information was solicited from all of the Respondents, and this information, combined with public information (where available) and information solicited during the interviews, was used to assess the capability of each respondent, particularly regarding potential risks in implementation.

Of the 20 points allocated to the capability score, there are two sub-categories: 12 points are budgeted to "financing structure", and the remaining 8 points will be based on a more direct assessment of the partnership structure and the financial stability of the entities involved (i.e. the development ecosystem).

Within the 12-point financing structure sub-category, there are four "tiers", with different levels of risk. These tiers are related to the basic financing structure or strategy used for the project. Each tier is worth three points, with each point representing "good", "better", or "best" within the given tier. Tiers are as follows (lowest risk to highest risk):

- **Tier One Regulated Financing:** groups of projects that are financed from a standardized fund, where the funding is backed by regulatory review and rate-based support, typically from a utility or similar entity. This is the lowest risk approach for the host entity. Respondents in this tier would earn 10-12 points, depending on good/better/best evaluation.
- Tier Two Large Scale Financing: large blocks of dedicated funding that support a large number of projects through a standardized framework. Financial support typically includes short term construction debt, tax equity, and long term debt portfolios. These funds are typically raised in large scale (> \$100M) by a publically traded entity, benefit from significant legal and accounting review and internal controls, are subject to the scrutiny of external independent investors. These funding structures have become common practice for the large, typically national (or multi-

national) firms that specialize in PPA (or similar) financing. Scale, public accounting and transparency (GAAP-compliant, fully audited financials), and the use of a standardized funding portfolio across a large number of projects are key attributes of this approach. Respondents in this tier would earn 7 - 9 points, depending on good/better/best evaluation.

- **Tier Three Small Scale Financing:** This financing strategy is arranged "project by project", or with smaller pools of funding built-up around a known group of projects, but based on a known long term ownership structure. In many cases, projects are held "on the balance sheet" of the developer long term, either with capital or credit-lines already on-hand, or with the support of investors that have already been identified (and made funding commitments). In most cases, the funding source, and/or the companies involved, are privately held and not subject to public accounting and disclosure (i.e. reviewed financials, often on a cash-basis). Respondents in this tier would earn 4-6 points, depending good/better/best evaluation.
- **Tier Four Developer Financing:** the project developer (or EPC contractor) is providing the financing for the PPA, typically on their own balance sheet, but with expectations that additional investors will be brought in at some future point. These projects are higher risk since they frequently must be bundled and re-sold to an outside investor at some future point. The future owner is often unknown. Respondents in this tier would earn 1-3 points, depending on good/better/best.

The remaining 8 points are awarded depending on the complexity of the ecosystem involved in the project, and the financial capability of the firms where known. Respondents typically range along this spectrum depending on how many entities are involved, their respective roles, profitability and financial health of key entities, and the degree of financial information available about each of those entities.

Note that evaluations within this 20-point category address the capability of the entities proposing the project, and do not vary by technical factors involved in the design, pricing, or various options (as long as the options do not involve alternative ownership/financing structures).

#### Ameresco/EZNnergy:

Ameresco is a large public company that provided audited, GAAP compliant financials. They manage a large structured finance fund for both renewable energy and energy efficiency projects, and have significant experience and track record with long term energy performance contracting. There are significant internal controls and governance for project financing commitments, independent auditing and financial review, and reporting consistent with their operation as a publicly held company. PPA financing for the project is in place and approved, and they have access (if needed) to construction financing lines already in place. Their business is highly diversified, which helps reduce long term risk. They are considered a Large Scale Tier Two financing entity, and were awarded 9 points for financing structure.

The project team, and capability of the project team, is considered strong and of typical form. EZNergy has a strong NJ presence with significant experience with NJ school projects, combined with the financial backing of a large public financing entity. They were awarded 6 points for team approach.

Financing Structure: 9 points Team Capability: 6 points Total Points: 15 points

#### **HESP/Barrier:**

HESP is a privately held company presenting cash-basis reviewed financials with limited disclosures. Projects are held on balance-sheet with the intention of long term ownership, with investor backing provided on an as needed basis. HESP represents that both the PPA financing and construction lines (if needed) are approved and available for immediate use for the project. While the financing structure of HESP is strong and consistent with typical structured finance arrangements, they are a relatively small private entity with less transparent financial reporting. They are considered a Small Financing Tier Three entity, and were awarded 5 points for financing structure.

The project team, and capability of the project team, is considered strong and of typical form. Barrier Electric has a strong NJ presence with significant experience with NJ school projects, combined with the financial backing of HESP as the financing entity. They were awarded 6 points for team approach.

Financing Structure: 5 points Team Capability: 6 points Total Points: 11 points

#### **GreenSkies/Leighton:**

GreenSkies is relatively new to NJ, but has a strong track record in other states. They are a privately held company presenting audited GAAP compliant financials. They arrange financing for their PPA projects through structure finance arrangements, and have the backing of a diverse group of financial partners. They represent that financing for the project, and construction financing if it becomes necessary, is already approved and available. The PPA fund for the project is approximately \$100M, of which about \$93M is available for project use. They are considered a strong Small Financing Tier Three entity due to the fact that they are privately held and the scale of their financing fund compared with other Respondents, and were awarded 6 points for financing structure.

The project team, and capability of the project team, is considered strong and of typical form. Leighton has a strong NJ presence with significant experience with NJ school projects, combined with the financial backing of GreenSkies as the financing entity. They were awarded 6 points for team approach.

Financing Structure: 6 points Team Capability: 6 points Total Points: 12 points

## 6. Evaluation: Technical Design/Approach

The evaluation of the technical design/approach has several criteria including:

- Design Strategy;
- Meeting Design Goals; and
- O&M Plan and Approach.

#### a) Design Strategy

The design strategy in each of the three compliant proposals were evaluated based on reviewing the preliminary System layout, sizing and production as well as the major System components. The following section provides an explanation of the review of the solar system layout, sizing and production. This section includes a table for each Respondent along with an overview of the System components that are utilized in each Respondent's preliminary solar design and each component's compliance with the technical specifications in the RFP contained in Appendix B and C.

#### **Ameresco/EZNergy:**

The Evaluation Team compared the total system size for Option 1 of 1,244.48 (kW) and for Option 2 of 1,826.24 (kW) of Ameresco's proposed system with the conceptual site plan layout that was provided as part of the RFP. The layout proposed by Ameresco was consistent with the layout provided in the RFP.

The Ameresco's proposed Option 1 System has a guaranteed output of 1,413,403 kWh, which represents 90% of the expected total system output. The output of the proposed Option 2 is guaranteed at 2,028,816 kWh which also represent 90% of expected system output. Ameresco provided the PVWatts calculations for the Systems substantiating the production calculations. Below is a review of the proposal.

| Proposal<br>Option | Total System<br>Size: (kW) | Expected Total<br>System Output:<br>(kWh) | Guaranteed Total<br>System Output:<br>(kWh) |
|--------------------|----------------------------|---|---|
| Option 1           | 1,244.48                   | 1,570,448                                 | 1,413,403                                   |
| Option 2           | 1,826.24                   | 2,254,240                                 | 2,028,816                                   |

Ameresco's proposed equipment for the proposal and compliance to specifications are as follows:

**Ameresco: Major System Components** 

| System<br>Component | Manufacturer                                 | Compliance with<br>Project Technical<br>Specifications |
|---------------------|--|--|
| PV Modules          | JA Solar JAP6 72-320/3BB 320W                | Yes  |
| Inverters           | Solectria 3-Phase String inverters           | Yes  |
| Racking System      | Patriot, Genmounts, Game Change, RBI Racking | Yes  |
| Carport Canopy      | Baja Construction                            | Yes  |
| DAS                 | SMA or AlsoEnergy                            | Yes  |

Ameresco confirmed the use of Tier 1 materials, either those listed above or equivalent.

Ameresco provided design strategies and equipment selection in compliance with the RFP and as such Ameresco was awarded the maximum points for this category.

#### **HESP Solar:**

The Evaluation Team compared the total system size for Option 1 of 1,048.96 (kW) and for Option 2 of 1,657.92 (kW) of HESP Solar's proposed system with the conceptual site plan layout that was provided as part of the RFP. The layout proposed by HESP Solar was consistent with the layout provided in the RFP.

The output of HESP Solar's proposed Option 1 System has a guaranteed output of 1,195,022 kWh, which also represents 90% of the expected total system output. The output of the proposed Option 2 is guaranteed at 1,835,747 kWh which also represent 90% of expected system output. HESP Solar provided the PVWatts calculations for the Systems substantiating the production calculations. Below is a review of the proposal.

| Proposal<br>Option | Total System<br>Size (kW) | Expected Total<br>System Output<br>(kWh) | Guaranteed Total<br>System Output<br>(kWh) |
|--------------------|---------------------------|--|--|
| Option 1           | 1,048.96                  | 1,327,802                                | 1,195,022                                  |
| Option 2           | 1,657.92                  | 2,039,718                                | 1,835,747                                  |

HESP Solar's proposed equipment for the proposal and compliance to specifications are as follows:

**HESP Solar: Major System Components** 

| System<br>Component | Manufacturer | Compliance with<br>Project Technical<br>Specifications |
|---------------------|--------------|--|
|---------------------|--------------|--|

| PV Modules     | Canadian Solar CS6X-320P 320W | Yes |
|----------------|-------------------------------|-----|
| Inverters      | Solectria Central Inverter    | Yes |
| Racking System | Patriot Solar                 | Yes |
| Carport Canopy | Solaire Generation            | Yes |
| DAS            | Locus Energy                  | Yes |

HESP Solar confirmed the use of Tier 1 materials, either those listed above or equivalent.

HESP Solar provided design strategies and equipment selection in compliance with the RFP and as such HESP Solar was awarded the maximum points for this category.

#### **Greenskies/Lighton Industries:**

The Evaluation Team compared the total system size for Option 1 of 847.7 (kW) and for Option 2 of 1,446.79 (kW) of Greenskies' proposed system with the conceptual site plan layout that was provided as part of the RFP. The layout proposed by Greenskies was consistent with the layout provided in the RFP.

The output of Greenskies' proposed Option 1 System has a guaranteed output of 1,039,820 kWh, which greater than 90% of the expected total system output as required by the RFP. The output of the proposed Option 2 is guaranteed at 1,712,520 kWh which is also greater than 90% of expected system output. Greenskies provided the PVSYST calculations for the Systems substantiating the production calculations. Below is a review of the proposal.

| Proposal<br>Option | Total System<br>Size (kW) | Expected Total<br>System Output<br>(kWh) | Guaranteed Total<br>System Output<br>(kWh) |
|--------------------|---------------------------|--|--|
| Option 1           | 847.7                     | 1,112,170                                | 1,039,820                                  |
| Option 2           | 1,446.79                  | 1,831,570                                | 1,712,520                                  |

Greenskies' proposed equipment for the proposal and compliance to specifications are as follows:

#### **Greenskies: Major System Components**

| System<br>Component | Manufacturer               | Compliance with<br>Project Technical<br>Specifications |
|---------------------|----------------------------|--|
| PV Modules          | Trina Solar TSM-PD-14 315W | Yes  |
| Inverters           | Solectria                  | Yes  |
| Racking System      | Panel Claw                 | Yes  |
| Carport Canopy      | Baja Construction          | Yes  |
| DAS                 | Deck                       | Yes  |

Greenskies confirmed the use of Tier 1 materials, either those listed above or equivalent.

Greenskies provided design strategies and equipment selection in compliance with the RFP and as such Greenskies was awarded the maximum points for this category.

#### b) Meeting Design Goals

#### Ameresco:

The design proposed by Ameresco for both Option One and Option Two configurations were compliant with all requirements of the RFP. The Evaluation Team felt the proposed design made relatively optimal use of the authorized space, maximized array size in each area, but did not pursue design details that would increase risk or compromise aesthetics or long term performance. Ameresco was awarded the full 5.0 points for this category in both options.

#### **HESP Solar:**

The design proposed by HESP for both Option One and Option Two configurations were compliant with all requirements of the RFP. However, the Evaluation Team noted that the design of the ground array in the retention basin at the Holland Brook School was extremely aggressive in its use of space. There were concerns about potential impacts on the retention basin (especially the center drainage area, which is proposed to be covered by the array), and a narrow area between the array fence and the surrounding trees. This reduced perimeter might impact current use of the area by the track team. HESP noted that due to this expanded footprint, some trimming of trees might be required. HESP's design for Holland Brook School avoided the need to clear the scrub area identified in the RFP, in exchange for aggressive use of the retention basin area. The Evaluation Team considered this a less desirable design, subject to re-configuration risks as the project moved through detailed design and permitting. HESP was awarded 3.0 points for this category in both options, reflecting this design disadvantage compared with other proposals.

#### **Greenskies:**

The design proposed by GreenSkies for both Option One and Option Two configurations were compliant with all requirements of the RFP. However, the Evaluation Team noted that the design of the ground array at the Middle School was sub-optimal, making only partial use of the space provided. GreenSkies was awarded the 4.0 points for this category in both optins, reflecting this design disadvantage compared with other proposals.

#### c) Operations and Maintenance Plan and Approach

#### **Ameresco:**

EZNergy will provide operations and maintenance service for Ameresco. Maintenance response time for normal calls is within 24 hours and emergency maintenance response is within 4 hours of a call. Ameresco may consider other operations and maintenance providers, but will ensure similar requirements and safety standards. Ameresco was awarded the maximum number of points for this category.

#### **HESP Solar:**

Barrier will be the operation and maintenance provider for this project. Barrier is locally based and would be servicing the systems from its Bayonne, NJ offices and would anticipate a minimum of two service inspections per year. In addition, HESP discussed having its interests aligned with the BOE in wanting to ensure the system was operating at peak performance at all times. HESP was awarded the maximum number of points for this category.

#### **Greenskies:**

Greenskies has used DECK Monitoring in the past and is transitioning to an in house SAP-driven monitoring system for all their solar projects. This transition is expected to be complete by mid-2016. Greenskies will be providing the operations and maintenance, and emergency responses through its internal personnel based in Hoboken, NJ. Green Skies was awarded the maximum number points for this category.

## 7. Evaluation: Respondent Experience

Each Respondent was evaluated on experience, which includes the following:

- Project Management Approach;
- Contractor Expertise; and,
- Project Experience.

#### a) Project Management Approach

#### **Ameresco:**

Ameresco is the power purchase agreement provider and will finance, maintain and operate the System during the fifteen (15) year term of the PPA with the BOE. Ameresco has partnered with EZNergy, a local New Jersey company, to provide the required DMPC certifications for public works jobs in the state of New Jersey.

Dan Russo Electric and Spark Electric, under contract by Ameresco serving as the EPC and project manager, would provide permitting, environmental compliance, and construction of the Systems.

The project team would hold regular project updates and weekly meetings and would maintain continuous communication with the BOE and its representatives. This includes, but is not limited to, identification of lay-down areas, trailers, project scheduling changes and manpower work hours.

While EZNergy has significant experience managing solar PV projects for public schools in New Jersey, Ameresco's experience with public schools in New Jersey is primarily in the non-solar sector. For that reason, Ameresco was awarded four out of a possible five points for this category.

#### **HESP Solar:**

HESP Solar, LLC is a recently formed (November 2014), privately held solar financier and PPA provider that would finance, maintain and operate the System during the fifteen (15) year term of the PPA with the BOE.

Barrier Electric (Barrier), a well established full service commercial solar energy company, will be contracted by HESP, and will serve as project manager, installer, and operations and maintenance firm. HESP Solar, LLC is planning on outsourcing the design of the systems to Pure Power Engineering. Barrier will manage the project locally from their New Jersey offices located in Bayonne. Highlighted in their proposal was Barrier's approach to overcoming project obstacles with a focus on safety, long-term feasibility, and communication. They have experience with similar projects in size and scope, and they have many public school references.

The project team would hold regular project updates and weekly meetings and would maintain continuous communication with the BOE and its representatives. This includes, but is not limited to, identification of lay-down areas, trailers, project scheduling changes and manpower work hours. The project team recognized the need to work with the school's Construction Administrator, and the special requirements associated with working in a NJ public school.

Although staff (and Principals) at HESP have experience with solar with prior companies, HESP as an operating entity has a relatively short track record. Balancing the strength of Barrier, with the relatively short operating experience of HESP, this project team was awarded four points out of a possible five points for this category.

#### **Greenskies:**

GreenSkies is the power purchase agreement provider and will finance, maintain and operate the System during the fifteen (15) year term of the PPA with the BOE. GreenSkies has significant experience in several other states, but relatively limited experience in NJ. Projects in NJ to date have been limited to large chain clients like Target and Walmart, but no experience with public projects.

Lighton Industries, a well establish full service commercial solar energy company, will be contracted by Greenskies, and will serve as project manager, electrical engineer, installer, and operations and maintenance firm. Lighton has significant experience with solar in NJ, including with public projects.

Greenskies indicated that the designs for the systems would either be done in-house or sent to an outside design firm. If Greenskies were to use an outside design firm, all documentation would be reviewed by their in-house design team.

The project team would hold regular project updates and weekly meetings and would maintain continuous communication with the BOE and its representatives. This includes, but is not limited to, identification of lay-down areas, trailers, project scheduling changes and manpower work

hours. The project team recognized the need to work with the school's Construction Administrator, and the special requirements associated with working in a NJ public school.

Balance the experience of Leighton in NJ, with the limited track record of GreenSkies with NJ public projects, this project team was awarded three point out of a possible five points for this category.

#### b) Contractor Expertise

The Contractor Experience category focuses specifically on the EPC function within the project team.

#### Ameresco:

EZnergy, the EPC contractor indicated by Ameresco as their preferred EPC contractor for this project, has over 40 MW of installations in NJ. EZNergy is planning on subcontracting the construction to Dan Russo Electric and Spark Electric. EZNergy indicated that Dan Russo Electric will be performing the installation of the solar panels along with all of the DC wiring up to and in the inverter. EZNergy further indicated that Spark Electric will perform the AC wiring from the inverter to the buildings electrical system. EZNergy was identified by Ameresco as the designated O&M provider. The Ameresco team was awarded five out of the five possible points for this category.

#### **HESP Solar**

Barrier, the EPC contractor indicated by HESP Solar as their preferred EPC contractor for this project, is a well-established electrical contractor in New Jersey. Barrier has extensive solar industry experience and will serve as the solar project manager overseeing all engineering and procurement, the Electrical Engineer of record, and will serve as the local subcontractor who will install, operate, maintain and repair the solar system. HESP was awarded five out of the five possible points for this category.

#### **Greenskies:**

Lighton Industries, the EPC contractor indicated by Greenskies as their preferred EPC contractor for this project, is a well-established electrical contractor in New Jersey. Lighton Industries has extensive solar industry experience and will serve as the solar project manager overseeing all engineering and procurement, the Electrical Engineer of record, and will serve as the local subcontractor who will install, operate, maintain and repair the solar system. Greenskies was awarded five out of the five possible points for this category.

#### c) Project Experience

#### **Ameresco:**

Ameresco's proposal provided a list of large utility-scale solar references. They included:

- Massachusetts Department of Transportation, MA
- Fisher Road Solar 1, MA
- City of Lowell, MA
- Adelphi & New Carrolton, MD
- Fort Detrick, Frederick, MD

EZNergy has completed over 55 School installs in the State, and completed 100 rooftop installs, including approximately 70 kW of installed solar in 2015. An extensive list of their completed projects was included in their Proposal. EZNergy completed projects at:

- Barringer High School
- East Dover Elementary School
- Intermediate East School
- Intermediate South School
- Jackson Municipal Authority
- Village Elementary School

The Ameresco team has demonstrated a wide array of experience with both utility-scale projects and commercial installations. While EZNergy has experience with New Jersey school district solar projects, Ameresco's experience in solar has been primarily with commercial installations outside of New Jersey, therefore Ameresco is awarded three out of the five possible points for this category.

#### **HESP Solar**

HESP Solar is a relatively new company (Nov 2014), but under a former company name the principals have been involved in the implementation of over 126 projects successfully in the past 4 years totaling over 30 MW for commercial and municipal properties. HESP provided two project references completed in New Jersey and a reference to 7 various school projects located in Pennsylvania.

The following list represents a sample of the projects developed and installed by Barrier:

- Bayonne Board of Education, Bayonne, NJ
- North Bergen Board of Education, North Bergen, NJ
- Toms River Board of Education, Toms River, NJ (13 Schools)
- Rutgers College Livingston Campus, Livingston, NJ

HESP and Barrier demonstrated project experience with respect to similar types of projects. However, HESP was only recently formed in November 2014, and while the principals of HESP were involved in the project references provided, the projects were completed under the direction and management of another entity. The HESP team's overall project experience is therefore more limited than the other respondents, and receives two points out of the five possible points for this category.

#### **Greenskies:**

Greenskies' proposal provided a list of large utility-scale solar references. They included:

- Target Corporation
- Wallmart.
- Antares Solar Farm, CT
- Wesleyan University, CT

Lighton Industries has completed several school installations in New Jersey, an extensive list of their completed projects was included in their Proposal. Lighton Industries completed projects at:

- Toms River School District, Toms River, NJ (7 Schools)
- Lawrenceville Prep School, Lawerenceville, NJ
- Raritan Center, Edison, NJ
- Costco, Manahawkin, NJ

The Greenskies team has demonstrated a wide array of experience with both utility-scale projects and commercial installations. While Lighton Industries has experience with New Jersey school district solar projects, Greenskies' experience in solar has been primarily with commercial installations outside of New Jersey, therefore Greenskies is awarded three out of the five possible points for this category.

## 8. Evaluation: Landscaping Approach

Each Respondent provided a landscaping budget for the project, with the expectation that details of that landscaping plan would be worked out with the district as part of final design. HESP proposed a \$30K budget, GreenSkies proposed a \$20K budget, and Ameresco proposed a \$10K budget. Points were awarded proportionally within the 5-point landscaping budget category: 5 points to HESP, 3.3 for GreenSkies, and 1.7 points for Ameresco. Note that as part of project implementation, these landscaping budgets may be amended by mutual agreement, using adjustment factors proposed as part of the RFP process.

All of the respondents provided a minimal landscaping plan, and presented similar "we will provide whatever the district wants, up to the budget allocated" strategies for this aspect of the project. All Respondents were awarded 3 points for this category.

# 9. Trade-Offs Between Options

The Option One and Option Two solutions provide both pro and con trade-offs. The Evaluation Team recommends the following factors in considering a decision between the two options:

**Option One:** 

- Provides the strongest financials (greatest absolute 15-yr NPV of savings, approximately \$595,652 over 15 years for the highest ranked option in the Option One group).
- Does not include all four schools (no solar at the Whitehouse School).
- Is smaller in size, and provides for lower displacement of utility electricity purchase.
- Since it is smaller and produces less electricity, has a smaller impact on carbon footprint reductions by the district resulting from the solar project.
- Since it does not include any canopy, it avoids the potential complications associated with that solution (aesthetics, parking lot impacts, etc).
- Although both roof and ground array solutions will be provided, no canopy would be installed at the Middle School under Option One. This option therefore avoids the need to coordinate the solar project construction with the paving planned for that school this summer. Option One therefore has lower construction complexity and risk.

#### Option Two:

- Provides strong but slightly lower economic value (savings) compared with the Option One Solution (\$543,945 15-yr NPV for the highest ranked proposal).
- Is the most inclusive, since it provides for solar at all four schools.
- Is larger in size, and provides for maximum displacement of utility electricity purchase.
- Since it is larger and produces more electricity, has a larger impact on carbon footprint reductions by the district resulting from the solar project.
- Since it includes canopy systems, there are aesthetic, community impact, and parking lot impact considerations involved.
- Since a canopy will be installed at the Middle School, it will be necessary to coordinate the solar project construction with the paving planned for that school this summer. Although all Respondents have agreed to coordinate their solar construction with the Paving contractor, Option Two has higher construction complexity and risk.

## 10. Sensitivity Analysis

As noted in Section 4, economic merit is based on a detailed tariff analysis of current utility rates as compared with solar PPA rate. These results are used to estimate a Net Present Value of savings to the district over the 15-yr term of the agreement. The assumptions in this analysis affect the estimated savings, and actual savings could be higher or lower than projected depending on actual utility costs over time. Note that variations in these assumptions do not affect the ranking of proposals, since all proposals are affected equally. But deviations of actual utility rate costs from projected values will affect the actual savings realized by the district. For the baseline case used in Section 4, significant savings are projected to be realized.

To assess how vulnerable that conclusion is to deviations of actual utility costs from the projected assumptions, a sensitivity analyses was completed. Within the savings projection, the most impactful assumed parameter is the escalation of the retail electric rates. For the baseline case used in Section 4, an escalation rate of 3% was used. If utility rates increase faster, actual savings will increase compared with the baseline. Conversely, if utility rates increase more slowly, actual savings will decrease compared with the baseline. The sensitivity analysis considers variations in

the average retail electric rate growth, and creates a range within which actual savings are most likely to occur. Retail utility rate escalations of 1% and 5% were considered, representing a +/-2% variation around the baseline assumption of 3%.

For the highest ranked Respondent (Ameresco), projected 15-yr NPV savings for all sensitivity scenarios are positive. For Option 1, 15-yr NPV savings range from \$437,653 (1% escalator) to \$935,321 (5% escalator). For Option 2, 15-yr NPV savings range from \$286,743 (1% escalator) to \$1,048,021 (5% escalator). For either option, actual savings over the 15 year term will most likely fall within this range. See Attachment 1 for a summary of sensitivity analysis results.

#### 11. Recommendation

The RFP process attracted a competitive range of proposals. Following a legal and technical review, three proposals (from Ameresco, Greenskies, and HESP) were determined to be complete and legally and technically compliant with the requirements of the RFP. The proposal from SolarCity was based an Option 1 solution that significantly deviated from the mandatory configuration specified in the RFP. For this reason Solar City's, the Evaluation Team recommends that the Solar City proposal be deemed non-compliant.

The economic analysis indicates that all the Systems will provide significant savings to the BOE, compared with continued purchase of electricity from the utility over the 15 year term. Based on sensitivity analysis, savings will be realized across a wide range of utility rate change assumptions. If the BOE decides to purchase the system at the end of the 15 year term (based on a fair market value determination), there will likely be strong economic value for the remaining operating life of the equipment (estimated to be 15 years or more). The relatively predictable price of solar electricity also provides a hedge against future price increases of utility supply. Based on these economic considerations, the Evaluation Team believes that implementation of a solar project would be economically beneficial for the BOE.

In addition to economics, there will be other benefits to the district, including reduced carbon footprint, points in the Sustainable Jersey for Schools program, and a unique asset for student and community engagement. Proposals included educational content, including public displays, outreach efforts, and curriculum content.

All compliant proposals were ranked by the Evaluation Team, based on consideration of price and other factors. The Ameresco/EZNergy proposal ranked the highest for both the Option One and Option Two configurations, and the Evaluation Team recommend award to the Ameresco/EZNergy team.

This Evaluation Report also identifies key trade-offs between the Option One and Option Two proposals, including factors related to aesthetics, community acceptance, inclusiveness (some schools vs all schools) relative savings, construction complexity, and carbon footprint impacts. This information was developed by the Evaluation Team to support the BOE Board in its consideration of whether to proceed with the Option One or Option Two alternatives.

# Attachment 1 Solar Proposal Summary

Option 1 (roof and ground mount only)

|            | System size<br>(kW) | PPA Rate      | Escalation<br>Rate | Adj. Factor -<br>Unforseen Costs | l . | ndscape<br>Budget |
|------------|---------------------|---------------|--------------------|----------------------------------|-----|-------------------|
| HESP       | 1,048.96            | \$<br>0.05900 | 1.9%               | .006/.01/.016                    | \$  | 30,000            |
| Ameresco   | 1,244.48            | \$<br>0.06799 | 1.99%              | .0025/.0050/.0075                | \$  | 10,000            |
| Greenskies | 847.70              | \$<br>0.08800 | 1.0%               | .005/.009/.012                   | \$  | 20,000            |
| Solar City | 1,752.12            | \$<br>0.06390 | 2.0%               | .003/.006/.010                   | \$  | 10,000            |

Option 2 (roof, ground and parking canopies)

|            |          | PPA Rate | e      | Escalation<br>Rate | Adjustment Factor -<br>Unforseen Costs | Land<br>Budg | scape<br>get |
|------------|----------|----------|--------|--------------------|--|--------------|--------------|
| HESP       | 1,657.92 | \$       | 0.0790 | 2.5%               | .006/.01/.016                          | \$           | 30,000       |
| Ameresco   | 1,826.24 | \$       | 0.0799 | 1.99%              | .0025/.0050/.0075                      | \$           | 10,000       |
| Greenskies | 1,446.83 | \$       | 0.1080 | 1.0%               | .005/.009/.012                         | \$           | 20,000       |
| Solar City | 1,780.02 | \$       | 0.0810 | 2.0%               | .002/.004/.007                         | \$           | 10,000       |

Note: Solar City proposal not considered compliant with the RFP. Note: the original proposal from Ameresco contained an error in their representation of adjustment factors, which was corrected as part of the oral interview. The numbers noted in the above charts are the corrected values.

# Attachment 2 Proposal Ranking Based On Evaluation Matrix

|                             | Totolog Coton               | SNILLISIAM | Ameresco | HESP     | Greenskies | Ameresco | HESP     | Greenskies |
|-----------------------------|-----------------------------|------------|----------|----------|------------|----------|----------|------------|
| Category                    | Evaluation Factor           | WEIGHTING  | Option 1 | Option 1 | Option 1   | Option 2 | Option 2 | Option 2   |
| Financial Benefits          | NPV of Benefits             | 40         | 37.6     | 40.0     | 16.8       | 40.0     | 34.5     | 1.2        |
| Capability                  | Financial Strength and Team | 20         | 15.0     | 11.0     | 12.0       | 15.0     | 11.0     | 12.0       |
|                             | Design Strategy             | 2          | 5.0      | 5.0      | 5.0        | 5.0      | 5.0      | 5.0        |
| Technical Design / Approach | Meeting Design Goals        | 2          | 5.0      | 3.0      | 4.0        | 5.0      | 3.0      | 4.0        |
|                             | O&M Plan and Approach       | 2          | 5.0      | 5.0      | 5.0        | 5.0      | 5.0      | 5.0        |
|                             | Project Management Approach | 2          | 4.0      | 4.0      | 3.0        | 4.0      | 4.0      | 3.0        |
| Respondent's Experience     | Contractor Expertise        | 2          | 5.0      | 5.0      | 5.0        | 5.0      | 5.0      | 5.0        |
|                             | Project Experience          | 2          | 3.0      | 2.0      | 3.0        | 3.0      | 2.0      | 3.0        |
| T                           | Landscaping Budget          | 2          | 1.7      | 5.0      | 3.3        | 1.7      | 5.0      | 3.3        |
| Lands caping Approach       | Landscaping Plan            | 2          | 3.0      | 3.0      | 3.0        | 3.0      | 3.0      | 3.0        |
| Total Proposal              |                             | 100        | 84.3     | 83.0     | 60.1       | 86.7     | 77.5     | 44.5       |

# Attachment 3 Economic Analysis

|                    |                             |           |                    | Opt         | Option 1          |                    |             |                    |                    |             | Option 2          |                 |             |
|--------------------|-----------------------------|-----------|--------------------|-------------|-------------------|--------------------|-------------|--------------------|--------------------|-------------|-------------------|-----------------|-------------|
|                    |                             | PPA Rate  | Escalation<br>Rate | System Size | Year 1<br>Savings | 15 Year<br>Nominal | 15 Year NPV | PPA Rate           | Escalation<br>Rate | System Size | Year 1<br>Savings | 15 Year Nominal | 15 Year NPV |
|                    | White House School          |           |                    | -           | 1                 |                    | -           | \$0.079            | 2.50%              | 242.88      | \$6,641           | \$102,610       | \$74,567    |
|                    | Holland Brook               | \$0.059   | 1.90%              | 647.7       | \$33,736          | \$582,824          | \$416,835   | \$0.079            | 2.50%              | 647.68      | \$18,650          | \$289,867       | \$210,552   |
|                    | Three Bridges               | \$0.059   | 1.90%              | 102.1       | \$4,772           | \$82,025           | \$58,697    | \$0.079            | 2.50%              | 102.08      | \$2,671           | \$41,224        | \$29,967    |
| HESP               | Middle School 1             | \$0.059   | 1.90%              | -           | -                 | -                  | -           | \$0.079            | 2.50%              | 154.88      | \$2,592           | \$35,123        | \$26,087    |
|                    | Middle School 2             | \$0.059   | 1.90%              | -           | -                 |                    | -           | \$0.079            | 2.50%              | 211.2       | \$5,592           | \$86,323        | \$62,746    |
|                    | Middle School 3             | \$0.059   | 1.90%              | 299.2       | \$13,059          | \$219,691          | \$157,661   | \$0.079            | 2.50%              | 299.2       | \$6,345           | \$89,303        | \$65,849    |
|                    | Total                       | -         | -                  | 1,049.0     | \$51,567          | \$884,540          | \$633,193   | 1                  |                    | 1,657.9     | \$42,490          | \$644,450       | \$469,770   |
|                    | White House School          | -         | -                  | -           | -                 | -                  | -           | \$0.0799           | 1.99%              | 222.72      | \$5,869           | \$102,237       | \$73,148    |
|                    | Holland Brook               | \$0.06799 | 1.99%              | 659.2       | \$27,572          | \$475,822          | \$340,517   | \$0.0799           | 1.99%              | 659.2       | \$18,377          | \$322,648       | \$230,695   |
|                    | Three Bridges               | \$0.06799 | 1.99%              | 182.4       | \$8,226           | \$136,358          | \$98,343    | \$0.0799           | 1.99%              | 182.4       | \$4,640           | \$80,687        | \$57,749    |
| Ameresco           | Middle School 1             | \$0.06799 | 1.99%              | 87.0        | \$3,330           | \$57,127           | \$40,907    | \$0.0799           | 1.99%              | 175.36      | \$3,521           | \$58,794        | \$42,331    |
|                    | Middle School 2             | \$0.06799 | 1.99%              | 82.2        | \$3,146           | \$53,978           | \$38,652    | \$0.0799           | 1.99%              | 295.36      | \$5,770           | \$96,406        | \$69,449    |
|                    | Middle School 3             | \$0.06799 | 1.99%              | 233.6       | \$6,500           | \$107,212          | \$77,233    | \$0.0799           | 1.99%              | 291.2       | \$5,885           | \$97,990        | \$70,573    |
|                    | Total                       | -         | -                  | 1,244.5     | \$48,774          | \$830,497          | \$595,652   | -                  | 1                  | 1,826.2     | \$44,061          | \$758,762       | \$543,945   |
|                    | White House School          | -         | 1                  | ,           | -                 | -                  | ,           | \$0.1080           | 1.0%               | 228.69      | -\$986            | \$19,106        | \$10,827    |
|                    | Holland Brook               | \$0.08800 | 1.0%               | 580.2       | \$10,894          | \$265,962          | \$183,998   | \$0.1080           | 1.0%               | 580.2       | -\$3,075          | \$49,007        | \$27,066    |
|                    | Three Bridges               | \$0.08800 | 1.0%               | 90.7        | \$1,675           | \$40,423           | \$27,981    | \$0.1080           | 1.0%               | 90.7        | -\$434            | \$7,660         | \$4,282     |
| <b>Green Skies</b> | Green Skies Middle School 1 | \$0.08800 | 1.0%               | 64.3        | \$1,223           | \$29,632           | \$20,501    | \$0.1080           | 1.0%               | 214.3       | -\$2,060          | \$16,705        | \$9,268     |
|                    | Middle School 2             | \$0.08800 | 1.0%               | 112.5       | \$2,005           | \$48,093           | \$33,312    | \$0.1080           | 1.0%               | 112.5       | -\$486            | \$9,402         | \$5,326     |
|                    | Middle School 3             | \$0.08800 | 1.0%               | -           | -                 | -                  | -           | \$0.1080           | 1.0%               | 225         | -\$4,848          | -\$53,812       | -\$40,681   |
|                    | Total                       | -         | -                  | 847.7       | \$15,797          | \$384,110          | \$265,793   | -                  | -                  | 1,451.4     | -\$11,889         | \$48,068        | \$16,088    |
|                    |                             |           |                    |             |                   |                    |             |                    |                    |             |                   |                 |             |
|                    | Evaluation Pactor           | WEIGHTING | Option 1           | Option 1    | Option 1          | Option 2           | Option 2    | Option 2           |                    |             |                   |                 |             |
|                    |                             |           | HESP               | Ameresco    | Green Skies       | HESP               | Ameresco    | <b>Green Skies</b> |                    |             |                   |                 |             |
|                    | NPV of Benefits             | 40        | 40.0               | 37.6        | 16.8              | 34.5               | 40.0        | 1.2                |                    |             |                   |                 |             |
|                    | Landscaping Budget          | 5 5       | 5.0                | 1.7         | 3.3               | 5.0                | 1.7         | 3.3                |                    |             |                   |                 |             |

# Attachment 4 Summary Of Sensitivity Analysis

|                   | Solar S                | avings             | Solar S                | avings             | Solar S                | avings             |
|-------------------|------------------------|--------------------|------------------------|--------------------|------------------------|--------------------|
|                   | Average Retail Ele     | ectric Rate of 1%  | Average Retail El      | ectric Rate of 3%  | Average Retail El      | ectric Rate of 5%  |
| Respondent        | Nominal 15 Yrs<br>(\$) | NPV 15 Yrs<br>(\$) | Nominal 15 Yrs<br>(\$) | NPV 15 Yrs<br>(\$) | Nominal 15 Yrs<br>(\$) | NPV 15 Yrs<br>(\$) |
| Ameresco Option 1 | \$586,065              | \$437,653          | \$830,497              | \$595,652          | \$1,373,274            | \$935,321          |
| Ameresco Option 2 | \$355,717              | \$286,743          | \$758,762              | \$543,945          | \$1,559,565            | \$1,048,421        |