# **EVALUATION REPORT**

Evaluation of Proposals Received on November 15, 2017 in Response to Request for Proposals for a Developer of Photovoltaic Systems to be Located on Facilities and Lands Owned by Township of Franklin Board of Education, Gloucester County, New Jersey



**Prepared for:** 

**Township of Franklin Board of Education** 

**By**:

The Township of Franklin Evaluation Team

**Dated:** 

**January 19, 2018** 

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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 Township of Franklin Board of Education (hereafter referred to as "Franklin BOE" 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 October 13, 2017, BOE issued a Request for Proposals ("RFP"), as amended, for a Power Purchase Agreement ("PPA") for the provision to 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 facilities and lands owned by the Township of Franklin BOE, in the County of Gloucester, 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. The Township of Franklin BOE sought proposals for a mandatory "Option 1" as set forth in Article II of the RFP, which included a ground-mount system to be developed on specified land at Mary F. Janvier Elementary School and Main Road School, and a car-canopy system to be developed at Caroline L. Reutter School.

Additionally, Respondents were 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. Atlantic City Electric Company ("ACE") in the first year of the PPA. This PPA structure provides the BOE 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, all of which are likely to result in significant long-term savings for the remaining life of the equipment. The RFP encouraged Respondents to include educational and curriculum-based content as part of their respective proposals.

Pursuant to the RFP, the Successful Respondent will finance, design, permit, acquire, construct, install, operate and maintain the Systems, 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 each school and will monetize the SRECs.

To evaluate proposals, the BOE organized an evaluation team comprised of school staff, a board member, and supporting architectural, legal, and energy professionals (collectively, "Evaluation Team"). The Evaluation Team developed the RFP, administered the procurement process (including site visits, RFP addenda, 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-based Evaluation Report for consideration by the BOE in making an award decision.

Franklin BOE received proposals from four (4) solution providers (hereafter referred to as "Respondents") on November 15, 2017 in response to the RFP, including:

- Advanced Solar Products / Spano Partners Holdings
- Altus Power America / Dobtol Construction
- HESP Solar
- EZNergy / Vivo Power

Following a legal and technical review, all proposals were considered complete and legally and technically compliant with the requirements of the RFP. EZNergy requested to withdraw their proposal prior to completion of the evaluation process.

Each proposal included two PPA Rate options, one for the carport canopy System with powder-coating and one without powder-coating. The Evaluation Team concluded that a powder-coated carport canopy System is necessary for the maintenance and preservation of the System.

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 on December 21, 2017. The Evaluation Team then completed oral interviews with the remaining three Respondents: ASP/Spano, Altus/Dobtol and HESP Solar; which was followed by 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, technical design and approach factors, Respondent experience, and other factors as defined in the Evaluation Matrix included in the RFP<sup>1</sup>. The Evaluation Team developed a consensus ranking of each proposal within each evaluation category, leading to an

<sup>&</sup>lt;sup>1</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 and was published as part of the RFP itself.

overall score for each proposal between 0 and 100. The proposal with the highest score represents the strongest weighted-balance of all factors considered.

Based on information contained within the proposals, and additional information collected during the oral interviews, the Evaluation Team scored the three proposals in accordance with the evaluation criteria specified in the RFP. Table 1 below summarizes the scores for each of the proposals:

**Table 1: Evaluation of Proposals** 

Respondent	Option	PPA Rate	Annual Escalation Rate	Score
ASP/Spano	Powder-coated	\$0.0798	2.00%	87.98
Altus/Dobtol	Powder-coated	\$0.0699	2.00%	98
HESP	Powder-coated	\$0.0695	1.50%	94.87

Note: In addition to Option 1, HESP provided an alternative option which includes a ballasted ground-mounted system over the septic field at Caroline L. Reutter School. This option was not further evaluated as the suggested location was determined to be unacceptable for this project.

Economic merit, 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 and/or a third party supplier. The strongest ranked proposal (from Altus/Dobtol) provides savings of approximately \$41,560 in the first year, and a 15-yr Net Present Value of savings of \$478,909.

The Evaluation Team finds that the proposals deliver meaningful savings for the District, are competitive with current market practice, and deliver other benefits that are significant. Based on an evaluation of price and other factors, the Evaluation Team recommends to that Altus Power America and Dobtol Construction be selected by the BOE as the Successful Respondent to the RFP, and that Altus be awarded the PPA. Further, the Evaluation Team recommends that the BOE allow EZNergy to withdraw its proposal, as requested.

#### 1. Overview of the RFP

On October 13, 2017, Franklin BOE issued a RFP for a PPA for the purchase by the BOE of electricity generated by the Systems to be financed, designed, installed, owned, operated and maintained by the Successful Respondent at multiple locations throughout the District. BOE sought proposals for a mandatory "Option 1" as set forth in Article II of the RFP, which included a ground-mount solar array to be developed at the Mary F. Janvier Elementary School and Main Road School and a carport canopy array at Caroline L. Reutter School. The Respondents were asked to provide two separate PPA prices that include and exclude powder-coating or a similar painting process for the carport canopy system.

The Successful Respondent and the BOE will enter into a PPA for 15 years, the maximum duration permitted by State law, under which Franklin BOE will purchase the electricity produced from the Systems at a fixed 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 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. Negotiation of an extension of the PPA, if allowable by law; or
- 3. Purchase the System from the Successful Respondent 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) Solar System Sizes

A preliminary feasibility assessment was performed by the BOE's energy consultant, Gabel Associates, to identify the technical potential for a solar systems at the Franklin BOE. Based upon this preliminary assessment, the Systems were estimated to have a total capacity of approximately 890 kW DC. The preliminary system sizes were capped at no greater than 80% of the total onsite electricity usage. The cap was implemented to ensure that the Systems do not generate more electricity than is economically optimal in a given year. The RFP required that all proposals not exceed this annual generation cap.

The RFP provided Respondents with twelve months of electric usage data, utility tariff information and cost information for the three 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 one, mandatory proposal option. Each PPA Price Quotation form included in the RFP contained a request for the Respondents to propose a PPA Price that includes powder-coating the car port canopy at Caroline L. Reutter School. Respondents were free (and encouraged) to provide other proposals that might offer additional value to the school.

In addition, all Respondents were required to provide a price adjustment factor to account for any project cost increases that may arise from increases in project development costs and/or the local utility requiring equipment replacement or installation as part of the electrical interconnection. These adjustment factors provide a controlled way for unforeseen cost changes to be managed after award, if required.

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

#### 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

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: Troy Walton, Franklin BOE Superintendent, Frank Domin, Franklin BOE Business Administrator; Tom Rambone, Supervisor of Buildings and Grounds, Robert N. Garrison Jr., of Garrison Architects; Ryan J. Scerbo, Esq., of Decotiis, FitzPatrick, Cole & Giblin, , LLP, Board Special Energy Counsel; and Andrew Conte and Brian Bizjak of Gabel Associates (collectively, "Evaluation Team"). The Evaluation Team developed the RFP, administered the procurement process (including site visits, RFP addenda, 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.

The following milestones summarize the RFP development and evaluation process:

- 10/13/17 RFP Issued
- 10/26/17 Pre-proposal Conference and Site Tours
- 11/06/17 & 11/14/17 Formal Written Addenda & Q&A Issued
- 11/16/17 Proposals Received
- 12/13/17 Oral Interviews with Compliant Respondents
- 12/21/17 Meeting of Evaluation Team To Rank Proposals
- 1/16/18 Draft of Evaluation Report Issued
- 01/17/18 Meeting with BOE in Closed Session
- 01/19/18 Final Evaluation Report Issued

## 2. Responses to RFP

Franklin BOE received four (4) compliant proposals in response to the RFP as outlined in Table 2. 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.

One Respondent, EZNergy requested that their proposal be allowed to be withdrawn from the evaluation process. As such the evaluation of their proposal concluded after the legal review. This proposal will be absent from the remainder of this Report and the Evaluation Team is recommending the Franklin BOE approve the withdrawal of the EZNergy proposal.

**Table 2: Overview of Proposed Teams** 

PPA Provider	EPC
Spano Partners Holdings (Spano)	Advanced Solar Products* (ASP)
Altus Power America (Altus)	<b>Dobtol Construction*</b> (Dobtol)
*HESP Solar (HESP)	HESP Construction (HESP)
Vivopower	*EZNERGY

<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.

The remaining compliant proposals provided all the necessary documentation as required of Respondents by the RFP. Table 3 provides an overview of the proposals that were submitted to Franklin BOE.

**Table 3: Overview of Received Proposals** 

Respondent	KW	PPA Rate \$/kWh (with power-coating)	Annual Escalation
ASP / Spano	906.7	\$0.0785 (\$0.0798)	2.0 %
Altus / Dobtol	886.7	\$0.0670 (\$0.0699)	2.0 %
HESP	841.5	\$0.0690 (\$0.0695)	1.5 %

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

An alternative option was proposed by HESP, but this proposal was not evaluated due to the proposed location of the solar array and competing uses for that space.

The Evaluation Team concluded that powder-coated carport canopy system is necessary for the aesthetics, maintenance, and preservation of carport canopy system during the lifetime of the project. The economic evaluation utilizes the powder-coated PPA rates provided by each Respondent.

## 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, technical design factors, Respondent experience, commercial factors, 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, design merit, and experience, as well as educational value, 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	NPV of Benefits	50
Taskeisel Basine /	Design Strategy	10
Technical Design / Approach	O&M Plan and Approach	6
Арргоасп	Project Management Approach	6
	Contractor Expertise	5
Respondent's Experience	Team Project Experience	4
	Financial Capability	3
	Production Guarantee	2
<b>Commercial Factors</b>	Schedule	5
	Commercial Terms of PPA	4
<b>Educational Value</b>	Educational Materials	5
Total Proposal		100

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: Financial Benefits

Franklin BOE 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 at a cost lower than the cost of electricity that would otherwise be delivered by and/or purchased from the local electric utility (otherwise referred to as 'grid-sourced' electricity) and/or a third party supplier.

To calculate the potential energy cost savings for the BOE, Gabel Associates prepared a forecast of grid-sourced electricity (the sum of forecasted delivery rates under the local utility tariff rate for Atlantic City Electric Company or "ACE") and the forecasted cost of grid-sourced power supply (considering both third party supplier rates and Basic Generation Service rates) and compared it to the rates proposed by each Respondent. The difference between the forecasted cost of grid-sourced electricity (considering only those cost components that are offset as a result of purchasing solar energy from the Successful Respondent) and the PPA rate is multiplied by the guaranteed solar output to yield the projected savings in energy costs realized over the PPA term.

As noted above, the District currently purchases electricity through a third-party supplier (South Jersey Energy) through the ACES cooperative pricing system. This contract is expected to expire at the end of 2018, before the installation of the System. Once the Systems are in service, it may be prudent to review continued participation in third party supply for these particular electric accounts and consider a transition of these accounts back to default supply (from the Basic Generation Service) at the end of the District's current contract commitment. While the cost benefit analysis suggests that this would be the best course of action for the BOE to maximize savings from net metering, the final decision can be made as the Systems nears commercial operation. The savings calculated from the economic analysis were calculated based on a comparison of forecasted Basic Generation Service supply costs for the remaining electricity purchased by the District after the installation of solar to forecasted third party supply costs for electricity if the District continued the current purchasing strategy without solar.

The Gabel Associates' forecast of the local utility delivery tariff rates and the cost of grid-sourced power is the result of a detailed analysis of the delivery tariff and the market costs for power supply, 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 analysis of the total cost of grid sourced power. This detailed analysis takes into account the following factors:

- 1. Those components of the utility delivery tariff rate that are and are not affected as a result of the solar installation. For example, the customer charge and the major portion of the demand charges are not affected by the purchase of solar energy generated by the solar systems.
- 2. Those components of grid-sourced power supply costs that are only partially affected by a solar installation; for example, peak capacity and transmission obligations.
- 3. 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.
- 4. The expiration date of the current third party supplier ACES contract and future third party supply rate trends. Third party supply rates after the expiration of the ACES contract were calculated as a discount from Basic Generation Service (BGS) rates to conservatively estimate the potential savings from a third party supplier contract (as compared to BGS). The third party supply rate discount in our analysis reflects an expectation of a diminishing disparity between the two rates over time.
- 5. The impact of future energy costs of national, state, and regional environmental initiatives.
- 6. The impact that general energy market escalations will have upon long-term energy prices.

All System designs proposed by Respondents were limited to no more than 80% displacement of the historic energy usage associated with each utility account, as per guidelines provided in the RFP. All Proposal Options were evaluated based on the Net Present Value (NPV) of benefits, which is a methodology that accounts for 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 Systems would generate (i.e., based on the guaranteed solar production during the term of the PPA) multiplied by the per-kwhr savings (difference between the solar PPA rate and the average cost of grid-sourced power avoided by on-site solar generation – otherwise referred to as the 'solar price-to-compare'). All savings in future years are discounted back to present value using a 5% discount rate, consistent with standard accounting practices 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 Systems and the fraction of the utility purchase displaced by solar generation (taking into account the solar production guarantee in each proposal).

Gabel Associates' economic evaluation, based on sources and factors listed above, utilized current utility tariff prices and current energy market conditions and applied assumed annual escalation rates for different portions of the distribution tariff and grid-sourced power supply (third party supply) components, in order to compare each of the PPA pricing proposals to electricity costs under a 'non-solar' electricity price scenario. All proposals were benchmarked against the same 'non-solar' electricity price scenario. In preparation of the forecast of the future prices for grid-sourced electricity, the annual escalation rates applied to the various cost components range conservatively from a low of 0.0% (flat) to as high as 3.0%. The economic evaluation considered first-year and annual nominal (non-discounted) savings, as well as net present value savings over the full 15-year term. Note that the evaluation was performed using the PPA rate inclusive of powder-coating on the carport canopy provided by each Respondent with their proposals. Please see Attachment 3 for a summary of the economic analysis.

The Evaluation Matrix contains 50 points for Financial Benefits, which are awarded proportionally based on 15-year NPV. The proposal with the highest NPV is awarded the full 50 points for economic merit, and the remaining projects within the group are awarded points in proportion to their savings NPV relative to the best proposal in the group. Within the group of proposals received, Dobtol had the highest NPV and was awarded the full 50.00 points. HESP

had the second best NPV with 49.87 points, followed by ASP with 39.96 points. Points for financial benefit are assigned exclusively based on relative NPV ranking by proportion.

## 5. Evaluation: Technical Design & Approach

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

- Design Strategy
- O&M Plan and Approach
- Project Management Approach

Each of these areas are discussed, reviewed, and rated in this section for each of the Respondents' proposals.

#### a) Design Strategy

The design strategy in each of the proposals has been evaluated based on a review of 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 contained in the RFP.

#### ASP/Spano:

The Evaluation Team compared the total system size for Option 1 of 906.66 kW DC of Advanced Solar Products/Spano's proposed systems with the conceptual site plan layouts that were provided as part of the RFP. The layouts proposed by ASP/Spano was consistent with the layouts provided in the RFP.

The Advanced Solar Products/Spano proposed Option 1 system has a guaranteed output of 1,065,140 kWh, which represents 90% of the expected total system output. ASP/Spano used PVsyst for their production estimates, below is a summary of the estimated production in their proposal.

Proposal Option	Total System Size: (kW DC)	Expected Total System Output: (kWh)	Guaranteed Total System Output: (kWh)
Option 1	906.66	1,183,489	1,065,140

ASP/Spano's proposed equipment from the proposal and compliance to specifications are as follows:

**ASP/Spano: Major System Components** 

System	Manufacturer	Compliance with
Component	Manufacturer	Project Technical

		Specifications
PV Modules	LONGi Solar – LONGi LR6-72 – 345W	Yes
Inverters	Sun Grow – SG36KU-M and 60KU-M - String Inverters	Yes
Racking System	Ground Array – RBI – Driven Post Canopy – RBI – Long Span Canopy	Yes
DAS	Deck Monitoring	Yes

ASP/Spano confirmed the use of Tier 1 materials, either those listed above or equivalent.

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

#### Dobtol/Altus:

The Evaluation Team compared the total system size for Option 1 of 886.72 kW DC of Dobtol/Altus's proposed systems with the conceptual site plan layouts that were provided as part of the RFP. The layouts proposed by Dobtol/Altus was consistent with the layouts provided in the RFP.

The Dobtol/Altus proposed Option 1 system has a guaranteed output of 1,017,643 kWh, which represents 90% of the expected total system output. Dobtol/Altus used PVwatts for their production estimates, below is a summary of the estimated production in their proposal.

Proposal Option	Total System Size: (kW DC)	Expected Total System Output: (kWh)	Guaranteed Total System Output: (kWh)
Option 1	886.72	1,130,715	1,017,643

Dobtol/Altus' proposed equipment from the proposal and compliance to specifications are as follows:

#### **Dobtol/Altus: Major System Components**

System Component	Manufacturer	Compliance with Project Technical Specifications
PV Modules	Trina – TSM-DD14A(II) – 340W	Yes
Inverters	SMA – Sunny Tripower - String Inverters	Yes
Racking System	Ground Array – RBI – Driven Post Canopy – MPP Engineering Custom Designs – Cantilever Canopy	Yes
DAS	Also Energy	Yes

Dobtol/Altus confirmed the use of Tier 1 materials, either those listed above or equivalent.

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

#### HESP:

The Evaluation Team compared the total system size for Option 1 of 841.52 kW DC of HESP Solar's proposed systems with the conceptual site plan layouts that were provided as part of the RFP. The layouts proposed by HESP were consistent with the layouts provided in the RFP.

The HESP proposed Option 1 system has a guaranteed output of 965,174 kWh, which represents 90% of the expected total system output. HESP provided the PVWatts calculations for the Systems substantiating the production calculations, below is a summary of the estimated production in their proposal.

Proposal Option	Total System Size (kW DC)	Expected Total System Output (kWh)	Guaranteed Total System Output (kWh)
Option 1	841.52	1,072,417	965,174

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

**HESP Solar: Major System Components** 

System Component	Manufacturer	Compliance with Project Technical Specifications
PV Modules	QCells – Q.Plus L-G4.2 – 335W	Yes
Inverters	Solectria – SGXXKU-M – String Inverters	Yes
<b>Racking System</b>	Patriot Solar	Yes
DAS	Locus	No

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

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

#### b) Operations and Maintenance Plan and Approach

The operations and maintenance (O&M) plan and approach for each of the proposals has been evaluated based on a review of the preliminary descriptions provided, the frequency of site visits, emergency response time, and subcontractors (if any) identified by the Respondents. All Respondents indicated that they will be relying on the information and alerts from the data acquisition system to remotely, continually monitor the system's performance and signal any potential problems.

#### ASP/Spano:

Advanced Solar Products will provide O&M services for Spano. Maintenance response time for normal calls would be within 24 hours and emergency maintenance response would be within 4 hours of a call. ASP stated they expect to conduct multiple site inspection the first year, then provide once annual site inspections for the remainder of the term. Spano may consider other operations and maintenance providers, but will ensure similar requirements and safety standards. ASP/Spano proposes the least frequent annual, O&M site visits of the Respondents. The ASP/Spano team was awarded five (5) out of the six (6) points for this category.

#### **Dobtol/Altus:**

Dobtol/Altus indicated that QE Solar will be the operations and maintenance provider for this project. QE Solar is located in Cranford, NJ and provides solar operations and maintenance services to public and private, large and small solar projects in the Northeast, Mid-Atlantic, Ohio Valley. Dobtol/Altus indicated that normal response times would be in the 24 to 48-hour range while the response time for emergency calls would be 2 to 4 hours. Dobtol/Altus anticipates a minimum of two service inspections per year. This approach is consistent with market standards and includes multiple annual, O&M site visits through the term. Dobtol/Altus was awarded the maximum number of points for this category.

#### HESP:

HESP indicated that they will be self-performing the operation and maintenance for this project. They will be using their weather station's camera to remotely monitor the systems in addition to their DAS to identify a component failure. HESP indicated that normal response times would be in the next day while the response time for emergency calls would be 1 to 5 hours. HESP anticipates a minimum of two service inspections per year. This approach is consistent with market standards and includes multiple annual, O&M site visits through the term. HESP was awarded full points for this category.

#### c) Project Management Approach

The project management approach for each of the proposals has been evaluated based on a review of the preliminary descriptions provided, type and frequency of construction progress meetings, and frequency of site visits by the project manager indicated by the Respondents.

#### ASP/Spano:

The ASP/Spano team has indicated that Advanced Solar Products will be providing the project management services for this project. ASP has verifiable experience with completing projects in a timely manner and maintaining project schedules. ASP stated that the person who will become the project manager for this project has been involved since the development of the proposal and will remain involved through the completion of construction. Additionally, ASP will utilize a pre-construction project manager to be responsible for the successful completion of pre-

construction activities (design, permits, & approvals), and will have a dedicated full-time construction project manager on-site daily. ASP will schedule weekly meetings and provide traffic, health & safety, and staging plans prior to the start of construction. The Advance Solar Products/Spano was awarded full points for the category.

#### *Dobtol/Altus:*

Dobtol/Altus indicated that there would be one, full-time project manager from Dobtol Construction for this project that would work with supervisors on-site daily to ensure the project is completed successfully. Dobtol has verifiable experience with completing projects in a timely manner and maintaining project schedules. Dobtol/Altus stated they would hold weekly construction update meetings, a safety plan, and communications to the BOE through the duration of the project. Dobtol/Altus was awarded full points for the category.

#### HESP:

HESP Solar indicated that it will have project managers who will oversee the design and installation of the systems. HESP Construction, a wholly owned subsidiary of HESP Solar, will be preforming the construction of the arrays and will be providing a construction manager during the construction phase. HESP Construction will schedule weekly meetings and provide traffic, health & safety, and staging plans prior to the start of construction. HESP indicated that the project manager will be on-site during milestones, but likely this will not be daily . HESP Solar was awarded five (5) out of the six (6) points for the category

## 6. Evaluation: Respondent's Experience

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

- Contractor Expertise
- Team Project Experience
- Financial Capability

Each of these areas will be discussed, reviewed, and rated for each of the Respondents' proposals.

#### a) Contractor Expertise

The Contractor Expertise category focuses specifically on each of the construction companies experience.

#### ASP/Spano:

ASP will be the EPC firm using a sub-contractor, Lighton Industries, for the electrical and construction portion of this project. Lighton Industries and ASP have completed multiple school installations in New Jersey, an extensive list of their completed projects was included in their proposal. Lighton Industries-completed projects include:

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

Due to the extensive experience of both Lighton and ASP, ASP/Spano was awarded the maximum points for this category.

#### <u>Dobtol/Altus:</u>

The Dobtol/Altus team indicated that Dobtol will be used for the construction of this project. Dobtol has verifiable experience with completing projects in a timely manner and maintaining project schedules. Dobtol has completed several school installations in New Jersey, Dobtol-completed projects include:

- Woodbury School District, Woodbury, NJ (3 Schools)
- Vernon School District, Vernon, NJ (2 Schools)
- Union Beach School District, Memorial School, Union Beach, NJ
- Central Regional School District, Bayville, NJ (2 Schools)

The Dobtol/Altus team was awarded four (4) out of the five (5) points for the category

#### **HESP Solar:**

HESP Solar indicated that HESP Construction will perform the construction portion for this project. HESP Construction is a relative new formed, wholly owned subsidiary of HESP Solar. HESP is planning on outsourcing the Solar PV electrical system design to one of their preferred vendors, structural evaluation to a New Jersey licensed Professional Engineer, and racking and layout to Patriot Solar Group. The electrical drawings and structural drawings will be sealed by a New Jersey licensed Profession Engineer. HESP Construction are in the process of completing a couple of school projects including:

- Manchester BOE and Haledon BOE, NJ (2 Schools)
- East Greenwich, NJ

Due to the limited experience of HESP Construction and an inability to identify all the vendors and sub-contractors that will be involved in the construction of the Systems, HESP was awarded three (3) out of the five (5) points for the category

#### b) Team Project Experience

The Team Project Experience category focuses on the assembled teams experience in developing, procuring, and installing solar.

#### ASP/Spano:

The ASP/Spano team has extensive experience with developing, constructing, and operating public school solar projects in the state of New Jersey as well as solar projects in other states. ASP/Spano has completed several school installations in New Jersey, an extensive list of their completed projects was included in their Proposal. The ASP/Spano team's projects include:

- Toms River School District, Toms River, NJ (7 Schools)
- Lawrenceville Prep School, Lawrenceville, NJ
- Franklin School District, NJ (Hunterdon County) (1 School)
- Raritan Center, Edison, NJ
- Evesham Township School District, Evesham (Marlton), NJ
- Costco, Manahawkin, NJ

ASP/Spano was awarded the maximum points for this category.

#### Dobtol/Altus:

Dobtol/Altus team has experience with developing, constructing, and operating solar projects in the state of New Jersey along with having solar projects in other states. The Dobtol/Altus team has completed public school projects in New Jersey. Some of the Dobtol/Altus projects include:

• Woodbridge Township Board of Education (9 Schools)

- East Windsor Township
- Pennsauken Board of Education (as a sub)
- New Brunswick Board of Education (3 Schools)
- Monmouth County (4 sites)
- Central Regional School District (2 Schools)
- Union Beach Board of Education (1 School)

Dobtol/Altus was awarded the maximum points for this category.

#### HESP Solar:

HESP Solar has experience with developing, constructing, and operating public school solar projects in the state of New Jersey as well as solar projects in other states. HESP Solar has completed several school installations in New Jersey, an extensive list of their completed projects was included in their Proposal. HESP Solar projects include:

- South Brunswick School District, South Brunswick, NJ (14 Schools)
- Stafford School District, Stafford, NJ (5 Schools)
- Jackson Landfill, Jackson NJ
- Tenafly School District, Tenafly, NJ (3 Schools)
- Plumsted School District, New Egypt, NJ (2 Schools)

HESP Solar was awarded the maximum points for this category.

#### c) Financial Capability

In order to determine the financial capability of the Respondents, the Evaluation Team took into account whether the Respondent has sufficient financial resources to meet its obligations, whether the Respondent's financial stability and creditworthiness are well documented, whether the Respondent has secured the necessary financing to complete the project, and whether the Respondent included adequate evidence of its financial ability to meet the obligations required under the project.

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 financial capability of each Respondent, which is considered an indicator of project implementation risk.

Note that evaluation within this three (3) point category address the proposing entities' capability to finance or cover the projected costs. Respondents included in their Proposals confidential or proprietary information about their finances which have been reviewed by the Evaluation Team, but will not be published in this report.

The following provides a summary of each Respondent's financial review:

Financial Strength Re	view	ASP/Spano	Altus/Dobtol	HESP	
	Self-Finance or Lenders	Self	Self	Self &	
Einanaina Caunaa				Lenders	
Financing Source	Lenders at the ready	Yes	Yes	Yes	
	Project on Balance Sheet	Yes	Yes	Yes	
	PPA Provider Private or Public	Private	Private	Private	
	Type of Company	LLC	LLC	LLC	
Strength of Provider	Audited Financials	ASP - Yes,	No	Independently	
		Spano – Not		Reviewed	
		Audited			
	Provided Financial Information	Yes	Yes	Yes	
	Source of Initial Financing	Spano	Altus and GSO	HESP	
Financial Capability			Capital Partners		
	PPA Execution Contingent	No	No	No	
	upon Financing				

While not all financials provided were audited (some were reviewed by certified accountants), all Respondents provided sufficient evidence through their proposals and clarifications after submission to indicate that they are each financially capable of developing this project. As such all four Respondents received full points for this category.

#### 7. Evaluation: Commercial Factors

Each Respondent was evaluated on the following commercial factors:

- Type of Production Guarantee
- Schedule
- Commercial Terms of PPA

Each of these areas will be discussed, reviewed, and rated for each of the Respondents' proposals.

#### a) Type of Production Guarantee

Each of the respondents were asked to provide a production guarantee. In the industry it is typical for PPA providers to provide a ninety percent (90%) production guarantee (however, some market participants offer lower or higher production guarantees) that is "trued-up" periodically over the term of the PPA. Some PPA providers will provide a schedule of guaranteed production over the term and some will offer a 90% weather-normalized guarantee, in which case the weather-normalization occurs during the true-up calculation and thus potentially reduces the actual percentage below ninety percent (90%).

Both HESP and ASP/Spano included weather normalized 90% guarantees in their proposals while Dobtol/Altus stated they would provide a 90% guaranteed production schedule as part of the PPA with no normalization during the true-up period. Dobtol/Altus also indicated that they would provide an annual true-up, while HESP and ASP/Spano indicated longer true-up periods.

HESP and ASP/Spano received one (1) point for this category. Dobtol/Altus received the full, two (2) points for this category.

#### b) Schedule

Each of the respondents were asked to provide a potential project schedule. In the industry it is typical for a project to reach commercial operation within 365 days from execution of the Power Purchase Agreement. All three Respondents provided schedules with their proposals submissions. All four Respondents' proposes schedule fall within the typical industry time frame for project construction. HESP indicated that construction may continue into the fall while the other Respondents indicated a targeted operation date in the summer. As such, HESP received four (4) points, Dobtol/Altus received five (5) points, and ASP/Spano received five (5) points in this category.

#### c) Commercial Terms of the PPA

Each of the Respondents were asked to indicate on the Proposal Quotation Form included in the RFP whether their proposal would require material changes to the Form PPA provided in Appendix A-1 of the RFP. All four Respondents indicated that either their proposals do not

require any material changes to the Form PPA or that they agreed to include the minimum terms and conditions contained in Exhibit A-1 in their respective form PPA.

Recently, two failed U.S. solar module manufacturers filed a Section 201 trade case with the International Trade Commission in Washington, D.C.. The International Trade Commission found that the U.S. solar module manufacturing industry has been unfairly impacted by the low cost of panels from overseas. The International Trade Commission are tasked with recommending potential remedies to assist the U.S. solar module manufacturing industry become competitive. The potential remedy recommendations include some balance of quotas and import tariffs on modules and parts from overseas. The President of the United States will make the final decision on whether to impose tariffs on solar modules and parts and how those tariffs, quotas, floor prices, etc. would be implemented.

Additionally, Congress has passed a new Federal tax bill that changes the way corporations and special purpose entities are taxed in their income and the New Jersey legislature sent a solar reform bill to the Governor that could change how SRECs are created and valued. The District does not consider the potential tariff a force majeure, change in law, or acceptable contract provision. The District considers this a market risk.

All Respondents indicated that their proposed PPA rates would not change due to any of the regulatory changes described above. For not proposing extraordinary contract terms, for not attempting to place market risk onto the District, for including early buy out provisions, and for agreeing to no material changes to the Form PPA included in the RFP, all Respondents receive full points for this criteria.

#### 8. Evaluation: Education Value

The BOE recognized that the solar system could serve as a significant asset for enhancing student learning and community engagement. Solar energy systems are particularly helpful for supporting enhanced curriculum and project work for STEM programs. The RFP encouraged Respondents to highlight educational content as part of their proposal. The Evaluation Team assessed the merit of this educational content by considering the value of displays and outreach programs (5 points), as well as specific content for enhancing curriculum (5 points).

All four Respondents provided descriptions of the types of education materials that they will make available for the District as part of their proposal. All four Respondents indicated that the District Administration and the District's STEM programs will have access to the raw data from the data acquisition systems and weather station as part of this project. Other education material that has been proposed consists of:

- Presentations
- Staff Training
- Assemblies
- Curriculum Materials (tailored to each grade level)

#### ASP/Spano:

ASP/Spano offered compelling educational content as part of their proposal. The solution will include a flat screen display inside the building, and a web-based platform for displaying and accessing system performance information. ASP offered to attend/provide assemblies on solar energy and the science behind it, complete with costumes and characters. The ASP/Spano team also included significant, already developed, curriculum content for use by the district. ASP/Spano received the full five (5) points for this category.

#### Altus/Dobtol

The Altus/Dobtol described educational content as part of their proposal, although details of that offering were less defined than that of other Respondents. The solution will include a flat screen display inside the building, and a competitive web-based platform for displaying and accessing system performance information. The Altus/Dobtol team also indicated it could provide curriculum content for use by the district, but limited details were available. Altus/Dobtol team were awarded four (4) out of a possible five (5) points for this category.

#### **HESP Solar**

HESP expressed interest in supporting outreach programs related to the solar system. The solution will include a flat screen display inside the building, and a competitive web-based platform for displaying and accessing system performance information. HESP indicated interest in formulating and funding a renewable energy science fair in concert with the project's completion. The HESP team also discussed providing curriculum content as part of the solution. The HESP team was awarded the full five (5) points for this category.

## 9. Sensitivity Analysis

As noted in Section 4, economic merit is based on a detailed analysis of current and forecasted rates for grid-supplied electricity as compared with the proposed solar PPA rate of each proposer. 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 the analysis, significant savings are projected to be realized.

To assess how vulnerable that conclusion is to scenarios including unforeseen project costs, powder-coating on the carport canopy, and inflated & deflated electrical supply costs sensitivity analyses were completed for each proposal. The results of these sensitivities can be found in Attachment 4.

#### 10.Recommendation

The RFP process attracted a competitive range of proposals. Following a legal and technical review, three (3) proposals (from ASP/Spano, Dobtol/Altus, and HESP) were determined to be complete and legally and technically compliant with the requirements of the RFP. The proposal from EZNergy and Vivopower was legally compliant with the requirements of the RFP, but this Respondent requested to withdraw their proposal prior to completing the evaluation process.

The economic analysis indicates that the solar project will provide significant savings to the District, compared with continued purchase of electricity over the 15-year term. If the District decides to purchase the systems at the end of the 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 believe that implementation of a solar project would be beneficial for the District.

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. Based on the results of the evaluation and the points allocated as described in the previous sections of this report, the proposal from Altus Power America with Dobtol Construction received the highest score and provide the most benefit to the BOE. The Evaluation Team recommends selecting the highest ranked Respondent as the Successful Respondent, awarding said Respondent the PPA, and allowing EZNergy to withdraw their proposal.

# Attachment 1 Solar Proposal Summary

Respondent	PPA Rate (\$/kWh)*	Escalation Rate	School	System Size (kW)	Estimated System Production (kWh)	Adj. Factor- Unforeseen Costs Price Range	Adj. Factor- Unforeseen Costs (per kWh)	Adj. Factor- Project Development
			Reutter	261.12	303,967	\$50,000-\$99,999.99	\$0.00500	
Dobtol/Altus	\$0.0699	2.00%	Janvier	325.72	430,448	\$100,000-\$149,999.99	\$0.00800	0.0006/kWh
			Main Rd	299.88	396,300	\$150,000 and above	\$0.01300	
	\$0.0695	1.50%	Reutter	235.17	271,461	\$50,000-\$99,999.99	\$0.0050	0.0005/kWh
HESP			Janvier	319.59	421,859	\$100,000-\$149,999.99	\$0.0075	
			Main Rd	286.76	379,097	\$150,000 and above	\$0.1000	
		2.00%	Reutter	335.34	408,779	\$50,000-\$99,999.99	\$0.00281	
ASP/Spano	\$0.0798		Janvier	291.87	395776	\$100,000-\$149,999.99	\$0.00563	0.00056/kWh
			Main Rd	279.45	378934	\$150,000 and above	\$0.01687	

<sup>\*</sup>PPA Rate for powder-coated panels

Attachment 2 Proposal Ranking – Evaluation Matrix

Category	Evaluation Factor	Weighting	ASP/Spano	Dobtol/Altus	HESP
Financial Benefits	NPV of Benefits	50	39.96	50.00	49.87
Taskwinal Davies /	Design Strategy	10	10	10	10
Technical Design / Approach	O&M Plan and Approach	6	5	6	6
Арргоасп	Project Management Approach	6	6	6	5
	Contractor Expertise	5	5	4	3
Respondent's Experience	Team Project Experience	4	4	4	4
	Financial Capability	3	3	3	3
	Production Guarantee	2	1	2	1
<b>Commercial Factors</b>	Schedule	5	5	5	4
	Commercial Terms of PPA	4	4	4	4
<b>Educational Value</b>	Educational Materials	5	5	4	5
Total Proposal		100	87.96	98	94.87

# Attachment 3 Economic Analysis

		PPA Rate*	Escalation Rate	System Size	Guaranteed Production	Year 1 Savings	15 Year Savings	15 Year NPV	Points
	Reutter	\$0.0699	2.00%	261.12	273,570	\$11,505	\$184,231	\$126,118	
Dobtol	Janvier	\$0.0699	2.00%	325.72	387,403	\$15,436	\$266,843	\$182,230	FO 00
Dobtol	Main Rd	\$0.0699	2.00%	299.88	356,670	\$14,618	\$249,671	\$170,561	50.00
	TOTAL	-	-	886.72	1,017,643	\$41,560	\$700,745	\$478,909	
	Reutter	\$0.0695	1.50%	235.17	244,314	\$10,137	\$171,823	\$116,800	49.87
HESP	Janvier	\$0.0695	1.50%	319.59	379,673	\$15,242	\$278,655	\$189,004	
ПЕЗР	Main Rd	\$0.0695	1.50%	286.76	341,187	\$14,034	\$253,286	\$171,871	
	TOTAL	-	-	841.52	965,174	\$39,414	\$703,764	\$477,676	
	Reutter	\$0.0798	2.00%	335.34	367,901	\$12,459	\$198,626	\$135,984	20.06
ACD	Janvier	\$0.0798	2.00%	291.87	356,198	\$10,435	\$181,771	\$124,171	
ASP	Main Rd	\$0.0798	2.00%	279.45	341,041	\$10,442	\$179,339	\$122,550	39.96
	TOTAL	-	-	906.66	1,065,140	\$33,336	\$559,737	\$382,705	

<sup>\*</sup>PPA Rate for powder-coated panels

Attachment 4
Unforeseen Project Cost Adjustment Sensitivity Analysis

Respondent	System Escalation PPA Rate Size (kW) Rate (\$/kWh)*		Adj. Factor- Unforeseen Costs Price Range Costs (\$/kWh)		Year 1 Savings	15 Year Savings	15 Year NPV	
			\$0.0749	\$50,000-\$99,999.99	\$0.00500	\$36,472	\$615,940	\$421,007
Altus/Dobtol	886.72	2.00%	\$0.0779	\$100,000-\$149,999.99	\$0.00800	\$33,420	\$565,058	\$386,265
			\$0.0829	\$150,000 and above	\$0.01300	\$28,333	\$480,253	\$328,363
	841.52	1.50%	\$0.0745	\$50,000-\$99,999.99	\$0.0050	\$34,589	\$626,139	\$424,439
HESP			\$0.0770	\$100,000-\$149,999.99	\$0.0075	\$32,177	\$587,327	\$397,821
			\$0.0795	\$150,000 and above	\$0.0100	\$29,764	\$548,514	\$371,202
	906.66		\$0.0826	\$50,000-\$99,999.99	\$0.00281	\$30,354	\$510,030	\$348,766
ASP/Spano		2.00%	\$0.0854	\$100,000-\$149,999.99	\$0.00563	\$27,373	\$460,322	\$314,828
			\$0.0967	\$150,000 and above	\$0.01687	\$15,339	\$259,718	\$177,861

<sup>\*</sup>Base PPA Rate for powder-coated carport canopy.

# No Powder-coating PPA Rate Sensitivity Analysis

		PPA Rate	<b>Escalation Rate</b>	System Size	Year 1 Savings	15 Year Savings	15 Year NPV
	Reutter	\$0.0670	2.00%	261.12	\$12,299	\$197,454	\$135,146
Dobtol	Janvier	\$0.0670	2.00%	325.72	\$16,560	\$285,568	\$195,014
Dobtoi	Main Rd	\$0.0670	2.00%	299.88	\$15,652	\$266,911	\$182,332
	TOTAL	-	•	886.72	\$44,510	\$749,932	\$512,492
	Reutter	\$0.0690	1.50%	235.17	\$10,260	\$173,788	\$118,148
HESP	Janvier	\$0.0690	1.50%	319.59	\$15,432	\$281,709	\$191,099
ПЕЗР	Main Rd	\$0.0690	1.50%	286.76	\$14,205	\$256,030	\$173,753
	TOTAL	-	•	841.52	\$39,896	\$711,527	\$482,999
	Reutter	\$0.0785	2.00%	335.34	\$12,937	\$206,598	\$141,426
ASP	Janvier	\$0.0785	2.00%	291.87	\$10,898	\$189,489	\$129,440
ASP	Main Rd	\$0.0785	2.00%	279.45	\$10,885	\$186,728	\$127,596
	TOTAL	-	-	906.66	\$34,721	\$582,815	\$398,462

# **Low Electricity Supply Costs Sensitivity Analysis**

		PPA Rate*	<b>Escalation Rate</b>	System Size	Year 1 Savings	15 Year Savings	15 Year NPV
	Reutter	\$0.0699	2.00%	261.12	\$3,405	\$44,360	\$31,043
Dobtol	Janvier	\$0.0699	2.00%	325.72	\$6,149	\$104,082	\$71,798
Dobtol	Main Rd	\$0.0699	2.00%	299.88	\$6,699	\$111,050	\$76,494
	TOTAL	1	-	886.72	\$16,253	\$259,493	\$179,335
	Reutter	\$0.0695	1.50%	235.17	\$2,037	\$31,953	\$21,725
HESP	Janvier	\$0.0695	1.50%	319.59	\$5,955	\$115,895	\$78,573
ПЕЭР	Main Rd	\$0.0695	1.50%	286.76	\$6,115	\$114,665	\$77,804
	TOTAL	1	-	841.52	\$14,107	\$262,512	\$178,102
	Reutter	\$0.0798	2.00%	335.34	\$4,359	\$58,756	\$40,909
ACD	Janvier	\$0.0798	2.00%	291.87	\$1,148	\$19,011	\$13,739
ASP	Main Rd	\$0.0798	2.00%	279.45	\$2,523	\$40,718	\$28,483
	TOTAL	-	-	906.66	\$8,030	\$118,485	\$83,131

# **High Electricity Supply Costs Sensitivity Analysis**

		PPA Rate*	<b>Escalation Rate</b>	System Size	Year 1 Savings	15 Year Savings	15 Year NPV
	Reutter	\$0.0699	2.00%	261.12	\$14,065	\$229,477	\$156,788
Dobtol	Janvier	\$0.0699	2.00%	325.72	\$17,890	\$310,296	\$211,677
Doptoi	Main Rd	\$0.0699	2.00%	299.88	\$16,747	\$287,377	\$196,114
	TOTAL	-	-	886.72	\$48,703	\$827,150	\$564,578
	Reutter	\$0.0695	1.50%	235.17	\$12,697	\$217,069	\$147,470
HESP	Janvier	\$0.0695	1.50%	319.59	\$17,696	\$322,109	\$218,452
ПЕЗР	Main Rd	\$0.0695	1.50%	286.76	\$16,164	\$290,991	\$197,424
	TOTAL	-	•	841.52	\$46,557	\$830,169	\$563,345
	Reutter	\$0.0798	2.00%	335.34	\$15,019	\$243,872	\$166,653
ASP	Janvier	\$0.0798	2.00%	291.87	\$12,889	\$225,224	\$153,618
ASP	Main Rd	\$0.0798	2.00%	279.45	\$12,572	\$217,044	\$148,103
	TOTAL	-	-	906.66	\$40,480	\$686,141	\$468,375

<sup>\*</sup>PPA Rate for powder-coated carport canopy.