

|                |                            |
|----------------|----------------------------|
| Task Order     | Solar PV Feasibility Study |
| Task Order No. | TBD                        |

This Task Order is pursuant to the Professional Services Agreement (“PSA”) between Sage Renewable Energy Consulting, Inc. (“SAGE”) and Mountain View Whisman School District (“CLIENT”) dated \_\_\_\_\_.

31 Oct 2017

This Task Order must be mutually executed before work is commenced.

|                      |                                       |
|----------------------|---------------------------------------|
| Project Name         | Solar PV Feasibility Study            |
| Client               | Mountain View Whisman School District |
| Physical Location    | Mountain View, California             |
| Estimated Start Date | November 20, 2017                     |
| Estimated End Date   | January 22, 2018                      |
| Estimated Fees       | TBD dependent on final Scope          |

## Project Contacts

| For SAGE  | For CLIENT  |
|---|---|
| Tom Williard  | Robert Clark, Ed.D.                                       |
| Title: Principal  | Title: Associate Supt/CBO                                 |
| Email: tom@sagerenew.com                                      | Email: rclark@mvwsd.org                                   |
| Phone: (415) 847-9066   | Phone: 650.526.3550                                       |
| Address: 1719 5 <sup>th</sup> Avenue,<br>San Rafael, CA 94901 | Address: 750 A San Pierre Way,<br>Mountain View, CA 94043 |

## Proposed Scope of Services

This task order outlines an initial, low-cost Feasibility Review and follow-on detailed Investment Grade Feasibility Study to evaluate the potential for solar photovoltaic (PV) systems at CLIENT school sites. The Feasibility Review is a low-cost desktop review to determine if solar PV is physically and economically viable at each site under consideration. The Investment Grade Feasibility Study is a detailed study limited to the potentially viable sites identified in the Feasibility Review. This two-step process is designed to reduce feasibility study costs for the CLIENT.

Sage can also include battery energy storage system (BESS) evaluation in these feasibility tasks.

## Tasks

### **Task 1 Solar PV Feasibility Review**

The first task is a low cost, high-level assessment to establish a conceptual project, provide high-level siting of potential systems and preliminary financial results to assess a project. This is a desktop study aimed at providing indicative metrics and conceptual layouts, as well as identification of fatal flaws, for clients beginning to explore an energy project.

- 1.1 Establish high-level project goals and constraints
- 1.2 Collect historical energy consumption data and information on future changes to site usage/energy efficiency measures for each site to estimate future energy consumption.
- 1.3 Identify potential appropriate solar PV array locations at each site.
- 1.4 Create high-level models of conceptual system designs for each site and generate system energy production profiles utilizing Helioscope design software.
- 1.5 Conduct tariff modeling for each site based on estimated energy consumption, production and available tariffs to establish the avoided value of electricity produced by solar.
- 1.6 Perform high-level financial modeling of overall project with multiple financing scenarios including PPA, Clean Renewable Energy Bonds (CREBs) and cash purchase.
- 1.7 Produce final Feasibility Review report with recommendations, general schedule, and outline of project development steps.

Site Visits: None, desktop study only.

### **Task 2 Solar PV Investment Grade Feasibility Study**

The second phase is an in-depth analysis of the proposed project based on the outcome of the Feasibility Review. We conduct thorough site visits, collect detailed information about current and future energy usage, and work with stakeholders to set goals, design standards and expectations for the project. With this information, Sage creates energy system designs using industry leading design tools, develops conceptual layouts, performs lifecycle financial analysis for different financing alternatives, and assists with presenting the study findings to decision makers. The study also outlines the process to implement a project and key considerations, such as schedule, utility interconnection and permitting. The detailed results of the Investment Grade Feasibility Study provide the necessary metrics for a go no-go decision and form the basis of a competitive procurement. This information will form the basis of a Request for Proposals (RFP) performance specifications.

- 2.1 Review existing site details, including as-builts and existing geotechnical reports.
- 2.2 Review and finalize PV array size and locations for each site with CLIENT.
- 2.3 Visit sites to evaluate potential PV system component locations/limitations and investigation of existing electrical infrastructure.
- 2.4 Refine conceptual system designs for each site and generate system energy production profiles utilizing Helioscope design software.
- 2.5 Conduct detailed tariff modeling for each site based on estimated energy consumption, production and available tariffs to establish the avoided value of electricity produced by solar.
- 2.6 Refine financial modeling on site-by-site and overall project with multiple financing scenarios including PPA, Clean Renewable Energy Bonds (CREBs), Tax-Exempt Municipal Lease and cash purchase
- 2.7 Develop Feasibility Study draft report and review with CLIENT.

- 2.8 Produce final Feasibility Study report with recommendations, detailed schedule, and outline of project development steps.

Site Visits: Two: one for site evaluations; one to attend Board meeting where project is considered.

## Schedule and Deliverables

| Schedule                                  |               |               |  |  |
|---|---------------|---------------|--|--|
| Task                                      | From          | To            | Deliverables   |  |
| Task 1 Feasibility Review                 | October 2017  | December 2017 | – Feasibility Review Report                            |  |
| Task 2 Investment-Grade Feasibility Study | December 2017 | February 2018 | – Feasibility Study Report<br>– Presentation materials |  |

## Project Requirements and Assumptions

1. Travel to the proposed project site and/or the CLIENT offices as stated in Tasks. Project travel assumes one SAGE representative per site visit.
2. Site data will be made available as-needed. SAGE will review available existing data and provide preliminary review of project constraints. On-site review will be limited to visual inspections of potential PV locations, electrical services and existing site conditions. Feasibility will not include new or invasive site investigations (e.g. geotechnical studies, structural investigation, shutdown/inspection of electrical services, etc.).
3. CLIENT will provide estimates of changes in electricity consumption at proposed sites based on energy efficiency measures, anticipated changes site usage, and new construction.
4. CLIENT will provide access to all sites under consideration for site walks, including access to electrical services at each site.
5. CEQA documentation and process management to be provided by others. SAGE to provide input with project process/details needed to prepare CEQA documentation.
6. Design, construction and commissioning of project by others. If retained for follow-on services, SAGE will assist CLIENT with design review, technical expertise during construction, and review/oversight of vendor's commissioning, and performance assessment. This scope of work assumes CLIENT will perform or separately contract construction management services.
7. SAGE will interface with the Utility during feasibility to assess interconnect constraints. Vendor will be responsible for interconnection process responsibilities and to ensure interconnect with Utility. SAGE will provide oversight of vendor's interconnection effort.

## Fees and Payment Schedule

The total estimated Project fees listed in this section are indicative pricing based on a full nine (9) site school Project with a not to exceed (NTE) amount of \$14,850. Final contract pricing will be based upon number of sites evaluated in each Task. The contingency listed below is for unforeseen project services

that fall outside the typical project scope. Contingencies are only collected if needed and at the approval of CLIENT.

#### Fixed Fee Structure

SAGE is proposing project management services on a fixed fee per site, per task basis. All project travel and reimbursable expenses are inclusive of the fixed fee costs listed below.

| Task   | Fixed Fee per Site  |
|--|---------------------|
| <b>Task 1 Feasibility Review</b>                 | \$500/site          |
| <b>Task 2 Investment Grade Feasibility Study</b> | \$1,000/site        |
| Contingency (10% of per site fees)               | TBD, based on above |
| <b>Total</b>                                     | <b>NTE \$14,850</b> |

#### Time and Materials Fee Structure

Upon request, SAGE can provide services on a time and materials (T&M) basis with a not to exceed (NTE) limit, billed at the hourly rates listed below. T&M travel time is billable at the full hourly rate. NTE limits are typically set at 5% over the Fixed Fee rates. SAGE will notify CLIENT when 80% of the Task budget has been billed and will not provide services in excess of the NTE limit without consent of the CLIENT.

| Title  | 2017 Hourly Fees |
|--|------------------|
| Principal                                    | \$195            |
| Senior Project Manager                       | \$185            |
| Senior Energy Professional / Project Manager | \$165            |
| Engineer / Energy Professional               | \$150            |
| Associate                                    | \$125            |
| Project Administrator                        | \$75             |


#### Billing/Payment Structure

SAGE invoices on a monthly basis with terms of Net 30. For fixed fee billing, invoices are billed on percentage of task complete. SAGE will only bill for work that has been completed and does not bill for uncompleted tasks if the Project is terminated or suspended. If schedule is extended as a result of regulatory, District, or vendor actions, SAGE will consult with CLIENT on utilizing contingency funds or extending the budget as-needed.

**Reimbursable Expenses**

The above fixed fees include the travel indicated in the Proposed Scope of Services. Fees assume all deliverable materials for the project will be provided digitally. Printed copies of documents will be billed at cost. For T&M billing, all ordinary travel expenses (airfare, rental car, hotel, meals, mileage, etc.) are billed at cost.

IN WITNESS WHEREOF, authorized representatives of both SAGE and CLIENT have executed this agreement as of the date set forth above.

| SAGE               | CLIENT   |
|--------------------|--|
| By:                | By:  |
| Name: Tom Williard | Name: Robert Clark, Ed.D.  |
| Title: Principal   | Title: Associate Superintendent/CBO  |
| Date:              | Date: 31 Oct 2017  |

## Follow-on Services

SAGE commonly provides full project management services for solar PV projects. In addition to the services described in Task 1 above, SAGE develops and manages a competitive procurement and vendor selection process to ensure optimal value for the District. Sage then supports the project from contract negotiation through the operational phase to ensure each step of the process is expertly managed and that the resulting project meets or exceeds expectations. Typical follow-on tasks are:

### **Task 3 Procurement – RFP/RFQ**

- 3.1 Create project-specific Request for Proposals (RFP) using Sage RFP templates, including electronic submittal documents, project requirements, specifications, contract terms, and additional information.
- 3.2 Review with CLIENT and District legal counsel.
- 3.3 Manage solicitation notices and electronic distribution to potential solar contractors in coordination with CLIENT.
- 3.4 Coordinate and conduct site walk with interested contractors.
- 3.5 Manage document access and produce Addenda with RFI responses, as needed.
- 3.6 Assistance with critical path project items, such as DSA, CEQA, CGS, tariffs/interconnect, etc.
- 3.7 Manage electronic submission of proposals.

Site Visits: One to conduct RFP site walk.

### **Task 4 Proposal Evaluation and Vendor Selection**

- 4.1 Provide initial summary of responses.
- 4.2 Perform quantitative analysis, including review of pricing, production estimates and lifecycle cost of energy analysis.
- 4.3 Perform qualitative analysis, including equipment and design review, vendor qualifications, schedule, reference checks, performance guarantees, O&M, contract exceptions, etc.
- 4.4 Participate in CLIENT selection committee workshop to review proposals and rank Solar Contractors, including optional interview of highest ranked vendors.
- 4.5 Produce summary evaluation matrix, report and/or presentation for CLIENT with recommendations.
- 4.6 Provide notifications to proposers.

Site Visits: Up to two, one for selection committee meeting, and one for interview of top ranked proposers.

### **Task 5 Contracting Support**

- 4.1. Facilitate contract negotiations kick off and meetings with CLIENT, legal counsel and vendor.
- 4.2. Ensure Task 2 items are fully integrated into contract, including redlining of vendor documents. Anticipated contract documents include:
  - a. Power Purchase Agreement (PPA), Lease or Design-Build Contract
  - b. O&M Terms and Performance Guarantees
  - c. Scope, criteria, codes and submittals
- 4.3. Performance Guarantee Interface with CLIENT staff, legal counsel and vendor as needed.

- 4.4. Participate in contract negotiations and finalization with legal counsel and vendor.
- 4.5. Prepare GC 4217.10 *et seq.* notice, findings and resolution for Board.

Site Visits: One for CLIENT board meeting for contract approval.

#### **Task 6 Design Review and Assistance**

- 6.1 Organize and attend design kickoff meeting.
- 6.2 Participate in regular design meetings via phone.
- 6.3 Provide technical review and collate CLIENT comments on progress designs.
- 6.4 Evaluate system design, component selection and interconnection for conformance with contract and industry standards.
- 6.5 Assist with siting issues such as easements, equipment placement, vegetation, shading, DSA and ADA considerations, etc.
- 6.6 Coordinate/attend existing conditions site walk to document existing conditions and discuss implementation logistics.

Site visits: Up to two, One for design kickoff and one for existing conditions site walk.

#### **Task 7 Construction Support**

- 7.1 Coordinate and participation in construction kickoff meeting site visit.
- 7.2 Participation in weekly project meetings by phone.
- 7.3 Review and respond to RFIs during construction.
- 7.4 Technical review and comments on design changes and change orders.
- 7.5 As needed support and communications with CLIENT, construction manager and DSA Inspector of Record.

Site visits: Monthly. Construction kickoff meeting and intermittent project check-ins.

#### **Task 8 Commissioning (Cx) Verification**

- 8.1 Review Contractor's Cx protocol to ensure industry standard.
- 8.2 Inspection of systems, including:
  - System component and design conformance verification
  - Workmanship evaluation
  - Performance verification
- 8.3 Provide input to project closeout punch list and verify completion.
- 8.4 Produce summary report of Cx verification with library of closeout documentation including as-builts, permission to operate letters, inspections, punchlist closeout, etc.

Site visits: Up to two, for inspection and verification.

#### **Task 9 Performance Management**

- 9.1 Provide monthly PV/ BESS system performance review.
- 9.2 Provide annual PV/ BESS system performance evaluation including performance guarantees verification and detailed financial savings evaluation.

9.3 Provide as-needed PV/ BESS system issue support.

Site visits: None, all work done remotely

### Schedule and Deliverables for Follow-on Services

| Task   | Typical Duration | Deliverables   |
|--|------------------|--|
| Task 2 <u>Procurement (RFP/Q)</u>                      | 2 Months         | <ul style="list-style-type: none"> <li>– RFP Documents</li> <li>– RFI and Addenda</li> <li>– Cloud-based document management</li> </ul>                                |
| Task 3 <u>Proposal Evaluation and Vendor Selection</u> | 2 Weeks          | <ul style="list-style-type: none"> <li>– Proposal Evaluation Report</li> </ul>   |
| Task 4 <u>Contracting Support</u>                      | 6-8 Weeks        | <ul style="list-style-type: none"> <li>– Red-line edits of EPC, Design-Build and/or PPA, O&amp;M Contracts</li> </ul>  |
| Task 5 <u>Design Review and Assistance</u>             | 4 months         | <ul style="list-style-type: none"> <li>– Review/mark-up of progress drawings</li> <li>– Updates to performance/financial models as needed with final design</li> </ul> |
| Task 6 <u>Construction Support</u>                     | 6 months         | <ul style="list-style-type: none"> <li>– Review of Submittals/RFIs/Change Orders</li> </ul>  |
| Task 7 <u>Commissioning Verification</u>               | 3 months         | <ul style="list-style-type: none"> <li>– Commissioning Report with review of vendor Cx and SAGE Cx verification</li> </ul>   |
| Task 8 <u>Performance Management</u>                   | 1 Year           | <ul style="list-style-type: none"> <li>– Annual System Performance Review report</li> </ul>  |

### Fees and Payment Schedule

TBD based on finalized scope and schedule.