Kneeland Fire Protection District

REQUEST FOR QUALIFICATIONS/REQUEST FOR PROPOSALS

Solar Photovoltaic Array with Battery Backup

Date Issued: January 24, 2020

Kneeland Fire Protection District Contact:

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Proposals Due on March 12, 2020 at 3:00 pm at:

633 Third Street Eureka, CA 95501

Fax or Email Proposals Will Be Accepted

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REQUEST FOR QUALIFICATIONS/ REQUEST FOR PROPOSALS

Kneeland Fire Protection District (District)

INTRODUCTION:

Kneeland Fire Protection District (District) solicits proposals responsive to this Request for Qualifications/Request for Proposals from interested Energy Service Companies (ESCOs) to perform the following building energy services: a) Design, permit, install and commission a roof-mounted, grid-tied, solar photovoltaic (PV) system. capable of producing 4,000 kWh/year, b) Design, permit, install and commission a grid-tied battery backup system capable of providing emergency power in the event of a utility outage that can provide up to 10 kWh (AC) of emergency service. A proposed schedule indicating the timeline for this solicitation is identified in **Appendix A: Proposed Project Schedule**. A mandatory pre-proposal site visit and question forum will be held on **February 11, 2020 1:00 pm from 1:00 to 2:00 pm** at 6201 Greenwood Heights, Kneeland CA, 95549. The site visit and forum are designed to increase the likelihood that respondents have the applicable and appropriate information necessary to deliver proposed solutions that meet the District's expressed needs.

OVERVIEW:

This solicitation seeks proposals for installation of a grid-tied solar photovoltaic array with battery backup at the property owned by the District at 6201 Greenwood Heights, Kneeland CA, 95549. The expected work product will be to design and implement the following energy measures:

- **a.** Design, permit, install and commission a roof-mounted, grid-tied, solar photovoltaic (PV) system. capable of producing 4,000 kWh/year,
- **b.** Design, permit, install and commission a grid-tied battery backup system capable of providing emergency power in the event of a utility outage that can provide up to 10 kWh (AC) of emergency service and maximum power rating of 5 kW.

A preliminary assessment has identified building and roof locations for PV panels as described in **Appendix E: Solar PV Site Plan.** The selected ESCO will work with the District to determine the best installation options/location(s), taking into account initial installation costs, long-term maintenance and operational costs, technical feasibility, permitting restrictions, aesthetics, customer preferences and future facility upgrades. The contract with the selected ESCO will be the sole contract the District will hold for the completion of this project.

STATEMENT OF WORK:

The scope of services provided by the selected ESCO shall include all tasks required to design, fabricate, store, deliver, install and commission fully operational energy systems for the District. Any required ancillary equipment is included in the scope of work. The scope shall also include, but not be limited to, securing all permits and approvals from governing agencies, all labor, taxes, services, permit fees, training and equipment necessary to produce fully operational systems.

The selected ESCO will be expected to work with the District to design all systems to meet the District's specific design and funding criteria, and to maximize energy savings and solar energy resources, taking into consideration the District's electrical demand and load patterns, proposed installation site, available solar resources, existing site conditions, proposed future site improvements, and other relevant factors. In addition, the selected ESCO will be expected to complete installation and integration of the system based on a schedule as dictated by the District's funding sources for this project. ESCOs must be an Approved SGIP Developer eligible for processing Step 3 incentives; ESCO must be able to process SGIP incentives for this project.

The selected ESCO will:

- 1. Base Bid: Design, Procure, Install, Test, and Commission a Grid-tied Solar PV System.
 - a. Provide all design, labor, and materials for a turn-key, code compliant installation of a 3.25 kw (DC) grid tied solar photovoltaic array, or similar sized array, capable of producing 4,000 kWh /year.
 - b. PV array should be installed on the south facing roof of the new Volunteer Fire Fighting Facility. See Appendix E: Solar PV Site Plan.
 - c. Equipment
 - i. Provide and install all solar modules, rapid shutdown devices, grid-tied inverter, racking system, means of disconnect for all AC and DC components, and all other balance of system equipment, including conduit, conductors and over current protection devices required for a code compliant installation. Minimum module efficiency of 19% or greater.
 - d. Permitting
 - i. Obtain all permits required for installation and interconnection to utility grid.
- 2. **Additive Alternate A:** Design, Procure, Install, Test, and Commission a Battery Energy Storage System to be integrated with the Grid-tied Solar Array.
 - **a.** Provide all design, labor, and materials for a turn-key, code compliant installation of a grid tied battery energy storage system, that can provide up to 10 kWh (AC) of emergency service and maximum power output rating of 5 kW (or system of similar size and capacity) capable of:
 - i. Delivering emergency battery backup for the facility and operating in "Island Mode" in case of power outages and
 - ii. Discharging the battery to site loads during "Peak" times based on the applicable time-of-use utility rate during normal grid operating conditions.
 - b. Battery bank should be installed inside, at the north end of the new Volunteer Fire Fighting Facility, close to the existing electric service panel, final location to be determined in coordination with KFPD staff and/or Board. See Appendix E: Solar PV Site Plan.
 - c. Design should include an Energy Management System and Battery Management System that includes an inverter/charge controller/transfer switch combination capable of accepting incoming power from an AC generator or battery backup system to allow multiple forms of backup power in the event of utility outage.
 - d. Equipment
 - i. Provide and install all batteries, dual-function inverter, charge controllers, means of disconnect for all AC and DC components, and all other balance of system equipment, including conduit, conductors and over current protection devices required for a code compliant installation. Proposer shall include the following information about the proposed battery energy storage system:
 - 1. Allowable depth of discharge,
 - 2. Round-trip efficiency,
 - 3. Warranted number of discharge cycles and
 - 4. Average degradation rate.

e. Permitting

i. Obtain all permits required for installation and interconnection to utility grid.

The proposal shall contain a detailed explanation of the complete project and delineation of all work tasks to be performed by the awarded ESCO. The proposer must have the technical capability and demonstrated experience to complete the project as set out in this RFP.

The selected ESCO will be expected to furnish any and all electrical, structural and mechanical designs and specifications that are requested and/or required by any regulatory bodies with jurisdiction over the project.

The selected ESCO will work with the District and its representatives to determine the best approach for design. Final scope approval will be given prior to installation.

After approval of a final design by the District and the Project Manager, and after receiving any necessary regulatory approvals, the ESCO shall provide all necessary materials, equipment, and labor to construct and successfully commission the targeted energy systems and the photovoltaic system installation and interconnection with the electrical grid.

The ESCO shall provide approved training for designated District personnel in the operation of all of the new equipment including the new on-demand water heating system and the entire photovoltaic system including the operation and maintenance of inverters, transfer switches, panel board, disconnects, and other features as requested by the District. The ESCO shall provide the District with written instructions and procedures for shutdown and start-up activities for all components of the PV system and for all other installed systems.

All equipment provided by the ESCO for this Project shall have a history of successful operating experience in similar installations and shall be in new, unused condition. This equipment shall be current technology with readily available non-proprietary replacement parts. All equipment used for this Project shall be approved by the District prior to installation.

Contractor's duties shall include but may not be limited to the following:

- Prepare construction documents where necessary.
- Ensure compliance with governing codes and standards including, but not limited, to Title 24 Standards and the California Building Code.
- Ensure compliance with all requirements for photovoltaic installations contained in the National Electric Code (NEC) and the California Electric Code (CEC), including, but not limited to, Articles 250, 310 and 690.
- Ensure the District participation and feedback in scoping process.
- Provide a schedule for completion of Project.
- Prepare a plan for ongoing equipment maintenance and system upgrade.
- Assist the District in securing all relevant rebates including rebates from programs such as the Self Generation Incentive Program (SGIP)
- Ensure delivery of all materials and equipment to Site(s).
- Construct/Install Project.
- Manage all Subcontractors.

- Meet regularly to update the District representatives as to Project progress.
- Obtain and maintain all licenses, permits, and authorizations as needed for the Project.
- Commission Project; provide training on equipment/systems and monitoring if requested.
- Provide project closeout which may include As-Builts, operations and maintenance information, solar inverter security password, warranties, and completion documentation.

APPENDIX A: PROPOSED PROJECT SCHEDULE

The following schedule is the proposed schedule and may change during the project.

ACTIVITY	DATE
Issue RFQ/RFP	<u>January 24, 2020</u>
Pre-Proposal Site Visit	February 11, 2020 1:00 pm
Responses Due	March 12, 2020
Review and Selection of Finalist(s)	March 17, 2020
ESCO Selected/Notice of Award issued	March 17, 2020
Contract Finalized/Notice to Proceed issued	March 27, 2020
Conduct Design Work	April 1-31, 2020
Finalize Design	May 7, 2020
Build Project	May - June 2020
Construction Complete	July 1, 2020
Project Close-Out and System Commissioning	August 1, 2020

APPENDIX B: PROPOSAL REQUIREMENTS

For further information, please contact:

Mike Avcollie, Project Manager Redwood Coast Energy Authority 633 3rd Street, Eureka, CA 95501

Phone: (707) 269-1700, x353

Fax: (707) 269-1777

Email: mavcollie@redwoodenergy.org

PROPOSAL REQUIREMENTS:

Provide one (1) unstapled original, three (3) copies and one (1) electronic copy on a USB key at the time and place indicated in the cover letter to this RFQ/RFP. Fax or email proposals will not be accepted. Late responses will not be accepted.

Each proposal shall be submitted in writing and must include the following information:

ESCO PROFILE & QUALIFICATIONS:

The District may award the contract to the firm that, in its sole opinion, is the most capable of providing the range of services described in this RFP. To be considered for this Project, a proposer must, at a minimum, have demonstrated knowledge and experience in design, engineering and construction capabilities relevant to the scope of this RFP. The proposal must contain a response to each of the following:

- Answer all questions or state "N/A" if not applicable.
- Please number and re-state each subheading or question, followed by your response. This improves clarity and makes it much easier to evaluate your responses.
- Number all pages.
- 1. Name, address, contact numbers, email, website, and summary of the responding ESCO's experience with public works projects and energy upgrades.
- 2. If the responding ESCO is a business entity, provide information on the type of entity, its ownership, size, and location of its principal office.
- **3.** All applicable licenses including license numbers and expiration dates.
- **4.** Detailed resume(s) of personnel to be assigned to the Project.
 - a. Identify proposed sub-ESCO(s) by name, address, and work to be performed.
 - b. Summarize the scope of services (design, construction, training, etc.) directly offered by ESCO.
 - c. Describe your qualifications and ability to design and install the proposed scope of work and solar PV arrays.

- 5. List at least three (3) applicable design and/or construction projects completed by the ESCO and proposed Subcontractors within the past five (5) years that are similar in size and scope. Identify similar projects by name, location, owner, size, and date constructed.
 - a. Include a list of references including contact names and telephone numbers for the representative projects.
 - b. Source of funds used for the project (if known).
- **6.** Describe your general approach to designing and constructing building systems and how the District will be involved in the process.
- 7. Provide a preliminary implementation plan that includes but is not limited to:
 - a. Recommended location and required ancillary activities necessary to successfully install and grid-tie the proposed system.
 - b. Steps to ensure all applicable building codes and/or state requirements are met.
 - c. Steps to ensure all applicable labor compliance requirements are met.
 - d. Number of trainees and or apprentices to be used.
 - e. Proposed installed kW.
 - f. Proposed first year kWh production values that meet or exceeds project goals.
 - g. Proposed battery bank capacity in amp-hours.
 - h. Estimated first year energy cost savings.

The respondent should use the following format to present PV project metrics for Base Bid:

PV System Size (kW DC)	Year 1 Production (kWh)	Effective Useful Life (years)	Year 1 Energy Cost Savings (\$)	Inverter Size (kW)	System Cost (\$)

The respondent should use the following format to present BESS project metrics for Additive Alternate:

Usable Energy (kWh)	Max Power Rating (kW)	Nominal Voltage (V)	Allowable Depth of Discharge (%)	4	Warranted # of Discharge Cycles	Effective Useful Life (years)	Estimated SGIP Incentive (\$)	System Cost (\$)

9. Confirm and briefly discuss labor, PV panel, battery/storage system and inverter warranties.

10. Proposed Price

a. The proposed price shall include all project costs (including design fees, permits, materials, labor, testing, commissioning, inspection, etc.).

AGREEMENT:

The selected ESCO must enter into a written agreement for services using the District's form agreement for Energy Services (the "Contract"), a copy of which is included as **Appendix C**. The Contract includes the following indemnity requirement:

"ESCO shall indemnify, defend with counsel acceptable to Kneeland Fire Protection District, and hold harmless to the full extent permitted by law, Kneeland Fire Protection District, its governing board, officers, agents, employees, and volunteers from and against any and all liability, demands, loss, damage, claims, settlements, expenses, and costs (including, without limitation, attorney fees, expert witness fees, and costs and fees of litigation) (collectively, "Liability") of every nature arising out of or in connection with Consultant's acts or omissions with respect to this Agreement, except such Liability caused by the active negligence, sole negligence, or willful misconduct of the Kneeland Fire Protection District. This indemnification obligation is not limited by any limitation on the amount or type of damages or compensation payable under Workers' Compensation or other employee benefit acts, or by insurance coverage limits, and shall survive the expiration or early termination of this Agreement."

SELECTION PROCESS:

A selection committee will review the proposals and may select a short list of finalists for oral interviews.

REFERENCE CHECK:

The District will conduct a background/reference check of the responding firms. Proposed ESCOs that appear to have the necessary qualifications and who are acknowledged as competent to provide the services requested may be placed on the short list of finalists and interviewed.

INTERVIEW: The District may interview selected respondents.

FINAL SELECTION:

Predicated upon thorough review of proposals submitted and upon interviews with selected firms, the District will make a final selection and notify all finalists in writing.

The District will negotiate the final terms for services with the firm approved by the District Board. If it is not possible to reach mutual agreement with the designated firm, the District reserves the right to enter negotiations with another firm.

The final selection will be made based on best value, which includes, but is not be limited to the following criteria:

- Completeness and adherence to the requirements of this RFP.
- Qualifications and past similar experience.
- References.
- Fee and rates and base price proposal.

The District reserves the right to postpone selection for its own convenience, to withdraw this Request for Proposal at any time, and to reject any and all submittals without indicating any reason for such rejection. Submitted proposals become the property of the District.

As part of the negotiation process, the District reserves the right to require correction of technical errors in the proposal and to modify the published Statement of Work and to approve or disapprove the list of sub-consultants. Should the District determine that specific expertise is lacking in the project team, the District will reserve the right to request specific consultants with specific expertise to be added to the team. Any interpretation of, or change in, this Request for Proposal will be made by addendum, and shall become part of the Request for Proposal and any contract awarded.

The District reserves the right to contract with any entity responding to this Request for Proposals. The District makes no representation that participation in the Request for Proposal process will lead to an award of contract or any consideration whatsoever. The District shall in no event be responsible for the cost of preparing any proposal in response to this Request for Proposals. The selection of ESCO(s) to participate in the Request for Proposal process if at all is at the sole discretion of the District.

From the period beginning on the date of the issuance of this Request for Proposals, and ending on the date of the award of the contract, no person, or entity submitting in response to this Request for Proposals, nor any officer, employee, representative, agent, or consultant representing such a person or entity shall contact any person within the District to engage in discussion of the process of selection or award process except for the District designee for questions listed in this Request for Proposals.

APPENDIX C: ENERGY SERVICES CONTRACT

CONTRACT

This Energy Services Contract ("Contract") is made b	by and between Kneeland Fire Protection District
("District"), and	("ESCO").
District and ESCO hereby agree as follows:	

RECITALS

WHEREAS, the ESCO agrees to provide renewable energy services to the District from an energy generation facility on terms that its governing body determines are in the best interest of the District:

WHEREAS, "renewable energy services" include electrical, thermal, or other energy savings resulting from renewable generation measures, which shall be treated as a supply of such energy;

WHEREAS, through this Contract, the District intends to contract for the system design, fabrication and installation of a photovoltaic solar system that will result in energy savings to the District and which shall be a supply of energy to the District (the "Project") at the following sites: 6201 Greenwood Heights, Kneeland CA, 95549 (the "Project Site"),

WHEREAS, the ESCO shall engineer, design, and construct the Project pursuant to this Contract, including but not limited to certain General Terms and Conditions and other Contract Documents (as that term is defined in the General Conditions), which Contract Documents are incorporated into the Agreement by this reference;

NOW, THEREFORE, in consideration of the covenants hereinafter contained in this Contract, the District and ESCO agree as follows:

1. Description of Work

The ESCO will provide the design, construction, commissioning and installation of a grid-tied solar photovoltaic array with battery backup at the property owned by the District at 6201 Greenwood Heights, Kneeland CA, 95549. The expected work product will be to design and implement the following energy measures:

- **a.** Design, permit, install and commission a roof-mounted, grid-tied, solar photovoltaic (PV) system. capable of producing 4,000 kWh/year,
- **b.** Design, permit, install and commission a grid-tied battery backup system capable of providing emergency power in the event of a utility outage that can provide up to 10 kWh (AC) of emergency service and maximum power rating of 5 kW.

The ESCO agrees to furnish all labor, materials, equipment, plant, tools, supervision, appurtenances, and services, including transportation and utilities, required to perform and satisfactorily complete all work required for the Project. The ESCO agrees to furnish any and all electrical and mechanical designs and specifications including but not limited to performance specifications, panel layout and mounting diagrams, electrical drawings and calculations, mechanical drawings and calculations.

2. Contract Documents

The Contract Documents consist of the Complete Proposal Documents, as submitted by ESCO, including applicable drawings and calculations, the Contract, any Amendment thereto, Schematic Drawings and Specifications, Supplementary General Conditions, if any, General Conditions, Detailed Project Schedule, Proposal Requirements, Request for Proposals, Disabled Veteran Business Enterprises Requirements (if applicable), Labor Compliance Program (if applicable), all addenda, required bond(s) and insurance certificates, completed Project Questionnaire, ESCO Prequalification, all of which are incorporated herein by this reference. All Contract Documents are intended to coordinate so that any work called for in one document and not mentioned in another document is to be executed as if mentioned in all documents.

3. Proposals & Compensation				
As full compensation for ESCO's complete and sa	tisfactor	y performance of the work and activities		
described in the Contract Documents, District agree	ees to pa	y ESCO, and ESCO agrees to accept the		
sum of , wh	nich shal	be paid to the ESCO according to the		
Contract Documents.		-		
4. Time for Completion				
The starting date of the Contract shall be the day 1	isted by	the District in the Notice to Proceed and the		
ESCO shall fully complete all the work as detailed				
Proposed Project Schedule. Time is of the essence				
	•			
IN WITNESS WHEREOF, the parties agree to the	e terms c	of this Contract on the day and year written		
below.				
District Authorized Signature	ESCO			
District Authorized Signature		LSCO		
Resolution No.	ESCC	License No and Expiration Date		
Resolution No.	ESCC	License No and Expiration Date		
	ъ			
D-4-	By:	L. Pari Inc. I Cinner Anna		
Date		Individual Signature		
		Title		
	Б	Date		
	For:	Corporation or Partnership		
		corporation of Farmeromp		
		If Corporation, Seal Below.		

General Conditions to Design-Build Contract for: Grid-tied Solar Photovoltaic Array with Battery Backup Kneeland Fire Protection District

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1. <u>DEFINITIONS</u>

<u>Addendum</u>: A written change or revision to the Contract Documents issued to the prospective proposers prior to the time of receiving proposals.

<u>Alternate</u>: The sum to be added to or deducted from the base proposal if the change in scope of work as described in Alternates is accepted by the District.

<u>Approved</u>: Approved by the District or the District's authorized representative unless otherwise indicated in the Contract Documents.

<u>Architect</u>: The person or firm holding a valid license to practice architecture or engineering which has been designated (if any designated) to provide architectural or engineering design services on this Project. When Architect is referred to within the Contract Documents and no architect or engineer has in fact been designated, then the matter shall be referred to the District or its Project Manager.

<u>As Directed</u>: As directed by the District or its Project Manager, unless otherwise indicated in the Contract Documents.

<u>As Selected</u>: As selected by the District or its Project Manager, unless otherwise indicated in the Contract Documents.

<u>Construction Manager</u>: The individual or entity named as such by the District. If no Construction Manager is designated for the project, all references to the Construction Manager in these Contract Documents shall mean the District and/or its designee.

<u>Contract</u>: The legally binding agreement between the District and the ESCO wherein the ESCO agrees to furnish the labor, materials, equipment, and appurtenances required to perform the work described in the Contract Documents and the District agrees to pay the ESCO for such work.

<u>Contract Documents</u>: The Contract Documents are described in the Contract for this Project.

<u>District and/or Owner</u>: The District, its governing board, authorized officers and employees, and authorized representatives.

<u>ESCO</u>: The person or entity holding a valid license in the State of California required for performing this Project and who has contracted with the District to perform the construction work described in the Contract Documents. The term ESCO shall be construed to mean all the officers, employees, Subcontractors, suppliers, or other persons engaged by the ESCO for the work of this Project.

<u>Final Completion</u>: Final Completion is achieved when the ESCO has fully completed all Contract Document requirements, including, but not limited to, all final punch list items and project closeout, to the District's satisfaction.

Furnish: Purchase and deliver to site of installation.

Governing Board: The Steering Committee of Kneeland Fire Protection District

<u>Inspector</u>: The person engaged by the District, to inspect the workmanship, materials, and manner of construction of buildings or portions of buildings to determine if such construction complies with the Contract Documents and applicable codes and regulations.

Indicated (or) As Shown: Shown on drawings and/or as specified.

<u>Install</u>: Fix in place, for materials; and fix in place and connect, for equipment.

<u>Modification</u>: An authorized change to the Contract Documents which may or may not include a change in contract price and/or time.

Project: The total construction work and activities described in these Contract Documents.

<u>Project Manager</u>: Redwood Coast Energy Authority (RCEA) serves as the Project Manager for this Project.

<u>Proposal</u>: The properly completed and signed proposal to perform the construction work for the Project as described in the Contract Documents.

Secure: Obtain.

<u>Subcontractor</u>: A person, firm, or corporation duly licensed in the State of California who has a contract with the ESCO to furnish labor, materials and equipment, and/or to install materials and equipment for work in this Contract.

2. PROJECT MANAGER

a. Role and Responsibilities

The Project Manager is responsible for the general oversight of all the working drawings, technical Specifications, sketches and other information necessary to define the work covered by these Contract Documents as generated by the ESCO. The Project Manager shall visit, inspect and observe the construction to determine general compliance with the Contract Documents. The Project Manager shall evaluate the shop drawings, samples and other submittals required in the technical Specifications, and maintain an up-to-date log of all such items processed. The Project Manager will consult with the District, ESCO, and any state, county or city agency having jurisdiction over the work whenever necessary to further the best interests of the Project.

b. Disputes

Should any dispute arise respecting interpretation of the drawings and Specifications, the value of any work done or of any work omitted, or of any extra work which ESCO may be required to do or respecting the size of any payment to ESCO during the performance of this Contract, the dispute shall be decided by the Project Manager, and the Project Manager's decision shall be final and conclusive.

3. CONTRACT DOCUMENTS

a. Contents and Precedence

The Contract Documents consist of the executed Contract and all Addenda, all approved change orders, the completed Request for Proposals Form, the required Bonds and the Insurance forms, the Request for Proposals, the Notice of Award, the Notice to Proceed, the General Conditions, any supplemental Conditions, the Technical Specifications, and the Drawings. The Contract Documents are complementary, and anything required by one shall be as binding as if required by all. In case of conflicts within the Contract Documents, the order of precedence of interpretation shall be as listed above, with the executed Contract and any change order thereto having priority, and subsequent Addenda having priority over prior Addenda only to the extent modified by the subsequent Addenda.

In case of conflict within the drawings, larger scale drawings shall govern smaller scale drawings, and written dimensions shall govern over scaled dimensions.

b. Ambiguities, Errors, and Inconsistencies

If, in the opinion of the ESCO, the construction details indicated on the drawings or otherwise specified are in conflict with accepted industry standards for quality construction and therefore might interfere with its full guarantee of the work involved, the ESCO shall promptly bring this information to the attention of the Project Manager for appropriate action before submittal of the proposal. ESCO's failure to request clarification or interpretation of an apparent ambiguity, error or inconsistency waives that ESCO's right to thereafter claim any entitlement to additional compensation based upon an ambiguity, inconsistency, or error, which should have been discovered by a reasonably prudent ESCO. During the Project, should any discrepancy appear, or any misunderstanding arise as to the import of anything contained in the Contract Documents, the matter shall be promptly referred to the Project Manager, who will issue instructions or corrections.

c. Lines and Planes

All lines and planes appearing on contract drawings to be horizontal or vertical and not explicitly indicated otherwise shall be constructed true and plumb. All lines and planes appearing on contract drawings to intersect at right angles and not explicitly indicated otherwise shall be constructed at true right angles. Where details are indicated covering specific conditions, such details also apply to all similar conditions not specifically indicated.

d. Standards

The specification standards of the various sections of the Specifications shall be the procedural, performance, and material standards of the applicable association publications identified and shall be the required level of installation, materials, workmanship, and performance for the applicable work. Except where a specific date of issue is mentioned hereinafter, references to specification standards shall mean the edition, including amendments and supplements, in effect on the date of the Request for Proposals. Where no standard is identified and a manufacturer is specified, the manufacturer's specifications are the standards. All standards shall be subordinate to the requirements of the applicable codes and regulations.

e. Reference to the Singular

Wherever in the Specifications an article, device or piece of equipment is referred to in the singular number; such reference shall include as many such items as are shown on Drawings or required to complete the installation.

4. <u>INTENT OF DRAWINGS AND SPECIFICATIONS</u>

- a. Drawings and Specifications are to be read as an integrated document. The ESCO shall promptly report to the Project Manager any ambiguities, discrepancies, or errors which come to the ESCO's attention.
- b. Figured dimensions shall be followed in preference to scaled dimensions, and the ESCO shall make all additional measurements necessary for the work and shall be responsible for their accuracy. Before ordering any material or doing any work, the ESCO shall verify all measurements at the Project site and shall be responsible for the correctness of same.

- c. It is the intent of the drawings and Specifications to show and describe complete installations. Items shown but not specified, or specified but not shown, shall be included unless specifically omitted.
- d. The Specifications shall be deemed to include and require everything necessary and reasonably incidental to the completion of all work described and indicated on the drawings, whether particularly mentioned or shown, or not.

5. TRADE DIVISIONS

Segregation of the Specifications into the designated trade divisions is only for the purpose of facilitating descriptions and shall not be considered as limiting the work of any subcontract or trade. Subject to other necessary provisions set forth in the Specifications, the terms and conditions of such limitations or inclusions shall lie solely between the ESCO and its Subcontractors. "Scope" as indicated in each section of the Specifications shall serve only as a general guide to what is included in that section. Neither the stated description nor the division of the plans and Specifications to various sections, which is done solely for convenience, shall be deemed to limit the work required, divide or indicate it by labor jurisdiction or trade practice, or set up any bidding barriers to the various Subcontractors or suppliers.

- a. The ESCO shall be responsible for the proper execution of all work required by the Contract Documents and for allocating such portions as the ESCO sees fit to the various Subcontractors, subject to applicable law. The ESCO is cautioned that the various individual sections may not contain all work that the ESCO may wish to allocate to a particular Subcontractor or everything bearing on the work of a particular trade, some of which may appear in other portions of the plans or Specifications.
- b. If the ESCO elects to enter into any subcontract for any section of the work the ESCO assumes all responsibility for ascertaining that the Subcontractor for the work is competent, licensed, solvent, thoroughly acquainted with all conditions and legal requirements of the work, has included all materials and appurtenances in connection therewith in the subcontract, and has performed its work in strict compliance with the Contract Documents.
- c. It shall be the responsibility of the ESCO to notify each prospective Subcontractor at the time of request for proposals of all portions of the Contract Documents, including the General Conditions, Supplementary Conditions and any parts of sections of Specifications or plans that the ESCO intends to include as part of the subcontract.

6. MASTER MANDATORY PROVISIONS

- a. Any material, item, or piece of equipment mentioned, listed or indicated without definition of quality, shall be consistent with the quality of adjacent or related materials, items, or pieces of equipment on the Project and in accordance with best practices.
- b. Any method of installation, finish, or workmanship of an operation called for, without definition of standard of workmanship, shall be followed or performed and finished in accordance with best practices and consistent with adjacent or related installations on the Project.
- c. Any necessary material, item, piece of equipment or operation not called for but reasonably implied as necessary for proper completion of the work shall be furnished, installed or performed and

finished; and shall be consistent with adjacent or related materials, items, or pieces of equipment on the Project, and in accordance with best practices.

d. Names or numbered products are to be used according to the manufacturers' directions or recommendations unless otherwise specified.

7. <u>ESCO</u>

- a. The ESCO shall perform all the work and activities required by the Contract Documents and furnish all labor, materials, equipment, tools and appurtenances necessary to perform the work and complete it to the District's satisfaction within the time specified. The ESCO shall at all times perform the work of this Contract in a competent and workmanlike manner and, if not specifically stated, accomplish the work according to the best standards of construction practice. The ESCO in no way is relieved of any responsibility by the activities of the Project Manager in the performance of such duties.
- b. The ESCO shall employ a full-time competent superintendent and necessary assistants who shall have complete authority to act for the ESCO on all matters pertaining to the work. The superintendent shall be satisfactory to the District and, if not satisfactory, shall be replaced by the ESCO with one that is acceptable. Also, the superintendent shall not be changed without the written consent of the District unless the superintendent ceases to be employed by the ESCO.
- c. ESCO shall make the layout of lines and elevations and shall be responsible for the accuracy of both the ESCO's and the Sub-contractors' work resulting there from. All dimensions affecting proper fabrication and installation of all Contract work must be verified by the ESCO prior to fabrication and installation by taking field measurements of the true conditions. The ESCO shall take, and assist Subcontractors in taking, all field dimensions required in performance of the work, and shall verify all dimensions and conditions on the site. If there are any discrepancies between dimensions in drawings and existing conditions which will affect the work, the ESCO shall promptly bring such discrepancies to the attention of the Project Manager for adjustment before proceeding with the work. ESCO shall be responsible for the proper fitting of all work and for the coordination of all trades, Subcontractors and persons engaged upon this Contract.
- d. ESCO shall do all cutting, fitting, or patching of ESCO's work that may be required to make its several parts come together properly and fit it to receive or be received by work of other ESCOs as shown, or reasonably implied by, the drawings and Specifications for the completed work. Any cost incurred by the District due to defective or ill-timed work shall be borne by the ESCO.

8. RESPONSIBILITY OF ESCO

- a. ESCO shall be held strictly responsible for the proper performance of all work covered by the Contract Documents, including all work performed by Subcontractors. All work performed under this Contract shall comply in every respect to the rules and regulations of all agencies having jurisdiction over the Project or any part thereof.
- c. Where, because of short supply, any item of fabricated materials and/or equipment, indicated on drawings or specified, is unobtainable and it becomes necessary, with the consent of the Project Manager, to substitute equivalent items differing in details or design, the ESCO shall promptly submit complete drawings and details indicating the necessary modifications of the work. This provision shall

be governed by the terms of the General Conditions regarding Submittals: Shop Drawings, Cuts and Samples.

d. With respect to work performed at and near a District site, ESCO shall at all times take all appropriate measures to ensure the security and safety of staff, including, but not limited to, ensuring that all of ESCO's employees, Subcontractors, and suppliers entering District property strictly adhere to all applicable District policies and procedures, e.g., sign-in requirements, visitor badges, and access limitations.

9. <u>SUBCONTRACTORS</u>

- a. Nothing contained in the Contract Documents shall create any contractual relationship between any Subcontractor and the District. The District shall be deemed to be the third-party beneficiary of the contract between the ESCO and each Subcontractor. If the ESCO does not specify a Subcontractor for any portion of the work to be performed under this Contract, as required by law, ESCO shall perform that portion of the work with its own forces. The ESCO shall not substitute any other person or firm as a Subcontractor for those listed in the proposal submitted by the ESCO, without the written approval of the District. The District reserves the right of approval of all Subcontractors proposed for use on this Project, and to this end, may require financial, performance, and such additional information as is needed to secure this approval. If a Subcontractor is not approved, the ESCO shall promptly submit another firm of the same trade for approval.
- b. The ESCO shall insert appropriate provisions in all subcontracts pertaining to work on this Project requiring the Subcontractors to be bound by all applicable terms of the Contract Documents. The ESCO shall be as fully responsible for the acts and omissions of the Subcontractors, and of persons either directly or indirectly employed by them, as the ESCO is for the acts and omissions of persons directly employed by the ESCO.
- c. The ESCO shall provide a Subcontractor List Form, in the form of **Appendix D** attached hereto, for any subcontractor performing more than one half of one percent of work on the project.

10. INSURANCE

- a. ESCO shall obtain the following insurance from a company or companies acceptable to the District. All required insurance must be written by a company licensed to do business in the State of California at the time the policy is issued. All required insurance shall be equal to or exceed an A VIII rating as listed in Best's Insurance Guides' latest edition. On a case-by-case basis, the District may accept insurance written by a company listed on the State of California Department of Insurance List of Eligible Surplus Lines ("LESLI List") with a rating of A VIII or above as listed in Best's Insurance Guides' latest edition. Required documentation of such insurance shall be furnished to the District within the time stated in the Notice of Award. ESCO shall not commence work nor shall it allow its employees or Subcontractors or anyone to commence work until all insurance required hereunder has been submitted and approved in writing by the District and a notice to proceed has been issued.
- b. ESCO shall take out and maintain at all times during the life of this Contract, up to the date of acceptance of the work by the District, the following policies of insurance:
 - 1). <u>General Liability Insurance</u>: Personal injury and replacement value property damage insurance for all activities of the ESCO and its Subcontractors arising out of or in connection with this Contract, written on a comprehensive general liability form including ESCO's protected coverage,

blanket contractual, completed operations, vehicle coverage and employer's non-ownership liability coverage, in an amount no less than either

- a. \$1,000,000.00 combined single limit personal injury and property damage for each occurrence and \$2,000,000.00 annual aggregate with a \$0 umbrella/excess; or
- b. \$2,000,000.00 annual combined single limit
- 2). <u>Builders' Risk Insurance</u>: If contract amount is \$225,000.00 or more, ESCO shall procure and maintain builders' risk insurance (all-risk coverage) for an amount equal to one hundred percent of the Contract sum for the benefit of the District, and the ESCO and Subcontractors as their interest may appear. In projects involving no structural change or building construction, this requirement may be waived in writing, at the District's sole option.

These policies shall include the following coverage:

- 1). The inclusion of more than one insured shall not operate to impair the rights of one insured against another insured and the coverages afforded shall apply as though separate policies have been issued to each insured.
- 2). This policy does not exclude explosion, collapse, underground excavation hazard, or removal of lateral support.

c. Endorsements:

1). The certificate(s) for both the General Liability Policy and the Automobile Liability Policy, as well the Builders' Risk Policy if required above, shall be endorsed with the following specific language:

"Kneeland Fire Protection District is named as an additional insured for all liability arising out of the operations by or on behalf of the named insured, and this policy protects the additional insured, its officers, agents and employees against liability for bodily injuries, death or property damage or destruction arising in any respect directly or indirectly in the performance of the Contract."

- 2) The certificates *must state* that the insurance is under an occurrence based, and not a claims-made policy (policies). Both the General Liability Policy and the Builders' Risk Policy specified above shall be endorsed with the following specific language:
 - a. The insurance provided herein is primary and no insurance held or owned by the District shall be called upon to contribute to a loss.
 - b. Coverage provided by this policy shall not be reduced or canceled without thirty (30) days written notice given to the District.
- d. Professional Liability Insurance for Engineer of Record (Errors and Omissions):

If applicable, ESCO shall maintain in force for the period covered by this Agreement, professional liability (errors and omissions) insurance covering the Engineer of Record's activities, in the amount not less than \$2,000,000 with an insurance carrier satisfactory to District. In addition, to the extent that the activities and services of engineers or consultants retained by ESCO are not covered under ESCO's professional liability insurance, ESCO shall require each engineer and consultant to obtain and

maintain a policy of professional liability insurance in an amount of not less than \$2,000,000 with an insurance carrier satisfactory to District, before commencing services on the Project. ESCO shall provide a copy of the insurance policies to the District upon request.

e. Automobile Liability Insurance:

ESCO shall maintain in force for the period covered by this Agreement, automobile liability insurance covering bodily injury and property damage in an amount no less than \$1,000,000 combined single limit for each occurrence; and evidence of a \$2,000,000 or more aggregate. Said insurance shall include coverage for owned, hired, rented, and non-owned vehicles. All certificates *must state* that the insurance is under an occurrence based, and not a claims-made policy (policies).

f. Documentation:

Within ten (10) calendar days following issuance of the Notice of Award of the Contract, the following documentation of insurance shall be submitted to the Project Manager electronically to send to the District for approval prior to issuance of the Notice to Proceed: signed certificates of insurance showing the limits of insurance provided and copies of the specified endorsements for each policy. Certified copies of all policies shall be provided to the District upon request.

g. If the ESCO fails to maintain such insurance, the District may take out such insurance to cover any damages for which the District might be held liable on account of the ESCO's failure to pay such damages and deduct and retain the amount of the premiums from any sums due the ESCO under the Contract.

h. Workers' Compensation Insurance:

- 1). Within ten (10) calendar days following issuance of the Notice of Award of the Contract, the ESCO shall submit to Project Manager electronically in order to send to the District satisfactory proof that the ESCO and all Subcontractors it intends to employ have procured, for the period covered by the Contract, full Workers' Compensation insurance and employer's liability with limits of at least \$1,000,000 with an insurance carrier satisfactory to the District for all persons whom the ESCO may employ in carrying out the work contemplated under this Contract in accordance with the Workers' Compensation Insurance and Safety Act, approved May 26, 1913, and all acts amendatory or supplemental thereto (the "Act"). Such insurance shall be maintained in full force and effect during the period covered by the Contract. In the event the ESCO is self-insured, ESCO shall furnish a Certificate of Permission to Self-Insure, signed by the Department of Industrial Relations Administration of Self-Insurance, Sacramento, California.
- 2). If the ESCO fails to maintain such insurance, the District may take out worker's compensation insurance to cover any compensation which the District might be liable to pay under the provisions of the Act, by reason of any employee of the ESCO being injured or killed, and deduct and retain the amount of the premiums for such insurance from any sums due the ESCO under the Contract, or otherwise recover that amount from the ESCO or the Surety.
- 3). If an injury occurs to any employee of the ESCO for which the employee, or the employee's dependents in the event of the employee's death, is entitled to compensation under the provisions of the Act, or for which compensation is claimed from the District, the District may retain from the sums due the ESCO under this Contract an amount sufficient to cover such compensation, as fixed by the Act, until such compensation is paid, or until it is determined that no compensation is due,

and if the District is compelled to pay such compensation, it will deduct and retain from such sums the amount so paid, or otherwise recover this sum from the ESCO or its Surety.

4). The policies represented by the certificates shall be endorsed with a Waiver of Subrogation and must contain the provision (and the certificates must so state) that the insurance cannot be canceled until thirty (30) days after written notice of intended cancellation has been given to the District by certified mail.

11. <u>CODES AND REGULATIONS</u>

- a. The ESCO shall be knowledgeable regarding and shall comply with applicable portions of California Code of Regulations Title 24, the applicable Building Code, and all other codes, ordinances, regulations or orders of properly constituted authority having jurisdiction over the work of this Project. The ESCO shall examine the Contract Documents for compliance with these codes and regulations and shall promptly notify the Project Manager of any discrepancies.
- b. All work and materials shall be in full accordance with the latest rules and regulations of the Safety Orders of the Division of Industrial Safety, the National Electric Code, the Uniform Plumbing Code published by the Western Plumbing Officials Association, and other applicable State laws or regulations. Nothing in the Project plans or Specifications is to be construed to permit work not conforming to the applicable Codes. Buildings and/or all other construction covered by this Contract shall meet all the regulations for access by the physically handicapped as may be required by federal or state law.

PERMITS AND TAXES

- a. The ESCO shall obtain and pay for all permits, fees and licenses that are required in order to perform the work under this Contract. The District shall pay connection charges and meter costs for new permanent utilities required by these Contract Documents. The ESCO shall notify the District sufficiently in advance to submit requests for service to the appropriate utility companies to insure connections or installation of utility services in accordance with the Project schedule.
- b. The ESCO shall pay for all taxes on materials and equipment.

12. PATENTS AND ROYALTIES

All fees or claims for patents, royalties or licenses on materials, equipment or processes used in the performance of work on this Project shall be included in the amount of the proposal. The ESCO shall indemnify, defend, and hold harmless the District, its Governing Board, the Project Manager, and their officers and employees, from all claims or liability, including costs and expenses, which may arise from the use on this Project of any patented or copyrighted materials, equipment, or processes.

13. SAFETY AND FIRE PREVENTION

a. The ESCO, Subcontractors and all of their agents and employees shall fully comply with all of the provisions and requirements of CAL/OSHA, Title 8, California Code of Regulations, and all other safety codes applicable to the Project. The ESCO shall always take thorough precautions for the protection of persons and property and shall be liable for all damages to persons or property, either on or off the site, which occur as a result of ESCO's prosecution of the work. The ESCO shall obtain permits for, install and maintain in safe condition barricades, walkways, fences, railings, and whatever

other safeguards that may be necessary to protect persons and property from damage as a result of the construction under this Contract.

- b. ESCO is required to ensure Material Safety Data Sheets ("MSDS") are available in a readily accessible place at the work site for any material requiring a MSDS pursuant to the federal "Hazard Communication" standard or employee "right to know" laws. ESCO is also required to ensure proper labeling on materials brought on the job site such that any person working with the material or within the general area of the material is informed of the hazards of the material and follows proper handling and protection procedures. A copy of the MSDS shall also be promptly submitted directly to the District.
- c. ESCO shall not endanger any work by cutting, excavating, or otherwise altering the work and shall not cut or alter the work of any other ESCO except with the written consent of the Project Manager, nor overload any new or existing structures by the placing or storage of materials, equipment, or other items thereon, and, if necessary, shall provide calculations proving the safety in so doing.
- d. If it is necessary to work at night, or where daylight is obscured, the ESCO shall provide and maintain lighting of an adequate level to properly prosecute the work, to permit the thorough inspection of same, and to ensure the safety to workers and others.
- e. ESCO shall take extraordinary care to prevent fires and keep all flammable materials and oily rags in tightly closed metal containers. ESCO shall exercise particular care when welding or cutting, and regarding the disposition of waste materials, the nature and quantity of which might create or increase a fire hazard.

14. HAZARDOUS MATERIALS

Unless otherwise specified, this Contract does not include the removal, handling, or disturbance of any hazardous substances or materials encountered in the new construction or on the Project grounds. If such substances or materials are encountered, work shall cease in that area and the District shall be promptly notified to take appropriate action for removal or otherwise abating the condition in accordance with current regulations applicable to the District.

a. General

- 1). No asbestos, asbestos-containing products or other hazardous materials shall be used in this construction or in any tools, devices, clothing or equipment used to further this construction.
- 2). Asbestos and/or asbestos containing products shall be defined as all items containing but not limited to chrysotile, crocidolite, amosite, anthophyllite, tremo-lite or actinolite.
- 3). Any or all material containing greater than one tenth of one percent (>.1%) asbestos shall be defined as asbestos-containing material.
- 4). Any disputes involving the question of whether or not material contains asbestos shall be settled by electron microscopy; the cost of any such tests shall be paid by the ESCO.
- 5). All work or materials found to contain asbestos or work or material installed with asbestos containing equipment will be immediately rejected and this work shall be removed by the ESCO at no additional cost to the District.

- b. Decontamination and Removal of hazardous material from prior work
 - 1). Decontamination and removal of work found to contain asbestos or work installed with asbestos containing equipment shall be done only under the supervision of a qualified consultant, knowledgeable in the field of asbestos abatement and accredited by the Environmental Protection Agency ("EPA").
 - 2). The asbestos removal ESCO shall be an EPA-accredited ESCO qualified in the removal of asbestos subject to approval of the District. 3) The asbestos consultant shall be chosen and approved by the District which shall have sole discretion and final determination in this matter.
 - 4). The work will not be accepted until asbestos contamination is reduced to levels deemed acceptable by the asbestos consultant.

c. Hold Harmless

1). Interface of work under this contract with work containing asbestos shall be executed by the ESCO at ESCO's risk and at ESCO's discretion with full knowledge of the currently accepted standards, hazards, risks and liabilities associated with asbestos work and asbestos containing products. By execution of this contract the ESCO acknowledges the above and agrees to hold harmless, as set forth in the indemnity provisions of this Contract, the Owner, its employees, agents and assigns for all asbestos liability which may be associated with this work and agrees to instruct ESCO's employees and agents with respect to the above mentioned standards, hazards, risks and liabilities.

d. Certification

The ESCO agrees that materials containing asbestos or other hazardous materials as defined in Federal and State law shall not be used in construction.

15. TEMPORARY FACILITIES

- a. The ESCO shall obtain permits for, install and maintain in safe condition all scaffolds, hoisting equipment, barricades, walkways, or other temporary structures that may be required to accomplish the work. Such structures shall be adequate for the intended use and capable of safely accepting all loads that may be imposed upon them. They shall be installed and maintained in accordance with all applicable codes and regulations.
- b. The ESCO shall provide and maintain temporary heat from an approved source whenever in the course of the work it may become necessary for curing, drying or warming spaces as may be required for the proper installation of materials or finishes. The ESCO shall provide and maintain any and all facilities that may be required for dewatering in order that work may proceed on the project. If it is necessary for dewatering to occur continually, the ESCO shall have on hand whatever spare parts or equipment that may be required to avoid interruption of service or work.
- c. The ESCO shall promptly remove all such temporary facilities when they are no longer needed for the work or on completion of the project. The ESCO shall repair any damage to premises or property which resulted from the construction, use, or removal of temporary facilities and shall restore the premises and property to their original condition.
- d. See the Supplemental General Conditions and/or specifications for requirements concerning temporary sanitary facilities and utilities.

16. SIGNS

No signs may be displayed on or about the District's property (except those which may be required by law) without the District's prior written approval of size, content and location. Any signs required by the District will be designated in the Supplemental General Conditions.

17. <u>TIME</u>

- a. The ESCO shall commence the work on the date indicated in the Notice to Proceed. Time is of the essence regarding the Contract work, and the ESCO shall prosecute the work diligently and regularly at such a rate of progress as to ensure completion of this Project within, or sooner than, the time specified.
- b. The ESCOs and Subcontractors shall investigate and become aware of the amount of time required for the delivery of all equipment and materials required to perform the work under this Contract, and no extension of time shall be granted due to failure to order the equipment and materials sufficiently before their incorporation into the work so as to avoid delay to the Project.
- c. The ESCO and Subcontractors shall provide and maintain enough manpower, materials and equipment to ensure a rate of construction progress that will complete the Project within or sooner than the time specified and according to the schedule of work. If, in the District's opinion, the ESCO and/or Subcontractors are not prosecuting the work at a sufficient rate of progress to meet the Project schedule, the District may direct the ESCO to provide additional manpower, materials or equipment, or to work additional hours, holidays or weekends without additional cost to the District until the work is progressing in a manner satisfactory to the District. Failure to prosecute the work in a timely manner according to the Project schedule is considered a breach of Contract and shall be cause for termination of the Contract.

18. PRE-CONSTRUCTION & CONSTRUCTION SCHEDULE

- a. Within fifteen (15) calendar days after the Notice of Award of Contract, the ESCO shall prepare and submit to the Project Manager and District an electronic version of the as planned construction schedule showing in detail how the ESCO plans to prosecute the work within the time set for Final Completion. The schedule shall include the work of all trades necessary for construction of the Project and shall be sufficiently complete and comprehensive to enable progress to be monitored on a day-by-day basis. The information for each activity shall include at a minimum the activity description, duration, start date and completion date.
- b. The ESCO shall take care in the preparation of the schedule to ensure that it represents an accurate and efficient plan for accomplishing the work. If the Project is more than one week behind schedule, it must be promptly revised showing how the ESCO plans to complete the work, but in no case shall it show a completion date later than that required by the Contract, unless a time extension has been granted. The current schedule shall be kept posted in the ESCO's project office on site.
- c. The ESCO shall be responsible for the coordination of all work necessary and pertaining to the construction whether actually a part of this Contract or attendant thereto. The ESCO shall notify the District and various utility companies, as far as possible in advance of their required work, in order that work schedules may be developed for all concerned, which will permit the most effective and timely accomplishment of the entire project.

19. DELAYS AND TIME EXTENSIONS

- a. The ESCO may be granted a time extension if the ESCO encounters an unavoidable delay of the work due to causes completely beyond the ESCO's control and which the ESCO could not have avoided by the exercise of reasonable care, prudence, foresight and diligence. Causes for which a claim for extension of time may be made include: acts of the public enemy, acts of another ESCO in the performance of another contract with the District, priority of a governmental agency for materials or equipment, fire, flood, violent wind storm, epidemic, quarantine restriction, strike, freight embargo, or weather of an unusually severe nature. The ESCO will not be granted time extensions for weather conditions which are normal for the location of the Project, according to the U. S. Weather Bureau Records.
- b. A request for extension of time and compensation related thereto shall be made in writing to the Project Manager and District within ten (10) calendar days of the date the delay is encountered or shall be deemed waived. The request shall include a detailed description of the reasons for the delay and corrective measures by the ESCO. The request shall be accompanied by evidence that the insurance policies required by the Contract shall be in effect during the requested additional period of time. In order for the Project Manager to consider a request for time extension, the ESCO must prove that the reasons stated for the delay actually caused a delay in portions of the work which will result in completion beyond the date specified in the Contract. The ESCO may also be granted a time extension for a significant change in the scope of work which request for extension of time shall be included in a Contract modification proposal.
- c. No damages or compensation or any kind shall be paid to an ESCO because of delays in the progress of work, whether such delays be avoidable or unavoidable, that are not the responsibility of District. District's liability to ESCO for delays for which District is responsible shall be limited to an extension of time unless such delays were unreasonable under the circumstances involved and were not within the contemplation of the parties when the Contract was awarded. The ESCO shall provide to the District the actual, substantiated costs to ESCO for which the ESCO may claim damages from District. Such costs, if any, shall be directly related to the Project, and shall not include costs that would be borne by the ESCO in the regular course of business, including, but not limited to, office overhead and ongoing insurance costs. Delay damages shall not include ESCO or Subcontractor markup for overhead and profit, but only actual, documented, and direct actual costs. The District shall not be liable for any damages which the ESCO could have avoided by any reasonable means including, but not limited to, the more judicious handling of forces or equipment.
- d. The granting of an extension of time because of unavoidable delays shall in no way operate as a waiver on the part of the District of the right to collect liquidated damages for other delays or of any other rights to which the District is entitled.

20. <u>DISTRICT'S RIGHT TO STOP WORK; TERMINATION OR SUSPENSION OF THE</u> CONTRACT

a. District's Right to Stop Work:

In addition to or as an alternative to any and all other remedies available to the District, if the ESCO fails to correct work which is not performed in accordance with the Contract Documents, or if the ESCO persistently fails to perform the work in accordance with the Contract Documents, the District may by written order direct the ESCO to stop the work, or any portion thereof, until the cause for such order has been eliminated to the satisfaction of the District. However, the right of the District to stop

the work shall not give rise to a duty on the part of the District to exercise this right for the benefit of the ESCO or any other person or entity, and the failure of the District to do so shall not be raised as a defense to the ESCO's failure to perform the work in accordance with the Contract Documents.

b. Termination for Cause:

- 1). If the ESCO refuses or fails to furnish sufficient materials, work force, equipment, and appurtenances to properly prosecute the work in a timely manner, or if ESCO refuses or fails to comply with any provisions of the Contract Documents, or if ESCO should file a bankruptcy petition or make a general assignment for the benefit of ESCO's creditors or if a receiver should be appointed on account of ESCO's insolvency, then the District may give the ESCO and ESCO's Surety written notice of intention to terminate the Contract. Unless within seven (7) calendar days after the serving of such notice upon the ESCO and ESCO's Surety such violation shall cease and arrangements for correction of such conditions shall be made satisfactory to the District, the Contract shall cease and terminate. In the event of such termination, the District shall immediately serve written notice thereof upon the ESCO and ESCO's Surety.
- 2). In the event of termination for cause, in addition to all remedies available to the District, the ESCO's Surety shall have the right to take over and perform the Contract; provided, however, that if the Surety does not commence performance within five (5) calendar days from the date of the issuance of such notice of termination, the District may take over the work and prosecute the same to completion by letting another Contract, or by any other method that the District deems advisable. The ESCO and ESCO's Surety shall be liable for any excess cost incurred by the District thereby, and in any such event the District may take possession of such materials, equipment, and other property belonging to the ESCO as may be on the site and use same in completing the work.
- c. Termination or Suspension for Convenience:

The District reserves the right, in its sole discretion, to terminate or suspend all or part of the Contract for convenience following three (3) days written notice to the ESCO. In the event of termination or suspension for convenience, ESCO shall have no claims against the District, except:

- 1). The actual cost of labor, materials and services provided pursuant to the Contract, and which have not yet been paid for, as documented by timesheets, invoices, receipts and the like; and
- 2). Five percent (5%) of the total cost of the work performed as of the date of notice of termination or suspension or five percent (5%) of the value of the work yet to be completed, whichever is less. The parties agree that this amount shall constitute full and fair compensation for all ESCO's lost profits and other damages resulting from the termination or suspension for convenience.

21. ASSIGNMENT OF CONTRACT

The ESCO may not assign or delegate all or any portion of this Contract without the written consent of the District and no such consent shall be given which would relieve the ESCO or its Surety of their responsibilities under the Contract. The ESCO may assign, without liability to the District, monies due the ESCO under the Contract to banks, trust companies or other financial institutions provided written notice thereof is promptly delivered to the District. Assignment of monies earned by the ESCO shall be subject to the same retention as other payments made to ESCO and shall also be subject to setoffs and back charges as provided by this Contract.

22. COORDINATION WITH OTHER CONTRACTS

- a. The District reserves the right to do other work or award other contracts in connection with this Project. By entering this Contract, ESCO acknowledges that there may be other ESCOs on or adjacent to the Project site whose work must be coordinated with that of its own. ESCO expressly warrants and agrees that it will cooperate with other ESCOs and will do nothing to delay, hinder, or interfere with the work of other ESCOs, or that of the District, its Project Manager and Construction Manager. ESCO also expressly agrees that in the event its work is hindered, delayed, interfered with, or otherwise affected by a separate ESCO, its sole remedy will be a direct action against the separate ESCO. To the extent allowed by law, the ESCO expressly waives any remedy against the District, its Project Manager and Construction Manager on account of delay, hindrance, interference or other such events caused by a separate ESCO.
- b. If any part of ESCO's work depends upon the work of a separate ESCO, ESCO shall inspect such other work and promptly report in writing to the District and Project Manager any defects in such other work that render it unsuitable to receive the work of ESCO. Failure of the ESCO to so inspect and report shall constitute an acceptance of the other ESCO's work, except as to defects which the ESCO could not have detected through the reasonable inspection of the other ESCO's work prior to the execution of ESCO's work.
- c. If ESCO is aware of a current or potential conflict between ESCO's work and the work of another ESCO on the site, and is unable to informally resolve the conflict directly with the other ESCO, ESCO shall promptly provide written notice to the District, with a copy to the Project Manager and the other ESCO, specifying the nature of the conflict, the date upon which the conflict arose, and the steps taken to attempt to resolve the conflict. The District may issue written instructions to address the conflict.
- d. If, through ESCO's negligence, any other ESCO or Subcontractor shall suffer loss or damage to the work, ESCO shall make a reasonable effort to settle with such other ESCO and Subcontractor by agreement or arbitration. If such other ESCO or Subcontractor shall assert any claim against the District or Project Manager, on account of any damage alleged to have been so sustained, the District or Project Manager shall notify the ESCO, who shall defend such proceedings at ESCO's own expense and save harmless and indemnify the District and the Project Manager from any such claim.

23. SUBMITTALS: SHOP DRAWINGS, CUTS AND SAMPLES

- a. Within fifteen (15) calendar days after the award of the Contract, the Contractor shall prepare and submit to the Project Manager and District an electronic copy of shop drawings, brochures and cut sheets and samples in quantities specified by the Project Manager shall be submitted to the Project Manager for all items for which they are required by the plans and specifications. Prior to transmittal, the ESCO shall examine all submittals for accuracy and completeness in order to verify their suitability for the work and compliance with the Contract Documents and shall sign and date each submittal. Submittals shall be sent for review sufficiently before the items are required for the work to cause no delay and shall be in accordance with the project construction schedule.
- b. In addition to information furnished as common practice, submittals shall contain the Project name and location, ESCO's name and address, Subcontractor's or supplier's name and address, date of submittal and any revisions, and reference to appropriate specification section, and/or drawing and detail numbers. The ESCO and/or the Subcontractors shall verify in the field all dimensions and relationships to adjacent work necessary to ensure the proper fit of the items submitted. If necessary,

the ESCO shall make any corrections required and resubmit with all due haste in the same number as initially required.

- c. Review of submittals, shop drawings, cuts or samples by the District or Project Manager shall not relieve the ESCO from complying with the requirements of the Contract Documents.
- d. Any materials or equipment installed without approval shall be at the ESCO's own risk, and ESCO may be required to remove any such materials or equipment and install the specified items at ESCO's own cost, including repairs to adjacent work.

24. PAYMENTS

a. Cost Breakdown:

Within 15 calendar days after receipt of the Notice to Proceed, the ESCO shall prepare and submit to the Project Manager and District a cost breakdown (schedule of values) showing the major work items for each trade or operation required in construction of the Project. The work items shall be sufficiently detailed to enable the Project Manager to accurately evaluate the completion percentages requested by the ESCO. The cost for each work item shall include overhead and profit. The total of all work item costs shall equal the amount of the Contract.

b. Scope of Payment:

Payment to the ESCO at the unit price or other price fixed in the Contract for performing the work required under any item or at the lump sum price fixed in the Contract for performing all the work required under the Contract, shall be full compensation for furnishing all labor, materials, equipment and tools necessary to the work, and for performing and completing, in accordance with the Specifications, all work required under the item or under the Contract, and for all expense incurred by the ESCO for any purpose in connection with the performance and completion of the work.

c. Progress Payments:

The ESCO will, on or about the 25th day of each month, make an estimate of the value of the work completed by ESCO in the performance of the Contract. These estimates shall be subject to the review and approval of the Project Manager. The first such estimate will be of the value of the work completed after the ESCO commenced the performance of the Contract, and every subsequent estimate, except the final estimate, will be of the value of the work completed since the immediately preceding estimate. Such estimates will be based on labor, materials and equipment incorporated into the work, and items of materials and equipment delivered to the Project. The ESCO shall be responsible for the security and protection of such materials and equipment delivered to the Project and not incorporated in the work. Payments may at any time be withheld if in the judgment of the District the work is not proceeding in accordance with the Contract Documents, the ESCO is not complying with the requirements of the Contract, stop notices have been timely filed, the estimate contains an error, or the District has incurred costs or requests reasonable financial assurances regarding defective work by the ESCO.

d. Final Payment:

Within thirty (30) days after all required work is fully completed in accordance with the Contract Documents, the ESCO shall submit a final invoice for the total value of the work completed in accordance with the Contract, which shall be subject to review and approval by the District. As required by law, District shall pay ESCO the unpaid balance of the Contract price of the work, or the

whole Contract price of the work if no progress payment has been made, determined in accordance with the terms of the Contract, less such sums as may be lawfully retained under any provision of the Contract, including, but not limited to, amounts retained as liquidated damages, for stop notices, for third-party claims for which the ESCO is required to indemnify the District, for defective work and costs incurred by the District in connection therewith, or for other such claims and damages attributable to the ESCO ("Final Payment"). Prior progress estimates and payments are subject to correction in the Final Payment. Tender of the Final Payment shall constitute denial by the District of any unresolved claim. ESCO's acceptance of the Final Payment shall operate as a full and final release to the District and its agents from any and all unasserted claims ESCO has, or may have, related to this Contract.

e. Payments Do Not Imply Acceptance of Work:

The granting of any progress payment or payments by the District or the receipt thereof by the ESCO shall not constitute acceptance of the work or of any portion thereof, and shall in no way lessen the liability of the ESCO to replace unsatisfactory work or material, whether or not the unsatisfactory character of such work or material was apparent or detected at the time such payment was made.

f. Retention of Sums Charged Against ESCO:

It is mutually understood and agreed that when under any provision of this Contract the District shall charge any sums of money against the ESCO, the amount of such charge shall be deducted and retained by the District from the amount of the next succeeding progress estimate, or from any other monies due or that may become due the ESCO on account of the Contract. If on completion or termination of the Contract such monies due the ESCO are found insufficient to cover the District's charges against the ESCO, the District shall have the right to recover the balance from the ESCO or the ESCO's Sureties.

g. Release:

The ESCO and each assignee under an assignment in effect at the time of Final Payment shall, if required by the District, execute and deliver at the time of Final Payment and as a condition precedent to Final Payment, a release in form and substance satisfactory to and containing such exemptions as may be found appropriate by the District, discharging the District, its officers, agents and employees of and from liabilities, obligations and claims arising under this Contract.

h. Payment to Subcontractors and Suppliers:

The ESCO shall pay each Subcontractor and supplier promptly on receipt of each progress payment from the District for the materials, labor and equipment delivered to the site or incorporated in the work by each Subcontractor during the period for which the progress payment is made, less any retention as provided above.

i. Stop Notice Costs:

The District reserves the right to charge the ESCO or Surety, or to withhold from release of retention, all costs incurred by the District, including attorney's fees, for processing and defending stop notice claims.

25. MODIFICATIONS OF CONTRACT

a. Changes in the Work:

- 1). The District, before the date of acceptance of the work, may, without notice to the Sureties, order changes in the work ("Modifications"), may order extra materials and extra work in connection with the performance of the Contract, and the ESCO shall promptly comply with such orders. All Modifications must be approved by DSA and the State Fire Marshall, if applicable, as required by law.
- 2). If changes ordered in design, workmanship or materials are of such a nature as to increase or decrease the cost of any part of the work, the price fixed in the Contract shall be increased or decreased by such amount as represents the reasonable and proper allowance for the increase or decrease in the cost of the work in accordance with the provisions of this Article, and any other applicable terms of the Contract, including, but not limited to, the ESCO's schedule of values and the price for allowances, if any.
- 3). In the case of a disputed work item, the District may direct the ESCO to perform the disputed work at no additional cost to the District on the grounds that the work is adequately indicated in the Contract Documents, and therefore already included in the Contract price. If the ESCO maintains that the disputed work represents a modification to the Contract, ESCO may submit a claim in accordance with Article 46, Resolution of Construction Claims. Notwithstanding any dispute regarding the requirements of the Contract Documents, ESCO shall promptly and fully comply with the District's directive. ESCO's failure to do so shall be deemed a material breach of this Contract, and in addition to all other remedies, District may, at its sole discretion, hire another ESCO and/or use its own forces to complete the disputed work at ESCO's sole expense, and may deduct the cost of such work from the Contract price.

b. Cost Breakdown

When the Modification is proposed, the ESCO shall furnish a complete breakdown of actual costs of both credits and extras, itemizing materials, labor, taxes, overhead and profit. Subcontract work shall be so indicated. All costs must be fully documented. The following limitations shall apply:

- 1). Limitations Where Contract Price Changes are Involved:
 - (a) Overhead and Profit for the ESCO. The ESCO's overhead and profit on the cost of subcontracts shall be a sum not exceeding ten percent (10%) of such costs. The ESCO's overhead and profit on the costs of work performed by the ESCO shall be a sum not exceeding fifteen percent (15%) of such costs. Overhead and profit shall not be applied to the cost of taxes and insurance by ESCO or Subcontractors or to credits. No processing or similar fees may be charged by the ESCO in connection with the Modification.
 - (b) <u>Bond Premiums</u>. The actual rate of bond premiums as paid on the total cost (including taxes) will be allowed, but with no markup for profit and overhead.
 - (c) <u>Taxes</u>. State and city sales taxes should be indicated. Federal excise tax shall not be included. (District will issue an exemption on request.)

2). Change Order Certification:

All change orders and requests for proposed change orders shall be deemed to include the following certification by the ESCO:

"The undersigned ESCO approves the foregoing as to the changes in work, if any, and as to the Contract price specified for each item and as to the extension of time allowed, if any, for completion of the Project as stated herein, and agrees to furnish all labor, materials, and service and to perform all work necessary to complete any additional work specified for the consideration stated herein. It is understood that the changes to the Contract Documents set forth herein shall only be effective upon approval by the Governing Board of the District.

"It is expressly understood that the value of the extra work or changes expressly includes any and all of the ESCO's costs and expenses, both direct and indirect, resulting from additional time required on the Project or resulting from delay to the Project. Any costs, expenses, damages, or time extensions not included herein are deemed waived."

c. Unit Prices, Schedule of Values, or Allowances:

Where Unit Prices, a Schedule of Values, and/or Allowances are required by the Contract Documents, that pricing shall govern in computing any additions to or deductions from the Contract price on account of any added or omitted work. Unit Prices listed in the original proposal include all costs and no addition of any description will be allowed.

d. Time and Materials:

If it is impractical, because of the nature of the work, or for any other reason, to fix an increase in price in advance, the Change Order may fix a maximum price which shall not under any circumstances be exceeded, and subject to such limitation, such alteration, modification or extra shall be paid for at the actual necessary cost as determined by the sum of the following items (1) to (5) inclusive:

- 1). Labor, including premium on compensation insurance and charge for Social Security taxes, and other taxes pertaining to labor.
- 2). Material, including sales taxes and other taxes pertaining to materials.
- 3). Plant and equipment rental, to be agreed upon in writing before the work is begun. No charge for the cost of repairs to plant or equipment will be allowed.
- 4). Overhead and profit computed at fifteen percent (15%) of the total of Items (1) to (3) inclusive.
- 5). The proportionate cost of premiums on bonds computed at one and one-half percent (1-1/2%) of the total of items (1) to (4) inclusive.

If the Time and Materials work is done by a Subcontractor, the amount shall be determined as set forth above under items (1) to (5) inclusive. The ESCO's overhead and profit on the costs of subcontracts (exclusive of taxes and insurance) shall not exceed ten percent (10%) of such costs.

The District reserves the right to furnish such materials as it may deem expedient, and no allowance will be made for profit thereon. The above-described methods of determining the payment for work and materials shall not apply to the performance of any work or the furnishing of any material which, in the judgment of the District, may properly be classified under items for which prices are established in the Contract.

e. Oral Modifications:

No oral statements of any person shall in any manner or degree modify or otherwise affect the terms of the Contract.

26. INDEMNITY

ESCO shall defend with counsel acceptable to the District, indemnify and hold harmless to the full extent permitted by law, the District and its Board of Trustees, officers, agents, Project Manager, construction manager, employees and volunteers from and against any and all liability, loss, damage, claims, expenses, fines, judgments and costs (including, without limitation, attorney's fees and costs and fees of litigation) (collectively, "Liability") of every nature arising out of or in connection with ESCO's performance of the Project or its failure to comply with any of its obligations contained in these Contract Documents, except such Liability caused by the active negligence, sole negligence or willful misconduct of the District. Such indemnification shall extend to all claims, demands, or liabilities occurring after completion of the project as well as during the progress of the work.

27. WARRANTY OF TITLE

ESCO warrants that title to all work, materials or equipment included in a request for payment shall pass and transfer to the District whether or not they are installed or incorporated in the Project, free from any claims, liens or encumbrances, when such payment is made to the ESCO. ESCO further warrants that no such work, materials or equipment have been purchased for work under the Contract subject to an agreement by which an interest therein or an encumbrance thereon is retained by the seller or supplier.

28. USE OF COMPLETED PARTS OF THE WORK BEFORE ACCEPTANCE

Whenever the work or any part thereof is in a condition suitable for use, and the best interest of the District requires such use, as determined by the District, the District may take possession of, connect to, open for public use, or use the work or a part thereof. When so used, maintenance and repairs due to ordinary wear and tear or vandalism will be made at District's expense. The use by the District of the work or part thereof as contemplated in this section shall in no case be construed as constituting acceptance of the work or any part thereof, including, but not limited to, the right to assess liquidated damages. Such use shall neither relieve the ESCO of any of ESCO's responsibilities under the Contract nor act as a waiver by the District of any of the conditions thereof. ESCO shall continue to maintain all insurance, including Builder's Risk insurance, on the entire Project, and diligently pursue full completion of the work.

29. GUARANTEE & WARRANTY

a. By signing this Contract, ESCO agrees to the following guarantee and warranty:

We hereby guarantee and warrant our work on the Project for a period of ten (10) years from the date of filing of the Notice of Completion.

ESCO shall promptly repair or replace to the satisfaction of the District any or all work that appears defective in workmanship, equipment and/or materials for whatever reason, ordinary wear and tear and unusual abuse or neglect excepted, together with any other work which may be damaged or displaced in so doing. ESCO agrees to promptly correct and remedy any failure by the ESCO to conform its work, activities and services to the requirements of the Contract Documents.

In the event of the ESCO's failure to comply with the above-mentioned obligations within the ten (10) calendar days of notice, or sooner if required by an emergency, ESCO hereby authorizes the District to have the defects or deficiencies repaired, remedied, corrected and made good at ESCO's expense, and ESCO shall pay the costs and charges therefore upon demand. The warranty bond will cover these costs and charges as well for a period of two years from the date of filing the Notice of Completion.

30. PROTECTION OF WORK AND PROPERTY

- a. The ESCO shall be responsible for each operation and all work on the Project, both permanent and temporary. The ESCO shall protect the work and materials from damage due to negligence, the action of the elements, the carelessness of third parties, vandalism, or any other cause whatsoever, until the final completion and acceptance of the Project. Should improper work by the ESCO be covered by another ESCO and damage or defects result, the whole work affected shall be made good by the ESCO to the satisfaction of the Project Manager and District without expense to the District. The ESCO shall take reasonable care to avoid damage to existing facilities or utilities, whether on the Project or adjacent to it, and ESCO shall be liable for any damage thereto or interruption of service due to ESCO's operations. If the ESCO encounters any facilities or utilities not shown on the drawings or not reasonably inferable there from, ESCO shall promptly notify the Project Manager about them, and shall do no further work which may cause damage to same. If it is determined that some action needs to be taken regarding facilities not shown, the ESCO will be given directives on what action to take, and any additional cost to the ESCO incurred thereby will be handled by Change Order.
- b. The property limits of the area of the Project are indicated on the drawings. Except for work specifically shown or noted, ESCO shall confine ESCO's operations within the indicated property limits. The ESCO shall provide, install, and maintain all shoring, bracing and underpinning necessary to support adjacent property, streets, buildings and structures, that may be affected by building operations for this work; shall serve or cause to be served all legal notices to adjoining property owners that may be necessary for their protection; and shall protect from damage all adjacent buildings, fences, landscaping, and repair or replace any such property damaged in the course of work under the Contract.

31. <u>USE OF ROADWAYS AND WALKWAYS</u>

The ESCO shall not unnecessarily interfere with use of any roadway, walkway or other facility for vehicular or pedestrian traffic, by any party entitled to use it. Wherever such interference becomes necessary for the proper and convenient performance of the work and no satisfactory detour route exists, the ESCO shall, before beginning the interference, provide a satisfactory detour, temporary bridge, or other proper facility for traffic to pass around or over the interference and shall maintain it in satisfactory condition as long as the interference continues, all without extra payment unless otherwise expressly stipulated in the Contract Documents.

32. MATERIALS

a. Unless explicitly stated otherwise, all specified equipment and material comprising the work of this Contract, as being provided or furnished or installed, shall imply the inclusion of all

components, hardware and accessories, required for complete installation and satisfactory operation as intended by the manufacturer. Wherever the method of installation of any material is not explicitly specified, the installation shall be as recommended by manufacturer.

- b. Wherever in the Contract Documents it is provided that the ESCO shall furnish materials or equipment for which no detailed specifications are set forth, such materials or equipment shall be new and of the best grade for the purpose for which they will be used when incorporated in the work. Materials specified by reference to a number or symbol of a specific standard, such as A.S.M., Federal Specification, State Standard, Trade Association, or similar standards, shall comply with requirements in the latest revision thereof and any amendment or supplement in effect on the date of the Request for Proposals.
- c. None of the materials to be provided furnished or installed on this project shall contain asbestos or any other "hazardous substance" as that term is defined by federal or state law.

33. SUBSTITUTIONS

- a. Wherever in the drawings or Specifications a material or product is called for by trade or brand names or manufacturer and model number, alternative items of equal quality and purpose may be proposed for use by the ESCO. The burden of proof of equality is on the ESCO, and ESCO shall furnish all information and supplies necessary for the Project Manager to make a thorough evaluation of the proposed substitution. The Project Manager's decision about the equality of the proposed substitution is final, and if the proposed substitution is not approved, the ESCO shall install the item called for. Proposed substitutions and any changes in adjacent work caused by them shall be made by the ESCO at no additional cost to the District.
- b. Proposed substitutions shall be submitted sufficiently before actual need to allow time for thorough evaluation. Substitutions shall not be proposed for the reason that submittals were not made early enough to avoid delay. Project Manager's review of substitutions shall not relieve the ESCO from complying with the requirements of the drawings and Specifications. Requests for substitution will be considered if received within 30 days after receipt of the Notice of Award. Requests received more than 30 days after receipt of the Notice of Award may be considered or rejected at the discretion of the Project Manager. Contractor shall identify the product, or the fabrication or installation method to be replaced in the request. Contractor shall also provide complete documentation showing compliance with the requirements for substitutions, as set forth herein, and the following information, as appropriate:
 - Product Data, including Drawings and descriptions of products, fabrication and installation procedures.
 - Samples, where applicable or requested.
 - A detailed comparison on the same page of significant qualities of the proposed substitution with those of the Work specified. Significant qualities may include elements such as size, weight, durability, performance and visual effect. All differences in products shall be noted.
 - A statement indicating the substitution's effect on the Contractor's Construction Schedule compared to the schedule without approval of the substitution. Indicate the effect of the proposed substitution on overall Contract Time.
 - Certification by the Contractor that the substitution proposed complies in every significant respect to that required by the Contract Documents, and that it shall:

- O Be equal to or better in every significant respect to specified material or product and shall perform adequately in the intended application.
- o Provide the same or greater warranty for the substitution as for the specified product.
- Provide the same required fire rating for the substitution as for the specified product.
- o Coordinate installation and make changes to other Work, which may be required for the Work to be complete with no additional costs to Owner.
- c. In the event ESCO makes substitutions in materials, equipment, or designs, with or without the District's approval, other than those authorized herein, the ESCO shall then assume full responsibility for the effects of such substitutions on the entire project, including the design, and shall reimburse the District for any charges resulting from such substitutions, including any charges for modifications in the work of other trades, and including any charges for additional design and review, plus reasonable and customary mark-ups.

34. TESTING

- a. Materials, equipment, or other work requiring tests may be specified in the Contract Documents, and they shall be adequately identified and delivered to the site in ample time before intended use to allow for testing. If such materials, equipment or other work should be covered without required testing and approval, they shall be uncovered at the ESCO's expense, including any repairs or replacement resulting there from. The ESCO shall notify the District and Project Manager when and where such materials, equipment or other work are ready for testing, and ESCO shall bear the cost of making them available for testing. The ESCO shall notify the District and Project Manager sufficiently before the need for testing so as to cause no delay in the work and, in any case, at least forty-eight (48) hours prior to the need for testing.
- b. The cost of initial tests called for will be paid by the District and will be performed by independent testing consultants retained by the District. All other tests and inspections specified or otherwise required to substantiate compliance with specified requirements for quality of material or performance of operation shall be paid for by the ESCO. If retesting or additional testing is necessary because of substandard initial test results, the costs thereof shall be paid by the ESCO, including any repairs or replacement resulting there from.

35. <u>INSPECTION</u>

a. All materials, equipment and workmanship used in the work of the Project shall always be subject to inspection or testing and locations during construction and/or manufacture. The District's and Project Manager's authorized representatives and representatives of other agencies having authority over the work shall have access to the work for the above purposes at all reasonable times and locations. Any material or work found to be unsatisfactory or not according to the Contract Documents shall be replaced with the correct material or work and the defective items promptly removed, all at the ESCO's expense, when directed to do so by any of the above-named persons having authority over the work. The cost of review time and analysis by the Project Manager or other District consultants necessitated by incomplete or defective work by the ESCO shall be charged to the ESCO.

- b. Inspection and testing by the District or its representatives shall not relieve the ESCO from complying with the requirements of the Contract Documents. The ESCO is responsible for its own quality control.
- c. Whenever required by the District or Project Manager, the ESCO shall furnish all tools, labor and materials necessary to make an examination of work in place by uncovering the same. Should such work be found unsatisfactory, the cost of examination and reconstruction shall be paid by the ESCO. Should such work be found satisfactory, the cost of examination and reconstruction of the work shall be paid by Change Order unless the ESCO improperly covered the work before it could be inspected or tested. If the ESCO considers it necessary or desirable to work on Saturday, Sunday or a holiday, ESCO shall seek written approval from the District at least forty-eight (48) hours before the commencement of such work.

36. CLEANUP

- a. The ESCO shall maintain the premises and area of the work shall be in a reasonably clean condition. No burning of rubbish on-site shall be allowed. The ESCO shall control dust on the site by sprinkling at whatever intervals are necessary to keep it laid down and shall take measures to prevent dust and debris from being accidentally transported outside the area of the work.
- b. Final cleaning, such as sweeping, dusting, vacuuming, dry and wet mopping, polishing, sealing, waxing and other finish operations normally required on newly installed work shall be taken to indicate the finished conditions of the various new and existing surfaces to restore area to condition at the time of acceptance. Prior to the time of acceptance, all marks, stains, fingerprints, dust, dirt, splattered paint and blemishes resulting from the various operations shall be removed throughout the Project. Stair treads and risers shall be wet-mopped. Glass shall be left clean and polished both inside and outside. Plumbing fixtures and light fixtures shall be washed clean. Hardware and other unpainted metals shall be cleaned, and all building papers and other temporary protections shall be removed throughout the building, or portion of the building where ESCO was involved, all to the satisfaction of the Project Manager and District. The exterior of the buildings, playfields, exterior improvements, planting spaces, and other work areas shall be similarly clean and in good order.

37. CONSTRUCTION WASTE MANAGEMENT

a. Scope

- 1). This Article includes requirements for the diversion by the ESCO of construction and demolition debris from landfills. The ESCO shall develop and implement a Waste Management Plan as specified herein. The ESCO shall take a pro-active, responsible role in the management of construction and demolition waste and require all Subcontractors, vendors, and suppliers to participate in the effort.
- 2). The District has established that this Project shall generate the least amount of waste practicable and that processes shall be utilized that ensure the generation of as little waste as possible due to over-packaging, error, poor planning, breakage, mishandling, contamination or other factors.
- 3). As much of the waste materials as economically feasible shall be reused, salvaged or recycled. Waste disposal in landfills shall be minimized.
- 4). The ESCO is encouraged to use waste hauling companies that separate recyclable materials. The ESCO shall work with its waste haulers in providing other recycling methods as appropriate.
- 5). The ESCO is responsible for implementation of any special programs involving rebates or similar incentives related to the recycling of waste. Revenues or other savings obtained for salvage or recycling accrue to the ESCO.

b. References

- 1). "Builders' Guide to Reuse and Recycling, A Directory for Construction and Demolition Materials."
- 2). "Construction Site Recycling, a Guide for Building ESCOs". For a copy of the guide call 1-888-442-2666 or go to www.recycleworks.org.
- 3). "Where to Recycle Construction and Demolition Debris." For a copy of the guide call 1-888-442-2666 or go to www.recycleworks.org.

c. Definitions

- 1). General: Construction and demolition waste includes products of demolition or removal, excess or unusable construction materials, packaging materials for construction products, and other materials generated during the construction process but not incorporated into the work.
- 2). Divert" means to use material for any lawful purpose other than disposal in a landfill or transfer facility for disposal
- 3). "Recycling Service" means an off-site service that provides processing of material and diversion from a landfill.
- 4). "Hauler" means the entity that transports construction and demolition debris to either a landfill or a recycling service.

d. <u>Compliance with Regulatory Requirements</u>

- 1). The ESCO shall perform all handling, storage, transportation and disposal of construction debris in compliance with all applicable Federal, State, regional, and local statutes, laws, regulations, rules, ordinance, codes and standards.
- 2). Nothing stated on the drawings, in this Article 40 or in any other provision of the Contract Documents shall be construed as allowing work that is not in strict compliance with all applicable Federal, State, regional, and local statutes, laws, regulations, rules, ordinances, codes and standards.

e. <u>Performance Requirement</u>

The ESCO shall divert a minimum of 50 percent (50%) of the total Project construction and demolition waste from landfills.

f. Quality Control

1). General:

i) The ESCO shall not permit materials designated for diversion to become contaminated or to contaminate the site or surrounding areas.

2). Training and Coordination:

- i) The ESCO shall designate an on-site party [or parties] who will be responsible for instructing workers and Subcontractors and overseeing and documenting the results of the Waste Management Plan for the Project.
- ii) The ESCO shall furnish copies of the Waste Management Plan to all on-site supervisors, each Subcontractor, and the District's representative.
- iii) The ESCO shall include construction waste management as an item on the agenda of all progress meetings.

3). The Waste Management Plan:

- i) The ESCO shall prepare a Waste Management Plan for diverting the specified percentage of construction debris from landfills, including written and graphic information indicating how the waste will be diverted.
- ii) Include in the plan both on-site recycling of construction debris and off-site diversion from landfills.

- iii) Identify the means and methods for collecting and separating each type of debris deemed reusable or recyclable.
- iv) List the off-site recycling service and hauler of each designated debris item who has agreed to accept and divert that item from the landfill in the proposed quantities anticipated. List the service and hauler company name, address, telephone number, and persons contacted.
- v) List the name of individuals on the ESCO's staff responsible for waste prevention and management.
- vi) List the actions that will be taken to reduce solid waste generation, including coordination with Subcontractors to ensure awareness and participation.
- vii) Describe the specific approaches to be used in recycling/reuse of the various materials generated, including the areas on site and equipment to be used for processing, sorting, and temporary storage of wastes.
- viii) Characterize the waste to be generated, including estimated types and quantities. Name the landfills and/or incinerator to be used.
- ix) List the specific waste materials that will be salvaged for resale, salvaged and reused on the Project, salvaged and stored for reuse on a future project, or recycled. Recycling facilities that will be used shall be identified by name, location, and phone number.
- x) Identify the materials that cannot be recycled or reused with an explanation or justification, to be approved by the Project Manager.

g. <u>Plan Implementation</u>

- 1). The ESCO shall implement the approved Waste Management Plan.
- 2). The ESCO shall maintain a log of each load and of each category of waste that is diverted from the landfill. The ESCO shall separately log the debris sent to a Class III landfill and materials sent to recycling facilities.
- 3). The ESCO shall include in the log the type of load, load weight, name of the hauling service, recycling service or landfill, and the date accepted by the recycling service or by the landfill.
- 4). The ESCO shall retain and make available all weight tickets and copies of receipts and invoices relating to the implementation of the Plan.
- 5). The District reserves the right to audit the log at any time.

h. Material Handling

- 1). Designate a specific area or areas on site to facilitate the separation of materials for potential reuse, salvage, recycling, and return. Clearly mark bins for each category of waste.
- 2). Keep waste bins and pile areas neat and clean. Do not contaminate non-recyclable waste with materials designated for reuse or recycling.

i. ESCO's Responsibilities

- 1). Provide on-site instruction of the appropriate separation, handling, recycling, salvage, reuse, and return methods to be used by all parties at the appropriate stages of the Project.
- 2). Separate, store, protect, and handle at the site identified recyclable and salvageable waste products in a manner that maximizes recyclability and salvageability of identified materials. Provide the necessary containers, bins and storage areas to facilitate effective waste management. Provide barriers and enclosures around recyclable material storage areas which are nonhazardous and recyclable or reusable and which shall be located away from construction traffic. Provide adequate space for pick-up and delivery. Use cleaning materials that are nonhazardous and biodegradable.

38. <u>INSTRUCTIONS AND MANUALS</u>

ESCO will provide one electronic copy of all maintenance instructions application/installation instructions and service manuals called for in the Specifications shall be provided by the ESCO to the project manager for the project record. These shall be complete as to drawings, details, parts lists, performance data and other information that may be required for the District to easily maintain and service the materials and equipment installed under this Contract. All manufacturers' application/installation instructions shall be given to the Project Manager at least ten (10) days prior to first material application or installation of the item. The maintenance instructions and manuals, along with any specified guarantees, shall be delivered to the Project Manager for review prior to submitting to District, and the ESCO or appropriate Subcontractors shall instruct District's personnel in the operation and maintenance of the equipment prior to final acceptance of the Project. All documentation must be received by Project Manager within thirty (30) calendar days after District's notice of completion.

39. AS-BUILT DRAWINGS

The ESCO and all Subcontractors shall maintain on the work site a separate complete set of contract drawings which will be used solely for the purpose of recording changes made in any portion of the work during the course of construction, regardless of the reason for the change. As changes occur, there will be included or marked on this record set daily if necessary, to keep them up to date always. Actual locations to scale shall be identified on the drawings for all runs of mechanical and electrical work, including all site utilities, installed underground, in walls, floors, and furred spaces, or otherwise concealed. Deviations from the drawings shall be shown in detail. All main runs, whether piping, conduit, duct work, drain lines, etc., shall be located in addition by dimension and elevation. Progress payments may be delayed or withheld until such time as the record set is brought up to date to the satisfaction of the Project Manager. The ESCO shall verify that all changes in the work are included in the

"AS-BUILT" drawings and deliver the complete set thereof to the Project Manager for review and approval within thirty (30) calendar days after District's notice of completion. District's acceptance and approval of the "AS-BUILT" drawings are a necessary condition precedent to the release of the final retention.

40. SUBSTITUTION OF SECURITIES

- a. ESCO may request in writing that it be allowed at its own expense to substitute securities for moneys withheld by District to ensure performance under this Contract. Only bank or savings and loan certificates of deposit, interest-bearing demand deposit accounts standby letters of credit, or any other security mutually agreed to by ESCO and District shall qualify under this Article. Securities equivalent to the amount withheld shall be deposited with the District or with a state or federally chartered bank in California as the escrow agent. Upon satisfactory completion of the Contract and on written authorization by the District, the securities shall be returned to ESCO. ESCO shall be the beneficial owner of the securities and shall receive any interest thereon. The ESCO may alternatively request District to make payment of retentions earned directly to the escrow agent at the expense of the ESCO.
- b. At the expense of the ESCO, the ESCO may direct the investment of the payments into securities and the ESCO shall receive the interest earned on the investments upon the same terms provided for above for securities deposited by ESCO. Upon satisfactory completion of the contract, ESCO shall receive from the escrow agent all securities, interest, and payments received by the escrow

agent from the District. The ESCO shall pay to each Subcontractor, not later than 20 days of receipt of payment, the respective amount of interest earned, net of costs attributed to retention withheld from each Subcontractor, on the amount of retention.

41. NO DISCRIMINATION

It is the policy of the District that, in connection with all work performed under this public works contract, there shall be no discrimination against any prospective or active employee or any other person engaged in the work because of actual or perceived race, color, ancestry, national origin, ethnic group identification, religion, sex, gender, sexual orientation, age, physical or mental disability, or marital status. The ESCO agrees to comply with applicable Federal and California laws including, but not limited to, the California Fair Employment Practice Act, beginning with Government Code §12900, Government Code §11135, and Labor Code §§ 1735, 1777.5, 1777.6 and 3077.5. In addition, the ESCO agrees to require like compliance by all Subcontractors and suppliers.

42. LABOR STANDARDS

a. Work Hours:

In accordance with Labor Code section 1810, eight (8) hours of labor shall constitute a legal day's work under this Contract. ESCO and any Subcontractor shall pay workers overtime pay as required by Labor Code section 1815.

b. Penalty:

ESCO shall forfeit to District as a penalty the sum of twenty-five dollars (\$25.00) for each worker employed in the execution of this Contract by ESCO or any Subcontractor for each calendar day during which the worker is required or permitted to work more than eight (8) hours in any one (1) calendar day or more than forty (40) hours per calendar week in violation of Article 3, Division 2, Part 7, Chapter 1 of the California Labor Code.

c. Employment of Apprentices:

ESCO shall comply with Labor Code §§1773.3, 1777.5 and 1777.6, and 3077 et. seq., each of which is incorporated by reference into this Contract. These sections require that ESCOs and Subcontractors employ apprentices in apprenticeable occupations in a ratio of not less than one (1) hour of apprentice work for every five (5) hours of labor performed by a journeyman, unless an exception is granted and that ESCOs and Subcontractors shall not discriminate against otherwise qualified employees as apprentices on any public works solely on the ground of actual or perceived race, religion, color, national origin, ethnic group identification, sex, gender, sexual orientation, age, or physical or mental disability. Only apprentices who are in training under written apprenticeship occupations shall be employed. The responsibility for compliance with these provisions for all apprenticeable occupations rests with ESCO.

43. RECORD KEEPING

a. The ESCO and each Subcontractor shall keep or cause to be kept an accurate record showing the names, addresses, social security numbers, work classifications, straight time and overtime hours worked each day and week of all workers employed by ESCO in connection with the execution of this Contract or any subcontract there under and showing the actual per diem wages paid to each of such workers.

f. Responsibility for compliance with this provision shall be with the ESCO.

44. PROJECT COMPLETION

a. When all the work to be performed under this Contract is has been fully completed, the ESCO shall notify the Project Manager and District, in writing, setting a date for inspection. The

ESCO and Subcontractor representatives shall attend the inspection. As a result of this inspection, the Project Manager will prepare a list of items ("punch list") that are incomplete or not installed according to the Contract Documents. Failure to include items on this list does not relieve the ESCO from fulfilling all requirements of the Contract Documents.

- b. The Project Manager will promptly deliver the punch list to the ESCO and it will include a period of time by which the ESCO shall complete all items listed thereon. On completion of all items on the punch list, verified by a final inspection, and all other Contract requirements, so that Final Completion has been achieved to the District's satisfaction, the District will file a Notice of Completion with the County Recorder.
- c. The District reserves the right to occupy buildings and/or portions of the site at any time before Completion, and occupancy shall not constitute final acceptance of any part of the Work covered by the Contract Documents, nor shall such occupancy extend the date specified for completion of the Work. Beneficial occupancy of building(s) does not commence any warranty period or entitle Contractor to any additional compensation due to such occupancy or affect in any way or amount Contractor's obligation to pay liquidated damages for failure to complete the Project on time.

45. TRENCHING OR OTHER EXCAVATIONS

a. Excavations or Trenches Deeper than Four Feet:

If the project involves digging trenches or other excavations that extend deeper than four feet, the following provisions shall be a part of this Contract:

- 1). The ESCO shall promptly, and before the following conditions are disturbed, provide written notice to the District if the ESCO finds any of the following conditions:
 - (a) Material that the ESCO believes may be a hazardous waste, as defined in Section 25117 of the Health and Safety Code, which is required to be removed to a Class I, Class II, or Class III disposal site in accordance with the provisions of existing law.
 - (b) Subsurface or latent physical conditions at the site which are different from those indicated or expected.
 - (c) Unknown physical conditions at the site of any unusual nature or which are materially different from those ordinarily encountered and generally recognized as inherent in work which the ESCO generally performs.
- 2). In the event that the ESCO notifies the District that ESCO has found any of the conditions specified in subparagraphs (a), (b) or (c), above, the District shall promptly investigate the condition(s). If the District finds that the conditions are materially different or that a hazardous waste is present at the site which will affect the ESCO's cost of, or the time required for, performance of the Contract, the District shall issue a change order in accordance with the procedures set forth in this Contract.

3). In the event that a dispute arises between the District and the ESCO regarding any of the matters specified in Paragraph (2), above, the ESCO shall proceed with all work to be performed under the Contract and the ESCO shall not be excused from completing the Project as provided in the Contract. In performing the work pursuant to this Paragraph, the ESCO retains all rights provided by Article 50 which pertains to the resolution of disputes between the contracting parties.

b. Regional Notification Center:

The ESCO, except in an emergency, shall contact the appropriate regional notification center at least two (2) days prior to commencing any excavation if the excavation will be conducted in an area that is known, or reasonably should be known, to contain subsurface installations other than the underground facilities owned or operated by the District, and obtain an inquiry identification number from that notification center. No excavation shall be commenced and/or carried out by the ESCO unless an inquiry identification number has been assigned to the ESCO or any Subcontractor and the ESCO has given the District the identification number. Any damages or delays arising from ESCO's failure to make appropriate notification shall be at the sole risk and expense of the ESCO and shall not be considered for an extension of the Contract time.

c. Existing Utility Lines:

- 1). Pursuant to Government Code section 4215, the District assumes the responsibility for removal, relocation, and protection of main or trunk utility lines and facilities located on the construction site at the time of commencement of construction under this contract with respect to any such utility facilities that are not identified in the plans and Specifications. ESCO shall not be assessed for liquidated damages for delay in completion of the Project caused by the failure of the District or the owner of a utility to provide for removal or relocation of such utility facilities.
- 2). Locations of existing utilities provided by the District shall not be considered exact, but approximate within reasonable margin and shall not relieve ESCO of responsibilities to exercise reasonable care nor costs of repair due to ESCO's failure to do so. The District shall compensate ESCO for the costs of locating and repairing damage not due to the failure of ESCO to exercise reasonable care and removing or relocating such utility facilities not indicated in the plans and Specifications with reasonable accuracy.
- 3). No provision herein shall be construed to preclude assessment against ESCO for any other delays in completion of the project. Nothing in this Section shall be deemed to require the District to indicate the presence of existing service laterals, appurtenances, or other utility lines, with the exception of main or trunk lines, whenever the presence of such utilities on the site of the construction Project can be inferred from the presence of other visible facilities, such as buildings, meter and junction boxes, on or adjacent to the site of the construction.
- 4). If ESCO, while performing work under this Contract, discovers utility facilities not identified by the District in the project plans and Specifications, ESCO shall immediately notify the District and the utility in writing. The cost of repair for damage to above-mentioned visible facilities without prior written notification to the District shall be borne by the ESCO.

d. Prompt Notification:

ESCO understands, acknowledges and agrees that the purpose for prompt notification to the District pursuant to these provisions is to allow the District to investigate the condition(s) so that the District

shall have the opportunity to decide how the District desires to proceed as a result of the conditions. Accordingly, failure of ESCO to promptly notify the District in writing, pursuant

to these provisions, shall constitute ESCO's waiver of any claim for damages incurred as a result of the conditions.

e. Trenches Five Feet and Deeper:

Pursuant to Labor Code section 6705, if the contract price exceeds \$25,000 and involves the excavation of any trench or trenches five (5) feet or more in depth, the ESCO shall, in advance of excavation, promptly submit to the District and/or a registered civil or structural engineer employed by the District or Project Manager, a detailed plan showing the design of shoring for protection from the hazard of caving ground during the excavation of such trench or trenches.

46. RESOLUTION OF CONSTRUCTION CLAIMS

- a. "Claims" means a separate demand by ESCO for a time extension or payment of money or damages arising from work done by or on behalf of ESCO pursuant to the Contract and payment of which is not otherwise expressly provided for or the claimant is not otherwise entitled to or the amount of the payment which is disputed by the District.
- b. All claims shall be submitted on or before the date of the Final Payment and shall include all documents necessary to substantiate the claim. District shall respond in writing within 45 days of receipt of claim if the claim is less than or equal to \$50,000 ("\$50,000 claim") or within 60 days if the claim is over \$50,000 but less than or equal to \$375,000 ("50,000 \$375,000 claim"). In either case, District may request in writing within 30 days of receipt of claim any additional documentation supporting the claim or relating to any defenses to the claim which the District may have against the ESCO. Any additional information shall be requested and provided upon mutual agreement of the District and the ESCO. District's written response to the claim shall be submitted to ESCO within 15 days after receipt of the further documentation for \$50,000 claims or within 30 days after receipt of the further documentation for \$50,000 claims or within a period of time no greater than that taken by the ESCO in producing the additional information, whichever is greater.
- c. Within 15 days of receipt of the District's response, if ESCO disputes the District's written response, or within 15 days of the District's failure to respond within the time prescribed, the ESCO shall provide written notification to District demanding an informal conference to meet and confer ("conference") to be scheduled by District within 30 days. Following the conference, if any claim or portion remains in dispute, the ESCO may file a claim as provided in Chapter 1 (commencing with §900) and Chapter 2 (commencing with §910) of Part 3 of Division 3.6 of Title 1 of the Government Code. For purposes of those provisions, the period of time within which a claim must be filed is tolled from the time the claimant submits a written claim pursuant to this section until the time that claim is denied as a result of the conference process, including any period of time utilized by the meet and confer process.
- d. If a civil action is filed, within 60 days, but no earlier than 30 days, following the filing of responsive pleadings, the court shall submit the matter to nonbinding mediation unless waived by mutual stipulation of both parties. The mediation process shall provide that both parties select a disinterested third person mediator within 15 days, shall be commenced within 30 days of the submittal, and shall be concluded within 15 days of the commencement of the mediation unless time is

extended upon a good cause showing to the court or by stipulation of the parties. If the parties fail to select a mediator within the 15-day period, any party may petition the court to appoint the mediator.

- e. For any claim in excess of \$375,000, the ESCO and the District shall follow the same process as for an Article 1.5 claim. The District will forward a response within 60 days of submittal of any such claim. Judicial arbitration is not required for claims in excess of \$375,000. Claims shall also be processed consistent with Public Contract Code section 9204, which provides processing timelines and procedures, and requires that undisputed claims be promptly paid in accordance with this code provision.
- f. In addition, for all unresolved claims that the ESCO wishes to pursue, the ESCO shall file a timely claim pursuant to the Government Claims Act and shall otherwise comply with the procedures set forth in that Act prior to commencing any litigation against the District. The accrual date for any such claim is the date the dispute or controversy first arose regarding the issues raised in the claim.
- g. The claims required by this Article are jurisdictional and conditions precedent to the commencement of any further legal proceedings. Strict compliance with all filing deadlines is mandatory.

47. DRUG-FREE WORKPLACE CERTIFICATION

ESCO certifies all of the following:

- a. ESCO is aware of the provisions and requirements of California Government Code §§ 8350 et seq., the Drug Free Workplace Act of 1990.
- b. ESCO is authorized to certify, and does certify, that a drug free workplace will be provided by doing all of the following:
 - 1). Publishing a statement notifying all employees that the unlawful manufacture, distribution, dispensation, possession or use of a controlled substance is prohibited in ESCO's workplace and specifying actions which will be taken against employees for a violation of the prohibition;
 - 2). Establishing a drug-free awareness program to inform employees about all of the following:
 - (i) The dangers of drug abuse in the workplace;
 - (ii) ESCO's policy of maintaining a drug-free workplace;
 - (iii) The availability of drug counseling, rehabilitation and employee-assistance programs; and
 - (iv) The penalties that may be imposed upon employees for drug abuse violations;
 - 3.) Requiring that each employee engaged in the performance of Work on the Project be given a copy of the statement required by subdivision (a), above, and that as a condition of employment by ESCO in connection with the Work on the Project, the employee agrees to abide by the terms of the statement.
- c. ESCO understands that if the District determines that ESCO has either: (a) made a false certification herein, or (b) violated this certification by failing to carry out and to implement the requirements of Government Code §§ 8350 et seq., the Contract is subject to termination, suspension of payments, or both. ESCO further understands that, should ESCO violate the terms of the Drug-Free Workplace Act of 1990, ESCO may be subject to debarment in accordance with the provisions of Government Code §§ 8350, et seq.

48. PROVISIONS REQUIRED BY LAW DEEMED INSERTED

Every provision of law and clause required by law to be inserted in this Contract shall be deemed to be inserted, and this Contract shall be read and enforced as though it were included, and if through mistake or otherwise any provision is not inserted or is not correctly inserted, upon application of either party the Contract shall be amended to make the insertion or correction. All references to statutes and regulations shall include all amendments, replacements, and enactments on the subject which are in effect as of the date of this Contract.

49. GENERAL PROVISIONS

a. Assignment and Successors:

Neither party may transfer or assign its rights or obligations under the Contract Documents, in part or in whole, without the other party's prior written consent. The Contract Documents are binding on the heirs, successors, and permitted assigns of the parties hereto.

b. Third Party Beneficiaries:

There are no intended third-party beneficiaries to the Contract.

c. Choice of Law and Venue

The Contract Documents shall be governed by California law, and venue shall be in the Superior Court of the county in which the project is located, and no other place.

d. Severability

If any provision of the Contract Documents is determined to be illegal, invalid, or unenforceable, in part of in whole, the remaining provisions, or portions of the Contract Documents shall remain in full force and effect.

e. Entire Agreement

The Contract Documents constitute the final, complete, and exclusive statement of the terms of the agreement between the parties regarding the subject matter of the Contract Documents and supersedes all prior written or oral understandings or agreements of the parties.

f. Waiver

No waiver of a breach, failure of any condition, or any right or remedy contained in or granted by the provisions of the Contract Documents shall be effective unless it is in writing and signed by the party waiving the breach, failure, right, or remedy. No waiver of any breach, failure, right, or remedy shall be deemed a waiver of any other breach, failure, right, or remedy, whether or not similar, nor shall any waiver constitute a continuing waiver unless the writing so specifies.

g. Headings

The headings in the Contract Documents are included for convenience only and shall neither affect the construction or interpretation of any provision in the Contract Documents nor affect any of the rights or obligations of the parties to the Contract.

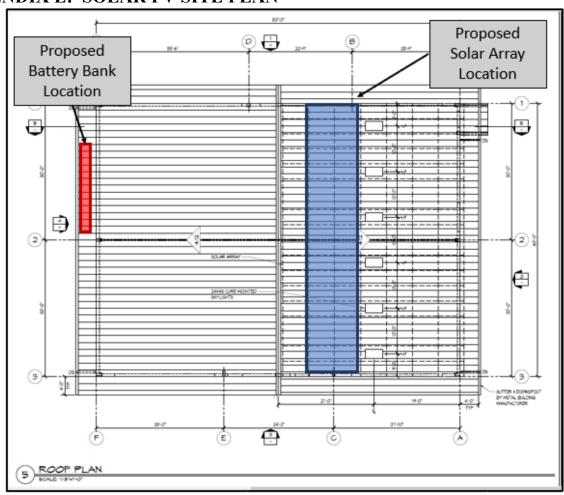
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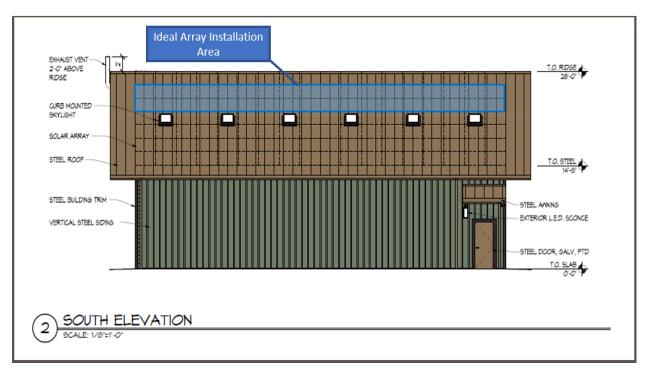
APPENDIX D: SUBCONTRACTOR LIST FORM

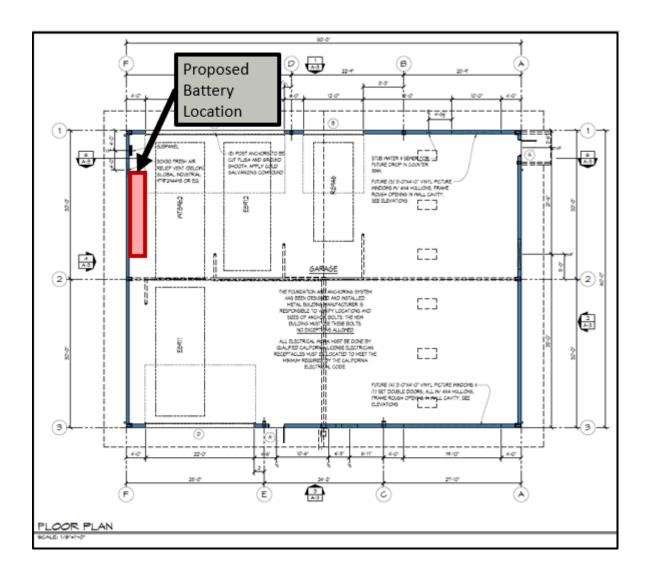
Each bidder shall list below the name and location of place of business for each Subcontractor who will perform a portion of the Contract work in an amount in excess of 1/2 of 1 percent of the total contract price. The nature of the work to be subcontracted shall also be described. Per SB96 Public Contract Code 4104, please list the DIR registration number for each Subcontractor.

DESCRIPTION OF WORK	NAME	LOCATION	LICENSE # & DIR #

APPENDIX E: SOLAR PV SITE PLAN







APPENDIX F: TECHNICAL FACILITY PROFILE

The information in this technical facility profile is provided to inform the proposer about the facilities. **Site and Building Information**

• Approved Plan Set

Photo of the south elevation of KFPD's new Volunteer Firefighting Facility at 6201 Greenwood Heights, Kneeland CA, 95549. The approved plan set for the structure begins on the following page.



Appendix G

Kneeland VFD Plan Set is separate PDF document.

Appendix H

Feasibility Study of Roof Mounted Solar Photovoltaic Options for the Kneeland Fire Protection District

August 2018

Executive Summary

The Kneeland Fire Protection District (KFPD) applied to participate in Redwood Coast Energy Authority's (RCEA's) Public Agency Solar Program (PASP) in April of 2018. RCEA has worked with KFPD staff since then to develop a plan for a grid-tied solar photovoltaic (PV) array for their new facility being built this year. RCEA also analyzed the option of adding a back-up battery bank that could allow KFPD's facility to continue to operate in the event of a power outage.

RCEA finds that the installation of a 3.2 kW DC grid-tied PV array at their new facility would provide benefits to KPFD which would include decreased operating costs, a positive return on investment at net present value (NPV) and a reduction in greenhouse gas emissions. The addition of a back-up battery bank would not provide additional economic benefits but would provide increased reliability and resilience of the services provided by KFPD by allowing them to continue operation in the event of a utility power outage. A comparison of the economics of such a system with and without battery back-up can be found in the Financial Analysis section of this report. Both options would be eligible for the California Energy Commissions (CEC's) 1% interest loan program for feasible renewable energy projects.

Table 1 below shows a summary of the economic benefits of a grid-tied 3.2 kW DC solar PV system without the battery back-up.

Table 1 Summary of benefits from a grid-tied solar PV system at KFPD's new facility.

Grid Tied PV System Summary			
PV System Size (kW DC)	3.20		
Annual Energy Production (kWh)	4,194		
Estimated System Cost (\$)	\$9,664		
First Year Bill Savings (\$)	\$1,013		
Estimated Energy Offset from PV (%)	100%		
Estimated Bill Offset from PV (%)	100%		
Simple System Payback (Years)	10		
Discounted System Payback at 5% Discount Rate (Years)	13.3		
NPV of Savings at 25 Years (\$)	\$10,183		
Savings to Investment Ratio	1.05		
Discounted ROI at 5% Discount Rate (%)	5%		
Lifetime Avoided CO ₂ emissions (Metric Tons)	6		

Introduction

RCEA began working with the Kneeland Fire Protection District (KFPD) as part of RCEA's Public Agency Solar Program in May of 2018. After an initial kick-off meeting with KFPD staff, RCEA began its analysis of a grid-tied solar photovoltaic (PV) installation at the new facility being built at 6201 Greenwood Heights Avenue in Kneeland. RCEA focused on sizing a PV installation that could that could offset all the

estimated energy consumption at the new facility. RCEA also analyzed the option of adding a battery bank to back-up the facility in the event of a power outage.

RCEA's feasibility analysis will focus on the following:

- Estimated electric consumption at the new facility upon completion.
- Estimated electric consumption at the new facility after expansion.
- Sizing a new grid-tied solar array to offset the estimated consumption after expansion.
- Sizing a new grid-tied solar array with battery back-up that could keep the facility operational in the event of a power outage.

Electric Load Analysis

RCEA performed an electric load analysis of KFPD's new facility based on:

- Utility data covering the period from July 2017 to June 2018.
- Estimated additional electric loads from Phase 1 of the new facility.
- Estimated additional electric loads from Phase 2 of the new facility.

The historic electric consumption at the site of the new facility has been almost non-existent, with an average monthly load of 17 kWh and an average monthly bill amount of \$12.43. The monthly bill is almost entirely made up of PG&E meter charges of \$0.32/day. The estimated additional electric loads from Phase 1 of the new facility are based on the equipment listed in the approved construction plans for the new facility. Estimated hours of operation for phase 1 were provided by KFPD staff. A summary of the additional equipment, equipment power ratings and estimated hours of operation for Phase 1 can be seen in Table 2 below.

Table 2 Estimated electric loads and hours of operation for phase 1 of KFPD's new facility.

Phase 1 Electric Load Analysis					
Load Description	Quantity	Power Rating (watts)	Phase 1 Hours of Operation (hrs/day)		
Light fixture "A" LED high-bay fixtures	4	220	2		
Light fixture "B" LED entry way wall packs	2	12	12		
Light fixture "C" LED exterior wall packs	8	14	12		
LED emergency/exit lights	2	7.2	24		
Wall mounted vehicle exhaust ventilation fan	1	373	1		
Wall mounted powered vent fan	1	350	1		
Water Pump (Refill on site tanks)	1	560	1		
Battery Chargers	2	7.2	20		

Phase 2 of the new facility will see additional electric loads from additional lighting and equipment as well as an increase in the expected hours of operation at the new facility. A summary of the additional equipment and estimated hours of operation for Phase 2 can be seen in Table 3 below.

Table 3 Estimated electric loads and hours of operation for phase 2 of KFPD's new facility.

Phase 2 Electric Load Analysis					
Load Description	Quantity	Power Rating (watts)	Phase 2 Hours of Operation (hr/day)		
Light fixture "A" LED high-bay fixtures	4	220	4		
Light fixture "B" LED entry way wall packs	2	12	12		
Light fixture "C" LED exterior wall packs	8	14	12		
LED emergency/exit lights	2	7.2	24		
Wall mounted vehicle exhaust ventilation fan	1	373	2		
Wall mounted powered vent fan	1	350	2		
Water Pump (Refill on site tanks)	1	560	2		
Battery Chargers	2	7.2	24		
Pressure pump	1	375	1		
Additional Lighting	5	12	1		
Refrigerator	1	375	4		
Battery Charger	4	24	4		

Figure 1 below shows a graphic representation of the electricity consumption under current conditions (blue), under phase 1 conditions (orange), under phase 2 conditions (grey), and the estimated new bill after phase 2 expansion (yellow) at KFPD's new facility.

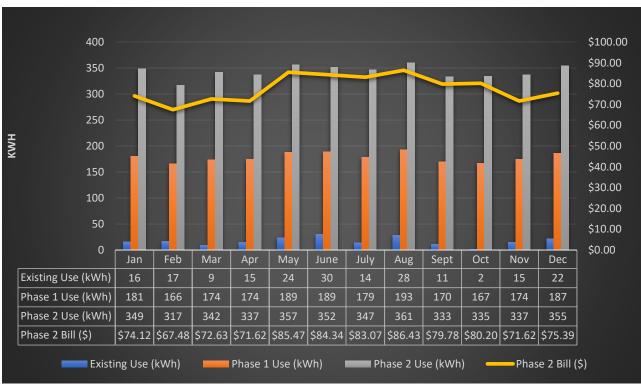


Figure 1 Estimated electricity use for phases 1 &2 and estimated monthly bill amounts for phase 2 at the new KFPD facility.

Phase 2 expansion at the new facility will likely occur in the first several years after construction. Because solar PV arrays last for 25 years or more, sizing a solar PV array to only accommodate phase 1 electricity consumption would result in an under-sized system for most of the useful life of the system.

PV System Sizing

RCEA recommends sizing a solar PV array that would offset 100% of the phase 2 expected electrical consumption. A system sized to meet phase 2 consumption would offer several advantages:

- The PV system would better meet KFPD's long term needs over the life of the system.
- Costs associated with engineering, procurement and contracting would only be incurred once.
- Project funding would only need to be secured once.
- Excess electricity generation during phase 1 operations would produce modest economic returns through the Net Energy Metering arrangement with RCEA.

RCEA used industry standard methods and calculations to size a PV array that would offset approximately 100% of KFPD's electric consumption and electricity bills during phase 2 occupancy. Table 4 below shows the assumptions and inputs used in RCEA's solar PV system sizing calculations.

Table 4 Inputs and assumptions used for solar PV array sizing.

PV System Sizing Inputs			
Array Orientation (Azimuth)	165°		
Array Tilt	18.5°		
Average Daily Insolation (kWh/m2/day)	4.44		
Inverter Efficiency (%)	97%		
De-rate Factor (Soiling, Wire Loss, Mismatch) (%)	10%		
Average Operating Cell Temperature (°C)	40		
Temperature Coefficient of Power (/°C)	0.0037		
Module DC Rating (Watts)	320		
Manufacturer Power Guarantee (%)	98%		

KFPD receives electric service from PG&E and is enrolled in RCEA's Community Choice Energy program. The site for KFPD's new facility is on an A-1 electric rate schedule. If KFPD decides to implement a gridtied solar PV installation, the site will be transferred to an A-1 *time-of-use* electric rate schedule. Table 5 below shows PG&E's and RCEA's A-1 rates and time-of-use periods used in this analysis.

Table 5 Electric rates and time-of-use periods for PG&E's and RCEA's A-1 electric schedule.

A-1 Electric Rates							
Season	PG&E Delivery Rate	RCEA Generation Rate	Months	Days	Time		
Summer Peak	\$0.12816	\$0.13564	May-Oct	Mon-Fri	12pm-6pm		
Summer Part- Peak	\$0.12816	\$0.11270	May-Oct	Mon-Fri	8:30am-12:00pm AND 6:00pm-9:30pm		
Summer Off- Peak	\$0.12816	\$0.08617	May-Oct	Mon-Fri Sat- Sun	9:30pm-8:30am All Day		
Winter Part-Peak	\$0.11022	\$0.11252	Nov-Apr	Mon-Fri	8:30am-9:30pm		
Winter Off-Peak	\$0.11022	\$0.09223	Nov-Apr	Mon-Fri Sat- Sun	9:30pm-8:30am All Day		

Using the PV system sizing inputs and electric rate schedule above, RCEA estimates that a 3.2 kW DC array would produce enough energy on an annual basis to offset 100% of KFPD's phase 2 electric consumption and costs. Figure 2 below shows the estimated electric usage and solar production under the above assumptions.

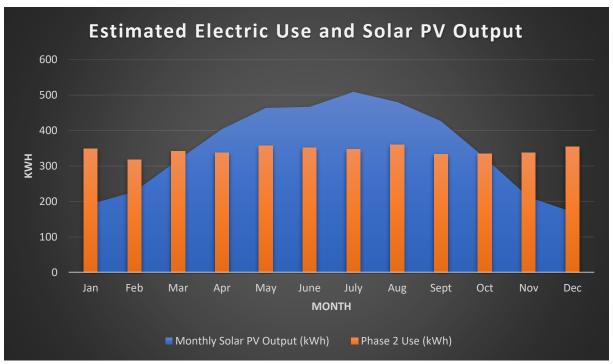


Figure 2 Estimated phase 2 electric usage and solar PV production at KFPD's new facility with a 3.2 kW DC solar array.

RCEA has recent history with solar PV installations for public schools in California's Proposition 39 program. The average installed price of a PV system, including all labor, materials, engineering, permitting and design has been about \$3.02/DC watt. This would yield a system cost of approximately \$9,644. Table 6 below shows a break-down of the estimated costs for the proposed PV system.

Table 6 Estimated costs associated with a 3.2 kW DC solar PV installation.

PV System Cost Estimate			
PV Modules	\$	2,416	
Inverters	\$	1,256	
Electrical/Structural Balance of Systems	\$	1,450	
Labor	\$	1,933	
Engineering and Design	\$	966	
Permitting and Interconnection	\$	290	
Overhead and Profit	\$	1,353	
Total Cost	\$	9,664	

Table 7 below shows a summary of the proposed solar PV system including system size, system cost, annual production estimate, kilowatt hour offset, and bill offset.

Table 7 PV system summary for proposed PV installation at KFPD's new facility.

PV System Summary				
PV System Size (kW DC)	3.20			
Estimated System Cost	\$9,664			
Annual Energy Production (kWh AC)	4,194			
Annual kWh Offset from PV (%)	100%			
Annual Bill Offset from PV (%)	100%			

Solar Photovoltaic (PV) Site Assessment

RCEA performed a detailed solar site assessment at the site of KFPD's new facility on May 2nd, 2018. The new facility is scheduled to go to construction this year. RCEA was provided with a copy of the approved construction plan set; details from the plans were reviewed for, and incorporated into, the solar PV site assessment. The roof of the building will have a 4 in 12 or 18.5° pitch and is oriented to an azimuth of 165° or 15° east of due south. The roof framing is made of 10" structural steel Z purlins or steel girts spaced at 48" on center.

A shading analysis was performed using a Solar Pathfinder tool which showed that some of the trees surrounding the site could result in shading on the lower part of the south facing roof toward the eaves. California Fire Marshal guidance for solar PV installations require 4' setbacks from roof eaves and ridges. Taking these factors into account, the new roof would still have enough area to host more than a 3.2 kW DC solar array. RCEA recommends using the roof section above the skylights for the solar PV installations. Figure 3 below shows the ideal solar installation area on the south facing roof.

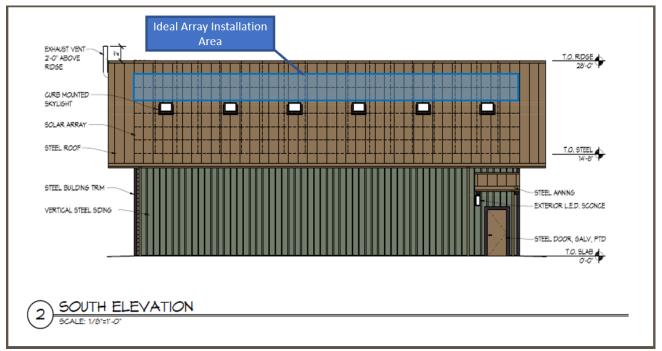


Figure 3 Available roof area for solar PV installation at KFPD's new facility.

Any solar PV installation will operate under a Net Energy Metering (NEM) agreement. NEM allows the PV system owner to receive energy credits when the system produces more energy than the building consumes and is charged their normal rates when the PV system produces less energy than the building consumes. RCEA performs a monthly "true-up" of generation charges as part of their billing, so energy production credits and debits are reconciled each month. PG&E performs an annual "true-up" of transmission and distribution charges that reconciles energy credits and debits on a yearly basis. In addition, PG&E charges a meter fee of \$.32/day, this charge cannot be offset with the PV energy. A typical annual billing cycle is shown in figure 4 below to demonstrate how credits and debits are accounted for under PG&E's and RCEA's Net Energy Metering (NEM) arrangements.

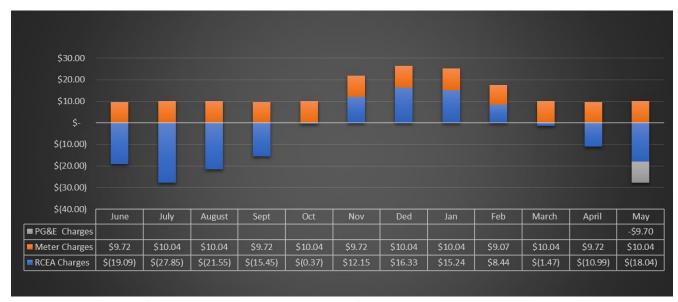


Figure 4 An example of a typical annual NEM billing cycle for KFPD showing energy credits and debits.

Project Alternative: Addition of Battery Bank

RCEA also performed analysis of a project alternative that included a 3.2 kW DC grid-tied solar array with a battery bank for emergency back-up. A battery bank paired with a grid-tied solar PV array can serve as an emergency source of back-up power in case of a utility power outage. A grid-tied battery bank can also be a source of economic benefits through what is known as rate arbitrage which involves discharging the battery bank to feed on site electric loads during peak periods when power is most expensive and re-charging the battery during off-peak periods when power is least expensive. RCEA's battery assessment will estimate benefits from both purposes.

Emergency Backup

RCEA estimates that KFPD's new facility will consume approximately 11,000 watt-hours per day. To provide a reasonable amount of resilience in the case of a power outage, RCEA has sized the potential battery bank to be able to power the facility for three days without grid power. The solar PV array would be able to provide charging to the battery bank that could power critical loads at the facility indefinitely. Table 8 below shows a summary of RCEA's battery bank sizing analysis for emergency back-up.

Table 8 Summary of analysis of emergency battery back-up for KFPD's new facility.

Battery Bank Sizing Analysis			
Daily DC Consumption from Critical Design (Watt-hours)	11,059		
DC System Voltage (VDC)	48		
Days of Autonomy	3		
Depth of Discharge (%)	80%		
Required Battery-Bank Output (Ah)	864		

Deep-cycle lead acid batteries for a typical home power system could provide the required days of autonomy and energy output outlined above. Table 9 below shows typical components and costs of a battery bank that would meet the needs of KFPD's new facility.

Table 9 Specifications and cost estimate for a grid-tied battery bank at KFPD's new facility.

Lead Acid Battery Specs and Estimated Costs			
Manufacturer	Rolls-Surrette		
Model	B-S550		
Volts (VDC)	6		
Amp-Hours per Battery	428		
Batteries Required	16		
Battery Bank Output Provided (Amp-hours)	856		
Price per Battery (\$)	\$ 325		
Total Battery Cost (\$)	\$ 5,200		
Balance of Systems Cost (\$)	\$ 2,000		
Installation Cost (\$)	\$ 1,500		
Total Cost (\$)	\$ 8,700		

Rate Arbitrage

A grid-tied battery bank can also be used to gain economic benefits from rate arbitrage, charging the battery off-peak when electricity charges are lowest and discharging the battery to serve loads on-site during peak hours when the electricity charges are highest. A summary of the benefits of a rate arbitrage program at KFPD's new facility can be seen in table 10 below.

Table 10 Summary of economic benefits from rate arbitrage with a grid-tied battery bank.

Summary of Savings from Battery Bank Rate Arbitrage		
Available amp hours per day	419	
Available kilowatt hours per day	20	
Monthly savings in summer	\$30	
Monthly savings in winter	\$12	
Annual savings from arbitrage	\$253	

A battery bank used in this way would also be eligible for the California's Self-Generation Incentive Program (SGIP) which provides financial incentives for technologies that meet all or a portion of the electric needs of a facility such as the grid-tied solar array with battery back-up being considered at the KFPD site. An estimate of the available incentive from the state's SGIP program can be seen in Table 11 below.

Table 11 Estimate of available incentives from the state's Self-Generation Incentive Program.

SGIP Analysis		
Utility	PG&E	
Incentive Type	Small Residential Equity	
Current Incentive Step	3	
Incentive Amount (\$/Watt-hour)	0.35	
Watt-hour capacity of battery bank	31,884	
Discharge rate (hours)	10.0	
Estimated Incentive	\$ 3,920.00	

Financial Analysis

RCEA performed a financial analysis for two project options. Option 1 includes a grid-tied solar PV array that would offset 100% of the energy consumed on site. Option 2 includes the same grid-tied solar PV array with the addition of a back-up battery bank. Table 12 below shows the assumptions that were used in RCEA's economic modeling.

Table 12 Assumptions made in RCEA's economic analysis of project options.

Financial Analysis Assumptions		
Inflation rate	2%	
Discount rate	5%	
Electricity escalation rate	3%	
Added maintenance	0.3%	
Annual PV production degradation rate	0.5%	
Percentage of electricity cost not due to peak demand	85%	
Cost to replace inverter at year 15	\$0.30/watt	
System price	\$3.02/watt	

The grid-tied PV system by itself provides better simple economic payback period (10 years) than the system that includes a battery back-up (12 years). Both options would meet the criteria for the CEC's 1% interest loan program which requires a simple payback period of 17 years. The battery back-up system, however, has a negative return on investment (ROI); the savings over the life of the system are less than the initial cost of the system even after considering rate arbitrage benefits and incentives. Table 13 below shows the results of RCEA's economic analysis of the two project options described above.

Table 13 Comparison of solar PV project options for HBMWD's 7th Street offices.

Solar PV Project Scenarios		
Technology and Scenario	Grid Tied PV System	Grid Tied PV w/ Battery
PV System Size (kW DC)	3.20	3.20
Annual Energy Production (kWh)	4,194	4,194
Estimated System Cost (\$)	\$9,664	\$14,444
First Year Bill Savings (\$)	\$1,013	\$1,266
Simple System Payback (Years)	10.0	12.1
Discounted System Payback (Years)	13.3	17.6
NPV of Savings at 25 Years (\$)	\$10,183	\$11,253
Savings to Investment Ratio	1.05	0.78
Discounted ROI (%)	5%	-22%

Findings

Based on the analysis of the potential project options outlined above, RCEA finds that KFPD could install a roughly 3.2 kW DC solar PV installation that would provide a 100% energy and bill offset. Our analysis finds that including a battery back-up system does not provide additional economic benefits but provides the non-economic benefit of emergency back-up that would allow KFPD's facility to continue operation for at least three days in the event of a utility outage. The grid-tied solar PV array and battery back-up could allow the facility to power critical loads indefinitely. RCEA's initial analysis finds that both project options would qualify for the CEC's 1% interest loan program for feasible energy efficiency and renewable energy projects.

A 3.2 kW DC solar PV array installed at KFPD's new facility would provide the following benefits:

- Offset of 100% of the site's annual electricity consumption
- Offset of 100% of the site's annual electricity bill
- A simple payback period of 10 years
- A Net Present Value of savings of \$10,183
- A 5% return on investment
- Lifetime avoided CO₂ equivalent emissions of 6 metric tons (~13,000 lbs.)

Next Steps

If KFPD's Board resolves to move forward with the solar PV project, RCEA will be able to prepare the technical documents required of the CEC loan application. The next steps for KFPD to pursue if this project is to move forward are:

- Secure Board approval
- Begin planning and basic design
- Prepare CEC 1% loan application with RCEA assistance