CITY OF SANTA ROSA PROFESSIONAL SERVICES AGREEMENT WITH KENNEDY/JENKS CONSULTANTS, INC. AGREEMENT NUMBER F

This "Agreement" is made as of this	day of	, 2015, by and
between the City of Santa Rosa, a municipal	corporation ("City"),	and Kennedy/Jenks Consultants, Inc.
a California Corporation ("Consultant").		

RECITALS

- A. City desires to conduct five detailed project investigations which include: Waste Heat Investigation, Energy Management Software Investigation, Irrigation System Optimization Investigation, Comprehensive Solar PV Investigation and Mechanical Digester Mixing Investigation in the Subregional Utilities System.
- B. City desires to retain a qualified firm to conduct the services described above in accordance with the Scope of Services as more particularly set forth in Exhibit A to the Agreement.
- C. Consultant represents to City that it is a firm composed of highly trained professionals and is fully qualified to conduct the services described above and render advice to City in connection with said services.
- D. The parties have negotiated upon the terms pursuant to which Consultant will provide such services and have reduced such terms to writing.

AGREEMENT

NOW, THEREFORE, City and Consultant agree as follows:

1. SCOPE OF SERVICES

Consultant shall provide to City the services described in Exhibit A ("Scope of Services") Consultant shall provide these services at the time, place, and in the manner specified in Exhibit A. Exhibit A is attached hereto for the purpose of defining the manner and scope of services to be provided by Consultant and is not intended to, and shall not be construed so as to, modify or expand the terms, conditions or provisions contained in this Agreement. In the event of any conflict between this Agreement and any terms or conditions of any document prepared or provided by Consultant and made a part of this Agreement, including without limitation any document relating to the scope of services or payment therefor, the terms of this Agreement shall control and prevail.

2. COMPENSATION

a. City shall pay Consultant for services rendered pursuant to this Agreement at the rates, times and in the manner set forth in Exhibit A. Consultant shall submit monthly statements to City which shall itemize the services performed as of the date of the statement and set forth a progress report, including work accomplished during the period, percent of each task completed, and planned effort for the next period. Invoices shall identify personnel who have worked on the services provided, the number of hours each worked during the period covered by the invoice, the hourly rate for each person, and the percent of the total project completed, consistent with the rates and amounts shown in Exhibit A.

- b. The payments prescribed herein shall constitute all compensation to Consultant for all costs of services, including, but not limited to, direct costs of labor of employees engaged by Consultant, travel expenses, telephone charges, copying and reproduction, computer time, and any and all other costs, expenses and charges of Consultant, its agents and employees. In no event shall City be obligated to pay late fees or interest, whether or not such requirements are contained in Consultant's invoice.
- c. Notwithstanding any other provision in this Agreement to the contrary, the total maximum compensation to be paid for the satisfactory accomplishment and completion of all services to be performed hereunder shall in no event exceed the sum of one-hundred, twenty-one thousand, nine-hundred sixty dollars and no cents (\$121,960.00). The City's Chief Financial Officer is authorized to pay all proper claims from Charge Number 86494.

3. DOCUMENTATION; RETENTION OF MATERIALS

- a. Consultant shall maintain adequate documentation to substantiate all charges as required under Section 2 of this Agreement.
- b. Consultant shall keep and maintain full and complete documentation and accounting records concerning all extra or special services performed by it that are compensable by other than an hourly or flat rate and shall make such documents and records available to authorized representatives of City for inspection at any reasonable time.
- c. Consultant shall maintain the records and any other records related to the performance of this Agreement and shall allow City access to such records during the performance of this Agreement and for a period of four (4) years after completion of all services hereunder.

4. INDEMNITY

- a. Consultant shall, to the fullest extent permitted by law, indemnify, protect, defend and hold harmless City, and its employees, officials and agents ("Indemnified Parties") from all claims, demands, costs or liability (including liability for claims, suits, actions, arbitration proceedings, administrative proceedings, regulatory proceedings, losses, expenses or costs of any kind, interest, defense costs, and expert witness fees), that arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of Consultant, its officers, employees, or agents, in said performance of professional services under this Agreement, excepting only liability arising from the sole negligence, active negligence or intentional misconduct of City.
- b. The existence or acceptance by City of any of the insurance policies or coverages described in this Agreement shall not affect or limit any of City's rights under this Section 4, nor shall the limits of such insurance limit the liability of Consultant hereunder. This Section 4 shall not apply to any intellectual property claims, actions, lawsuits or other proceedings subject to the provisions of Section 17(b), below. The provisions of this Section 4 shall survive any expiration or termination of this Agreement.

5. INSURANCE

a. Consultant shall maintain in full force and effect all of the insurance coverage described in, and in accordance with, Attachment One, "Insurance Requirements." Maintenance of the

insurance coverage set forth in Attachment One is a material element of this Agreement and a material part of the consideration provided by Consultant in exchange for City's agreement to make the payments prescribed hereunder. Failure by Consultant to (i) maintain or renew coverage, (ii) provide City notice of any changes, modifications, or reductions in coverage, or (iii) provide evidence of renewal, may be treated by City as a material breach of this Agreement by Consultant, whereupon City shall be entitled to all rights and remedies at law or in equity, including but not limited to immediate termination of this Agreement. Notwithstanding the foregoing, any failure by Consultant to maintain required insurance coverage shall not excuse or alleviate Consultant from any of its other duties or obligations under this Agreement. In the event Consultant, with approval of City pursuant to Section 6 below, retains or utilizes any subcontractors or subconsultants in the provision of any services to City under this Agreement, Consultant shall assure that any such subcontractor has first obtained, and shall maintain, all of the insurance coverages set forth in the Insurance Requirements in Attachment One.

- b. Consultant agrees that any available insurance proceeds broader than or in excess of the coverages set forth in the Insurance Requirements in Attachment One shall be available to the additional insureds identified therein.
- c. Consultant agrees that the insurance coverages and limits provided under this Agreement are the greater of: (i) the coverages and limits specified in Attachment One, or (ii) the broader coverages and maximum limits of coverage of any insurance policy or proceeds available to the name insureds.

6. ASSIGNMENT

Consultant shall not assign any rights or duties under this Agreement to a third party without the express prior written consent of City, in City's sole and absolute discretion. Consultant agrees that the City shall have the right to approve any and all subcontractors and subconsultants to be used by Consultant in the performance of this Agreement before Consultant contracts with or otherwise engages any such subcontractors or subconsultants.

7. NOTICES

Except as otherwise provided in this Agreement, any notice, submittal or communication required or permitted to be served on a party, shall be in writing and may be served by personal delivery to the person or the office of the person identified below. Service may also be made by mail, by placing first-class postage, and addressed as indicated below, and depositing in the United States mail to:

City Representative: Consultant Representative:

Colin Close, Research and Program Alan Zelenka, Energy Services Leader

Coordinator 240 Country Club Road, Suite A

55 Stony Point Road Eugene, OR 97401 Santa Rosa, CA 95401 P: 541-844-7812 P: 707-543-4524 C: 541-228-6331 F: 707-543-4505 F: 541-338-8180

Email: cclose@srcity.org Email: AlanZelenka@KennedyJenks.com

8. INDEPENDENT CONTRACTOR

- a. It is understood and agreed that Consultant (including Consultant's employees) is an independent contractor and that no relationship of employer-employee exists between the parties hereto for any purpose whatsoever. Neither Consultant nor Consultant's assigned personnel shall be entitled to any benefits payable to employees of City. City is not required to make any deductions or withholdings from the compensation payable to Consultant under the provisions of this Agreement, and Consultant shall be issued a Form 1099 for its services hereunder. As an independent contractor, Consultant hereby agrees to indemnify and hold City harmless from any and all claims that may be made against City based upon any contention by any of Consultant's employees or by any third party, including but not limited to any state or federal agency, that an employer-employee relationship or a substitute therefor exists for any purpose whatsoever by reason of this Agreement or by reason of the nature and/or performance of any services under this Agreement.
- b. It is further understood and agreed by the parties hereto that Consultant, in the performance of Consultant's obligations hereunder, is subject to the control and direction of City as to the designation of tasks to be performed and the results to be accomplished under this Agreement, but not as to the means, methods, or sequence used by Consultant for accomplishing such results. To the extent that Consultant obtains permission to, and does, use City facilities, space, equipment or support services in the performance of this Agreement, this use shall be at the Consultant's sole discretion based on the Consultant's determination that such use will promote Consultant's efficiency and effectiveness. Except as may be specifically provided elsewhere in this Agreement, the City does not require that Consultant use City facilities, equipment or support services or work in City locations in the performance of this Agreement.
- c. If, in the performance of this Agreement, any third persons are employed by Consultant, such persons shall be entirely and exclusively under the direction, supervision, and control of Consultant. Except as may be specifically provided elsewhere in this Agreement, all terms of employment, including hours, wages, working conditions, discipline, hiring, and discharging, or any other terms of employment or requirements of law, shall be determined by Consultant. It is further understood and agreed that Consultant shall issue W-2 or 1099 Forms for income and employment tax purposes, for all of Consultant's assigned personnel and subcontractors.
- d. The provisions of this Section 8 shall survive any expiration or termination of this Agreement. Nothing in this Agreement shall be construed to create an exclusive relationship between City and Consultant. Consultant may represent, perform services for, or be employed by such additional persons or companies as Consultant sees fit.

9. ADDITIONAL SERVICES

Changes to the Scope of Services shall be by written amendment to this Agreement and shall be paid on an hourly basis at the rates set forth in Exhibit A, or paid as otherwise agreed upon by the parties in writing prior to the provision of any such additional services.

10. SUCCESSORS AND ASSIGNS

City and Consultant each binds itself, its partners, successors, legal representatives and assigns to the other party to this Agreement and to the partners, successors, legal representatives and assigns of such other party in respect of all promises and agreements contained herein.

11. TERM, SUSPENSION, TERMINATION

- a. This Agreement shall become effective on the date that it is made, set forth on the first page of the Agreement, and shall continue in effect until both parties have fully performed their respective obligations under this Agreement, unless sooner terminated as provided herein.
- b. City shall have the right at any time to temporarily suspend Consultant's performance hereunder, in whole or in part, by giving a written notice of suspension to Consultant. If City gives such notice of suspension, Consultant shall immediately suspend its activities under this Agreement, as specified in such notice.
- c. City shall have the right to terminate this Agreement for convenience at any time by giving a written notice of termination to Consultant. Upon such termination, Consultant shall submit to City an itemized statement of services performed as of the date of termination in accordance with Section 2 of this Agreement. These services may include both completed work and work in progress at the time of termination. City shall pay Consultant for any services for which compensation is owed; provided, however, City shall not in any manner be liable for lost profits that might have been made by Consultant had the Agreement not been terminated or had Consultant completed the services required by this Agreement. Consultant shall promptly deliver to City all documents related to the performance of this Agreement in its possession or control. All such documents shall be the property of City without additional compensation to Consultant.

12. TIME OF PERFORMANCE

The services described herein shall be provided during the period, or in accordance with the schedule, set forth in Exhibit A. Consultant shall complete all the required services and tasks and complete and tender all deliverables to the reasonable satisfaction of City, not later than December 31, 2015.

13. STANDARD OF PERFORMANCE

Consultant shall perform all services performed under this Agreement in the manner and according to the standards currently observed by a competent practitioner of Consultant's profession in California. All products of whatsoever nature that Consultant delivers to City shall be prepared in a professional manner and conform to the standards of quality normally observed by a person currently practicing in Consultant's profession, and shall be provided in accordance with any schedule of performance. Consultant shall assign only competent personnel to perform services under this Agreement. Consultant shall notify City in writing of any changes in Consultant's staff assigned to perform the services under this Agreement prior to any such performance. In the event that City, at any time, desires the removal of any person assigned by Consultant to perform services under this Agreement, because City, in its sole discretion, determines that such person is not performing in accordance with the standards required herein, Consultant shall remove such person immediately upon receiving notice from City of the desire of City for the removal of such person.

14. CONFLICTS OF INTEREST

Consultant covenants that neither it, nor any officer or principal of its firm, has or shall acquire any interest, directly or indirectly, that would conflict in any manner with the interests of City or that would in any way hinder Consultant's performance of services under this Agreement. Consultant

further covenants that in the performance of this Agreement, no person having any such interest shall be employed by it as an officer, employee, agent or subcontractor, without the written consent of City. Consultant agrees to avoid conflicts of interest or the appearance of any conflicts of interest with the interests of City at all times during the performance of this Agreement.

15. CONFLICT OF INTEREST REQUIREMENTS

- a. **Generally.** The City's Conflict of Interest Code requires that individuals who qualify as "consultants" under the Political Reform Act, California Government Code sections 87200 *et seq.*, comply with the conflict of interest provisions of the Political Reform Act and the City's Conflict of Interest Code, which generally prohibit individuals from making or participating in the making of decisions that will have a material financial effect on their economic interests. The term "consultant" generally includes individuals who make governmental decisions or who serve in a staff capacity.
- b. **Conflict of Interest Statements**. The individual(s) who will provide services or perform work pursuant to this Agreement are "consultants" within the meaning of the Political Reform Act and the City's Conflict of Interest Code:

____ yes <u>x</u> no (check one)

If "yes" is checked by the City, Consultant shall cause the following to occur within 30 days after execution of this Agreement:

- (1) Identify the individuals who will provide services or perform work under this Agreement as "consultants"; and
- (2) Cause these individuals to file with the City Clerk the assuming officestatements of economic interests required by the City's Conflict of Interest Code.

Thereafter, throughout the term of the Agreement, Consultant shall cause these individuals to file with the City Clerk annual statements of economic interests, and "leaving office" statements of economic interests, as required by the City's Conflict of Interest Code.

The above statements of economic interests are public records subject to public disclosure under the California Public Records Act. The City may withhold all or a portion of any payment due under this Agreement until all required statements are filed.

16. CONFIDENTIALITY OF CITY INFORMATION

During performance of this Agreement, Consultant may gain access to and use City information regarding inventions, machinery, products, prices, apparatus, costs, discounts, future plans, business affairs, governmental affairs, processes, trade secrets, technical matters, systems, facilities, customer lists, product design, copyright, data, and other vital information (hereafter collectively referred to as "City Information") that are valuable, special and unique assets of the City. Consultant agrees to protect all City Information and treat it as strictly confidential, and further agrees that Consultant shall not at any time, either directly or indirectly, divulge, disclose or communicate in any manner any City Information to any third party without the prior written consent of City. In addition, Consultant shall comply with all City policies governing the use of the City network and technology systems. A violation by Consultant of this Section 16 shall be a material violation of this Agreement and shall justify legal and/or equitable relief.

17. CONSULTANT INFORMATION

- a. City shall have full ownership and control, including ownership of any copyrights, of all information prepared, produced, or provided by Consultant pursuant to this Agreement. In this Agreement, the term "information" shall be construed to mean and include: any and all work product, submittals, reports, plans, specifications, and other deliverables consisting of documents, writings, handwritings, typewriting, printing, photostatting, photographing, computer models, and any other computerized data and every other means of recording any form of information, communications, or representation, including letters, works, pictures, drawings, sounds, or symbols, or any combination thereof. Consultant shall not be responsible for any unauthorized modification or use of such information for other than its intended purpose by City.
- b. Consultant shall fully defend, indemnify and hold harmless City, its officers and employees, and each and every one of them, from and against any and all claims, actions, lawsuits or other proceedings alleging that all or any part of the information prepared, produced, or provided by Consultant pursuant to this Agreement infringes upon any third party's trademark, trade name, copyright, patent or other intellectual property rights. City shall make reasonable efforts to notify Consultant not later than ten (10) days after City is served with any such claim, action, lawsuit or other proceeding, provided that City's failure to provide such notice within such time period shall not relieve Consultant of its obligations hereunder, which shall survive any termination or expiration of this Agreement.
- c. All proprietary and other information received from Consultant by City, whether received in connection with Consultant's proposal, will be disclosed upon receipt of a request for disclosure, pursuant to the California Public Records Act; provided, however, that, if any information is set apart and clearly marked "trade secret" when it is provided to City, City shall give notice to Consultant of any request for the disclosure of such information. Consultant shall then have five (5) days from the date it receives such notice to enter into an agreement with the City, satisfactory to the City Attorney, providing for the defense of, and complete indemnification and reimbursement for all costs (including plaintiff's attorneys' fees) incurred by City in any legal action to compel the disclosure of such information under the California Public Records Act. Consultant shall have sole responsibility for defense of the actual "trade secret" designation of such information.
- d. The parties understand and agree that any failure by Consultant to respond to the notice provided by City and/or to enter into an agreement with City, in accordance with the provisions of subsection c, above, shall constitute a complete waiver by Consultant of any rights regarding the information designated "trade secret" by Consultant, and such information shall be disclosed by City pursuant to applicable procedures required by the Public Records Act.

18. MISCELLANEOUS

- a. Entire Agreement. This Agreement contains the entire agreement between the parties. Any and all verbal or written agreements made prior to the date of this Agreement are superseded by this Agreement and shall have no further effect.
- b. Modification. No modification or change to the terms of this Agreement will be binding on a party unless in writing and signed by an authorized representative of that party.
 - c. Compliance with Laws. Consultant shall perform all services described herein in

compliance with all applicable federal, state and local laws, rules, regulations, and ordinances, including but not limited to, (i) the Americans with Disabilities Act of 1990 (42 U.S.C. 12101, et seq.) ("ADA"), and any regulations and guidelines issued pursuant to the ADA; and (ii) Labor Code sections 1720, et seq., which require prevailing wages (in accordance with DIR determinations at www.dir.ca.gov) be paid to any employee performing work covered by Labor Code sections 1720 et seq. Consultant shall pay to the City when due all business taxes payable by Consultant under the provisions of Chapter 6-04 of the Santa Rosa City Code. The City may deduct any delinquent business taxes, and any penalties and interest added to the delinquent taxes, from its payments to Consultant.

- d. Governing Law; Venue. This Agreement shall be governed, construed and enforced in accordance with the laws of the State of California. Venue of any litigation arising out of or connected with this Agreement shall lie exclusively in the state trial court in Sonoma County in the State of California, and the parties consent to jurisdiction over their persons and over the subject matter of any such litigation in such court, and consent to service of process issued by such court.
- e. Waiver of Rights. Neither City acceptance of, or payment for, any service or performed by Consultant, nor any waiver by either party of any default, breach or condition precedent, shall be construed as a waiver of any provision of this Agreement, nor as a waiver of any other default, breach or condition precedent or any other right hereunder.
- f. Incorporation of attachments and exhibits. The attachments and exhibits to this Agreement are incorporated and made part of this Agreement, subject to terms and provisions herein contained.

19. AUTHORITY; SIGNATURES REQUIRED FOR CORPORATIONS

Consultant hereby represents and warrants to City that it is (a) a duly organized and validly existing corporation, formed and in good standing under the laws of the State of California, (b) has the power and authority and the legal right to conduct the business in which it is currently engaged, and (c) has all requisite power and authority and the legal right to consummate the transactions contemplated in this Agreement. Consultant hereby further represents and warrants that this Agreement has been duly authorized, and when executed by the signatory or signatories listed below, shall constitute a valid agreement binding on Consultant in accordance with the terms hereof.

If this Agreement is entered into by a corporation, it shall be signed by two corporate officers, one from each of the following two groups: a) the chairman of the board, president or any vice-president; b) the secretary, any assistant secretary, chief financial officer, or any assistant treasurer. The title of the corporate officer shall be listed under the signature.

Executed as of the day and year first above stated.

CONSULTANT:

CITY OF SANTA ROSA

a Municipal Corporation

Signatures of Authorized Persons:

By: _____ Office of the City Attorney

Print Name: Craig Lichty

ATTEST: Title: Vice President

By: ______ Secretary, BPU

Print Name: Donald R. Weiden

Title: Secretary

City of Santa Rosa Business Tax Cert. No.

68530

Attachments:

Attachment One - Insurance Requirements Exhibit A - Scope of Services & Compensation

February 2, 2015

Colin Close, Research & Program Coordinator City of Santa Rosa Utilities Department 69 Stony Circle Santa Rosa, CA 95401

Subject: Proposal for Professional Services

Energy Optimization Plan – Proposal for Part 2 with Scope of Services and Budget

Dear Colin:

We are pleased to submit this proposal for providing professional services for Santa Rosa for Part 2 of your Energy Optimization Plan (EOP). As you will recall the original proposal was broken up into parts at the request of the Board of Public Utilities. Respecting that request we have split the EOP into three parts so that Santa Rosa can approve each part in a step-wise fashion. Part 1 involved the initial energy audits of the four systems within Santa Rosa's Subregional System, including: 1.) Laguna Wastewater Treatment Plant (LTP), 2) Biosolids Compost Facility. 3) Recycled Water System, and 4) Geysers Recharge System. Part 1 was completed on December 30, 2014. The end of Part 1 involved key Subregional personnel in a workshop that identified five projects to investigate in detail as Part 2 of the EOP. To complete the EOP, Part 3 will pull it altogether by developing a ready-to-implement Action Plan and Final Report.

Scope of Services

The detailed Scope of Service is included and is summarized here.

For Part 2 of the EOP Kennedy/Jenks proposes to conduct five detailed project investigations identified in the Part 1 workshop:

- 1. Waste Heat Investigation
- 2. Energy Management Software Investigation
- 3. Irrigation System Optimization Investigation
- 4. Comprehensive Solar PV Investigation
- 5. Mechanical Digester Mixing Investigation

Each investigation will entail between 92 and 108 hours of labor to fully evaluate the project and write a draft and final technical memorandum.

Basis of Compensation & Budget

Based on our estimate of services required, we propose a budget of \$\$121,960 for Part 2. As in Part 1 project management will be provided by Kennedy/Jenks' Energy Services Practice Leader Alan Zelenka, assisted by Deputy Project Manager Julia Lund, and the subtasks will be conducted by the Kennedy/Jenks team.

The budget will not be exceeded without authorization. While the budget may be increased if necessary to complete the scope of work, we will not be obligated to continue providing services upon expenditure of authorized funding if the increased budget needed to complete the scope of work is not authorized. A Communication Charge of 4% is included.

The table below shows a Not To Exceed budget for Part 2 of the Energy Optimization Plan. A detailed budget table (Proposed Fee Estimate) is attached after the scope of services.

Table 1: Summary Budget for Energy Optimization Plan - Part 2

Task 2 - Project Assessments	Hours	Total Cost
Subtask 2.1 - Waste Heat Investigation	94	\$21,440
Subtask 2.2 - Energy Management Software Investigation	102	\$21,050
Subtask 2.3 - Irrigation System Optimization Investigation	108	\$24,660
Subtask 2.4 - Comprehensive Solar PV Investigation	106	\$20,210
Subtask 2.5 - Mechanical Digester Mixing Investigation		\$19,000
Subtask 2.6 - Project Management		\$10,960
Task 2 - Subtotal	548	\$117,320
Communications Charge (4%)		\$4,640
Total Part 2	548	\$121,960

Payment shall be made based on an invoice after completion of the scope of services, which describe services and list hours and costs of personnel services and expenses.

Schedule

Part 2 will be conducted over four to five months and will be completed no later than December 31, 2015.

Terms and Conditions

This proposal is based on current projections of staff availability and costs and, therefore, is valid for 60 days following the date of this letter.

Santa Rosa Energy Optimization Plan Proposed Scope of Services and Budget - Part 2

Part 2 - Project Investigations

Task 2 - Project Investigations

The workshop at the end of Part 1 of the Energy Optimization Plan (EOP) resulted in consensus on the five projects to investigate in detail in Part 2. Each of the five projects will be analyzed by Kennedy/Jenks experts using a common analysis template so the projects can be scored and ranked in the next step of the EOP. A technical memorandum describing the project investigations will include the following elements:

- Scope of Services (described in the next sections)
- Project Background
- Technical description
- Potential energy savings/production and GHG reductions
- Technical maturity
- Cost (capital, incentives & grants, O&M and life cycle cost using the same Cost/Savings Template from Part 1)
- Impacts on environment (on air, land & water) and community (aesthetic, noise and visual)
- Impacts on operations
- Advantages and disadvantages
- Recommendation

Kennedy/Jenks will compile each of the project investigations into a Draft Technical Memorandum and will submit an electronic copy by email to the Santa Rosa Project Manager. Santa Rosa will have up to three weeks to review and submit to Kennedy/Jenks one consolidated set of comments in redline format. After receiving Santa Rosa's comments, Kennedy/Jenks will hold a conference call with Santa Rosa staff to discuss and address the comments. Kennedy/Jenks will incorporate Santa Rosa's comments and issue one electronic copy of the Final Technical Memorandum to Santa Rosa.

The following subtasks set forth the scope of services for each of the five projects to be investigated:

Task 2.1 - Waste Heat Investigation

- 2.1.1 Conduct a heat and use balance study for current conditions.
- 2.1.2 Investigate options to take advantage of excess combined heat and power (CHP) heat generation, and identify alternative uses for the waste heat.
- 2.1.3 Determine if an Organic Rankine cycle system is feasible and cost-effective.
- 2.1.4 Determine the amount of waste heat generated by running idle Cummins engines on purchased natural gas to generate additional electricity (per TM #1 LTP Energy Audit EEM-6).

Task 2.2 - Energy Management Software Investigation

- 2.2.1 Determine the ability of the existing Subregional SCADA system to improve energy efficiency, operate the system to minimize energy use, and take advantage of Time-Of-Use rates.
- 2.2.2 Identify strategies to increase energy efficiency gains (e.g., optimizing for Time-Of-Use rates, identify pumps/motors for First-On-First-Off strategy, and pump optimization).
- 2.2.3 Identify SCADA programming needs to take advantage of identified strategies.
- 2.2.4 Identify cost-effective and necessary additional instrumentation of equipment needed to implement the identified strategies and integrate with the SCADA system, and estimate their capital cost.
- 2.2.5 For the above subtasks, specifically discuss impacts on the operational constraints and on the plant process stability. The decision to pursue any strategy will be the sole purview of Santa Rosa.

Task 2.3 - Irrigation System Optimization Investigations

- 2.3.1 Analyze existing pressure needs and compare them to current operational practices.
- 2.3.2 Identify what measures, either equipment and/or operational practice changes, would be cost-effective and beneficial for Santa Rosa.
- 2.3.3 For City cost-effective measures, estimate if they are cost-effective and beneficial for the agriculture sector customers.
- 2.3.4 Work with Santa Rosa staff to identify which irrigation fields and pumps should be tested by Power Hydrodynamics through a separate contract managed by Santa Rosa. For this subtask we are assuming that the Delta Pond pump station and Meadow Lane pump stations will be tested by Power Hydrodynamics (up to 12 pumps). Once the test results are received from Power Hydrodynamics, use KJ's Cost/Savings Template to calculate the cost-effectiveness and estimate the energy savings of each pump tested.

Task 2.4 - Comprehensive Solar PV Investigation

- 2.4.1 Perform an assessment of flotovoltaics as a new solar PV technology and assess the work already done by the County.
- 2.4.2 Conduct a comprehensive site evaluation study of City-owned sites, prioritize potential sites, and identify three top sites.
- 2.4.3 For the top three sites, determine the cost-effectiveness of regular and flotovoltaics solar PV projects using three financing options: Power Purchase Agreement, leasebuyout, and own and operate.
- 2.4.4 Assess the existing solar PV systems (e.g., Alpha Farm 21 kW, Brown Farm 60 kW, LTP 21 kW, LTP roof 50 kW), and investigate potential cost-effectiveness enhancements to performance, specifically address moving the inverter at the Alpha control building that is currently creating surplus heat.

2.4.5 Analyze the interaction and impacts of new Santa Rosa solar PV projects with potential participation by Santa Rosa in Sonoma Clean Power (SCP), specifically looking at net metering, disposition of excess generation, rates, and costs/benefits.

Task 2.5 - Mechanical Digester Mixing Investigation

- 2.5.1 Summarize the existing Kennedy/Jenks' analysis and design from 2006 for mechanical digester mixing and assess if there are any changes that could further optimize the design.
- 2.5.2 Identify and assess other options, and make a recommendation on the preferred approach for Santa Rosa.
- 2.5.3 Conduct a high level cost estimate for the preferred approach.
- 2.5.4 Estimate the amount of new digester gas production from the mechanical mixing, estimate the change in energy produced and cost from additional mechanical digester mixing compared to only the existing gas mixing system, estimate the value of additional electricity generated using the existing CHP system, and conduct a cost/benefit analysis. For this analysis, use both SCP and PG&E rates with (SCP rates being 3% to 5% lower).
- 2.5.5 Using the analysis for the newly designed high strength waste (HSW) and fats, oils and grease (FOG) system; analyze and estimate the incremental digester gas production attributable to the recommended digester mixing approach.
- ➤ Deliverables: Five Draft and Final Technical Memorandum Project Investigations:
 - Waste Heat Investigation (Technical Memorandum #6)
 - Energy Management Software Investigation (Technical Memorandum #7)
 - Irrigation System Optimization Investigation (Technical Memorandum #8)
 - Comprehensive Solar PV Investigation (Technical Memorandum #9)
 - Mechanical Digester Mixing Investigation (Technical Memorandum #10)
- Meetings: As-needed telephone meetings, video-conferences, and face-to-face meetings during the project investigation. Review of Draft Technical Memorandum (via conference call).
- Santa Rosa Responsibility: Review Draft Technical Memorandum and provide one set of consolidated set of comments per project to Kennedy/Jenks in redline format within three weeks of receipt.

Task 2.6 - Project Management

Task 2.6 will include project management work during Task 2 to ensure fulfillment of the project scope of services within budget and on schedule. This task includes the project management responsibilities associated with proper scheduling review, budget control, invoice preparation and coordination with Santa Rosa and the consultant's project team. This task includes the following steps:

Project Management

A quality assurance and quality control (QA/QC) program will be developed and implemented throughout the course of project, consistent with the Kennedy/Jenks' policies. Our QA/QC and quality management procedures establish and maintain a structure for providing adequate reviews of all work products and adherence to industry standards. Specific QA/QC efforts on this project will include the development of:

- An internal Project Memorandum
- A requirement that Technical Memoranda are reviewed by an appropriate reviewer prior to each submittal to Santa Rosa.

Project Management Meetings

Kennedy/Jenks's Project Manager and Deputy Project Manager will review the status, schedule and budget of the project with Santa Rosa's Project Manager in a monthly conference call. A brief email report of the past month's progress will be submitted to Santa Rosa's Project Manager prior to the conference call describing the amount of work completed on each task, the amount of budget expended, and an outline of the next month's planned work.

Budget & Schedule Control and Invoices

On a monthly basis, Kennedy/Jenks will provide Santa Rosa with an invoice for work completed during the preceding month, plus the paid invoice cost of expenses directly related to the project. No additional work beyond the approved scope of services shall be performed by the Consultant without a written change order issued by Santa Rosa. Kennedy/Jenks's invoice(s) shall include:

- Project name and Santa Rosa's Purchase Order number.
- Individual's name, title, number of hours, hourly rate, and total fee for each task.
- An itemization and explanation of expenses paid during the invoice period; copies of outside services invoices shall be attached.
- The invoice will reflect by Task the following: task name, contract budget, previous total billings, current billings, total cumulative previous billings, percent complete to date, and the remaining budget amount available.
- Summary table showing percent work completed vs. percent billed for each task.
 Consultant shall not exceed the established fees for any of the tasks authorized and no transfer of fees among tasks will be allowed without written approval by Santa Rosa. In addition, percent billed for each task shall not exceed percent work completed.

Proposal Fee Estimate

Kennedy/Jenks Consultants

CLIENT Name: City of Santa Rosa Utilities Department

PROJECT Description: Energy Optimization Plan - Part 2: Project Assessments

Proposal/Job Number: 1368024*00

January 1, 2014 Rates						min.		KJ	KJ	KJ	KJ		÷ ω		
Classification:	Eng-Sci-9	Eng-Sci-8	Eng-Sci-7	Eng-Sci-6	Eng-Sci-5	Project Adr	Total	Total Labor	Comm. Charges	odcs	ODCs Markup	Total Expenses	Total Laboı Expenses		
Hourly Rate:	\$260	\$240	\$230	\$205	\$185	\$100	Hours	Fees	0%	Fees	10%		Fees		
Task 2 - Project Assessments															
Subtask 2.1 - Waste Heat Investigation		8	84			2	94	\$21,440	\$0		\$0	\$0	\$21,440	\$21,500	
Subtask 2.2 - Energy Management Software Investigation	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	10		90		2	102	\$21,050	\$0	la constant	\$0	\$0	\$21,050	\$21,100	
Subtask 2.3 - Irrigation System Optimization Investigation	~~~~~~	8	98	~~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	2	108	\$24,660	\$0		\$0	\$0	\$24,660	\$24,700	
Subtask 2.4 - Comprehensive Solar PV Investigation		10			94	2	106	\$19,990	\$0	\$200	\$20	\$220	\$20,210	\$20,300	
Subtask 2.5 - Mechanical Digester Mixing Investigation		10		80	*****************	2	92	\$19,000	\$0	la constant de la con	\$0	\$0	\$19,000	\$19,000	
Subtask 2.6 - Project Management	2	28			12	4	46	\$9,860	\$0	\$1,000	\$100	\$1,100	\$10,960	\$11,000	10%
Task 2 - Subtotal	2	74	182	170	106	14	548	\$116,000	\$0	\$1,200	\$120	\$1,320	\$117,320	\$117,600	\$23,464
Communications Charge															
Communications Charge - Subtotal	0	0	0	0	0	0	0	\$0	\$4,640	\$0	\$0	\$0	\$4,640	\$4,700	
All Tasks Total	2	74	182	170	106	14	548	\$116,000	\$4,640	\$1,200	\$120	\$1,320	\$121,960	\$122,300	\$24,392