AGENDA ITEM	
MEETING DATE	August 18, 2021

SOLANO COMMUNITY COLLEGE DISTRICT GOVERNING BOARD AGENDA ITEM

TO:			Members of the	e Governing Board
SUBJECT:			PROFESSION	AWARD TO SALAS O'BRIEN FOR IAL SERVICES FOR THE FAIRFIELD NTRAL PLANT AND ELECTRIFICATION
REQUESTE	D ACT	<u>ION</u> :		
☐Inform ☐Consen		OR OR	⊠Approval ⊠Non-Conser	nt
engineering ser Campus. The solution will prepared to	rvices for scope of scope of sovide a project. ON THE SCCESS or student stude	or the C f work a quan ENEXT S IMPA tts achie cation	entral Plant Mode for this study is the titative path for PAGE CT: eve their education and training	a professional services contract to Salas O'Brien for dernization and Electrification Study for the Fairfield to develop a Clean Energy Plant Concept(s) report rward in defining a cost-effective central plant plant professional and personal goals
Other: <u>F</u>	Renovati	ing exis	ting instructional	space and equipment.
Ed. Code:	Board	d Policy	: Estima	ated Fiscal Impact: \$72,360.00 Measure Q Bond Funds
SUPERINTENI	DENT'S I	RECOM	IMENDATION:	☑ APPROVAL☐ DISAPPROVAL☐ NOT REQUIRED☐ TABLE
T.		Lofton		
	ecutive B			_
40	00 Suisur Fairfield,	ı Valley	Road	
	ADD	RESS		Dr. Celia Esposito-Noy
	(707) 8	863-7855	;	Superintendent-President
TE	LEPHO			_
		Diamon		
	Finance &			August 18, 2021
VICE I	PRESIDI	ENT AP.	PROVAL	DATE APPROVED BY SUPERINTENDENT-PRESIDENT
		t 6, 2021		_
D.A.	TF SHE	MITTE	D TO	

SUPERINTENDENT-PRESIDENT

AGENDA ITEM	
MEETING DATE	August 18, 2021

SOLANO COMMUNITY COLLEGE DISTRICT GOVERNING BOARD AGENDA ITEM

TO: Members of the Governing Board

SUBJECT: CONTRACT AWARD TO SALAS O'BRIEN FOR

PROFESSIONAL SERVICES FOR THE FAIRFIELD CAMPUS CENTRAL PLANT AND ELECTRIFICATION

STUDY

SUMMARY:

CONTINUED FROM THE PREVIOUS PAGE

The scope of work for the consultant will result in the preparation of a final report providing a discussion of options and quantifying and conceptualizing a plan for further project development.

The goal of this study will be to assist the District in evaluating an aging Central Plant for replacement that will potentially eliminate the environmental impact of carbon emissions due to large natural gas boilers and the regulatory restrictions from the Bay Area Air Quality District oversight.

It will also provide information that will potentially improve the reliability and energy performance of the Chilled Water system that cools the Fairfield Campus. Finally, the decisions that flow from this study will potentially magnify the benefits from offsetting electrical demand and consumption with the additional solar projects.

A proposal was requested from Salas O'Brien based upon their qualifications and experience on projects of similar scope. Salas O'Brien is listed on the District's prequalified pool of mechanical engineering firms. Salas O'Brien's proposal was reviewed and is appropriate for the scope of work requested.

The Board is asked to approve a professional services contract to Salas O'Brien, in the amount not to exceed \$72,360.00.

The agreement is available online at: http://www.solano.edu/measureq/planning.php.

INDEPENDENT CONSULTANT AGREEMENT FOR PROFESSIONAL SERVICES

This Independent Consultant Agreement for Professional Services ("Agreement") is made and entered into as of the 18th day of August, 2021 by and between the **Solano Community College District**, ("District") and **Salas O'Brien** ("Consultant"), (together, "Parties").

WHEREAS, the District is authorized by section 4525 et seq. of the California Government Code to contract with and employ any persons for the furnishing of architectural, landscape architectural, engineering, environmental, and land surveying services and advice through a "fair, competitive selections process free of conflicts of interest, political contributions, or unlawful activities." (Gov. Code, § 4529.12.)

WHEREAS, the District complied with the requirements of section 4525 et seq. in selecting Consultant; and

WHEREAS, the District is in need of such services and advice related to work it will be performing at District ("Project"); and

WHEREAS, the Consultant is specially trained and experienced and competent to perform the services required by the District, and such services are needed on a limited basis;

NOW, THEREFORE, the Parties agree as follows:

Services. The Consultant shall provide engineering services for the **Central Plant Modernization** and **Electrification Plan Study Project**, as further described in **Exhibit "A,"** attached hereto and incorporated herein by this reference ("Services").

- 1. **Term**. Consultant shall commence providing services under this Agreement on August 18, 2021 and will diligently perform as required and complete performance by December 31, 2021, unless this Agreement is terminated and/or otherwise cancelled prior to that time.
- 2. **Submittal of Documents**. The Consultant shall not commence the Services under this Agreement until the Consultant has submitted and the District has approved the certificate(s) and affidavit(s), and the endorsement(s) of insurance required as indicated below:

X	Signed Agreement
X	Workers' Compensation Certification
X	Insurance Certificates and Endorsements
X	W-9 Form
	Other:

- 3. Compensation. District agrees to pay the Consultant for services satisfactorily rendered pursuant to this Agreement a total fee not to exceed SEVENTY-TWO THOUSAND, THREE HUNDRED SIXTY DOLLARS AND ZERO CENTS (\$72,360.00). District shall pay Consultant according to the following terms and conditions:
 - 3.1. Payment for the Work shall be made for all undisputed amounts based upon the delivery of the work product as determined by the District. Payment shall be made within thirty (30) days after the Consultant submits an invoice to the District for Work actually completed and after the District's written approval of the Work, or the portion of the Work for which payment is to be made.
 - 3.2. Payment for the Work shall be made for all undisputed amounts based upon the delivery of the work product as determined by the District. Payment shall be made within thirty (30) days after the Consultant submits an invoice to the District for Work actually completed and

after the District's written approval of the Work, or the portion of the Work for which payment is to be made.

- 4. **Expenses**. District shall not be liable to Consultant for any costs or expenses paid or incurred by Consultant in performing services for District, except as follows:
 - 4.1. Not applicable.
- 5. **Independent Contractor**. Consultant, in the performance of this Agreement, shall be and act as an independent contractor. Consultant understands and agrees that it and all of its employees shall not be considered officers, employees, agents, partner, or joint venture of the District, and are not entitled to benefits of any kind or nature normally provided employees of the District and/or to which District's employees are normally entitled, including, but not limited to, State Unemployment Compensation or Worker's Compensation. Consultant shall assume full responsibility for payment of all federal, state and local taxes or contributions, including unemployment insurance, social security and income taxes with respect to Consultant's employees. In the performance of the work herein contemplated, Consultant is an independent contractor or business entity, with the sole authority for controlling and directing the performance of the details of the work, District being interested only in the results obtained.
- 6. **Materials**. Consultant shall furnish, at its own expense, all labor, materials, equipment, supplies and other items necessary to complete the services to be provided pursuant to this Agreement, except as follows:
 - 6.1. Reimbursable expenses will not be allowed and such expenses should be included into the Consultant's billing rates.

7. Performance of Services.

- 7.1. **Standard of Care**. Consultant represents that Consultant has the qualifications and ability to perform the Services in a professional manner, without the advice, control or supervision of District. Consultant's services will be performed, findings obtained, reports and recommendations prepared in accordance with generally and currently accepted principles and practices of its profession for services to California community college districts.
 - Consultant shall carefully study and compare all documents, findings, and other instructions and shall at once report to District, in writing, any error, inconsistency, or omission that Consultant or its employees may discover. Consultant shall have responsibility for discovery of errors, inconsistencies, or omissions.
- 7.2. **Meetings.** Consultant and District agree to participate in regular meetings on at least a monthly basis to discuss strategies, timetables, implementations of services, and any other issues deemed relevant to the operation of Consultant's performance of Services.
- 7.3. **District Approval.** The work completed herein must meet the approval of the District and shall be subject to the District's general right of inspection and supervision to secure the satisfactory completion thereof.
- 7.4. **New Project Approval.** Consultant and District recognize that Consultant's Services may include working on various projects for District. Consultant shall obtain the approval of District prior to the commencement of a new project.
- 8. **Originality of Services**. Except as to standard generic details, Consultant agrees that all technologies, formulae, procedures, processes, methods, writings, ideas, dialogue, compositions, recordings, teleplays and video productions prepared for, written for, or submitted to the District and/or used in connection with this Agreement, shall be wholly original to Consultant and shall not

be copied in whole or in part from any other source, except that submitted to Consultant by District as a basis for such services.

- 9. **Copyright/Trademark/Patent**. Consultant understands and agrees that all matters produced under this Agreement shall become the property of District and cannot be used without District's express written permission. District shall have all right, title and interest in said matters, including the right to secure and maintain the copyright, trademark and/or patent of said matter in the name of the District. Consultant consents to use of Consultant's name in conjunction with the sale, use, performance and distribution of the matters, for any purpose and in any medium.
- 10. Audit. Consultant shall establish and maintain books, records, and systems of account, in accordance with generally accepted accounting principles, reflecting all business operations of Consultant transacted under this Agreement. Consultant shall retain these books, records, and systems of account during the Term of this Agreement and for five (5) years thereafter. Consultant shall permit the District, its agent, other representatives, or an independent auditor to audit, examine, and make excerpts, copies, and transcripts from all books and records, and to make audit(s) of all billing statements, invoices, records, and other data related to the Services covered by this Agreement. Audit(s) may be performed at any time, provided that the District shall give reasonable prior notice to Consultant and shall conduct audit(s) during Consultant's normal business hours, unless Consultant otherwise consents.

11. Termination.

- 11.1. **For Convenience by District**. District may, at any time, with or without reason, terminate this Agreement and compensate Consultant only for services satisfactorily rendered to the date of termination. Written notice by District shall be sufficient to stop further performance of services by Consultant. Notice shall be deemed given when received by the Consultant or no later than three days after the day of mailing, whichever is sooner.
- 11.2. **For Cause by District**. District may terminate this Agreement upon giving of written notice of intention to terminate for cause. Cause shall include:
 - 11.2.1. material violation of this Agreement by the Consultant; or
 - 11.2.2. any act by Consultant exposing the District to liability to others for personal injury or property damage; or
 - 11.2.3. Consultant is adjudged a bankrupt, Consultant makes a general assignment for the benefit of creditors or a receiver is appointed on account of Consultant's insolvency.

Written notice by District shall contain the reasons for such intention to terminate and unless within three (3) calendar days after that notice the condition or violation shall cease, or satisfactory arrangements for the correction thereof be made, this Agreement shall upon the expiration of the three (3) calendar days cease and terminate. In the event of this termination, the District may secure the required services from another Consultant. If the expense, fees, and/or costs to the District exceed the cost of providing the service pursuant to this Agreement, the Consultant shall immediately pay the excess expense, fees, and/or costs to the District upon the receipt of the District's notice of these expenses, fees, and/or costs. The foregoing provisions are in addition to and not a limitation of any other rights or remedies available to District.

12. **Indemnification**. To the furthest extent permitted by California law, Contractor shall defend, indemnify, and hold harmless the District, its Governing Board, agents, representatives, officers, consultants, employees, trustees, and volunteers (the "indemnified parties") from any and all claims arising out of, pertaining to, or relating to the negligence, recklessness, or willful misconduct

of the Contractor. The District shall have the right to accept or reject any legal representation that Contractor proposes to defend the indemnified parties.

13. Insurance.

13.1. The Consultant shall procure and maintain at all times it performs any portion of the Services the following insurance with minimum limits equal to the amount indicated below.

Type of Coverage	Minimum
	Requirement
Commercial General Liability Insurance, including Bodily	
Injury, Personal Injury, Property Damage, Advertising Injury,	
and Medical Payments	
Each Occurrence	\$ 1,000,000
General Aggregate	\$ 2,000,000
Automobile Liability Insurance - Any Auto	
Each Occurrence	\$ 1,000,000
General Aggregate	\$ 2,000,000
Professional Liability	\$ 1,000,000
Workers Compensation	Statutory Limits
Employer's Liability	\$ 1,000,000

- 13.1.1. **Commercial General Liability and Automobile Liability Insurance**. Commercial General Liability Insurance and Any Auto Automobile Liability Insurance that shall protect the Consultant, the District, and the State from all claims of bodily injury, property damage, personal injury, death, advertising injury, and medical payments arising performing any portion of the Services. (Form CG 0001 and CA 0001, or forms substantially similar, if approved by the District.)
- 13.1.2. Workers' Compensation and Employers' Liability Insurance. Workers' Compensation Insurance and Employers' Liability Insurance for all of its employees performing any portion of the Services. In accordance with provisions of section 3700 of the California Labor Code, the Consultant shall be required to secure workers' compensation coverage for its employees. If any class of employee or employees engaged in performing any portion of the Services under this Agreement are not protected under the Workers' Compensation Statute, adequate insurance coverage for the protection of any employee(s) not otherwise protected must be obtained before any of those employee(s) commence performing any portion of the Services.
- 13.1.3. **Professional Liability (Errors and Omissions)**. Professional Liability Insurance as appropriate to the Consultant's profession, coverage to continue through completion of construction plus two (2) years thereafter.
- 13.2. **Proof of Carriage of Insurance**. The Consultant shall not commence performing any portion of the Services until all required insurance has been obtained and certificates indicating the required coverage have been delivered in duplicate to the District and approved by the District. Certificates and insurance policies shall include the following:
 - 13.2.1. A clause stating: "This policy shall not be canceled or reduced in required limits of liability or amounts of insurance until notice has been mailed to the District, stating date of cancellation or reduction. Date of cancellation or reduction shall not be less than thirty (30) days after date of mailing notice."

- 13.2.2. Language stating in particular those insured, extent of insurance, location and operation to which insurance applies, expiration date, to whom cancellation and reduction notice will be sent, and length of notice period.
- 13.2.3. An endorsement stating that the District and its Governing Board, agents, representatives, employees, trustees, officers, consultants, and volunteers are named additional insured under all policies except Workers' Compensation Insurance, Professional Liability, and Employers' Liability Insurance. An endorsement shall also state that Consultant's insurance policies shall be primary to any insurance or self-insurance maintained by District. An endorsement shall also state that there shall be a waiver of any subrogation.
- 13.2.4. All policies except the Professional Liability, Workers' Compensation Insurance, and Employers' Liability Insurance Policies shall be written on an occurrence form.
- 13.3. **Acceptability of Insurers**. Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A:VII, unless otherwise acceptable to the District.
- 14. **Assignment**. The obligations of the Consultant pursuant to this Agreement shall not be assigned by the Consultant.
- 15. **Compliance with Laws**. Consultant shall observe and comply with all rules and regulations of the governing board of the District and all federal, state, and local laws, ordinances and regulations. Consultant shall give all notices required by any law, ordinance, rule and regulation bearing on conduct of the Work as indicated or specified. If Consultant observes that any of the Work required by this Contract is at variance with any such laws, ordinance, rules or regulations, Consultant shall notify the District, in writing, and, at the sole option of the District, any necessary changes to the scope of the Work shall be made and this Contract shall be appropriately amended in writing, or this Contract shall be terminated effective upon Consultant's receipt of a written termination notice from the District. If Consultant performs any work that is in violation of any laws, ordinances, rules or regulations, without first notifying the District of the violation, Consultant shall bear all costs arising therefrom.
- 16. **Certificates/Permits/Licenses**. Consultant and all Consultant's employees or agents shall secure and maintain in force such certificates, permits and licenses as are required by law in connection with the furnishing of Services pursuant to this Agreement.
- 17. **Employment with Public Agency**. Consultant, if an employee of another public agency, agrees that Consultant will not receive salary or remuneration, other than vacation pay, as an employee of another public agency for the actual time in which services are actually being performed pursuant to this Agreement.
- 18. **Anti-Discrimination**. It is the policy of the District that in connection with all work performed under Contracts there be no discrimination against any employee engaged in the work because of race, color, ancestry, national origin, religious creed, physical disability, medical condition, marital status, sexual orientation, gender, or age and therefore the Consultant agrees to comply with applicable Federal and California laws including, but not limited to the California Fair Employment and Housing Act beginning with Government Code Section 12900 and Labor Code Section 1735 and District policy. In addition, the Consultant agrees to require like compliance by all of its subcontractor(s).
- 19. **No Rights in Third Parties.** This Agreement does not create any rights in, or inure to the benefit of, any third party except as expressly provided herein.
- 20. **District's Evaluation of Consultant and Consultant's Employees and/or Subcontractors**. The District may evaluate the Consultant in any way the District is entitled pursuant to applicable

law. The District's evaluation may include, without limitation:

- 20.1. Requesting that District employee(s) evaluate the Consultant and the Consultant's employees and subcontractors and each of their performance.
- 20.2. Announced and unannounced observance of Consultant, Consultant's employee(s), and/or subcontractor(s).
- 21. **Limitation of District Liability**. Other than as provided in this Agreement, District's financial obligations under this Agreement shall be limited to the payment of the compensation provided in this Agreement. Notwithstanding any other provision of this Agreement, in no event, shall District be liable, regardless of whether any claim is based on contract or tort, for any special, consequential, indirect or incidental damages, including, but not limited to, lost profits or revenue, arising out of or in connection with this Agreement for the services performed in connection with this Agreement.
- 22. **Confidentiality**. The Consultant and all Consultant's agents, personnel, employee(s), and/or subcontractor(s) shall maintain the confidentiality of all information received in the course of performing the Services. Consultant understands that student records are confidential and agrees to comply with all state and federal laws concerning the maintenance and disclosure of student records. This requirement to maintain confidentiality shall extend beyond the termination of this Agreement.
- 23. **Notice**. Any notice required or permitted to be given under this Agreement shall be deemed to have been given, served, and received if given in writing and either personally delivered or deposited in the United States mail, registered or certified mail, postage prepaid, return receipt required, or sent by overnight delivery service, or facsimile transmission, addressed as follows:

<u>District</u>: <u>Consultant</u>:

Solano Community College District Salas O'Brien

4000 Suisun Valley Road 305 South 11th Street San Jose, California 95112

ATTN: Noe Ramos ATTN: Carl Salas

EMAIL: noe.ramos@solano.edu EMAIL: Carl.Salas@salasobrien.com

Any notice personally given or sent by facsimile transmission shall be effective upon receipt. Any notice sent by overnight delivery service shall be effective the business day next following delivery thereof to the overnight delivery service. Any notice given by mail shall be effective three (3) days after deposit in the United States mail.

- 24. **Integration/Entire Agreement of Parties**. This Agreement constitutes the entire agreement between the Parties and supersedes all prior discussions, negotiations, and agreements, whether oral or written. This Agreement may be amended or modified only by a written instrument executed by both Parties.
- 25. **California Law**. This Agreement shall be governed by and the rights, duties and obligations of the Parties shall be determined and enforced in accordance with the laws of the State of California. The Parties further agree that any action or proceeding brought to enforce the terms and conditions of this Agreement shall be maintained in the county in which the District's administrative offices are located.
- 26. **Waiver**. The waiver by either party of any breach of any term, covenant, or condition herein contained shall not be deemed to be a waiver of such term, covenant, condition, or any subsequent

- breach of the same or any other term, covenant, or condition herein contained.
- 27. **Severability**. If any term, condition or provision of this Agreement is held by a court of competent jurisdiction to be invalid, void or unenforceable, the remaining provisions will nevertheless continue in full force and effect, and shall not be affected, impaired or invalidated in any way.
- 28. **Provisions Required By Law Deemed Inserted.** Each and every provision of law and clause required by law to be inserted in this Contract shall be deemed to be inserted herein and this Contract shall be read and enforced as though it were included therein.
- 29. **Authority to Bind Parties.** Neither party in the performance of any and all duties under this Agreement, except as otherwise provided in this Agreement, has any authority to bind the other to any agreements or undertakings.
- 30. **Attorney Fees/Costs.** Should litigation be necessary to enforce any terms or provisions of this Agreement, then each party shall bear its own litigation and collection expenses, witness fees, court costs and attorney's fees.
- 31. **Captions and Interpretations.** Paragraph headings in this Agreement are used solely for convenience, and shall be wholly disregarded in the construction of this Agreement. No provision of this Agreement shall be interpreted for or against a party because that party or its legal representative drafted such provision, and this Agreement shall be construed as if jointly prepared by the Parties.
- 32. **Calculation of Time.** For the purposes of this Agreement, "days" refers to calendar days unless otherwise specified.
- 33. **Signature Authority.** Each party has the full power and authority to enter into and perform this Agreement, and the person signing this Agreement on behalf of each Party has been properly authority and empowered to enter into this Agreement.
- 34. **Counterparts.** This Agreement and all amendments and supplements to it may be executed in counterparts, and all counterparts together shall be construed as one document.
- 35. **Incorporation of Recitals and Exhibits**. The Recitals and each exhibit attached hereto are hereby incorporated herein by reference.

IN WITNESS	WHEREOF, the Parties hereto ha	ve executed this Agreement on the date indicated below		
Dated:	, 2021	Dated:, 2021		
Solano Com	nmunity College District	Salas O'Brien		
Ву:		Ву:		
Print Name:	Lucky Lofton	Print Name:		
Print Title:	Executive Bonds Manager	Print Title:		
Informatio	n regarding Consultant:			
License No.:				
Address:		Employer Identification and/or Social Security Number		
Telephone: Facsimile: E-Mail: Type of Business Entity: Individual Sole Proprietorship Partnership Limited Partnership		Revenue Code (26 U.S.C. 6041) and Section 1.6041-1 of Title 26 of the Code of Federal Regulations (26 C.F.R. 1.6041-1) requires the recipients of \$600.00 or more to		
Corpor Limited	d Partnership Pation, State: d Liability Company			

WORKERS' COMPENSATION CERTIFICATION

Labor Code Section 3700 in relevant part provides:

Every employer except the State shall secure the payment of compensation in one or more of the following ways:

- By being insured against liability to pay compensation by one or more insurers duly authorized to write compensation insurance in this State.
- By securing from the Director of Industrial Relations a certificate of consent to self-insure, which may be given upon furnishing satisfactory proof to the Director of Industrial Relations of ability to self-insure and to pay any compensation that may become due to its employees.

I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the Work of this Contract.

Date:	
Name of Consultant:	
Signature:	
Print Name and Title:	

(In accordance with Article 5 – commencing at Section 1860, Chapter 1, part 7, Division 2 of the Labor Code, the above certificate must be signed and filed with the District prior to performing any Work under this Contract.)

EXHIBIT "A" DESCRIPTION OF SERVICES TO BE PERFORMED BY CONSULTANT

PROJECT OVERVIEW:

The existing plant is comprised of 3 chillers, and 2 boilers. The two older chillers are 750 tons each; while a third chiller, installed in 2009 is 350 tons. All 3 chillers are York, R-134a machines. The 2 boilers were installed as a replacement project in 2007 and are 21mmBtu, gas-fired, Bryan boilers rated at 80% efficiency.

The focus of this study is to move the central plant to a high resilience, high reliability, but zero fossil fuel energy center than can meet the needs of the campus for the next 30+ years. This electrification (decarbonization) framework will consider real costs, and total cost of ownership framed against the current and future campus carbon footprint. In order to accomplish this, the gas-fired boilers will be phased out and replaced by either a heat-pump plant (i.e., with chilled water and heating hot water being provided from the hybrid heat pump system), or electrical boilers with thermal energy storage. In either scenario, the plan will incorporate an understanding of the campus long term plan (i.e., to provide sufficient capacity for the next 30 years, while also recognizing the potential capacity issues associated with climate change).

SCOPE OF WORK:

Develop a Clean Energy Plant Concept(s) report which will provide a quantitative path forward in defining a cost- effective central plant modernization project. This will require the team to:

- A. Identify and quantify costs, benefits, and potential fatal flaws relative to replacement of the chillers, boilers, cooling towers and peripherals. The analysis will relate to operations, maintenance, logistics, utility rates, environmental impacts, and an ability to support the teaching and learning environment well past 2050. This includes full electrification and phasing of all of the central plant systems if and as appropriate to minimize impact to campus operations.
- B. Compare plant/systems/equipment options with an eye towards leveraging campus generated solar energy, leveraging the existing campus infrastructure, and considering the everchanging utility rate structure.
- C. Tasks associated with this effort include, but are not necessarily limited to, the following:
 - 1. Energy and Equipment Evaluation & Load Analysis: Review of available energy and load data for the existing and future buildings supported by the central plant. This includes historic and current energy use patterns, energy demand patterns, and evaluation of plant and equipment data available from existing, operating equipment and/or vendor data. This effort will form the baseline "business as usual" plant capacity, and plant financial foundation from which to base the analysis. With an eye towards electrification, develop load profiles (chilled water, heating water, and electric power) for the campus as provided by the central plant.
 - 2. Site and Building Analysis: Based on the energy analysis and legacy interviews with site and District personnel, extend the study to each building, as necessary, to fully quantify issues associated with the "heat pump central plant" vs. the more conventional electric boiler scenario. This effort will also evaluate the ability of the existing central plant building to accommodate the best going forward equipment layout.
 - **3. Selection of technologies and equipment:** Based on the above loads, patterns, and infrastructure, identify, and select equipment and system scenarios which will meet the load(s) in the most cost-effective and/or desirable manner in accordance with:
 - a. The campus building plan through 2030
 - b. The District's goal of a fully electrified (zero carbon) future.
 - c. The instantaneous and seasonal comfort demands imposed by the teaching and learning

environment.

- d. The goal of minimizing maintenance while achieving a high reliability plant. This effort will also involve identification and quantification of requirements for secondary utilities such as water and sewer.
- **4. Options Development:** After discussing qualitative benefits and flaws associated with ALL preliminary equipment and systems option, further refine the options in the following areas:
 - a. **Performance & Load Matching:** Quantify differences in performance, efficiency, maintenance and operations of the various equipment and operating scenarios. Frame these against the current "business as usual" plant relative to operating cost and maintenance.
 - b. **Massing:** Develop preliminary layouts of the major equipment superimposed onto the existing central plant footprint. This includes identification of necessary equipment infrastructure required to effectively dispatch the zero-carbon chilled water and heating hot water.
 - c. **Cost Estimating:** For each option, select an optimal equipment selection and system configuration, develop a preliminary cost estimate for the installed system. Include the cost of the available and/or necessary infrastructure.
 - d. **Refrigerant and Greenhouse Gas Considerations:** Consider and quantify issues associated with the refrigerants required with the zero-carbon systems. Also provide calculations for current vs. "best option" carbon footprint.
 - e. **Maintenance and Reliability:** Consider and quantify issues and costs associated with maintenance and reliability of the selected equipment for the various options. Include manpower estimates, specialty maintenance, as well as general and minor maintenance.
 - f. **Cost/benefit/LCC evaluation:** Calculate both simple payback and life cycle cost. Include total cost of ownership variables such as maintenance, cost of money, utility (and other) incentives, and benefits associated with best vs. practical heat recovery and utilities generation and dispatch scenarios.
- **5. Coordination with other college projects, especially solar, under planning, or design or construction:** Critical to this project is coordination with all college projects; but especially the campus solar PV project (and as appropriate the solar consultant/vendor/contractor and/or the utility representative). Coordination will include considerations for all impacts to the central plant equipment selection and electric power interconnection.
- **6. Report Development and Presentation(s):** Based on the above, develop interim and final reports and presentations which solicit and incorporate input from all stakeholders. Because of the interactive nature of the project approach, the final report will provide a discussion of all options but will quantify and conceptualize a recommend going forward plan.

CLARIFICATIONS:

- A. This proposal is for a cost/benefit and options analysis and pre-schematic "massing" and "visioning" of the new, zero carbon, high efficiency, and resilient central plant. The report is not a design document and will not be suitable for bidding. However, the report is intended to provide a "path forward" for planning and budgeting purposes as well as concept drawing(s) or renderings which can be discussed with and presented to the Board of Trustees.
- B. Solano Community College (SCC) to provide a single point of contact (a project manager, PM) to make decisions and coordinate meetings and interaction with Facilities Management staff, and all stakeholders. PM to help organize meetings with Facilities, Staff, and other stakeholders, and to provide full access to buildings and to the EMS(s) associated with any pertinent equipment or buildings.
- C. SCC to provide utility data records (gas, electric, water, etc.) and to provide campus, building, and utilities drawings as requested.
- D. Hazmat related issues and efforts are not included as a part of this evaluation effort. However, the fee includes coordination with Campus EH&S staff or consultants if and as required.

DELIVERABLES:

- A. Interim status reports will be provided in PowerPoint format. These will detail progress, issues, and "next steps."
- B. A 90% report will be issued "preliminary" in order to obtain feedback from SCC stakeholders.
- C. The final, issued report will summarize, all findings and recommendations. It will include "basis" and metrics as appropriate to substantiate the recommendation(s) and conclusion(s).