



**CALIFORNIA
ENERGY COMMISSION**



**California Energy Commission
February 14, 2024 Business Meeting
Backup Materials for The Leland Stanford Junior University (Stanford)**

The following backup materials for the above-referenced agenda item are available in this PDF packet as listed below:

1. Proposed Resolution
2. Contract Request Form
3. Scope of Work

STATE OF CALIFORNIA
STATE ENERGY RESOURCES
CONSERVATION AND DEVELOPMENT COMMISSION

RESOLUTION: The Leland Stanford Junior University (Stanford)

RESOLVED, that the State Energy Resources Conservation and Development Commission (CEC) adopts the staff CEQA findings contained in the Agreement or Amendment Request Form (as applicable); and

RESOLVED, that the CEC approves agreement 300-23-001, a sole source contract with The Board of Trustees of The Leland Stanford Junior University (Stanford) for \$550,000. Stanford will support technical synthesis of applied research to inform analytical and policy initiatives such as the Energy Demand Forecast, Senate Bill 100 (De Leon, 2018) activities, Gas System Decarbonization, and the Integrated Energy Policy Report. Stanford will also serve as a technical resource and strategic advisor to support the use of research insights in energy sector policy; and

FURTHER BE IT RESOLVED, that the Executive Director or their designee shall execute the same on behalf of the CEC.

CERTIFICATION

The undersigned Secretariat to the CEC does hereby certify that the foregoing is a full, true, and correct copy of a resolution duly and regularly adopted at a meeting of the CEC held on February 14, 2024.

AYE:

NAY:

ABSENT:

ABSTAIN:

Dated:

Kristine Banaag
Secretariat



CONTRACT REQUEST FORM (CRF)

A. New Agreement Number

IMPORTANT: New Agreement # to be completed by Contracts, Grants, and Loans Office.

New Agreement Number: 300-23-001

B. Division Information

1. Division Name: ERDD
2. Agreement Manager: Aryana Sherzai
3. MS-43
4. Phone Number: 916-776-0824

C. Recipient's Information

1. Contractor's Legal Name: The Leland Stanford Junior University
2. Federal ID Number: 94-1156365

D. Title of Project

Title of project: Energy and Climate Research Technical Support

E. Term and Amount

1. Start Date: 3/29/2024
2. End Date: 6/30/2028
3. Amount: \$550,000.00

F. Business Meeting Information

1. Operational agreement to be approved by Executive Director? No
2. Are the ARFVTP agreements \$75K and under delegated to Executive Director? No
3. The Proposed Business Meeting Date: 2/14/2024
4. Consent or Discussion? Consent
5. Business Meeting Presenter Name: Susan Wilhelm
6. Time Needed for Business Meeting: 5 minutes.
7. The email subscription topic is: EPIC (Electric Program Investment Charge).

Agenda Item Subject and Description:

The Leland Stanford Junior University. Proposed resolution approving agreement 300-23-001, a sole source contract with The Leland Stanford Junior University (Stanford) for \$550,000, and adopting staff's recommendation that this action is not a project under CEQA. Stanford will support technical synthesis of ERDD-funded applied research to inform analytical and policy initiatives such as the Energy Assessments Division's California Energy Demand Forecast, Senate Bill 100 (De Leon, 2018) activities, CEC's participation in the Joint Agency Steering Committee, CEC's Order Instituting Informational Proceeding on Gas System Decarbonization, and activities related to the Integrated Energy Policy Report. Stanford will also serve as a technical resource and strategic advisor to support the use of research insights in energy sector policy and decision-making. (EPIC and Gas R&D funding) Contact: Susan Wilhelm.



G. California Environmental Quality Act (CEQA) Compliance

1. Is Agreement considered a "Project" under CEQA?

No

If yes, skip to question 2.

If no, complete the following (PRC 21065 and 14 CCR 15378) and explain why Agreement is not considered a "Project":

Agreement will not cause direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment because all aspects of the project will be completed in-person and virtually, in offices and on computers, including technical and policy analysis, virtual presentations, fact sheets, and reports.

2. If Agreement is considered a "Project" under CEQA answer the following questions.

a) Agreement **IS** exempt?

Not applicable

Statutory Exemption?

No

If yes, list PRC and/or CCR section number(s) and separate each with a comma. If no, enter "None" and go to the next question.

PRC section number: None

CCR section number: None

Categorical Exemption?

No

If yes, list CCR section number(s) and separate each with a comma. If no, enter "None" and go to the next question.

CCR section number: None

Common Sense Exemption? 14 CCR 15061 (b) (3)

No

If yes, explain reason why Agreement is exempt under the above section. If no, enter "Not applicable" and go to the next section.

Not applicable

b) Agreement **IS NOT** exempt.

IMPORTANT: consult with the legal office to determine next steps.

Not applicable



STATE OF CALIFORNIA Contract Request Form
CALIFORNIA ENERGY COMMISSION CEC-94 (Revised 01/2023)

If yes, answer yes or no to all that applies. If no, list all as “no” and “None” as “yes”.

Additional Documents	Applies
Initial Study	No
Negative Declaration	No
Mitigated Negative Declaration	No
Environmental Impact Report	No
Statement of Overriding Considerations	No
None	Yes

H. Subcontractors

List all Subcontractors listed in the Budget (s). Insert additional rows if needed. If no subcontractors to report, enter “No subcontractors to report” and “0” to funds. **Delete** any unused rows from the table

Subcontractor Legal Company Name	Budget
No subcontractors to report	\$

I. Key Partners

List all key partner(s). Insert additional rows if needed. If no key partners to report, enter “No key partners to report.” **Delete** any unused rows from the table.

Key Partner Legal Company Name
No key partners to report

J. Budget Information

Include all budget information. Insert additional rows if needed. If no budget information to report, enter “N/A” for “Not Applicable” and “0” to Amount. **Delete** any unused rows from the table.



STATE OF CALIFORNIA Contract Request Form
CALIFORNIA ENERGY COMMISSION CEC-94 (Revised 01/2023)

Funding Source	Funding Year of Appropriation	Budget List Number	Amount
NG Subaccount, PIERDD	21-22	501.001	\$150,000
2021-2025 EPIC Technical Support 4th Investment Plan - EPIC Technical Support/Contracts - ENY 2022 - Carryover to FY 23/24	22	300.001J	\$198,635
2021-2025 EPIC Technical Support 4th Investment Plan - EPIC Technical Support/Contracts - ENY 2023	23	300.001K	\$201,365

TOTAL Amount: \$550,000

R&D Program Area: EGRB: EA

Explanation for "Other" selection Not applicable

Reimbursement Contract #: Not applicable

Federal Agreement #: Not applicable

K. Contractor's Contact Information

1. Contractor's Administrator/Officer

Name: Paula Wetzel

Address: 473 Via Ortega

City, State, Zip: Stanford, CA 94305-3030

Phone: (650) 724-5846

E-Mail: pwetzel@stanford.edu

2. Contractor's Project Manager

Name: Chris Field

Address: 473 Via Ortega

City, State, Zip: Stanford, CA 94305-3030

Phone: (650) 736-4352

E-Mail: cfield@stanford.edu

L. Selection Process Used

There are three types of selection process. List the one used for this CRF.



STATE OF CALIFORNIA Contract Request Form
CALIFORNIA ENERGY COMMISSION CEC-94 (Revised 01/2023)

Selection Process	Additional Information
Competitive Solicitation #	Not applicable
Non Competitive Bid (<i>Attach DGS-GSPD-09-007</i> https://www.dgs.ca.gov/PD/Forms)	Applicable
Exempt	Not applicable
Exempt	Not applicable
Exempt	Not applicable

M. Contractor Entity Type

Contractor Entity Type	Yes or No?
Private Company (<i>including non-profits</i>)	Yes
CA State Agency (<i>including UC and CSU</i>)	No
Government Entity (<i>i.e. city, county, federal government, air/water/school district, joint power authorities, university from another state</i>)	No

N. Is Contractor a certified Small Business (SB), Micro Business (MB) or Disabled Veterans Business Enterprise (DVBE)?

The contractor is a certified: Not applicable..

O. Civil Service Considerations

- Not Applicable (Agreement is with a CA State Entity or a membership/co-sponsorship)? No
- Public Resources Code 25620, et seq., authorizes the Commission to contract for the subject work. (PIER) Yes.
- The Services Contracted: Yes.

If no, go to the next question. If yes, which of the following applies to the contract? More than one can apply, list each answer choice, and separate them with a comma:

- are not available within civil service
- cannot be performed satisfactorily by civil service employee
- are of such a highly specialized or technical nature that the expert knowledge, expertise, and ability are not available through the civil service system

The following applies to the contract: are of such a highly specialized or technical nature that the expert knowledge, expertise, and ability are not available through the civil service system.

- The Services are of such an urgent, temporary, or occasional nature that the delay to implement under civil service would frustrate their very purpose?



STATE OF CALIFORNIA Contract Request Form
CALIFORNIA ENERGY COMMISSION CEC-94 (Revised 01/2023)

Not applicable.

Justification:

Stanford's expertise, and that of the Chief Advisor whose role is described in this contract, is not available in civil service. CEC believes that the proposed contract meets criterion PRC 25620.5(f)(2): the expertise, service, or product is unique. Specifically, the Chief Advisor is the only person who has held prominent roles in both California's climate change assessments and the IPCC Assessments. Further, the Chief Advisor's Fourth Assessment and IPCC leadership experience and research expertise align with the subject areas for which CEC is the lead in California's Climate Change Assessments: namely, analysis and communication of risks associated with climate change, energy policy, and California's transition toward a zero-carbon energy system. Further, it is critical for CEC to leverage the Chief Advisor's deep expertise on California's policy as it relates to climate change, as well as his prior efforts to forge necessary collaborations as well as directly contribute to authorship of successful applications for critical federal infrastructure funding.

In compliance with Public Resources Code section 25620.5(g), on September 19, 2023, CEC notified the Joint Legislative Budget Committee (JLBC) and relevant policy committees in both houses of the Legislature of this sole source contract for the Chief Advisor's unique expertise, and the JLBC did not disapprove the proposed action within 60 days from the date of notification, or at any time.

P. Payment Method

1. Is the payment method Reimbursement, Advanced Payment, or Other?
Reimbursement.
If Other, explain: Not applicable.
2. If Reimbursement, is it in arrears based on Itemized Monthly, Itemized Quarterly, Flat Rate, or One-time?
Itemized Monthly.

Q. Retention

Is Agreement subject to retention? Yes.

If Yes, Will retention be released prior to Agreement termination? Enter Yes or No.

R. Justification of Rates

The rates are Stanford's standard rates, which are substantially less than many national laboratories and private entities. For example, Stanford's overhead rate is substantially less than many Recipients with whom CEC routinely enters into competitive agreements.

S. Disabled Veteran Business Enterprise Program (DVBE)

Provide requested additional information.

1. Exempt (Interagency/Other Government Entity) No.
2. Meets DVBE Requirements DVBE No.
Amount: \$ DVBE %:
3. Is the Contractor Certified DVBE or Subcontracting with a DVBE? If subcontracting with a DVBE, provide the name of the DVBE company. If none applies, enter "Not Applicable".



STATE OF CALIFORNIA Contract Request Form
CALIFORNIA ENERGY COMMISSION CEC-94 (Revised 01/2023)

Not applicable.

- 4. Contractor selected through CMAS or MSA with no DVBE participation No.
- 5. Requesting DVBE Exemption (attach CEC 95) Yes.

T. Miscellaneous Agreement Information

- 1. Will there be Work Authorizations? No.
- 2. Is the contractor providing confidential information? No.
- 3. Is the contractor going to purchase equipment? No.
- 4. What is the check frequency of the progress reports? Monthly, Quarterly, or Other? If Other, please provide explanation.

Quarterly

- 5. Will a final report be required? No.
- 6. Is the Agreement, with amendments, longer than three years? If yes, why?

No

U. The following items should be attached to this CRF (as applicable)

List all items that should be attached to this CRF by entering “Yes” or “No”.

Item Number	Item Name	Attached
1	Exhibit A, Scope of Work/Schedule	Yes
2	Exhibit B, Budget Detail	Yes
3	DGS-GSPD-09-007, NCB Request	Yes
4	CEC 95, DVBE Exemption Request	Yes
5	Awardee CEQA Documentation	No
6	Resumes	Yes
7	CEC 105, Questionnaire for Identifying Conflicts	Yes

Approved By

Individuals who approve this form must enter their full name and approval date in the MS Word version.

Agreement Manager: Aryana Sherzai

Approval Date: 1/11/2024

Branch Manager: Alex Horangic

Approval Date: 1/12/2024

Deputy Director: Alex Horangic for Angela Gould

Approval Date: 1/12/2024

**EXHIBIT A
SCOPE OF WORK
THE LELAND STANFORD JUNIOR UNIVERSITY**

I. TASK ACRONYM/TERM LISTS

TASK LIST

Task #	CPR ¹	Task Name
1		General Project Tasks
2		Technical and Policy Analysis and Guidance to Support Electricity Sector Activities
3	X	Technical and Policy Analysis and Guidance to Support Gas Sector Activities
4		Evaluation of Project Benefits
5		Technology/Knowledge Transfer Activities

ACRONYMS/GLOSSARY

Specific acronyms and terms used throughout this scope of work are defined as follows:

Acronym	Definition
AMI	Advanced Metering Infrastructure
CAM	Commission Agreement Manager
CAO	Commission Agreement Officer
CEC	California Energy Commission
CPR	Critical Project Review
CPUC	California Public Utilities Commission
EAD	Energy Assessments Division
EPIC	Electric Program Investment Charge program
ERDD	Energy Research and Development Division
IEPR	Integrated Energy Policy Report
IIJA	Infrastructure Investment and Jobs Act
IRA	Inflation Reduction Act
JASC	Joint Agency Steering Committee

II. PURPOSE OF AGREEMENT, PROBLEM/SOLUTION STATEMENT, AND GOALS AND OBJECTIVES

A. Purpose of Agreement

The purpose of this Agreement is to provide technical and policy analysis, and guidance in innovation and research activities that advance decarbonization of California's energy system; climate resilience and reliability; and equitable energy transition policy that garners health co-benefits.

¹ Please see subtask 1.3 in Part III of the Scope of Work (General Project Tasks) for a description of Critical Project Review (CPR) Meetings.

EXHIBIT A
SCOPE OF WORK
THE LELAND STANFORD JUNIOR UNIVERSITY

B. Problem/ Solution Statement

Problem

Achieving the State's decarbonization goals while substantially advancing reliability and resilience of its energy system requires specialized knowledge and understanding of California's forecast zones, climate zones, data resources, gas decommissioning, energy resilience, and emerging research from the state's climate change assessments, as well as research institutions external to the state.

Solution

The Contractor is uniquely qualified to assist the California Energy Commission (CEC) with policy initiatives in a manner that is tightly coordinated with ongoing and planned energy-related climate research funded by CEC because of their experience involving policy-relevant scientific contributions and analysis related to climate and energy policy in California, technical contributions to state and international climate change assessments, and deep expertise on California's energy policies and planning practices as they relate to the state's climate and energy goals. The Contractor will be responsible for supporting technical synthesis of applied research funded by CEC's Energy Research and Development Division (ERDD) to inform analytical and policy initiatives such as the CEC's Energy Assessments Division's (EAD) California Energy Demand Forecast, SB 100 activities, CEC's participation in the Joint Agency Steering Committee (JASC), CEC's Order Instituting Informational Proceeding on Gas System Decarbonization, and activities related to the Integrated Energy Policy Report (IEPR). The Chief Advisor, one of the Contractor's key personnel, will serve as a technical resource and strategic advisor to support utilization of research insights in energy sector policy and decision-making.

C. Goals and Objectives of the Agreement

Agreement Goals

The goals of this Agreement are to:

1. Provide technical and policy guidance and analysis to support innovation and research activities that advance decarbonization of California's energy system; climate resilience and reliability; and equitable energy transition policy that garners health co-benefits.
2. Foster research and knowledge transfer collaborations that support CEC investment, planning, and policy priorities.

Ratepayer Benefits:² This Agreement will result in the ratepayer benefits of greater electricity reliability and lower costs by fostering collaborative production of research and knowledge transfer of analytical resources across CEC's various divisions, supporting interagency coordination on key issues such as reliability and resilience, assisting in keeping the CEC apprised of the most up-to-date climate and energy research and helping the CEC's ERDD to apply the latest climate, energy, and decommissioning research in the context of California's transition to 100 percent clean energy.

² California Public Resources Code, Section 25711.5(a) requires projects funded by the Electric Program Investment Charge (EPIC) to result in ratepayer benefits. The California Public Utilities Commission, which established the EPIC in 2011, defines ratepayer benefits as greater reliability, lower costs, and increased safety (See CPUC "Phase 2" Decision 12-05-037 at page 19, May 24, 2012, http://docs.cpuc.ca.gov/PublishedDocs/WORD_PDF/FINAL_DECISION/167664.PDF).

EXHIBIT A
SCOPE OF WORK
THE LELAND STANFORD JUNIOR UNIVERSITY

Technological Advancement and Breakthroughs:³ This Agreement will lead to technological advancement and breakthroughs to overcome barriers to the achievement of the State of California's statutory energy goals by facilitating collaborative production and knowledge transfer of results of applied research at the nexus of climate change, energy system modeling, and planning for a resilient, reliable, cost-effective transition to a zero-carbon energy system. This Agreement will provide high-level support for portfolio-level coordination between the Joint Agencies as well as within CEC, with a focus on advancing science-based planning and technology investment in support of reaching SB 100 goals as well as California's broader climate, energy, and equity goals.

Agreement Objectives

The objectives of this Agreement are to:

1. Advise technical synthesis of applied research funded by CEC's ERDD to inform high-profile analytical and policy initiatives, such as EAD's California Energy Demand Forecast, SB 100 activities, CEC's participation in the JASC, CEC's Order Instituting Informational Proceeding on Gas System Decarbonization, and activities related to the IEPR.
2. Serve as a technical resource and strategic advisor at the research/innovation/policy interface associated with:
 - a) gas system decarbonization research, analysis, and development of policy priorities;
 - b) grid decarbonization, reliability, and resilience research, analysis, and development of policy priorities;
 - c) equity issues related to California's energy system in transition.
3. Provide technical analysis and strategic communications to support utilization of research insights in energy sector policy and decision-making.
4. Provide technical guidance and strategic communications in support of CEC engagement with federal funding opportunities related to Electric Program Investment Charge (EPIC) program as well as Gas R&D program for energy resilience and reliability.
5. Contribute to the development and implementation of data analysis and modeling initiatives that leverage CEC's evolving data and analytical resources to inform policy, implementation, and assessment (e.g., analysis of Advanced Metering Infrastructure (AMI) and other energy-related data, projected climate and hydrological data, historical weather data).
6. Offer counsel on CEC's contribution to California's Fifth Climate Change Assessment.

TASK 1 GENERAL PROJECT TASKS

DELIVERABLES

Subtask 1.1 Deliverables

The goal of this subtask is to establish the requirements for submitting project deliverables (e.g., reports, summaries, plans, and presentation materials). Unless otherwise specified by the Commission Agreement Manager (CAM), the Contractor must provide deliverables as required below by the dates listed in the **Schedule of Deliverables (Part V)**. Deliverables that require a draft version are indicated by marking "**(draft and final)**" after the deliverable name in the

³ California Public Resources Code, Section 25711.5(a) also requires EPIC-funded projects to lead to technological advancement and breakthroughs to overcome barriers that prevent the achievement of the state's statutory and energy goals.

EXHIBIT A
SCOPE OF WORK
THE LELAND STANFORD JUNIOR UNIVERSITY

“Deliverables” section of the task/subtask. If “(draft and final)” does not appear after the deliverable name, only a final version of the deliverable is required. With respect to due dates within this Scope of Work, “**days**” means working days.

The Contractor shall:

For deliverables that require a draft version, including the Final Report Outline and Final Report

- Submit all draft deliverables to the CAM for review and comment in accordance with the Schedule of Deliverables (Part V). The CAM will provide written comments to the Contractor on the draft deliverable within 15 days of receipt, unless otherwise specified in the task/subtask for which the deliverable is required.
- Consider incorporating all CAM comments into the final product. If the Contractor disagrees with any comment, provide a written response explaining why the comment was not incorporated into the final deliverable.
- Submit the revised deliverable with responses and comments within 10 days of notice by the CAM, unless the CAM specifies a longer time period, or approves a request for additional time.

For deliverables that require a final version only

- Submit the deliverable to the CAM for acceptance. The CAM may request minor revisions or explanations prior to acceptance.

For all deliverables

- Submit all data and documents required as deliverables in accordance with the following:

Instructions for Submitting Electronic Files and Developing Software:

○ **Electronic File Format**

Submit all data and documents required as deliverables under this Agreement in an electronic file format that is fully editable and compatible with the Energy Commission’s software and Microsoft (MS)-operating computing platforms, or with any other format approved by the CAM. Deliver an electronic copy of the full text of any Agreement data and documents in a format specified by the CAM, such as memory stick or CD-ROM.

The following describes the accepted formats for electronic data and documents provided to the Energy Commission as deliverables under this Agreement, and establishes the software versions that will be required to review and approve all software deliverables:

- Data sets will be in MS Access or MS Excel file format (version 2007 or later), or any other format approved by the CAM.
- Text documents will be in MS Word file format, version 2007 or later.
- Documents intended for public distribution will be in PDF file format.
- The Contractor must also provide the native Microsoft file format.
- Project management documents will be in Microsoft Project file format, version 2007 or later.

○ **Software Application Development**

Use the following standard Application Architecture components in compatible versions for any software application development required by this Agreement (e.g., databases, models, modeling tools), unless the CAM approves other software applications such as open source programs:

- Microsoft ASP.NET framework (version 3.5 and up). Recommend 4.0.
- Microsoft Internet Information Services (IIS), (version 6 and up)

EXHIBIT A
SCOPE OF WORK
THE LELAND STANFORD JUNIOR UNIVERSITY

- Recommend 7.5.
- Visual Studio.NET (version 2008 and up). Recommend 2010.
- C# Programming Language with Presentation (UI), Business Object and Data Layers.
- SQL (Structured Query Language).
- Microsoft SQL Server 2008, Stored Procedures. Recommend 2008 R2.
- Microsoft SQL Reporting Services. Recommend 2008 R2.
- XML (external interfaces).

Any exceptions to the Electronic File Format requirements above must be approved in writing by the CAM. The CAM will consult with the Energy Commission's Information Technology Services Branch to determine whether the exceptions are allowable.

MEETINGS

Subtask 1.2 Kick-off Meeting

The goal of this *subtask* is to establish the lines of communication and procedures for implementing this Agreement.

The Contractor shall:

- Attend a “*Kick-off*” meeting with the CAM, the Commission Agreement Officer (CAO), and any other Energy Commission staff relevant to the Agreement. The Contractor will bring its Project Manager and any other individuals designated by the CAM to this meeting. The administrative and technical aspects of the Agreement will be discussed at the meeting. Prior to the meeting, the CAM will provide an agenda to all potential meeting participants. The meeting may take place in person or by electronic conferencing (e.g., WebEx), with approval of the CAM.

The administrative portion of the meeting will include discussion of the following:

- Terms and conditions of the Agreement;
- Deliverables (subtask 1.1);
- CPR meetings (subtask 1.3);
- Match fund documentation (subtask 1.7);
- Permit documentation (subtask 1.8);
- Subcontracts (subtask 1.9); and
- Any other relevant topics.

The technical portion of the meeting will include discussion of the following:

- The CAM's expectations for accomplishing tasks described in the Scope of Work;
 - An updated Project Schedule;
 - Deliverables (subtask 1.1);
 - Progress reports and invoices (subtask 1.5);
 - Final Report (subtask 1.6);
 - Technical Advisory Committee meetings (subtasks 1.10 and 1.11); and
 - Any other relevant topics.
- Provide an *Updated Schedule of Deliverables, List of Match Funds, and List of Permits*, as needed to reflect any changes in the documents.

The CAM shall:

- Designate the date and location of the meeting.
- Send the Contractor a *Kick-off Meeting Agenda*.

EXHIBIT A
SCOPE OF WORK
THE LELAND STANFORD JUNIOR UNIVERSITY

Contractor Deliverables:

- Updated Schedule of Deliverables (*if applicable*)
- Updated List of Match Funds (*if applicable*)
- Updated List of Permits (*if applicable*)

CAM Deliverable:

- Kick-off Meeting Agenda

Subtask 1.3 Critical Project Review (CPR) Meetings

The goal of this subtask is to determine if the project should continue to receive Energy Commission funding, and if so whether any modifications must be made to the tasks, deliverables, schedule, or budget. CPR meetings provide the opportunity for frank discussions between the Energy Commission and the Contractor. As determined by the CAM, discussions may include project status, challenges, successes, advisory group findings and recommendations, final report preparation, and progress on technical transfer and production readiness activities (if applicable). Participants will include the CAM and the Contractor, and may include the CAO and any other individuals selected by the CAM to provide support to the Energy Commission.

CPR meetings generally take place at key, predetermined points in the Agreement, as determined by the CAM and as shown in the Task List on page 1 of this Exhibit. However, the CAM may schedule additional CPR meetings as necessary. The budget will be reallocated to cover the additional costs borne by the Contractor, but the overall Agreement amount will not increase. CPR meetings generally take place at the Energy Commission, but they may take place at another location, or may be conducted via electronic conferencing (e.g., WebEx) as determined by the CAM.

The Contractor shall:

- Prepare a *CPR Report* for each CPR meeting that: (1) discusses the progress of the Agreement toward achieving its goals and objectives; and (2) includes recommendations and conclusions regarding continued work on the project.
- Submit the CPR Report along with any other *Task Deliverables* that correspond to the technical task for which the CPR meeting is required (i.e., if a CPR meeting is required for Task 2, submit the Task 2 deliverables along with the CPR Report).
- Attend the CPR meeting.
- Present the CPR Report and any other required information at each CPR meeting.

The CAM shall:

- Determine the location, date, and time of each CPR meeting with the Contractor's input.
- Send the Contractor a *CPR Agenda* and a *List of Expected CPR Participants* in advance of the CPR meeting. If applicable, the agenda will include a discussion of match funding and permits.
- Conduct and make a record of each CPR meeting. Provide the Contractor with a *Schedule for Providing a Progress Determination* on continuation of the project.
- Determine whether to continue the project, and if so whether modifications are needed to the tasks, schedule, deliverables, or budget for the remainder of the Agreement. If the CAM concludes that satisfactory progress is not being made, this conclusion will be referred to the Deputy Director of the ERDD.

EXHIBIT A
SCOPE OF WORK
THE LELAND STANFORD JUNIOR UNIVERSITY

- Provide the Contractor with a *Progress Determination* on continuation of the project, in accordance with the schedule. The Progress Determination may include a requirement that the Contractor revise one or more deliverables.

Contractor Deliverables:

- CPR Report(s)
- Task Deliverables (draft and/or final as specified in the task)

CAM Deliverables:

- CPR Agenda
- List of Expected CPR Participants
- Schedule for Providing a Progress Determination
- Progress Determination

Subtask 1.4 Final Meeting

The goal of this subtask is to complete the closeout of this Agreement.

The Contractor shall:

- Meet with Energy Commission staff to present project findings, conclusions, and recommendations. The final meeting must be completed during the closeout of this Agreement. This meeting will be attended by the Contractor and CAM, at a minimum. The meeting may occur in person or by electronic conferencing (e.g., WebEx), with approval of the CAM.

The technical and administrative aspects of Agreement closeout will be discussed at the meeting, which may be divided into two separate meetings at the CAM's discretion.

- The technical portion of the meeting will involve the presentation of findings, conclusions, and recommended next steps (if any) for the Agreement. The CAM will determine the appropriate meeting participants.
- The administrative portion of the meeting will involve a discussion with the CAM and the CAO of the following Agreement closeout items:
 - Disposition of any state-owned equipment.
 - Need to file a Uniform Commercial Code Financing Statement (Form UCC-1) regarding the Energy Commission's interest in patented technology.
 - The Energy Commission's request for specific "generated" data (not already provided in Agreement deliverables).
 - Need to document the Contractor's disclosure of "subject inventions" developed under the Agreement.
 - "Surviving" Agreement provisions such as repayment provisions and confidential deliverables.
 - Final invoicing and release of retention.
 - Prepare a *Final Meeting Agreement Summary* that documents any agreement made between the Contractor and Commission staff during the meeting.
 - Prepare a *Schedule for Completing Agreement Closeout Activities*.
 - Provide *All Draft and Final Written Deliverables* on a CD-ROM or USB memory stick, organized by the tasks in the Agreement.

Deliverables:

- Final Meeting Agreement Summary (*if applicable*)
- Schedule for Completing Agreement Closeout Activities
- All Draft and Final Written Deliverables

EXHIBIT A
SCOPE OF WORK
THE LELAND STANFORD JUNIOR UNIVERSITY

REPORTS AND INVOICES

Subtask 1.5 Progress Reports and Invoices

The goals of this subtask are to: (1) periodically verify that satisfactory and continued progress is made towards achieving the project objectives of this Agreement; and (2) ensure that invoices contain all required information and are submitted in the appropriate format.

The Contractor shall:

- Submit a monthly *Progress Report* to the CAM. Each progress report must:
 - Summarize progress made on all Agreement activities as specified in the scope of work for the preceding month, including accomplishments, problems, milestones, deliverables, schedule, fiscal status, and an assessment of the ability to complete the Agreement within the current budget and any anticipated cost overruns. See the Progress Report Format Attachment for the recommended specifications.
- Submit a monthly or quarterly *Invoice* that follows the instructions in the “Payment of Funds” section of the terms and conditions, including a financial report on Match Fund and in-state expenditures. For each invoicing period, separate invoices shall be submitted which identify only EPIC or only Gas R&D expenses. An invoice may not include expenses for both programs.

Deliverables:

- Progress Reports
- Invoices

Subtask 1.6 Final Report

The goal of this subtask is to prepare a comprehensive Final Report that describes the original purpose, approach, results, and conclusions of the work performed under this Agreement. The CAM will review the Final Report, which will be due at least **two months** before the Agreement end date. When creating the Final Report Outline and the Final Report, the Contractor must use the Style Manual provided by the CAM.

Subtask 1.6.1 Final Report Outline

The Contractor shall:

- Prepare a *Final Report Outline* in accordance with the *Style Manual* provided by the CAM. (See Task 1.1 for requirements for draft and final deliverables.)

Contractor Deliverables:

- Final Report Outline (draft and final)

CAM Deliverables:

- Style Manual
- Comments on Draft Final Report Outline
- Acceptance of Final Report Outline

Subtask 1.6.2 Final Report

The Contractor shall:

- Prepare a *Final Report* for this Agreement in accordance with the approved Final Report Outline, Style Manual, and Final Report Template, or other format provided by the CAM with the following considerations:
 - Ensure that the document is written in the third person.

EXHIBIT A
SCOPE OF WORK
THE LELAND STANFORD JUNIOR UNIVERSITY

- Ensure that the Executive Summary is understandable to the lay public.
 - Briefly summarize the completed work. Succinctly describe the project results and whether or not the project goals were accomplished.
 - Identify which specific ratepayers can benefit from the project results and how they can achieve the benefits.
 - If it's necessary to use a technical term in the Executive Summary, provide a brief definition or explanation when the technical term is first used.
- Follow the Style Guide format requirements for headings, figures/tables, citations, and acronyms/abbreviations.
- Ensure that the document omits subjective comments and opinions. However, recommendations in the conclusion of the report are allowed.
- Include a brief description of the project results in the Abstract.
- Submit a draft of the report to the CAM for review and comment. The CAM will provide written comments to the Contractor on the draft product within 15 days of receipt.
- Consider incorporating all CAM comments into the Final Report. If the Contractor disagrees with any comment, provide a written response explaining why the comment was not incorporated into the final product.
- Submit the revised Final Report and responses to comments within 10 days of notice by the CAM, unless the CAM specifies a longer time period or approves a request for additional time.
- Submit one bound copy of the *Final Report* to the CAM along with *Written Responses to Comments on the Draft Final Report*.

Deliverables:

- Final Report (draft and final)
- Written Responses to Comments on the Draft Final Report

CAM Deliverable:

- Written Comments on the Draft Final Report

MATCH FUNDS, PERMITS, AND SUBCONTRACTS

Subtask 1.7 Match Funds

The goal of this subtask is to ensure that the Contractor obtains any match funds planned for this Agreement and applies them to the Agreement during the Agreement term.

While the costs to obtain and document match funds are not reimbursable under this Agreement, the Contractor may spend match funds for this task. The Contractor may only spend match funds during the Agreement term, either concurrently or prior to the use of Energy Commission funds. Match funds must be identified in writing, and the Contractor must obtain any associated commitments before incurring any costs for which the Contractor will request reimbursement.

The Contractor shall:

- Prepare a *Match Funds Status Letter* that documents the match funds committed to this Agreement.
- If no match funds were part of the proposal that led to the Energy Commission awarding this Agreement and none have been identified at the time this Agreement starts, then state this in the letter.

EXHIBIT A
SCOPE OF WORK
THE LELAND STANFORD JUNIOR UNIVERSITY

If match funds were a part of the proposal that led to the Energy Commission awarding this Agreement, then provide in the letter:

- A list of the match funds that identifies:
 - The amount of cash match funds, their source(s) (including a contact name, address, and telephone number), and the task(s) to which the match funds will be applied.
 - The amount of each in-kind contribution, a description of the contribution type (e.g., property, services), the documented market or book value, the source (including a contact name, address, and telephone number), and the task(s) to which the match funds will be applied. If the in-kind contribution is equipment or other tangible or real property, the Contractor must identify its owner and provide a contact name, address, telephone number, and the address where the property is located.
- A copy of a letter of commitment from an authorized representative of each source of match funding that the funds or contributions have been secured.
- At the Kick-off meeting, discuss match funds and the impact on the project if they are significantly reduced or not obtained as committed. If applicable, match funds will be included as a line item in the progress reports and will be a topic at CPR meetings.
- Provide a *Supplemental Match Funds Notification Letter* to the CAM of receipt of additional match funds.
- Provide a *Match Funds Reduction Notification Letter* to the CAM if existing match funds are reduced during the course of the Agreement. Reduction of match funds may trigger a CPR meeting.

Deliverables:

- Match Funds Status Letter
- Supplemental Match Funds Notification Letter (*if applicable*)
- Match Funds Reduction Notification Letter (*if applicable*)

Subtask 1.8 Permits

The goal of this subtask is to obtain all permits required for work completed under this Agreement in advance of the date they are needed to keep the Agreement schedule on track. Permit costs and the expenses associated with obtaining permits are not reimbursable under this Agreement, with the exception of costs incurred by University of California recipients. Permits must be identified and obtained before the Contractor may incur any costs related to the use of the permit(s) for which the Contractor will request reimbursement.

The Contractor shall:

- Prepare a *Permit Status Letter* that documents the permits required to conduct this Agreement. If no permits are required at the start of this Agreement, then state this in the letter. If permits will be required during the course of the Agreement, provide in the letter:
 - A list of the permits that identifies: (1) the type of permit; and (2) the name, address, and telephone number of the permitting jurisdictions or lead agencies.
 - The schedule the Contractor will follow in applying for and obtaining the permits.

The list of permits and the schedule for obtaining them will be discussed at the Kick-off meeting (subtask 1.2), and a timetable for submitting the updated list, schedule, and copies of the permits will be developed. The impact on the project if the permits are not obtained in a timely fashion or are denied will also be discussed. If applicable, permits will be included as a line item in progress reports and will be a topic at CPR meetings.

EXHIBIT A
SCOPE OF WORK
THE LELAND STANFORD JUNIOR UNIVERSITY

- If during the course of the Agreement additional permits become necessary, then provide the CAM with an *Updated List of Permits* (including the appropriate information on each permit) and an *Updated Schedule for Acquiring Permits*.
- Send the CAM a *Copy of Each Approved Permit*.
- If during the course of the Agreement permits are not obtained on time or are denied, notify the CAM within 5 days. Either of these events may trigger a CPR meeting.

Deliverables:

- Permit Status Letter
- Updated List of Permits (*if applicable*)
- Updated Schedule for Acquiring Permits (*if applicable*)
- Copy of each Approved Permit (*if applicable*)

Subtask 1.9 Subcontracts

The goals of this subtask are to: (1) procure subcontracts required to carry out the tasks under this Agreement; and (2) ensure that the subcontracts are consistent with the terms and conditions of this Agreement.

The Contractor shall:

- Manage and coordinate subcontractor activities in accordance with the requirements of this Agreement.
- Incorporate this Agreement by reference into each subcontract.
- Include any required Energy Commission flow-down provisions in each subcontract, in addition to a statement that the terms of this Agreement will prevail if they conflict with the subcontract terms.
- If required by the CAM, submit a draft of each *Subcontract* required to conduct the work under this Agreement.
- Submit a final copy of the executed subcontract.
- Notify and receive written approval from the CAM prior to adding any new subcontractors (see the discussion of subcontractor additions in the terms and conditions).

Deliverables:

- Subcontracts (*draft if required by the CAM*)

EXHIBIT A
SCOPE OF WORK
THE LELAND STANFORD JUNIOR UNIVERSITY

IV. TECHNICAL TASKS

*Deliverables that require a draft version are indicated by marking “(draft and final)” after the deliverable name in the “Deliverables” section of the task/subtask. If “(draft and final)” does not appear after the deliverable name, only a final version of the deliverable is required. **Subtask 1.1 (Deliverables)** describes the procedure for submitting deliverables to the CAM.*

TASK 2: TECHNICAL AND POLICY ANALYSIS AND GUIDANCE TO SUPPORT ELECTRICITY SECTOR ACTIVITIES

The goal of this task is to provide technical resources and strategic guidance to ERDD and EAD leadership and technical staff on electricity sector research, planning, and policy activities described below.

The Contractor shall:

- Provide technical and policy analysis and guidance to ERDD leadership and technical staff at the research/innovation/policy interface associated with the EPIC.
- Support technical synthesis of ERDD-funded applied research to inform electricity sector analytical and policy initiatives led by EAD, such as California’s Energy Demand Forecast for the electricity sector, SB 100 activities, CEC’s participation in the JASC, and electricity sector activities related to the IEPR.
- Provide technical and policy analysis and guidance to ERDD and EAD leadership and technical staff on coordination with external (e.g., state and federal agencies, electricity utilities) entities.
- Provide technical and policy analysis and guidance to support utilization of research insights in electricity sector policy and decision-making.
- Provide technical guidance and strategic leadership for CEC engagement with federal funding opportunities related to EPIC for energy resilience through the Infrastructure Investment and Jobs Act (IIJA) and other federal initiatives such as the Inflation Reduction Act (IRA).
- Support CEC’s contribution to California’s Fifth Climate Change Assessment through strategic guidance on knowledge transfer of EPIC-funded research, the scientific assessment process, and messaging of scientific findings.
- Support the development and implementation of data analysis and modeling initiatives that leverage ERDD’s data and analytical products to inform electricity sector policy, implementation, and assessment (e.g., analysis of projected climate and hydrological data, historical weather data).
- Support the development and implementation of data analysis and modeling initiatives that leverage EAD’s evolving data and analytical resources to inform electricity sector policy, implementation, and assessment (e.g., analysis of electricity sector AMI and other electricity-related data).
- Per CAM’s request, prepare a minimum of biannual *Electricity Presentations or Memoranda* summarizing technical and policy analysis and guidance provided in support of bullets above.

Deliverables:

- Electricity Sector Presentations and/or Memoranda (draft and final)

EXHIBIT A
SCOPE OF WORK
THE LELAND STANFORD JUNIOR UNIVERSITY

TASK 3: TECHNICAL AND POLICY ANALYSIS AND GUIDANCE TO SUPPORT GAS SECTOR ACTIVITIES

The goal of this task is to provide technical resources and strategic guidance to ERDD and EAD leadership and technical staff on gas sector activities described below.

The Contractor shall:

- Support technical synthesis of ERDD-funded applied research to inform gas sector analytical and policy initiatives led by EAD, such as California's Energy Demand Forecast for the gas sector, CEC's participation in JASC discussions related to gas system decarbonization, CEC's Order Instituting Informational Proceeding on Gas System Decarbonization, and gas sector activities related to the IEPR.
- Provide technical and policy analysis and guidance at the research/innovation/policy interface associated with gas system decarbonization research, analysis, and development of policy priorities.
- Provide technical guidance and strategic leadership for CEC engagement with federal funding opportunities related to the Gas R&D program and the state's decarbonization goals through the IIJA and other federal initiatives such as the IRA.
- Provide technical and policy analysis and guidance to ERDD and EAD leadership and technical staff on coordination with external (e.g., state and federal agencies, gas utilities) entities.
- Support the development and implementation of data analysis and modeling initiatives that leverage ERDD's data and analytical products to inform gas sector policy, implementation, and assessment (e.g., support for gas reliability in the context of long-term planning).
- Support the development and implementation of data analysis and modeling initiatives that leverage EAD's evolving data and analytical resources to inform gas sector policy, implementation, and assessment (e.g., analysis of gas consumption data).
- Per CAM's request, and at minimum biannually, prepare *Gas Sector Presentations or Memoranda* summarizing technical and policy analysis and guidance provided in support of bullets above.

Deliverables:

- Gas Sector Presentations and/or Memoranda (draft and final)

TASK 4: EVALUATION OF PROJECT BENEFITS

The goal of this task is to report the benefits resulting from this project.

The Contractor shall:

- Complete three Project Benefits Questionnaires that correspond to three main intervals in the Agreement: (1) *Kick-off Meeting Benefits Questionnaire*; (2) *Mid-term Benefits Questionnaire*; and (3) *Final Meeting Benefits Questionnaire*.
- Provide all key assumptions used to estimate projected benefits, including targeted market sector (e.g., population and geographic location), projected market penetration, baseline and projected energy use and cost, operating conditions, and emission reduction calculations. Examples of information that may be requested in the questionnaires include:
 - For Product Development Projects and Project Demonstrations:
 - Published documents, including date, title, and periodical name.

EXHIBIT A
SCOPE OF WORK
THE LELAND STANFORD JUNIOR UNIVERSITY

- Estimated or actual energy and cost savings, and estimated statewide energy savings once market potential has been realized. Identify all assumptions used in the estimates.
- Greenhouse gas and criteria emissions reductions.
- Other non-energy benefits such as reliability, public safety, lower operational cost, environmental improvement, indoor environmental quality, and societal benefits.
- Data on potential job creation, market potential, economic development, and increased state revenue as a result of the project.
- A discussion of project product downloads from websites, and publications in technical journals.
- A comparison of project expectations and performance. Discuss whether the goals and objectives of the Agreement have been met and what improvements are needed, if any.
- Additional Information for Product Development Projects:
 - Outcome of product development efforts, such copyrights and license agreements.
 - Units sold or projected to be sold in California and outside of California.
 - Total annual sales or projected annual sales (in dollars) of products developed under the Agreement.
 - Investment dollars/follow-on private funding as a result of Energy Commission funding.
 - Patent numbers and applications, along with dates and brief descriptions.
- Additional Information for Product Demonstrations:
 - Outcome of demonstrations and status of technology.
 - Number of similar installations.
 - Jobs created/retained as a result of the Agreement.
- For Information/Tools and Other Research Studies:
 - Outcome of project.
 - Published documents, including date, title, and periodical name.
 - A discussion of policy development. State if the project has been cited in government policy publications or technical journals, or has been used to inform regulatory bodies.
 - The number of website downloads.
 - An estimate of how the project information has affected energy use and cost or has resulted in other non-energy benefits.
 - An estimate of energy and non-energy benefits.
 - Data on potential job creation, market potential, economic development, and increased state revenue as a result of project.
 - A discussion of project deliverable downloads from websites, and publications in technical journals.
 - A comparison of project expectations and performance. Discuss whether the goals and objectives of the Agreement have been met and what improvements are needed, if any.
- Respond to CAM questions regarding responses to the questionnaires.

The Energy Commission may send the Contractor similar questionnaires after the Agreement term ends. Responses to these questionnaires will be voluntary.

Deliverables:

EXHIBIT A
SCOPE OF WORK
THE LELAND STANFORD JUNIOR UNIVERSITY

- Kick-off Meeting Benefits Questionnaire
- Mid-term Benefits Questionnaire
- Final Meeting Benefits Questionnaire

TASK 5: TECHNOLOGY/KNOWLEDGE TRANSFER ACTIVITIES

The goal of this task is to develop a plan to make the knowledge gained, experimental results, and lessons learned available to the public and key decision makers.

The Contractor shall:

- Prepare an *Initial Fact Sheet* at start of the project that describes the project. Use the format provided by the CAM.
- Prepare a *Final Project Fact Sheet* at the project's conclusion that discusses results. Use the format provided by the CAM.
- Prepare a *Technology/Knowledge Transfer Plan* that includes:
 - An explanation of how the knowledge gained from the project will be made available to the public, including the targeted market sector and potential outreach to end users, utilities, regulatory agencies, and others.
 - A description of the intended use(s) for and users of the project results.
 - Published documents, including date, title, and periodical name.
 - Copies of documents, fact sheets, journal articles, press releases, and other documents prepared for public dissemination. These documents must include the Legal Notice required in the terms and conditions. Indicate where and when the documents were disseminated.
 - A discussion of policy development. State if project has been or will be cited in government policy publications or used to inform regulatory bodies.
 - The number of website downloads or public requests for project results.
 - Additional areas as determined by the CAM.
- Conduct technology transfer activities in accordance with the Technology/Knowledge Transfer Plan. These activities will be reported in the Progress Reports.
- When directed by the CAM, develop *Presentation Materials* for an Energy Commission-sponsored conference/workshop(s) on the project.
- When directed by the CAM, participate in annual EPIC symposium(s) sponsored by the CEC.
- Provide at least (6) six *High Quality Digital Photographs* (minimum resolution of 1300x500 pixels in landscape ratio) of pre and post technology installation at the project sites or related project photographs.
- Prepare a *Technology/Knowledge Transfer Report* on technology transfer activities conducted during the project.

Deliverables:

- Initial Fact Sheet (draft and final)
- Final Project Fact Sheet (draft and final)
- Presentation Materials (draft and final)
- High Quality Digital Photographs
- Technology/Knowledge Transfer Plan (draft and final)
- Technology/Knowledge Transfer Report (draft and final)

V. PROJECT SCHEDULE

Please see the attached Excel spreadsheet.