

**CONTRACT REQUESTS FORM (CRF)**

CEC-94 (Revised 5/11)

CALIFORNIA ENERGY COMMISSION


 New Contract 500-11-029     Amendment to Existing Contract: \_\_\_\_\_ Amendment Number: \_\_\_\_\_

Division	Contract Manager:	MS-	Phone	CM Training Date
Energy Research and Development	Leah Mohney	51	916-327-1506	10/20/2009

Contractor's Legal Name	Federal ID Number
KEMA, Inc.	54-1067916

Title of Project
Technical Support for the Research and Development Division

Term	Start Date	End Date	Amount
New/Original Contract	6/30/2012	3/31/2015	\$ 3,500,000

Line up the Amendment information as best as possible within the following table.

Amendment #	End Date (mm/dd/yy)	Amount

### Business Meeting Information

Proposed Business Meeting Date	6/13/2012	<input type="checkbox"/> Consent	<input checked="" type="checkbox"/> Discussion
Business Meeting Presenter	Leah Mohney	Time Needed:	5 minutes

**Agenda Item Subject and Description** This agenda item should be sent to the Research List Serve (Energy RD&D/PIER program)

Possible approval of Contract 500-11-029 for \$3,500,000.00 with KEMA, Incorporated to provide technical support for the Research and Development Division. (PIER electricity and natural gas funding.) Contact: Leah Mohney. (5 minutes)

**Business Meeting approval is not required for the following types of contracts:** *Executive Director's signature is required in all cases.*

- Contracts less than \$10k (*Policy Committee's signature is also required*)
- Amendment for a no-cost time extension. Must be first extension, less than one year and original contract less than \$100k.
- Contracts less than \$25k for Expert Witness in Energy Facility licensing cases and amendments.

### Purpose of Contract or Purpose of Amendment, if applicable

The purpose of this contract is to hire an experienced, full-service contractor team to provide technical support services and perform research, development, and demonstration activities for the Energy Commission's Research & Development Division. This contractor will provide the Energy Commission with expertise in a wide variety of technical fields selected to augment the capabilities of Energy Commission staff.

### California Environmental Quality Act (CEQA) Compliance

- Is Contract considered a "Project" under CEQA?
  - Yes: skip to question 2
  - No: complete the following (PRC 21065 and 14 CCR 15378):

Explain why contract is not considered a "Project":  
The contract will not cause direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment because it involves research and analysis activities.
- If contract is considered a "Project" under CEQA:
  - a) Contract **IS** exempt. (Draft NOE required)
    - Statutory Exemption. List PRC and/or CCR section number: \_\_\_\_\_
    - Categorical Exemption. List CCR section number: \_\_\_\_\_
    - Common Sense Exemption. 14 CCR 15061 (b) (3)

Explain reason why contract is exempt under the above section:
  - b) Contract **IS NOT** exempt. The Contract Manager needs to consult with the Energy Commission attorney assigned to their division and the Siting Office regarding a possible Initial Study.

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Budgets Information								
Contract Amount Funded		Breakdown by FY			Funding Sources			
Funding Source	Amount	FY	Amount	Approved?	Funding Source	FY	Budget List No.	Amount
ARFVTF	\$	11-12	\$3,500,000	Yes	PIER-E	10-11	500.008K	\$2,033,520
ECAA	\$		\$		PIER-E	11-12	500.008L	\$420,780
State- ERPA	\$		\$		PIER-NG	11-12	501.001F	\$395,700
Federal	\$		\$		GRDA	11-12	500.011F	\$50,000
PIER - E	\$2,954,300		\$		PIER-E	11-12	501.027J	\$500,000
PIER - NG	\$495,700		\$		NG Subaccount	10-11	501.001E	\$100,000
Reimbursement	\$		\$					\$
Other	\$		\$					\$
<b>TOTAL:</b>	<b>\$3,500,000</b>	<b>TOTAL:</b>	<b>\$3,500,000</b>		<b>TOTAL:</b>			<b>\$3,500,000</b>
Reimbursement Contract #:					Federal Agreement			

Contractor's Administrator/ Officer		Contractor's Project Manager	
Name:	Dawn Pillsbury	Name:	Nellie Tong
Address:	DNV KEMA Energy & Sustainability Office 155 Grand Ave. Suite 500	Address:	DNV KEMA Energy & Sustainability Office 155 Grand Ave. Suite 500
City, State, Zip:	Oakland, CA 94612	City, State, Zip:	Oakland, CA 94612
Phone/ Fax:	(510) 891-0446	Phone/ Fax:	(510) 891-0446
E-Mail:	Dawn.pillsbury@dnvkena.com	E-Mail:	Nellie.tong@dnvkema.com

**Contractor Is**

Private Company (including non-profits)

CA State Agency (including UC and CSU)

Government Entity (i.e. city, county, federal government, air/water/school district, joint power authorities, university from another state)

**Selection Process Used**

Solicitation RFP Solicitation #: 500-11-504 # of Bids: 3 Low Bid?  No  Yes

Non Competitive Bid (Attach CEC 96)

Exempt Select Exemption

**Civil Service Considerations**

Not Applicable (Contract is with a CA State Entity or a membership/co-sponsorship)

Public Resources Code 25620, et seq., authorizes the Commission to contract for the subject work. (PIER)

The Services Contracted:

- are not available within civil service
- cannot be performed satisfactorily by civil service employees
- 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.

**Justification:**  
Public Resources Code 25620, et seq., authorizes the Commission to contract for the subject work. (PIER)

**CONTRACT REQUESTS FORM (CRF)**



Payment Method			
<input checked="" type="checkbox"/> A. Reimbursement in arrears based on:			
<input checked="" type="checkbox"/> Itemized Monthly	<input type="checkbox"/> Itemized Quarterly	<input type="checkbox"/> Flat Rate	<input type="checkbox"/> One-time
<input type="checkbox"/> B. Advanced Payment			
<input type="checkbox"/> C. Other, explain:			

Retention			
1. Is contract subject to retention?		<input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes
If Yes, Do you plan to release retention prior to contract termination?		<input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes

Justification of Rates
The rates are appropriate for the services to be supplied.

Disabled Veteran Business Enterprise Program (DVBE)	
1. <input type="checkbox"/> Not Applicable	
2. <input checked="" type="checkbox"/> Meets DVBE Requirements	DVBE Amount:\$ <u>25,000.00</u> DVBE %: <u>3</u>
<input type="checkbox"/> Contractor is Certified DVBE	
<input checked="" type="checkbox"/> Contractor is Subcontracting with a DVBE:	<u>Redhorse Technical Services Inc.</u>
3. <input type="checkbox"/> Requesting DVBE Exemption (attach CEC 95)	

Is Contractor a certified Small Business (SB), Micro Business (MB) or DVBE?		<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes
If yes, check appropriate box:		<input type="checkbox"/> SB	<input type="checkbox"/> MB <input type="checkbox"/> DVBE

Is Contractor subcontracting any services?		<input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes
If yes, give company name and identify if they are a Small Business (SB), Micro Business (MB) and/or DVBE:			
BEHNKE, ERDMAN & WHITAKER ENGINEERING (BEW)	<input checked="" type="checkbox"/> No	<input type="checkbox"/> SB	<input type="checkbox"/> MB <input type="checkbox"/> DVBE
Arup North America Ltd	<input checked="" type="checkbox"/> No	<input type="checkbox"/> SB	<input type="checkbox"/> MB <input type="checkbox"/> DVBE
Aspen Environmental Group	<input checked="" type="checkbox"/> No	<input type="checkbox"/> SB	<input type="checkbox"/> MB <input type="checkbox"/> DVBE
Black & Veatch Corporation	<input checked="" type="checkbox"/> No	<input type="checkbox"/> SB	<input type="checkbox"/> MB <input type="checkbox"/> DVBE
Energy & Environmental Economics, Inc.	<input checked="" type="checkbox"/> No	<input type="checkbox"/> SB	<input type="checkbox"/> MB <input type="checkbox"/> DVBE
Fehr & Peers	<input checked="" type="checkbox"/> No	<input type="checkbox"/> SB	<input type="checkbox"/> MB <input type="checkbox"/> DVBE
Geothermex	<input checked="" type="checkbox"/> No	<input type="checkbox"/> SB	<input type="checkbox"/> MB <input type="checkbox"/> DVBE
Redhorse Technical Services Inc.	<input type="checkbox"/> No	<input checked="" type="checkbox"/> SB	<input checked="" type="checkbox"/> MB <input checked="" type="checkbox"/> DVBE
St. Croix Research	<input type="checkbox"/> No	<input checked="" type="checkbox"/> SB	<input checked="" type="checkbox"/> MB <input type="checkbox"/> DVBE
Terrafore Inc.	<input checked="" type="checkbox"/> No	<input type="checkbox"/> SB	<input type="checkbox"/> MB <input type="checkbox"/> DVBE
TSS Consultants	<input type="checkbox"/> No	<input checked="" type="checkbox"/> SB	<input type="checkbox"/> MB <input type="checkbox"/> DVBE
Andrew Chang & Company, LLC	<input type="checkbox"/> No	<input type="checkbox"/> SB	<input type="checkbox"/> MB <input type="checkbox"/> DVBE
Design2Market	<input type="checkbox"/> No	<input checked="" type="checkbox"/> SB	<input checked="" type="checkbox"/> MB <input type="checkbox"/> DVBE
Donnelly Communications	<input type="checkbox"/> No	<input checked="" type="checkbox"/> SB	<input checked="" type="checkbox"/> MB <input type="checkbox"/> DVBE
Evan Hughes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> SB	<input checked="" type="checkbox"/> MB <input type="checkbox"/> DVBE
ICF Jones & Stokes, Inc.	<input checked="" type="checkbox"/> No	<input type="checkbox"/> SB	<input type="checkbox"/> MB <input type="checkbox"/> DVBE
Integral Group	<input checked="" type="checkbox"/> No	<input type="checkbox"/> SB	<input type="checkbox"/> MB <input type="checkbox"/> DVBE
RMC Water and Environment	<input checked="" type="checkbox"/> No	<input type="checkbox"/> SB	<input type="checkbox"/> MB <input type="checkbox"/> DVBE
Wolk Integrated Technical Services	<input type="checkbox"/> No	<input checked="" type="checkbox"/> SB	<input checked="" type="checkbox"/> MB <input type="checkbox"/> DVBE

**CONTRACT REQUESTS FORM (CRF)**



Miscellaneous Contract Information		
1. Will there be Work Authorizations?	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes
2. Is the Contractor providing confidential information?	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes
3. Is the contractor going to purchase equipment?	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes
4. Check frequency of progress reports <input checked="" type="checkbox"/> Monthly <input type="checkbox"/> Quarterly <input type="checkbox"/> _____		
5. Will a final report be required?	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes
6. Is the contract, with amendments, longer than a year? If yes, why?	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes
<p>The Department of General Services has agreed to give the Commission blanket authority to execute multi-year contracts to support the Commission's RD&amp;D Programs.</p>		

The following items should be attached to this CRF		
1. Scope of Work, Attach as Exhibit A.	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Attached
2. Budget Detail, Attach as Exhibit B.	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Attached
3. CEC 96, NCB Request	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Attached
4. CEC 30, Survey of Prior Work	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Attached
5. CEC 95, DVBE Exemption Request	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Attached
6. Draft CEQA Notice of Exemption (NOE)	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Attached
7. Resumes	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Attached
8. CEC 105, Questionnaire for Identifying Conflicts		<input checked="" type="checkbox"/> Attached

\_\_\_\_\_  
 Contract Manager                      Date                      Office Manager                      Date                      Deputy Director                      Date

The following signatures are only required when contract approval is delegated to the Executive Office and not approved at a Business Meeting. See Business Meeting Information Section.

\_\_\_\_\_  
 Presiding Policy Committee                      Date                      Associate Policy Committee                      Date                      Executive Director                      Date

**Exhibit A**  
**SCOPE OF WORK**

**TASK LIST**

<b>Task #</b>	<b>Task Name</b>
1	Agreement Management
2	Program-Level Assistance and Research, Development, and Demonstration
3	Project-Level Assistance

**ACRONYMS/GLOSSARY**

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

<b>Acronym</b>	<b>Definition</b>
CCM	Commission Contract Manager
Energy Commission	California Energy Commission
ERDD	Energy Research Development and Demonstration
RD&D	Research Development and Demonstration
WA	Work Authorization
WAM	Work Authorization Manager

**BACKGROUND/PROBLEM STATEMENT**

The purpose of this Agreement is to provide technical support services and perform Research Development, and Demonstration (RD&D) activities for the California Energy Commission's (Energy Commission's) Energy Research Development and Demonstration (ERDD) Division. ERDD programs (including the Public Interest Energy Research (PIER) and Geothermal Resources Development Account (GRDA) Programs) focus on the science and technology of electricity and natural gas generation, energy end use, system reliability, and energy-related environmental research. The ERDD Division informs policy regarding preferred technology options, including their costs, benefits, impacts, commercial status, and barriers to adoption.

**GOALS and/or OBJECTIVES OF THE AGREEMENT**

The goal of this Agreement is to obtain technical support services for the Energy Commission's ERDD Programs, and for other RD&D activities consistent with legislation, regulations, and policies.

This is a Work Authorization (WA) contract, meaning that no work other than that described in Task 1 (Administration) shall be undertaken unless authorized by the Energy Commission through a document called a "Work Authorization" that specifies tasks, deliverables, and costs. WAs will be used on an as-needed basis. Specific tasks and the degree of effort for each task will vary from project to project. As demand is uncertain, there will be no guarantee of work for the prime contractor or any subcontractor.

Written authorization must be obtained from the Energy Commission Contract Manager (CCM) before work can begin on any WA. Workflow will depend on demand for service. The Energy Commission Work Authorization Manager (WAM) will manage specific projects, including tasks as specified in one or more WAs.

## **Exhibit A SCOPE OF WORK**

### **FORMAT/REPORTING REQUIREMENTS**

#### **Deliverables/Reports**

When creating reports, the Contractor shall use and follow, unless otherwise instructed in writing by the CCM, the latest version of the Consultant Reports Style Manual published on the Energy Commission's web site:

[http://www.energy.ca.gov/contracts/consultant\\_reports/index.html](http://www.energy.ca.gov/contracts/consultant_reports/index.html)

Each final deliverable shall be delivered as one original, reproducible, 8 ½" by 11", camera-ready master in black ink. Illustrations and graphs shall be sized to fit an 8 ½" by 11" page and readable if printed in black and white.

#### **Electronic File Format**

The Contractor shall deliver an electronic copy (CD ROM or memory stick or as otherwise specified by the CCM) of the full text in a compatible version of Microsoft Word (.doc).

The following describes the accepted formats of electronic data and documents provided to the Energy Commission as contract deliverables, and establishes the computer platforms, operating systems, and software versions that will be required to review and approve all software deliverables.

- Data sets shall be in Microsoft (MS) Access or MS Excel file format.
- PC-based text documents shall be in MS Word file format.
- Documents intended for public distribution shall be in PDF file format, with the native file format provided as well.
- Project management documents shall be in MS Project file format.

#### **Software Application Development**

If this Scope of Work includes any software application development, including but not limited to databases, websites, models, or modeling tools, the Contractor shall use the following standard Application Architecture components in compatible versions:

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

### **TASK 1- AGREEMENT MANAGEMENT**

#### **Task 1.1 Kick-off Meeting**

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

## **Exhibit A SCOPE OF WORK**

### **The Contractor shall:**

- Attend a “kick-off” meeting with the CCM, the Contracts Officer, and a representative of the Accounting Office. The meeting will be held via Web-Ex or teleconference. The Contractor shall include their Project Manager, Contracts Administrator, Accounting Officer, and others designated by the CCM in this meeting. The administrative and technical aspects of this Agreement will be discussed at the meeting.
- If necessary, prepare an updated Schedule of Deliverables based on the decisions made in the kick-off meeting.

### **The CCM shall:**

- Arrange the meeting including scheduling the date and time.
- Provide an agenda to all potential meeting participants prior to the kick-off meeting.

### **Deliverables:**

- An Updated Schedule of Deliverables (if applicable)

### **TASK 1.2 Invoices**

#### **The Contractor shall:**

- Prepare invoices for all reimbursable expenses incurred performing work under this Agreement in compliance with the Exhibit B of the Terms and Conditions of the Agreement. Invoices shall be submitted with the same frequency as progress reports (task 1.4). Invoices must be submitted to the Energy Commission’s Accounting Office.

#### **Deliverables:**

- Invoices

### **Task 1.3 Work Authorizations**

#### **The Contractor shall:**

- Help prepare WAs in accordance with the requirements of this Agreement.
  - The WA format and content shall be specified by the CCM.
  - The WA term end date should be no later than 30 days prior to the termination of the contract. The only exception to this is that a Task 1 contract management and administration WA term end date may be the same as the term end date of the contract. This allows the Contractor time to complete closeout activities for all WAs and to prepare the Final Report.
- Administer Work Authorizations
  - Establish and maintain contractual agreements with entities performing work.
  - Develop project schedules.
  - Manage subcontractor activities in accordance with the contract terms and conditions.
  - Provide oversight and first-level review of reports and documentation, and comment on the content of deliverables.
  - Review and approve all invoices.
  - Provide audit and accounting services for all WAs.
  - Immediately report any significant variances affecting the performance of WAs and recommend mitigation actions for consideration by the WAM and CCM. Examples of significant variances include the inability to deliver products by key WA dates, unavailability of key personnel that will affect timely submittal of deliverables, and key

## **Exhibit A SCOPE OF WORK**

technical issues that would require change in scope, redirection of effort, or discontinuation of the project.

- Coordinate with the CCM to close out completed WAs and remaining unallocated balances.
  
- Monitor and track each WA and the entire Agreement
  - Determine the fiscal status of each WA and the Agreement.
  - Prevent accumulation of cost overruns.
  - Determine if each WA is on schedule.
  - Determine whether deliverables have been submitted and accepted.
  - Track the start, progress, and completion of each WA.

### **Deliverables:**

- Project schedules

### **TASK 1.4 Manage Subcontractors**

The goals of this task are to ensure quality products, enforce subcontractor Agreement provisions, and recommend solutions for unsatisfactory subcontractor performance.

#### **The Contractor shall:**

- Manage and coordinate subcontractor activities. The Contractor is responsible for the quality of all subcontractor work and the Energy Commission will assign all work to the Contractor. If the Contractor decides to add new subcontractors, it shall notify the CCM, who will follow the Energy Commission's process for adding or replacing subcontractors.

### **Task 1.5 Progress Reports**

The goal of this task is to periodically verify that satisfactory and continued progress is made towards achieving the objectives of this Agreement.

#### **The Contractor shall:**

- Prepare progress reports that summarize all Agreement activities conducted by the Contractor for the reporting period, including an assessment of the ability to complete the Agreement within the current budget and any anticipated cost overruns. Each progress report is due within 15 calendar days of the end of the reporting period. The CCM will provide the format for progress reports.

### **Deliverables:**

- Monthly Progress Reports

### **Task 1.6 Final Report**

The goal of this task is to prepare a comprehensive written Final Report that describes the original purpose, approach, results, and conclusions of the work completed under this Agreement. The Final Report shall be prepared in language easily understood by the public or layperson with a limited technical background.

The Final Report must be completed before the termination date of the Agreement in accordance with the Schedule of Deliverables.

## **Exhibit A SCOPE OF WORK**

The Final Report shall be a public document. If the Contractor has obtained confidential status from the Energy Commission and will be preparing both a public and a confidential version of the Final Report, the Contractor shall perform the following subtasks for both the public and confidential versions of the Final Report.

### **Task 1.6.1 Final Report Outline**

#### **The Contractor shall:**

- Prepare and submit a draft outline of the Final Report for review and approval that summarizes the work performed under the contract. The Final Report format and content shall be specified by the CCM and may include but not limited to: the WA number, WA title, WA purpose, project description, project results, amount allocated, and amount expended. Subtotals shall be presented by fund source, and totals shall be provided for the entire contract.
- The CCM will provide written comments to the Contractor on the draft outline. The Contractor shall review the comments and discuss any issues with the recommended changes with the CCM.
- Prepare and submit the final outline of the Final Report, incorporating CCM comments.

#### **Deliverables:**

- Draft Outline of the Final Report
- Final Outline of the Final Report

### **Task 1.6.2 Final Report**

#### **The Contractor shall:**

- Prepare the draft Final Report for this Agreement in accordance with the approved outline.
- Submit the draft Final Report for review and comment. The CCM will provide written comments to the Contractor. The Contractor shall review the comments and discuss any issues with the recommended changes with the CCM.
- Prepare and submit the Final Report, incorporating CCM comments.

#### **Deliverables:**

- Draft Final Report
- Final Report

### **Task 1.7 Final Meeting**

The goal of this task is to discuss closeout of this Agreement and review the project.

#### **The Contractor shall:**

- Meet with Energy Commission staff prior to the term end date of this Agreement. The meeting will be held via Web-Ex or teleconference. This meeting will be attended by the Contractor Project Manager and the CCM. The CCM will determine any additional appropriate meeting participants. The administrative and technical aspects of Agreement closeout will be discussed at the meeting.
- Present findings, conclusions, and recommended next steps (if any) for the Agreement, based on the information included in the Final Report.
- Prepare a written document of meeting agreements and unresolved activities.
- Prepare a schedule for completing the closeout activities for this Agreement, based on determinations made within the meeting.

## **Exhibit A SCOPE OF WORK**

### **Deliverables:**

- Written documentation of meeting agreements
- Schedule for completing closeout activities

### **The Contractor shall:**

- Prepare a letter documenting the permits required to conduct this Agreement and submit it at least 2 working days prior to the kick-off meeting. Provide in the letter:
  - A list of the permits that identifies the:
    - Type of permit
    - Name, address and telephone number of the permitting jurisdictions or lead agencies
  - A schedule the Contractor will follow in applying for and obtaining these permits.
- Discuss the list of permits and the schedule for obtaining them at the kick-off meeting. The implications to the Agreement 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 the progress reports.
- If during the course of the Agreement additional permits become necessary, then provide the appropriate information on each permit and an updated schedule to the CCM.
- As permits are obtained, send a copy of each approved permit to the CCM if requested.
- If during the course of the Agreement permits are not obtained on time or are denied, notify the CCM within 5 working days.

### **Deliverables:**

- A letter documenting the permits and schedule
- Updated list of permits and schedule (as necessary)
- A copy of each approved permit (if requested)

## **TECHNICAL TASKS**

Activities may fall under either the support or RD&D budget, depending upon the role of the Administrator.

- The Support budget applies if the Contractor's Administrator performs the role of a CCM. Such activities include reviewing monthly progress reports and other deliverables such as invoices.
- The RD&D budget applies if the Contractor's Administrator acts as the Project Manager and manages the RD&D effort.

### **Task 2 Program-Level Assistance and RD&D**

The goals of this task are to assist the Energy Commission in program definition, design, direction, execution, and evaluation, and to perform research and development activities at the program level.

## **Exhibit A SCOPE OF WORK**

### **2.1 Comparative Evaluation of Energy Technologies (RD&D)**

The goal of this task is help evaluate energy technologies relative to: (1) their commercial status; (2) the status of specific research activities and established research and development goals; (3) technical, financial, economic, regulatory, and environmental barriers and supports to deployment; (4) appropriate policies or actions to meet research needs and mitigate deployment barriers; and (5) the social cost or benefit of the policies/actions.

#### **The Contractor shall:**

- Prepare technical, economic, environmental, and market analyses of various technologies.
- Evaluate opportunities to develop environmental sciences and technologies that will preserve and enhance natural resources in the face of energy development and use.
- Evaluate various California energy policies (as reflected in statutes, regulations, Executive Orders, and reports) to enhance the resilience, security, and stability of the energy infrastructure.
- Prepare California Energy Policy Evaluation Reports.

#### **Deliverables:**

- Technical, economic, environmental and market analyses of technologies
- California Energy Policy Evaluation Reports

### **2.2 Proposal Review Assistance (Support)**

#### **The Contractor shall:**

- Review the technical and economic components of proposals received by the Energy Commission for various state research funding programs.
- Prepare technical and economic reviews of proposals.

#### **Deliverables:**

- Technical and economic reviews of proposals

### **2.3 Expert Witness (RD&D)**

#### **The Contractor shall:**

- Provide technical experts for hearings, workshops, and other meetings relating to technology and energy development issues.
- Prepare technical summaries of technology and energy development issues for possible inclusion in Energy Commission reports.

#### **Deliverables:**

- Technical summaries for Energy Commission Reports

### **2.4 Coordination of Technical Advisors and Advisory Committees (Support and RD&D)**

#### **The Contractor shall:**

- Assist in conducting workshops and other outreach activities that seek comments from relevant individuals, industries, and organizations for purposes of planning, designing, developing, implementing, administering, evaluating, and coordinating selected programs.

#### **Deliverables:**

- TBD

## **Exhibit A SCOPE OF WORK**

### **Task 3 Project-Level Assistance**

The goal of this task is to assist the Energy Commission with RD&D support activities including project definition, design, direction, execution, and evaluation.

#### **3.1 Project Development (RD&D)**

**The Contractor shall:**

- Provide technical assistance for energy project site development, including but not limited to the following areas:
  - resource measurement and assessment;
  - valuation of energy resources;
  - interconnection;
  - power and thermal energy sales;
  - design;
  - engineering;
  - equipment selection;
  - permitting;
  - project planning and analysis;
  - financing;
  - construction;
  - start-up, testing, and qualification;
  - CEQA analysis;
  - performance evaluation and final report; and
  - loan repayments.
- Provide RD&D investigations and gap analyses preliminary to mounting full RD&D efforts.
- Prepare Investigation and/or Gap Analysis Reports.

**Deliverables:**

- Project Site Development Reports
- Investigation/Gap Analysis Reports

#### **3.2 Project Financing (Support)**

**The Contractor shall:**

- Prepare Project Financial Analyses and Financing Reports that include financial due diligence and tax and cash flow analyses. “Financial due diligence” includes engineering evaluation and risk assessment of the reliability, safety, and performance projected for a project; and preparation of documentation for the projected costs and gross revenues.
- Prepare Engineering Evaluation and Risk Assessment Reports.
- Prepare cost and revenue documentation.
- Prepare project proposals and negotiating requests for public and private project financing.

**Deliverables:**

- Project Financial Analysis and Financing Reports
- Engineering Evaluation and Risk Assessment Reports
- Cost and revenue documentation
- Project proposals and negotiating requests

## **Exhibit A SCOPE OF WORK**

### **3.3 Feasibility Studies (Support)**

#### **The Contractor shall:**

- Prepare Feasibility Study Reports that provide sufficient information to make informed decisions about further pursuit of proposed projects. The informational content will be under the CCM's direction and may include but not be limited to: critical energy infrastructures and energy resources; energy resource and energy demand compatibility assessment; technology assessment; lab and field testing; economic and financial analysis; institutional considerations; and time schedules.

#### **Deliverables:**

- Feasibility Study Reports

### **3.4 Market Entry Support (RD&D)**

#### **The Contractor shall:**

- Plan the market entry of energy products or applications.
- Prepare Market Entry and Distribution Plans including but not limited to:
  - Identification of the most likely markets for energy projects in addition to pricing, warranty, and service policies.
  - Designs for and discussion of the use of media and publication materials for market entry of energy products or applications.
  - Designs for distribution and service systems for energy products or applications.

#### **Deliverables:**

- Market Entry and Distribution Plans

### **3.5 Purchase of Equipment (RD&D)**

#### **The Contractor shall:**

- Assist in purchasing or leasing equipment, computer hardware, and off-the-shelf software and hardware for instrumentation, measuring, monitoring, telemetering, data conversion, data analysis, relay, and display activities related to field/laboratory work or project operations that include but are not limited to: the evaluation of a site, resource, environmental impacts, evaluation data, or an equipment test program.
- Prepare equipment purchase or lease agreements.

#### **Deliverables:**

- Equipment purchase or lease agreements

### **3.6 Appraisal, Removal Storage, Sale, and Salvage of Equipment (Support)**

#### **The Contractor shall:**

- Assist in conducting qualified independent appraisals for the salvage of equipment previously used in Energy Commission projects and programs.
- Assist in providing the competitive sale, removal, and storage of equipment.

#### **Deliverables:**

- TBD

**Exhibit A**  
**SCOPE OF WORK**

**SCHEDULE OF DELIVERABLES AND DUE DATES**

<b>Task Number</b>	<b>Deliverable</b>	<b>Due Date</b>
1.1	An Updated Schedule of Deliverables	TBD (If applicable)
1.2	Invoices	Monthly (to be submitted with the Monthly Progress Report)
1.4	Monthly Progress Reports	Monthly (to be submitted with the Monthly Invoice)
1.5.1	<ul style="list-style-type: none"> <li>• Draft Outline of the Final Report</li> <li>• Final Outline of the Final Report</li> </ul>	1/1/2015 1/10/2015
1.5.2	<ul style="list-style-type: none"> <li>• Draft Final Report</li> <li>• Final Report</li> </ul>	1/15/15 1/31/15
1.6	<ul style="list-style-type: none"> <li>• Written documentation of meeting agreements</li> <li>• Schedule for completing closeout activities</li> </ul>	2/15/15 2/15/15
1.7	<ul style="list-style-type: none"> <li>• A letter documenting the permits and schedule</li> <li>• Updated list of permits and schedule</li> <li>• A copy of each approved permit (if requested)</li> </ul>	Provided with each Work Authorization TBD (if applicable) As requested
2.1	<ul style="list-style-type: none"> <li>• Technical, economic, environmental and market analysis of technologies</li> <li>• California Energy Policy Evaluation Reports</li> </ul>	TBD
2.2	<ul style="list-style-type: none"> <li>• Technical and economic reviews of proposals</li> </ul>	TBD
2.3	<ul style="list-style-type: none"> <li>• Technical experts to testify for hearings, workshops and meetings</li> <li>• Technical write ups for Energy Commission Reports</li> </ul>	TBD
2.4	<ul style="list-style-type: none"> <li>• Assistance in conducting workshops and other outreach activities determined by the Energy Commission</li> </ul>	TBD
3.1	<ul style="list-style-type: none"> <li>• Project Site Development Reports</li> <li>• Investigations/Gap Analysis Reports</li> </ul>	TBD
3.2	<ul style="list-style-type: none"> <li>• Project financial analysis reports</li> <li>• Engineering evaluation and risk assessment reports</li> <li>• Cost and revenue documentation</li> <li>• Project proposals</li> </ul>	TBD
3.3	<ul style="list-style-type: none"> <li>• Feasibility Study Reports</li> </ul>	TBD
3.4	<ul style="list-style-type: none"> <li>• Market entry and distribution plans</li> </ul>	TBD
3.5	<ul style="list-style-type: none"> <li>• Equipment purchase or lease agreements</li> </ul>	TBD
3.6	<ul style="list-style-type: none"> <li>• Appraisal, removal and sale of salvaged equipment</li> </ul>	TBD