

CONTRACT REQUEST FORM (CRF)

CEC-94 (Revised 5/11)

CALIFORNIA ENERGY COMMISSION



New Contract - - Amendment to Existing Contract: 600-09-012 Amendment Number: 1

Division	Contract Manager:	MS-	Phone	CM Training Date
600 Fuels and Transportation Division	Monica Rudman	23	916-654-4462	11/6/97

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

Title of Project
Energy Commission American Recovery and Reinvestment Act: MVE&R

Term	Start Date	End Date	Amount
New/Original Contract	April / 1 / 10	June / 30 / 13	\$ 3,975,000

Line up the Amendment information as best as possible in the following boxes

Amendment #	End Date (mm/dd/yy)	Amount
1	06/30/13	\$200,000

Business Meeting Information			
Proposed Business Meeting Date	June 13, 2012	<input type="checkbox"/> Consent	<input checked="" type="checkbox"/> Discussion
Business Meeting Presenter	Monica Rudman	Time Needed:	10 minutes

Agenda Item Subject and Description
The purpose of the amendment is to: 1) add Task 7 to estimate net job creation, retention and other economic effects attributable to the Energy Commission's ARRA-funded programs, 2) add funds, 3) add a subcontractor and 4) update contract terms.

Business Meeting approval is not required for the following types of contracts: <i>Executive Director's signature is required in all cases.</i>
<input type="checkbox"/> Contracts less than \$10k (<i>Policy Committee's signature is also required</i>)
<input type="checkbox"/> Amendment for a no-cost time extension. Must be first extension, less than one year and original contract less than \$100k.
<input type="checkbox"/> 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 provide monitoring, verification, evaluation and reporting of ARRA funded projects to confirm that the appropriate end-use technologies were installed and reported energy savings are accurate.
The purpose of the amendment is to: 1) add a task is to estimate net job creation, retention and other economic effects attributable to the Energy Commission's ARRA-funded programs, 2) add funds and 3) add a subcontractor, Economic Development Research Group. Additionally, as directed by the Department of General Services, Office of Legal Services, the Exhibit D, State Special Terms and Conditions are being amended to remove the Binding Arbitration language. Other minor edits are also being made to the remaining language.

California Environmental Quality Act (CEQA) Compliance
1. Is Contract considered a "Project" under CEQA? <input type="checkbox"/> Yes: skip to question 2 <input checked="" type="checkbox"/> No: complete the following (PRC 21065 and 14 CCR 15378): Explain why contract is not considered a "Project": Contract will not cause direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment because _____.
2. If contract is considered a "Project" under CEQA: <input type="checkbox"/> a) Contract IS exempt. (Draft NOE required) <input type="checkbox"/> Statutory Exemption. List PRC and/or CCR section number: _____ <input type="checkbox"/> Categorical Exemption. List CCR section number: _____ <input type="checkbox"/> Common Sense Exemption. 14 CCR 15061 (b) (3) Explain reason why contract is exempt under the above section: _____
<input type="checkbox"/> 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	\$		\$	No	Funding Source			\$
ECAA	\$		\$	No	Funding Source			\$
State- ERPA	\$200,000	11/12	\$200,000	Yes	Funding Source			\$
Federal	\$		\$	No	Funding Source			\$
PIER - E	\$		\$	No	Funding Source			\$
PIER - NG	\$		\$	No	Funding Source			\$
Reimbursement	\$		\$	No	Funding Source			\$
RRTF	\$		\$	No	Funding Source			\$
Other:	\$		\$	No	Other:			\$
TOTAL: \$200,000		TOTAL: \$200,000			TOTAL: \$ 0			
Reimbursement					Federal Agreement #:			

Contractor's Administrator/ Officer		Contractor's Project Manager	
Name:	Jeff Stephens	Name:	Kathleen Gaffney
Address:	67 South Bedford St., Suite 201 East	Address:	155 Grand Avenue, Suite 500
City, State, Zip:	Burlington, Middlesex MA 01803	City, State, Zip:	Oakland CA 94612
Phone/ Fax:	510 891 0446x44412	Phone/ Fax:	510 891 0446x44412
E-Mail:	jeff.stephens@KEMA.com	E-Mail:	Kathleen.Gaffney@KEMA.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 Select Type Solicitation #: _____ - _____ # of Bids: _____ Low Bid? No Yes
 Non Competitive Bid (Attach CEC 96)
 Exempt Amendment to AE, Title 20 CCR 2566.b

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:**Payment Method**

- A. Reimbursement in arrears based on:
 - Itemized Monthly
 - Itemized Quarterly
 - Flat Rate
 - One-time B. Advanced Payment
 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 checked="" type="checkbox"/> No	<input type="checkbox"/> Yes	

Justification of Rates	
Rates and model rental fees are similar to rates already approved for contract.	

Disabled Veteran Business Enterprise Program (DVBE)	
1. <input checked="" type="checkbox"/> Not Applicable	
2. <input type="checkbox"/> Meets DVBE Requirements	DVBE Amount:\$ _____ DVBE %: _____
<input type="checkbox"/> Contractor is Certified DVBE	
<input type="checkbox"/> Contractor is Subcontracting with a DVBE:	_____
3. <input type="checkbox"/> Contractor selected through CMAS or MSA with no DVBE participation.	
4. <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:		
Economic Development Research Group	<input type="checkbox"/> No <input checked="" type="checkbox"/> SB	<input type="checkbox"/> MB <input type="checkbox"/> DVBE
	<input type="checkbox"/> No <input type="checkbox"/> SB	<input type="checkbox"/> MB <input type="checkbox"/> DVBE
	<input type="checkbox"/> No <input type="checkbox"/> SB	<input type="checkbox"/> MB <input type="checkbox"/> DVBE

Miscellaneous Contract Information			
1. Will there be Work Authorizations?	<input checked="" type="checkbox"/> No	<input 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 type="checkbox"/> No	<input checked="" type="checkbox"/> Yes	
4. Check frequency of progress reports	<input checked="" type="checkbox"/> Monthly <input type="checkbox"/> Quarterly <input type="checkbox"/> Other... _____		
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 checked="" type="checkbox"/> No	<input type="checkbox"/> Yes	

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 type="checkbox"/> N/A	<input checked="" type="checkbox"/> Attached	
4. CEC 30, Survey of Prior Work	<input type="checkbox"/> N/A	<input checked="" 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 type="checkbox"/> N/A	<input checked="" type="checkbox"/> Attached	
8. CEC 105, Questionnaire for Identifying Conflicts		<input checked="" type="checkbox"/> Attached	
9. CEC 106, IT Component Reporting Form		<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

Background

The Energy Commission is administering four programs funded by the federal American Recovery and Reinvestment Act of 2009 (ARRA): the Energy Efficiency Conservation Block Grant Program (EECBG) (\$49.6 million); the State Energy Program (SEP) (\$226 million), the State Energy Efficient Appliance Rebate Program (Energy Star) \$35.2 million), and the Enhanced Energy Assurance and Smart Grid Program (Energy Security) (\$3.5 million). The objective of this Agreement is for Contractor to provide monitoring, verification, evaluation and reporting of the projects funded by the Energy Commission through these ARRA programs.

Under separate Agreement, the Energy Commission has retained an ARRA Program Support Services Contractor to oversee and audit monitor financial accountability and internal controls of the projects receiving ARRA funds.

The Contractor under this Agreement shall be responsible for both managing the tasks in the Statement of Work, as well as coordinating its own efforts with the ARRA Program Support Services Contractor, to combat waste, fraud and abuse of ARRA funds. The Energy Commission expects both of these Contractors to work efficiently and effectively together.

Work Authorizations

The Contractor shall provide engineering services as authorized by the Commission's Contract Manager through Work Authorizations (WA). Each WA shall define the scope of work, the schedule of deliverables and the project budget for work requested by the Energy Commission. The Contractor shall begin work only when a written WA is signed by all parties. The only exception is for the preparation of the first draft Work Authorization requested by the Commission's Contract Manager. The Contractor shall prepare a draft of each WA. The Energy Commission's legal office will review the draft WA. If the legal office approves it, the Commission Contract Manager (CCM), the Commission Project Manager, the Special Projects Office Manager, and the Contractor shall sign WA. The Commission Contract Manager shall file each final WA with the Commission Contracts Office before payment of any invoice.

Statement of Work

Task 1: Develop an Action Plan for using engineering expertise to Monitor and Verify ARRA Program Activities and Products (approximately 5% of work effort)

The Contractor shall prepare a draft and a final work authorization detailing the work effort, budget, schedule and deliverables to complete the work under this Task.

Contractor shall develop a Monitoring and Verification (M&V) Action Plan (the M&V Action Plan). The goal of the M&V Action Plan is to provide engineering services that

augment and confirm data on program and ARRA award recipients' progress, to insure accurate and up-to-date information for the Commission's reporting on program progress, prevention of financial waste, fraud and abuse and for determining results of ARRA award recipients' efforts.

The Contractor shall develop a methodology to work with the Energy Commission's staff and the ARRA Program Support Services Contractor to assist the Energy Commission through monitoring and verification of program activities and results. The M&V Action Plan shall include discussion of how the Contractor will use its engineering expertise to provide information to report on and evaluate the progress and accomplishments of ARRA award recipients, and what the Contractor proposes to report. If the Contractor's methodology requires ARRA award recipients to report additional information, the Contractor will discuss how that effort will be integrated, as far as possible, with existing data collection, and what training, if necessary, will be provided to ARRA award recipients.

The M&V Action Plan shall include discussion of activities and procedures to be used for measuring and verifying appropriate installation of equipment and systems, installation of agreed-upon equipment and systems and the resulting energy savings, what methodologies the Contractor will use for sampling (and which are appropriate for what circumstances), and expected sample sizes to support the Contractor's methodology with statistically valid results. The M&V Action Plan should also provide information and procedures on the site and measure-specific measurement and verification plans.

The Contractor shall implement the M&V Action Plan by conducting file reviews and site visits, metering and monitoring the various energy efficiency measures installed through the programs, fielding surveys (e.g., in person, telephone, e-mail, etc.), analyzing secondary data, analyzing energy use and production (i.e., from renewable energy systems) data, conducting engineering analysis and modeling, and assisting in gathering inputs for the benefit/cost analysis. The Contractor must independently evaluate program impacts for a wide array of end-use energy customers (e.g. residential, commercial, industrial, and municipal) in a manner consistent with accepted engineering standards and protocols (i.e., the International Performance Measurement and Verification Protocol (IPMVP) guidelines as established by DOE) and any specific evaluation guidelines put forth by DOE for ARRA-funded programs.

The Contractor shall present their methodologies for identifying projects or ARRA award recipients' with a significant risk of failure or default, and methods for early identification of problems. The Contractor shall coordinate with the Program Support Services Contractor, who will also be identifying high risk projects.

The Contractor shall explain how they will coordinate with the Commission's Program Support Services Contractor to avoid duplicative information gathering and site visits. Any data gathered and information reported must align with the current and changing Federal and State requirements, as well as the transparency and accountability goals set forth by the laws and regulations implementing ARRA, the Office of Management and Budget, the Governor's Office Recovery Task Force, and other state or federal oversight entities. The new processes, measures, and tools must also leverage the

Energy Commission's existing technology platforms and enable the development of other reporting features that could be incorporated into the Energy Commission's recovery web pages. (See www.energy.ca.gov/recovery)

State and Federal agencies will require an independent review, verification, measurement, and evaluation of all ARRA funding awards. The reporting and tracking process must gather and manage important foundational data for the DOE evaluation report and any audits initiated by the federal OMB and/or state agencies.

The Contractor shall work with Energy Commission's program staff, where appropriate, to develop the system for tracking and reporting program results and impacts.

The Contractor shall develop procedures and identify roles/responsibilities for gathering, entering, validating, and reporting data necessary to demonstrate ARRA program results.

The Contractor shall work with Energy Commission's information technology (IT) resources and web team to identify an approach to easily convert any program progress data reported from ARRA fund recipients to the Energy Commission's ARRA reporting data system.

The Contractor shall provide documentation and training materials on new procedures, process(es), measures, and tools for recipients, necessary to implement data collection.

The Contractor shall provide other assistance related to impact measurement verification and evaluation of the Energy Commission ARRA-funded projects and programs on an ad hoc basis. This includes contributing to existing reports that the Energy Commission must file to comply with DOE and other requirements, and presenting interim results to various audiences in various forums. Contractor staff will be available during the Agreement, to brief Energy Commission management, Department of Energy or Office of Management and Budget or state agency staff on progress and findings. The Energy Commission may request other ad hoc or interim reports.

Task 1 Deliverables:

- 1A. Draft Work Authorization
- 1B. Final Work Authorization
- 1C. Draft Monitoring and Verification (M&V) Action Plan of ARRA-funded activities.
- 1D. Final M&V Action Plan. Based on Energy Commission comments, the Contractor shall revise the draft action plan and develop a final plan subject to contract manager approval.
- 1E. Draft template of a monthly email report for Contract manager comments and approval.
- 1F. Final template for a monthly email report
- 1G. Draft of the training materials for Energy Commission approval
- 1H. Revise the draft based on comments and provide final training materials
- 1I. Draft ad hoc reports as needed
- 1J. Final ad hoc reports as needed.

Task 2: Implementation of the Monitoring and Verification Plan (approximately 40% of work effort)

Upon approval of the final M&V Action Plan, by the Energy Commission Contract Manager, the Contractor shall prepare a draft and final work authorization detailing the work effort, budget, schedule, and deliverables to implement the M&V Action Plan, with regular reporting to the Energy Commission on progress and accomplishments. The Contractor will make staff available to the Energy Commission to answer questions.

The Contractor shall provide monthly reports, detailing the monitoring and verification accomplishments of the previous month, and identifying progress against the M&V Action Plan.

Deliverables shall also include, but may not be limited to providing annual reports detailing monitoring and verification findings, contributing to existing reports that the Energy Commission must file to comply with DOE and other external agency requirements, and presenting interim results to various audiences in various forums. Contractor staff shall be available to brief Energy Commission management, Department of Energy or Office of Management and Budget or state agency staff on progress and findings.

Task 2 Deliverables:

- 2A. Draft work authorization to implement the M&V Action Plan
- 2B. Final work authorization to implement the M&V Action Plan
- 2C. Monthly report using the approved template

Task 3: Develop an Action Plan for Engineering Efforts to Evaluate Energy, Peak Demand, and other impacts of ARRA Program Activities (approximately 5% of work effort)

The Contractor shall prepare a draft and final work authorization detailing the work effort, budget, schedule and deliverables to complete the work under this Task.

Contractor shall provide an Action Plan for Engineering Evaluation (the EE Plan) efforts. Contractor shall detail the engineering services needed to prepare credible and comprehensive evaluations of the SEP and EECBG program portfolios, the Energy Star Appliance Program, and the Energy Security program, identifying individual program progress and accomplishments. Contractor shall provide timely information to the Energy Commission, DOE, and other key stakeholders about the impacts and cost-effectiveness of the programs.

The evaluation activities performed by the Contractor shall utilize the Contractor's engineering expertise and experience. Evaluations will focus on the key metrics outlined by DOE including: measuring and verifying energy and demand savings; amount of renewable energy generation and installed capacity; carbon emission reductions; adoption of new technologies, long-term efficiency improvements and to a much lesser degree, where possible, estimates of job creation (including number, type and duration), employment impacts and other engineering/economic impacts.

Data collection activities for impact evaluation include but are not limited to the use of site visits, energy use metering, review of utility billing data surveys and other methods to determine attribution of energy savings and other impacts to the program funding

The Contractor shall use its engineering expertise to develop and implement methods for determining electricity and natural gas savings, peak electricity load reduction, and any other reporting metrics that the DOE may require (such as energy use impacts, persistence of savings and quantifying cost-effectiveness of the programs).

The Contractor shall develop stratified sampling plans that identify a representative sample of funding recipients and project-level facilities. The purpose of the sampling plan is to obtain an accurate and precise estimate of the variables of interest. Sampling and site visits for program evaluation should be coordinated with sampling for the monitoring and verification tasks, to provide most efficient use of resources, with least disruption to ARRA award recipients. The quantification of impacts should not systematically over or under estimate impacts and the accuracy must be sufficient to enable the Energy Commission to make decisions with reasonable assurance as to the integrity of the reported information. In developing a sampling plan, the Contractor must consider the minimum number of facility visits required to get statistically valid results. The plan must also ensure that the EE Plan and selected facility visits adequately account for the diversity of ARRA award recipients and facilities. The reports shall fulfill the requirements set out by federal and state agency reporting requirements and guidelines.

The EE Plan should include, but not be limited to, discussion of how the following sub-tasks will be accomplished:

3a. Evaluation of energy impacts attributable to the ARRA-funded programs.

Activities shall include, but may not be limited to:

- Measuring and verifying energy efficiency measure installation and energy impacts (included in Task 1, Monitoring and Verification Action Plan)
- Collecting field data by metering and monitoring equipment installed through the programs; (included in Task 1, Monitoring and Verification Action Plan)
- Conducting reviews to assess reasonableness of engineering calculations and protocols; and
- Conducting analysis of energy consumption and production data to ascertain savings/generation and peak demand reductions due to energy efficiency or renewable energy measure installation.

The measurement standard applicable to the verification of energy, fossil fuel and peak reduction impacts shall be generally consistent with best practices in:

California Energy Efficiency Evaluation Protocols: Technical Methodological and Reporting Requirements for Evaluation Professionals, California Public Utilities Commission, and April 2006

While these protocols should serve as a guide to the Contractor's efforts, where the Contractor believes those protocols would be inappropriate, unnecessary or unnecessarily complex for the Energy Commission's evaluation effort, the Contractor's methodology should be adapted to the Energy Commission's needs, which should be documented and approved by the Commission Contract Manager.

The Energy Commission will require the Contractor to estimate the market impacts of these programs, and what actions the Energy Commission or other agencies can take to strengthen or increase the persistence of positive market impacts.

3b. Determining cost-effectiveness of program impacts

Provide engineering services to conduct cost-effectiveness analysis of the Energy Commission ARRA-funded SEP, EECSBG, Energy Star Appliance and Energy Security Programs.

Cost-effectiveness tasks conducted by the Contractor shall include, but may not be limited to:

- Reviewing and identifying appropriate cost-effectiveness tests for the Energy Commission's various ARRA-funded programs.
- Assisting in developing inputs and assumptions for calculating program, sector, and portfolio level cost-effectiveness. These inputs will include but will not be limited to: engineering or experience-based estimates of, energy savings, incremental and total measure costs, leveraged funds, program costs and measure life. Stipulated values, developed as part of California Public Utilities Commission processes are acceptable as experience-based estimates.
- Calculating and reviewing cost-effectiveness and interim results.

In addition, the Contractor shall provide other assistance related to impact measurement verification and evaluation of the Energy Commission ARRA-funded SEP and EECSBG Programs on an ad hoc basis. This includes contributing to existing reports that the Energy Commission must file to comply with DOE and other requirements, and presenting interim results to various audiences in various forums. Contractor staff will be available during the contract, to brief Energy Commission management, Department of Energy or Office of Management and Budget or state agency staff on progress and findings. The Energy Commission may request other ad hoc or interim reports.

Task 3 Deliverables:

- 3A. Draft work authorization for the development of an Action Plan for Engineering Evaluation
- 3B. Final work authorization for the development of an Action Plan for Engineering Evaluation
- 3C. Evaluation of energy impacts
- 3D. Cost Effectiveness analyses
- 3E. Provide a draft template of a monthly email report for Energy Commission approval
- 3F. Provide a final template for a monthly email report
- 3G. Provide a draft of the training materials for Energy Commission approval
- 3H. Revise the draft based on comments and provide final training materials
- 3I. Draft ad hoc reports as needed
- 3J. Final ad hoc reports as needed

Task 4. Evaluation Action Plan Implementation (approximately 35% of work effort)

Upon approval of the final Action Plan for Engineering Evaluation, by the Energy Commission Contract Manager, the Contractor shall prepare a draft and final work authorization detailing the work effort, budget, schedule, and deliverables to implement the Action Plan for Engineering Evaluation.

The Contractor shall provide monthly reports, detailing the evaluation accomplishments of the previous month, and identifying progress against the Action Plan for Engineering Evaluation.

Task 4 Deliverables:

- 4A. Draft work authorization implementing the Action Plan for Engineering Evaluation
- 4B. Final work authorization implementing the Action Plan for Engineering Evaluation
- 4C. Provide a monthly report using the approved template

Task 5. Annual and Final Reporting (approximately 5% of work effort)

The Contractor shall prepare a draft and final work authorization detailing the work effort, budget, schedule and deliverables to complete the work under this Task.

The Contractor shall prepare quarterly reports that summarize activities and results of Contractor's efforts on each of the ARRA funded programs and under each Work Authorization.

The Contractor shall provide two annual reports and a final report on the activities and results of the Contractor's efforts on each of the ARRA-funded programs. Each annual report will summarize activities undertaken and completed during the contract year just ended. The reports will break out findings and results from each of the ARRA-funded efforts. Annual reporting will begin 12 months after approval of the M&V Action Plan and continue every year thereafter for the remainder of the agreement (it is anticipated that there will be two annual reports).

The Contractor shall prepare a comprehensive written Final Report that describes the original purpose, approach, results and conclusions of the work done under this Agreement.

In addition, the final report shall summarize overall findings from monitoring and verification of program activities and detailing their activities and findings for each of the ARRA-funded programs that the Energy Commission undertakes. The final report section on evaluation activities will include estimates of each program's cost effectiveness of energy savings, of peak load reduction and other DOE metrics.

The Contractor shall prepare the draft Final Report for this Agreement and submit the draft Final Report to the CCM for review and comment. The CCM will provide written comments to the Contractor within 15 calendar days of receipt. The Contractor shall review the comments and discuss any problematic recommended changes with the CCM.

The CCM will review and approve the Final Report. The Final Report must be completed before the termination date of the Agreement. The Final Report shall be a public document.

The Contractor may be asked to contribute to existing reports that the Energy Commission must file to comply with DOE and other agencies, and present interim results to various audiences in various forums.

Task 5 Deliverables:

- 5A. Draft Quarterly reports
- 5B. Final quarterly reports
- 5C. Draft annual reports
- 5D. Final annual reports
- 5E. Draft Final Report
- 5F. Final Report
- 5G. Ad hoc reporting

Task 6. Administrative Support Services to Contract (approximately 10% of work effort)

The Contractor shall prepare a draft and a final work authorization detailing the work effort, budget, schedule and deliverables to complete the work under this Task.

The Contractor's responsibilities under this task include, but are not necessarily limited to, the following:

- Administer Work Authorizations. At the direction of the Contract Manager, issue Energy Commission prepared work authorizations which define the scope of work, the schedule of deliverables and the project budget. Per Exhibit D, in the Terms and Conditions of the Agreement each WA shall include the following:
 1. Contract Number
 2. WA Number
 3. WA Title
 4. Effective Date (date signed by both Contractor and Contract Manager, indicating Contractor may begin work)
 5. End Date
 6. Objective or goal of the WA
 7. Detailed scope of work and tasks
 8. What task the WA falls within in the Contract
 9. Schedule/Due dates and Deliverables
 10. Contact Information
 11. Contractor and Subcontractor personnel who will perform the work
 12. Identification of DVBE
 13. Detailed Budget for types of costs that are identified as allowable in Contract budget:
 - Total Budget for WA
 - Category Budget, with categories such as:

- Total labor amount, based on loaded rates of person or job classification
 - Subcontracted amount
 - Travel and per diem total amount, with details of trip (number of trips, to and from location, number of people).
 - Equipment, as allowed by Contract budget, with details of specific equipment for purchase and cost.
 - Other direct or miscellaneous costs, including rental charges/fees, with details of specific item, quantity, rate and cost.
- NOTE: these categories are examples only. The WA budget shall contain the actual budget categories.

14. Other items as required by Contract Manager, as allowed by the Contract Budget.

- Maintain a current contract spreadsheet capable of tracking subcontractor and Contractor work activity, subcontractor and Contractor invoice activity, and the status of work authorizations.
- Invoices. The Contractor shall prepare a monthly invoice for all contract expenses performed for assigned work authorizations. The official invoice is to be submitted to the Energy Commission's Accounting Office. The Energy Commission's Contract Manager will specify the invoice format.
- Subcontractors. In the event subcontractors are part of the Contractor's proposal, 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. Enforce subcontractor Agreement provisions, and in the event of failure of the subcontractor to satisfactorily perform services, recommend resolution to resolve the problem.
 - ◆ Require subcontractors to provide invoices which correctly identify personnel, actual hourly rates, direct expenses and Disable Veterans business Enterprise amounts charged to each work authorization and provide back-up documentation for expenses
 - ◆ If new subcontractors are added, the Contractor shall notify the CCM who will follow the Energy Commission's process for adding or replacing subcontractors.
- Monthly Progress Report. The Contractor shall prepare a monthly progress report which summarizes all activities conducted by the Contractor and team. This report includes a summary of contract expenditures to date. The monthly progress report is due to the Energy Commission's Contract Manager within 3 working days after the end of the month. The Energy Commission's Contract Manager will specify the report format and the number of copies to be submitted. All monthly progress reports will coincide with the invoice period.

- Program Meetings and Briefings. At the request of the Energy Commission's Contract Manager, the Contractor and subcontractors shall be available for meetings or to provide written and/or verbal program briefings to the Energy Commission's staff or others. Contractor staff will be available during the contract, to brief Energy Commission management, Department of Energy or Office of Management and Budget or state agency staff on progress and findings. The cost of meetings with public agencies will be included in each work authorization. The cost of meetings requested specifically by the Contractor will be borne solely by the Contractor.

Task 6 Deliverables:

- 6A. Draft Work Authorization
- 6B. Final Work Authorization
- 6C. Monthly Progress Report
- 6D. Monthly Invoice
- 6E. Program Meetings and Briefings

Task 7. ARRA Employment and Economic Effects

The purpose of this task is to estimate net job creation, retention and other economic effects attributable to the Energy Commission's ARRA-funded programs. This evaluation will estimate a broad range of employment impacts (direct, indirect, and induced). All estimates of employment will be in terms of job-years or a full time equivalent that lasts one calendar year.

Employment impacts will be assessed for the following programs:

- **California Comprehensive Residential Building Retrofits (CCRR)**
- **Municipal & Commercial Building Targeted Measure Retrofit Program (MCR)**
- **Clean Energy Workforce Training (CEWTP)**
- **Clean Energy Business Financing Program (CEBFP)**
- **Energy Efficient State Property Revolving Loan Program (DGS)**
- **Energy Conservation Assistance Act (ECAA)**
- **Energy Efficiency and Conservation Block Grant Program (EECBG)**
- **Local Government Commission Contract (LGC)**

The measurements of annual job impacts will occur for each Energy Commission program. This assessment will be developed for each ARRA program year where programs were actively funded (2009, 2010 and 2011). The result of each assessment is a time-series of annual job impacts resulting from the short-term incremental spending related to projects and the longer-term effects from net

(verified) energy savings, and any market transformation effects that KEMA identifies.

The specific research questions are:

- How much funding (both Energy Commission administered ARRA funds and leveraged funds) is spent by industry sector?
- What industries and occupations are expected to experience job growth as a result?
- What industries and occupations are expected to experience job losses as a result?
- How many direct, indirect, and induced jobs are expected to be created by industry and occupation?
- What are the annual and cumulative income impacts?
- What are the annual and cumulative impacts on state revenue?
- What are the annual and cumulative impacts on gross state product?
- What are the regional impacts?

Details on the direction and scope of the economic impact analysis are listed in the Table 1.

Table 1. Economic Modeling Details

<u>Item</u>	<u>Modeling Details</u>
<u>Model</u>	<u>REMI</u>
<u>Geographic Output</u>	<u>6 major regions in California</u>
<u>Baseline</u>	<u>No ARRA programs</u>
<u>Spending</u>	<u>ARRA funds plus leveraged funds categorized according to applicable sector.</u>
<u>Program Years</u>	<u>Start of program throughout measure life</u>

Task 7 Deliverables: Will be defined through the Work Authorization(s).