

**CONTRACT REQUESTS FORM (CRF)**

CEC-94 (Revised 5/11)

CALIFORNIA ENERGY COMMISSION


 New Contract 500-11-017  Amendment to Existing Contract: \_\_\_\_\_ Amendment Number: \_\_\_\_\_

Division	Contract Manager:	MS-	Phone	CM Training Date
Energy Research and Development	Kiel Pratt	43	916-327-1412	9/29/2009

Contractor's Legal Name	Federal ID Number
The Regents of the University of California on behalf of the Berkeley campus	94-6002123

Title of Project
West Coast Carbon Sequestration Partnership: Regional Characterization Support and Interactive Website

Term	Start Date	End Date	Amount
New/Original Contract	6/1/2012	12/31/2013	\$ 300,000

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	5/9/2012	<input type="checkbox"/> Consent	<input checked="" type="checkbox"/> Discussion
Business Meeting Presenter	Kiel Pratt	Time Needed:	5 minutes

### Agenda Item Subject and Description

Possible approval of Contract 500-11-017 for \$300,000 with the Regents of the University of California on behalf of the Berkeley campus to communicate data and results collected during WESTCARB geologic assessments and validation studies to stakeholders and the public through an interactive website. (Federal funding.) Contact: Kiel Pratt. (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 West Coast Carbon Sequestration Partnership (WESTCARB) Agreement is to fulfill specific objectives called for in the U.S Department of Energy WESTCARB Phase III Statement of Project Objectives (WESTCARB Phase III SOPO).

The goal of this Agreement is to effectively communicate the data and results collected during WESTCARB assessments and validation studies to stakeholders and the public in an easily-understood interface complying with DOE requirements.

This Agreement's technical tasks correspond primarily to Tasks 3.2, 3.3, 5.1 and 5.2 in the WESTCARB Phase III SOPO. The objectives of this Agreement are to:

1. Maintain, upgrade, and integrate new GIS-based data into the interactive, online WESTCARB Carbon Atlas.
2. Collect data and provide materials for the WESTCARB section of the National Energy Technology Laboratory (NETL) Carbon Sequestration Atlas of the United States and Canada and other NETL publications.
3. Support characterization research and provide data and map services to develop potential opportunities in WESTCARB.

**CONTRACT REQUESTS FORM (CRF)**



**California Environmental Quality Act (CEQA) Compliance**

1. 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":  
 Contract will not cause direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment because the project deliverables will only be maps and geographic data for public dissemination on a website.

2. 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.

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	\$300,000	Yes	FED	11-12	901.004	\$300,000
ECAA	\$		\$					\$
State- ERPA	\$		\$					\$
Federal	\$300,000		\$					\$
PIER - E	\$		\$					\$
PIER - NG	\$		\$					\$
Reimbursement	\$		\$					\$
Other	\$		\$					\$
<b>TOTAL:</b>	<b>\$300,000</b>	<b>TOTAL:</b>	<b>\$300,000</b>				<b>TOTAL:</b>	<b>\$300,000</b>
Reimbursement Contract #:					Federal Agreement			

Contractor's Administrator/ Officer		Contractor's Project Manager	
Name:	Maggi Kelly	Name:	Maggi Kelly
Address:	University of California, Berkeley 137 Mulford Hall #3114	Address:	University of California, Berkeley 137 Mulford Hall #3114
City, State, Zip:	Berkeley, CA 94720-3114	City, State, Zip:	Berkeley, CA 94720-3114
Phone/ Fax:	510-642-7272 / 510-642-1477	Phone/ Fax:	510-642-7272 / 510-642-1477
E-Mail:	mkelly@nature.berkeley.edu	E-Mail:	mkelly@nature.berkeley.edu

**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 \_\_\_\_\_ Solicitation #: \_\_\_\_\_ # of Bids: \_\_\_\_\_ Low Bid?  No  Yes  
 Non Competitive Bid (Attach CEC 96)  
 Exempt Interagency

**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)

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CALIFORNIA ENERGY COMMISSION



- 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:**

Contract is with a UC

**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?  No  Yes
- If Yes, Do you plan to release retention prior to contract termination?  No  Yes

**Justification of Rates**

The rates charged in this contract by the University of California are U.C. published rates and the overhead rates are the negotiated rates with the Energy Commission.

**Disabled Veteran Business Enterprise Program (DVBE)**

1.  Not Applicable
2.  Meets DVBE Requirements DVBE Amount:\$ \_\_\_\_\_ DVBE %: \_\_\_\_\_
- Contractor is Certified DVBE
  - Contractor is Subcontracting with a DVBE: \_\_\_\_\_
3.  Requesting DVBE Exemption (attach CEC 95)

**Is Contractor a certified Small Business (SB), Micro Business (MB) or DVBE?**

If yes, check appropriate box:

- No  Yes
- SB  MB  DVBE

**Is Contractor subcontracting any services?**

If yes, give company name and identify if they are a Small Business (SB), Micro Business (MB) and/or DVBE:

**Miscellaneous Contract Information**

1. Will there be Work Authorizations?  No  Yes
2. Is the Contractor providing confidential information?  No  Yes
3. Is the contractor going to purchase equipment?  No  Yes
4. Check frequency of progress reports
- Monthly
  - Quarterly
  - \_\_\_\_\_
5. Will a final report be required?  No  Yes
6. Is the contract, with amendments, longer than a year? If yes, why?  No  Yes

The Department of General Services has agreed to give the Commission blanket authority to execute multi-year contracts to support the Commission's RD&D Programs.

# CONTRACT REQUESTS FORM (CRF)



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 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**

**TECHNICAL TASK LIST**

Task #	CPR	Task Name
1	N/A	Administration
2	X	Website Upgrade, Maintenance, and Support
3		Regional Characterization: Integrated Studies and Cross-Cutting Issues

**KEY NAME LIST**

Task #	Key Personnel	Key Subcontractor(s)	Key Partner(s)
1	Kevin Koy		
2	Kevin Koy		
3	Kevin Koy		

**GLOSSARY**

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

Acronym	Definition
CCUS	Carbon Dioxide Capture, Utilization and Storage
CO <sub>2</sub>	Carbon Dioxide
CPR	Critical Project Review
DOE	United States Department of Energy
Energy Commission	California Energy Commission
GIS	Geographic Information System
NATCARB	National Carbon Sequestration Database and Geographic Information System
NETL	National Energy Technology Laboratory
PIER	Public Interest Energy Research
RCSP	Regional Carbon Sequestration Partnership
UCC.1	Uniform Commercial Code (Financing Statement)
WESTCARB	West Coast Regional Carbon Sequestration Partnership
WESTCARB Phase III SOPO	United States Department of Energy WESTCARB Phase III Statement of Project Objectives, September 19, 2011 version

**Problem Statement**

Carbon dioxide capture, utilization and storage (CCUS) technologies could play a critical role in mitigating the impact of fossil-fuel-based electricity generation on greenhouse gas buildup and resulting climate change. To determine the CCUS technologies best suited for different parts of the United States and Canada, the United States Department of Energy (DOE) funded a network of regional partnerships to

characterize carbon sequestration opportunities and conduct technology validation and demonstration projects.

The West Coast Regional Carbon Sequestration Partnership (WESTCARB) is one of seven DOE-sponsored research partnerships. WESTCARB is identifying and validating carbon sequestration opportunities in California, Arizona, Nevada, Oregon, Washington, Alaska, Hawaii, and the Canadian province of British Columbia. This work includes assessments and field validation studies for both geologic and terrestrial carbon sequestration technologies that are key to advancing carbon sequestration technologies toward commercialization.

To promote effective communication of results to stakeholders and the public, spatial data collected during these studies should be accessible and communicated via an easily understood interface for standard, spatially-oriented geographic information.

### **Goals of the Agreement**

The goal of this Agreement is to effectively communicate the spatial data and results collected in WESTCARB studies to stakeholders and the public in an easily-understood interface complying with DOE requirements.

### **Objectives of the Agreement**

The objectives of this Agreement are to:

1. Maintain, upgrade, and integrate new Geographic Information System (GIS)-based data into the interactive, online WESTCARB Carbon Atlas.
2. Collect data and provide materials for the WESTCARB section of the National Energy Technology Laboratory (NETL) *Carbon Sequestration Atlas of the United States and Canada* and other NETL publications.
3. Support characterization research and provide data and map services to develop potential opportunities in WESTCARB.

## **TASK 1.0 ADMINISTRATION**

### **MEETINGS**

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

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

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

- Attend a “kick-off” meeting with the Commission Contract Manager, the Contracts Officer, and a representative of the Accounting Office. The Contractor shall bring their Project Manager, Contracts Administrator, Accounting Officer, and others designated by the Commission Contract Manager to this meeting. The

administrative and technical aspects of this Agreement will be discussed at the meeting. Prior to the kick-off meeting, the Commission Contract Manager will provide an agenda to all potential meeting participants.

The administrative portion of the meeting shall include, but not be limited to, the following:

- Terms and conditions of the Agreement
- CPRs (Task 1.2)
- Match fund documentation (Task 1.7)
- Permit documentation (Task 1.8)

The technical portion of the meeting shall include, but not be limited to, the following:

- The Commission Contract Manager's expectations for accomplishing tasks described in the Scope of Work;
- An updated Schedule of Deliverables
- An updated Gantt Chart (optional)
- Progress Reports (Task 1.4)
- Technical Deliverables (Task 1.5)
- Final Report (Task 1.6)
- Project Management and Assessment (Task 1.10)

The Commission Contract Manager shall designate the date and location of this meeting.

**Contractor Deliverables:**

- An Updated Schedule of Deliverables
- An Updated Gantt Chart (if included)
- An Updated List of Match Funds
- An Updated List of Permits

**Commission Contract Manager Deliverables:**

- Final Report Instructions

**Task 1.2 CPR Meetings**

The goal of this task is to determine if the project should continue to receive Energy Commission funding to complete this Agreement and if it should, are there any modifications that need to be made to the tasks, deliverables, schedule or budget.

CPRs provide the opportunity for frank discussions between the Energy Commission and the Contractor. CPRs generally take place at key, predetermined points in the Agreement, as determined by the Commission Contract Manager and as shown in the Technical Task List above and in the Schedule of Deliverables. However, the Commission Contract Manager may schedule additional CPRs as necessary, and, if necessary, the budget will be reallocated to cover the additional costs borne by the Contractor, but the overall contract amount will not increase.

Participants include the Commission Contract Manager and the Contractor, and may include the Commission Contracts Officer, the Public Interest Energy Research (PIER) Program Team Lead, other Energy Commission staff and Management as well as other individuals selected by the Commission Contract Manager to provide support to the Energy Commission.

**The Commission Contract Manager shall:**

- Determine the location, date and time of each CPR meeting with the Contractor. These meetings generally take place at the Energy Commission, but they may take place at another location.
- Send the Contractor the agenda and a list of expected participants in advance of each CPR. If applicable, the agenda shall include a discussion on both match funding and permits.
- Conduct and make a record of each CPR meeting. One of the outcomes of this meeting will be a schedule for providing the written determination described below.
- Determine whether to continue the project, and if continuing, whether or not to modify the tasks, schedule, deliverables and budget for the remainder of the Agreement, including not proceeding with one or more tasks.
- Provide the Contractor with a written determination in accordance with the schedule. The written response may include a requirement for the Contractor to revise one or more deliverable(s) that were included in the CPR.

**The Contractor shall:**

- Prepare a CPR Report for each CPR that discusses the progress of the Agreement toward achieving its goals and objectives. This report shall include recommendations and conclusions regarding continued work of the projects. This report shall be submitted along with any other deliverables identified in this Scope of Work. Submit these documents to the Commission Contract Manager and any other designated reviewers at least 15 working days in advance of each CPR meeting.
- Present the required information at each CPR meeting and participate in a discussion about the Agreement.

**Contractor Deliverables:**

- CPR Report(s)
- CPR deliverables identified in the Scope of Work

**Commission Contract Manager Deliverables:**

- Agenda and a List of Expected Participants
- Schedule for Written Determination

- Written Determination

### **Task 1.3 Final Meeting**

The goal of this task is to closeout this Agreement.

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

- Meet with the Energy Commission to present the findings, conclusions, and recommendations. The final meeting must be completed during the closeout of this Agreement.

This meeting will be attended by, at a minimum, the Contractor, the Commission Contracts Officer, and the Commission Contract Manager. The technical and administrative aspects of Agreement closeout will be discussed at the meeting, which may be two separate meetings at the discretion of the Commission Contract Manager.

The technical portion of the meeting shall present findings, conclusions, and recommended next steps (if any) for the Agreement. The Commission Contract Manager will determine the appropriate meeting participants.

The administrative portion of the meeting shall be a discussion with the Commission Contract Manager and the Contracts Officer about the following Agreement closeout items:

- What to do with any state-owned equipment (Options)
  - Need to file UCC.1 form re: Energy Commission's interest in patented technology
  - Energy Commission's request for specific "generated" data (not already provided in Agreement deliverables)
  - Need to document 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 schedule for completing the closeout activities for this Agreement.

#### **Deliverables:**

- Written documentation of meeting agreements and all pertinent information
- Schedule for completing closeout activities

### **REPORTING**

**See Exhibit D, Reports/Deliverables/Records. See also Task 1.10 for additional DOE reporting requirements.**

#### **Task 1.4 Quarterly Progress Reports**

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

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

- Prepare progress reports which 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 to the Commission Contract Manager within 10 working days after the end of the reporting period. The Contractor shall use the WESTCARB progress report format to be provided by the Commission Contract Manager.

#### **Deliverables:**

- Quarterly Progress Reports

#### **Task 1.5 Test Plans, Technical Reports and Interim Deliverables**

The goal of this task is to set forth the general requirements for submitting test plans, technical reports and other interim deliverables, unless described differently in the Technical Tasks. When creating these deliverables, the Contractor shall use and follow, unless otherwise instructed in writing by the Commission Contract Manager, the latest version of the PIER Style Manual published on the Energy Commission's web site:

<http://www.energy.ca.gov/contracts/pier/contractors/index.html>

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

- Unless otherwise directed in this Scope of Work, submit a draft of each deliverable listed in the Technical Tasks to the Commission Contract Manager for review and comment in accordance with the approved Schedule of Deliverables. The Commission Contract Manager will provide written comments back to the Contractor on the draft deliverable within 10 working days of receipt. Once agreement has been reached on the draft, the Contractor shall submit the final deliverable to the Commission Contract Manager. The Commission Contract Manager shall provide written approval of the final deliverable within 5 working days of receipt. Key elements from this deliverable shall be included in the Final Report for this project.

#### **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 done under this Agreement. The Commission Contract Manager will review and approve the Final Report. The Final Report must be completed on or before the termination date of the Agreement. When creating these deliverables, the Contractor shall use and follow,

unless otherwise instructed in writing by the Commission Contract Manager, the latest version of the PIER Style Manual published on the Energy Commission's web site:

<http://www.energy.ca.gov/contracts/pier/contractors/index.html>

The Final Report shall be a public document. If the Contractor has obtained confidential status from the Energy Commission and will be preparing a confidential version of the Final Report as well, 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 a draft outline of the Final Report.
- Submit the draft outline of Final Report to the Commission Contract Manager for review and approval. The Commission Contract Manager will provide written comments back to the Contractor on the draft outline within 10 working days of receipt. Once agreement has been reached on the draft, the Contractor shall submit the final outline to the Commission Contract Manager. The Commission Contract Manager shall provide written approval of the final outline within 5 working days of receipt.

#### **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 to the Commission Contract Manager for review and comment. The Commission Contract Manager will provide written comments within 10 working days of receipt.

Once agreement on the draft Final Report has been reached, the Commission Contract Manager shall forward the electronic version of this report for Energy Commission internal approval. Once the approval is given, the Commission Contract Manager shall provide written approval to the Contractor within 5 working days.

- Submit one bound copy of the Final Report with the final invoice.

**Deliverables:**

- Draft Final Report
- Final Report

**MATCH FUNDS, PERMITS, AND ELECTRONIC FILE FORMAT****Task 1.7 Identify and Obtain Matching Funds**

The goal of this task is to ensure that the match funds planned for this Agreement are obtained for and applied to this Agreement during the term of this Agreement.

The costs to obtain and document match fund commitments are not reimbursable through this Agreement. While the PIER budget for this task will be zero dollars, the Contractor may utilize match funds for this task. Match funds shall be spent concurrently or in advance of PIER funds during the term of this Agreement. Match funds must be identified in writing, and the associated commitments obtained before the Contractor can incur any costs for which the Contractor will request reimbursement.

**The Contractor shall:**

- Prepare a letter documenting the match funding committed to this Agreement and submit it to the Commission Contract Manager at least 2 working days prior to the kick-off meeting:
  1. 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 such in the letter.
  2. 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 each cash match fund, its source, including a contact name, address and telephone number and the task(s) to which the match funds will be applied.
      - Amount of each in-kind contribution, a description, documented market or book value, and its 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 shall identify its owner and provide a contact name, address and telephone number, and the address where the property is located.
    - A copy of the letter of commitment from an authorized representative of each source of cash match funding or in-kind contributions that these

funds or contributions have been secured.

- Discuss match funds and the implications to the Agreement if they are significantly reduced or not obtained as committed, at the kick-off meeting. If applicable, match funds will be included as a line item in the progress reports and will be a topic at CPR meetings.
- Provide the appropriate information to the Commission Contract Manager if during the course of the Agreement additional match funds are received.
- Notify the Commission Contract Manager within 10 working days if during the course of the Agreement existing match funds are reduced. Reduction in match funds may trigger an additional CPR.

**Deliverables:**

- A letter regarding Match Funds or stating that no Match Funds are provided
- Letter(s) for New Match Funds
- A copy of each Match Fund commitment letter
- Letter that Match Funds were Reduced (if applicable)

**Task 1.8 Identify and Obtain Required Permits**

The goal of this task 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 reimbursable under this Agreement. Permits must be identified in writing before the Contractor can incur any costs related to the use of the permit(s) for which the Contractor will request reimbursement.

**The Contractor shall:**

- Prepare a letter documenting the permits required to conduct this Agreement and submit it to the Commission Contract Manager at least 2 working days prior to the kick-off meeting:
  1. If there are no permits required at the start of this Agreement, then state such in the letter.
  2. If it is known at the beginning of the Agreement that permits will be required during the course of the Agreement, 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

- Schedule the Contractor will follow in applying for and obtaining these permits.
- The list of permits and the schedule for obtaining them will be discussed at the kick-off meeting, and a timetable for submitting the updated list, schedule and the copies of the permits will be developed. 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 and will be a topic at CPR meetings.
- 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 Commission Contract Manager.
- As permits are obtained, send a copy of each approved permit to the Commission Contract Manager.
- If during the course of the Agreement permits are not obtained on time or are denied, notify the Commission Contract Manager within 5 working days. Either of these events may trigger an additional CPR.

**Deliverables:**

- A letter documenting the Permits or stating that no Permits are required
- Updated list of Permits as they change during the Term of the Agreement
- Updated schedule for acquiring Permits as it changes during the Term of the Agreement
- A copy of each approved Permit

**Task 1.9 Electronic File Format**

The goal of this task is to unify the formats of electronic data and documents provided to the Energy Commission as contract deliverables. Another goal is to establish the computer platforms, operating systems and software that will be required to review and approve all software deliverables.

**The Contractor shall:**

- Deliver documents to the Commission Contract Manager in the following formats:
  - 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.
- Request exemptions to the electronic file format in writing at least 90 days before the deliverable is submitted.

**Deliverables:**

- A letter requesting exemption from the Electronic File Format (if applicable)

**Task 1.10 Project Management and Assessment**

The goal of this task is to provide project information for WESTCARB deliverables to DOE.

**The Contractor shall:**

- Perform project management and assessment activities to provide project information for WESTCARB deliverables to DOE. These activities include preparing input to project management plans and updates, weekly status updates, detailed project schedules and budget, special information requests from DOE, and attending WESTCARB meetings and conference calls.

**Deliverables:**

- Project information for WESTCARB deliverables to DOE
- Weekly status updates

**TECHNICAL TASKS**

The Contractor shall prepare all deliverables in accordance with the requirements in Task 1.5. Deliverables not requiring a draft version are indicated by marking “(no draft)” after the deliverable name.

**Task 2.0 Website Upgrade, Maintenance, and Support**

Task 2.0 corresponds to subtasks in Task 3 in the September 19, 2011 version of the United States Department of Energy WESTCARB Phase III Statement of Project Objectives (WESTCARB Phase III SOPO). The goal of this task is to enhance and maintain external communications interfaces for carbon sequestration stakeholders through websites hosting GIS databases and supporting WESTCARB research.

**The Contractor shall:**

- Upgrade, maintain, and support the interactive, online WESTCARB Carbon Atlas. Maintain GIS database, software, security updates, and back-up services. The website shall provide easy access to WESTCARB and other relevant data by the general public, decision makers, and technical users using standard and custom tools.
- Communicate with WESTCARB investigators and stakeholders to discuss data issues to facilitate efficient data handling, presentation, and combination of data from multiple sources as needed. Provide meeting summaries of conference calls and other discussions.
- Provide data requirements and functional specifications for GIS data layers to WESTCARB investigators to facilitate integration into the database.

- Collect data from WESTCARB investigators and provide data and materials to the National Carbon Sequestration Database and Geographic Information System (NATCARB) for the biennial production of the WESTCARB section of the NETL *Carbon Sequestration Atlas of the United States and Canada* and other NETL publications.
- Add data generated by WESTCARB investigators to existing databases.
- Generate maps and content as needed for the WESTCARB Carbon Atlas, the WESTCARB website, PowerPoint presentations, and other publications as needed. Provide list of GIF contributions to publications in quarterly reports.
- Serve as the data clearinghouse for GIS data generated as part of the WESTCARB's regional characterization research and respond to special data requests as needed. Manipulate, facilitate access to, and transfer WESTCARB data layers to the interactive National Carbon Atlas and other stakeholders in accordance with NETL or WESTCARB established protocols and specifications.
- Develop enhanced web services and implement website enhancements as approved by the Commission Contract Manager.
- Document data additions to WESTCARB and NATCARB GIS databases and upgrades to web services in quarterly reports.
- Advise the Energy Commission and WESTCARB partners on request on issues relating to spatial databases and GIS across the WESTCARB task scope, including regional characterization, cross-cutting regional characterization issues, and general GIS data protocols.
- Provide updates per Tasks 1.4 and 1.10.
- Attend the 2012 WESTCARB Annual Meeting.
- Attend the 2012 Regional Carbon Sequestration Partnership (RCSP) Annual Meeting.
- Prepare the Critical Project Review Report.
- Participate in the Critical Project Review.

**Deliverables:**

- Updated maps and content for the WESTCARB Carbon Atlas, NATCARB, and DOE publications (as needed)
- List of GIF contributions to publications, data additions and website upgrades
- Website enhancements
- Critical Project Review Report

**Task 3.0 Regional Characterization: Integrated Studies and Cross-Cutting Issues**

Task 3.0 corresponds to subtasks in Task 5 in the WESTCARB Phase III SOPO. The goals of this task are to develop an online portal incorporating non-geologic factors that affect project site selection decisions and to support other WESTCARB researchers by providing relevant spatial datasets as requested.

**The Contractor shall:**

- Develop an online portal incorporating spatial data on various non-technical and technical elements throughout the WESTCARB region that affect project site selection decisions including, but not limited to, access to transportation networks, location of carbon dioxide (CO<sub>2</sub>) sources, known storage sites (CO<sub>2</sub> and natural gas), locations of oil and gas fields, and socioeconomic factors (e.g., 2010 Census datasets).
- Working with other WESTCARB researchers, contribute to a report on the methodologies for including these datasets in CCUS siting and project planning. Describe test cases as applicable.
- Working with other WESTCARB researchers, contribute to a report evaluating the potential for integrated applications of CCUS technology with infrastructure networks. Identify opportunities for co-operative networks, with a focus on California, to achieve CO<sub>2</sub> pipeline economies of scale among multiple sources and/or connecting multiple CO<sub>2</sub> geologic storage sites. Perform source-sink matching, pipeline route analysis, and economic analysis to support a case for CCUS commercialization in selected areas of the WESTCARB region.
- Working with other WESTCARB researchers, provide data and maps as needed to support research on induced seismicity and natural seismic hazards.
- Provide updates per Tasks 1.4 and 1.10.
- Attend the 2012 WESTCARB Annual Meeting.
- Attend the 2012 RCSP Annual Meeting.

**Deliverables:**

- Contributions to a report on the methodologies for including socioeconomic data and other factors in CCUS siting and implementation planning
- Contributions to a report evaluating the potential for integrated applications of CCUS technology with infrastructure networks