

Justification for a Contract Amendment to Contract 2012-01: Interim Hosting and Jurisdiction Functionality for the Compliance Instrument Tracking System Service (CITSS)

December 21, 2012

Introduction

WCI, Inc. proposes to modify its existing Contract 2012-01 with SRA International, Inc. for Interim Hosting and Jurisdictional Functionality services for the Compliance Instrument Tracking System Service (CITSS). The purpose of this modification is to:

- 1) Extend the term and budget so SRA can provide hosting for an additional three months;
- 2) Extend the term and budget for a new task for SRA to provide continued application development and support to bring CITSS to maturity; and
- 3) Revise the payment retention provision.

The systems and related services have been defined to meet the specifications and requirements of the two Participating Jurisdictions that are in the process of initiating their cap-and-trade programs: California and Québec. This document summarizes the justification for procuring these services through a contract amendment.

Description of Services

The services being procured through the proposed amendment are Hosting Services, and Application Development and Support for CITSS.

Hosting Services include the hardware and software necessary to host the CITSS application and ancillary services and technology necessary to ensure CITSS is available at specified levels of service. These services are currently provided as part of the existing contract through May 7, 2013, but need to continue to be in place until WCI, Inc. can transition to a long term hosting environment. This amendment is to extend the term and budget of the current agreement so SRA can provide hosting for three additional months for a total of [REDACTED].

Application Development and Support complements the CITSS development work being performed by SRA International Inc. (SRA) under a separate agreement with U.S. EPA. Under the proposed modification, WCI, Inc. would add a new task, extend the term, and increase the budget of its existing agreement with SRA so CITSS application development can continue as required to meet the Participating Jurisdictions' needs. The WCI, Inc. funded portion of this task will be [REDACTED] through December 31, 2013. This funding level is in addition to U.S. EPA funded development of [REDACTED]; however, if part or all of this funding is not available through U.S. EPA as anticipated, WCI, Inc. will undertake another modification of the agreement to fund the remaining balance of the total costs for this task.

Steps taken to Procure the Services Using Competitive Procurement Procedures

The justification for selecting SRA to provide services under Contract 2012-01 has been described previously and approved by the WCI, Inc. Board of Directors.

Extending interim hosting by three months will enable WCI, Inc. to transition to a long-term hosting service r after CITSS has been developed with full functionality.

No additional steps have been taken to tender the CITSS application development and support portion of this contract. These development tasks are already on-going and need to be completed for the CITSS application to be fully implemented.

Alternative Procurement Approach

A contract modification is being proposed as the procurement vehicle to retain these required services. WCI, Inc. and Participating Jurisdiction staff approached SRA to confirm their interest in and availability for this work. After discussions with WCI, Inc. and Participating Jurisdiction staff to define requirements, SRA prepared a technical and cost proposal. A complete modification package was finalized on December 20, 2012.

Justification

SRA has demonstrated its qualifications to provide interim hosting through its performance under the existing contract.

SRA is also uniquely qualified to meet the timing, contracting and staffing resources necessary to complete the remaining tasks related to tracking system development and implementation. SRA was selected by U.S. EPA on a competitive basis to undertake the CITSS development work. SRA's unique knowledge of RIDGE, which is the basis for the CITSS platform, its work on CITSS development to-date, and the imperative to continue development without interruption in order to meet implementation schedules as required by Participating Jurisdictions, makes SRA the sole contractor capable of completing the application development services.

WCI, Inc.'s Procurement Policy (approved January 12, 2012) provides for non-competitive procurement in certain instances. In this case, the non-competitive procurement is justified based on the following:

- "Contracts for services provided by contractors that have been selected by a federal, state, city, county, provincial, or other regulatory entity, usually through a competitive process."
- "Agreements where only one supplier is able to meet the requirements of a procurement to ensure compatibility with existing products."

CONTRACT AMENDMENT: 2012-01-001

Agreement number 2012-01 between SRA International Inc. (Contractor) and Western Climate Initiative, Inc. (WCI, Inc.), which was executed by the parties on May 8, 2012, is hereby amended as follows:

SUMMARY OF CHANGES

Amendment Number	001
Effective Date for Amendment:	January 1, 2013
Original Agreement Amount:	
Changes to the Agreement Amount:	Additional
Amended Maximum Agreement Amount:	
Original Agreement Term:	Twelve months, beginning on May 9, 2012, and ending on May 8, 2013.
Agreement Term as Amended:	Beginning on May 9, 2012 and ending on December 31, 2013.
Extension of Task:	Interim hosting services to be provided for an additional three months
New Task:	CITSS application development and support

PURPOSE OF THIS AMENDMENT

- 1) Extend the term and budget so SRA can provide hosting for an additional three months;
- 2) Extend the term and budget for a new task for SRA to provide continued application development and support to bring CITSS to maturity; and
- 3) Revise the payment retention provision.

SPECIFIC TERMS AND CONDITIONS WHICH CONSTITUTE THE AMENDMENT

- 1) The agreement referenced above is modified as follows:
 - a. Term: Line 2 of the Standard Agreement cover page is changed to "Twenty months, beginning on May 9, 2012 and ending on December 31, 2013."
 - b. Maximum amount of agreement: Line 3 of the Standard Agreement cover page is changed to
 - c. Attachment A-1, Scope of Work for CITSS Application Development and Support, is appended to the existing agreement beginning on page A-12.
 - d. Attachment B, page B-2 is modified as follows: "Not-to-Exceed T&M budget for this Agreement is See Attachment G (Contractor's Cost Proposal), and Attachment H (Contractors Cost Proposal for Amendment) for invoice basis. This number is comprised of an estimated for the Jurisdiction Functionality work plus for the Service Management, Hosting and Security work discussed in Attachment A, Scope of Work. The second amount includes a total of of direct costs for hosting provider, penetration

~~testing, anti-virus software licenses, application lifecycle management tool, and phone expenses for on-call staff."~~

- e. Attachment C, Item 21 (Progress Payments), page C-6, is modified as follows: "To the extent not provided otherwise elsewhere in the Agreement, in computing the amount of any progress payment, WCI, Inc. shall determine what Contractor has earned during the period for which payment is being made on the basis of the Agreement terms, but shall retain out of such earnings an amount equal to 10 percent of the labor thereof. Contractor shall separately invoice for such withheld amount ~~upon the completion of the Work, before the beginning of any option to extend the period of performance, at the end of December 2012, and semi-annually thereafter,~~ or the earlier termination of this Agreement. Payment at this point may not be withheld for any reason other than as specified under Article 11, Termination for Cause."
- f. Attachment H, Contractors Cost Proposal for Amendment, is appended to the existing agreement following Appendix G.

EXPLANATION OF CHANGES

- 1) SRA will provide interim hosting services as described in Attachment A, Item B, pages A-3 to A-9 of the agreement referenced above, for an additional three months (May 1-July 31, 2012).
 - a. Attachment H, Contractors Cost Proposal for Amendment, details the costs for the additional interim hosting support.
 - b. WCI, Inc. expects to transition interim hosting support to a long term hosting provider in July 2012.
- 2) SRA will provide CITSS application development and support as a new task, starting January 4, 2013 and ending on December 31, 2013:
 - a. Attachment A-1, Scope of Work for CITSS Application Development and Support, contains a description of the additional task.
 - b. Attachment H, Contractors Cost Proposal for Amendment, details the costs for the new application development and support task.
 - i. Note: WCI, Inc. acknowledges that the budget total for the level of effort associated with this task is [REDACTED]. At the time of this amendment, [REDACTED] of this work is expected to be provided through a separate funding arrangement, and is therefore not included in this amendment.
- 3) The payment retention provision is modified to change the times when payout of retention is to occur.

APPROVALS

This document and any attachments described herein constitute an amendment to the above numbered agreement. All provisions of that contract, except those which are explicitly changed by this amendment, shall remain in full force and effect.

By signing, the contractor and WCI, Inc. do hereby accept and approve this amendment.

SRA International, Inc.:

Catherine Garris signature on file
Authorized Signature

Catherine Garris
Name

December 21, 2012
Date

Senior Contract Administrator
Title

Western Climate Initiative, Inc.

Patrick Cummins signature on file
Authorized Signature

Patrick Cummins
Name

December 21, 2012
Date

Executive Director
Title

ATTACHMENT A-1

SCOPE OF WORK FOR CITSS APPLICATION DEVELOPMENT AND SUPPORT

A. TRACKING SYSTEM SERVICES

The Contractor shall provide Tracking System Services, including application support, to enhance and operate the existing Compliance Instrument Tracking System Service (CITSS) as per the specifications below.

1. Roles and Responsibilities

- a. *Technical Working Group:* The WCI, Inc./Jurisdictional Technical Working Group (Technical Work Group) will provide requirements, design, and development direction to the Contractor delivering Tracking System Services. The Technical Work Group will consist of representatives from WCI, Inc., and from the Participating Jurisdictions. The Technical Work Group shall be the primary channel for communication regarding Tracking System Services, with one representative from the Technical Work Group designated as the Technical Project Manager.
- b. *Technical Project Manager:* The Technical Project Manager shall be the Technical Work Group lead and shall be authorized to harmonize workload, set task priorities, and make decisions regarding project development.
- c. *Service Delivery Manager:* Defined in Section A.1¹.
- d. *Tracking System Project Lead:* The Tracking System Project Lead shall be the primary point of contact and lead from the Contractor for Tracking System Services.

2. Work Plan

The Contractor must provide a Work Plan and cost estimate for Tracking System Services. The Work Plan shall contain specific, well-defined, written performance standards for measuring and assessing the quality, quantity, and timeliness of the Tracking System Services. The Contractor may not proceed with providing additional Tracking System Services until WCI, Inc. authorizes the Work Plan or provides authorization to begin work for a defined period of time until the Work Plan can be reviewed. In developing the Work Plan for Tracking System Services the Contractor shall, at minimum, also include:

¹ *Description of Services Interim Hosting and Jurisdiction Functionality for the Compliance Instrument Tracking System Service (CITSS).*

- e. Each module of the Tracking System Functionality to be implemented or enhanced.
- f. The technical approach to be utilized to meet project deadlines and deliver Tracking System Services.
- g. A release plan, including recommended functionality release dates based on jurisdiction program goals.
- h. A cost estimate for the Tracking System Services.
- i. Brief bios for the staff, technical, and other resources to be utilized.
- j. The quality assurance or quality control procedures² to be utilized. These shall include measurement method(s) and acceptable quality levels.
- k. Any assumptions or limitations in providing Tracking System Services.

3. WCI, Inc./Jurisdiction Technical Work Group

Working in conjunction with the Technical Work Group and the Technical Project Manager, the Contractor must participate in planning and design activities as well as provide resources to support the delivery of Tracking System Services. To support the Technical Work Group, the Contractor shall include:

- a. *Project Management Support.* Working in conjunction with the Technical Work Group, the Contractor shall provide a Tracking System Project Lead who will be the primary point of contact and lead for Tracking System Services.
- b. *Project Meetings.* The Contractor shall participate in meetings with the Technical Work Group at least twice per month and provide technical support relating to technical architecture and application requirements, design, and implementation.
- c. *Release Plan.* The Contractor shall work with the Technical Work Group to maintain a release plan, defining tasks, and timing for each Tracking System Services task. The release plan should be updated and delivered to the Technical Project Manager and the Service Delivery Manager at least monthly.
- d. *Tracking System Documentation.* The Contractor shall support the development of design documentation, technical documentation, testing documentation, and other implementation documentation for the Tracking System Functionality identified in Section 4. The Contractor shall provide

² WCI, Inc. and the Contractor shall agree on the quality assurance and quality control procedures as part of Work Plan development.

design and technical documentation support at the request of the Technical Work Group and the Technical Project Manager. Documentation may be provided in the form of written or online documentation, software to facilitate the process, or another medium as agreed upon by the Technical Work Group and the Technical Project Manager. Documentation support will only be provided in English.

Examples of design documentation include,

- 1) CITSS Business Design Documentation³, including high level business requirements, functions, and processes.

Examples of technical documentation include,

- 2) Tracking System Security Documentation
- 3) Tracking System Data Models or Data Schema
- 4) Architecture Documentation

Examples of implementation documentation include,

- 5) User guides and other user support materials
- 6) Tracking System policies and procedures
- 7) Tracking System standards

Examples of testing documentation include,

- 8) Test plans
- 9) Acceptance tests
- 10) Test cases
- 11) Test results

- e. Project Portal. The Contractor shall maintain an online project portal where the Technical Work Group can post and review project documentation with the Contractor. The project portal will also track the system feature requirements, documentation tasks, and technical tasks referenced in the Release Plan.

4. Tracking System Functionality

The Contractor must provide the Tracking System Functionality needed to support state and provincial greenhouse gas emissions trading programs for which WCI, Inc. provides administrative and technical services. This includes providing services to support Jurisdiction program management, compliance instrument (emissions allowances and offset certificates) account set-up,

³ As an example, the Technical Work Group may direct the Contractor to add high level procedures to the existing CITSS Generic Business Requirements document prior to each major CITSS release.

issuance, auction integration, ownership, transfers, compliance, and data reporting.⁴ The Tracking System Functionality must be provided in a manner that:

- Facilitates the management of multiple Jurisdictional cap-and-trade programs;
- Adapts to expected program changes with minimal programming effort;
- Provides a reliable and easy-to-use web interface for jurisdiction users, registered entities, and account representatives;
- Facilitates communication with entities and Participating Jurisdictions about changes to entity and account information, transactions, and compliance status (e.g. email notifications to relevant account administrators when a transfer has been submitted or processed);
- Complies with Web Content Accessibility Guidelines (WCAG) 2.0 Level A accessibility guidelines as self-certified using third-party accessibility tools;
- Displays the interface in a user-selected language (i.e. provide text labels and context help in multiple languages – currently English and French);
- Prohibits account actions and compliance instrument transfers that do not adhere to the program rules;
- Facilitates transfers of compliance instruments through a common framework;
- Provides for a mechanism to block transfers between different jurisdictions;
- Provides for a mechanism to receive compliance instrument transfer requests from third-party registries or software via a communication protocol;
- Ensures data integrity and security; and
- Ensures confidential and personally identifiable information is protected.

The Contractor must provide Tracking System Functionality for the following program areas:

- a. *Jurisdiction Management.* The existing Jurisdiction Management module captures and manages CITSS jurisdiction information and allows jurisdiction specific configurations (i.e. email addresses, business rules). Working in conjunction with the Technical Work Group, the Contractor shall support the existing CITSS Jurisdiction Management module. Support includes CITSS

⁴ Common tracking system services are outlined in the Draft Business Requirements document, posted here: <http://www.westernclimateinitiative.org/document-archives/Markets-Committee-Documents/Draft-Business-Requirements-for-a-Compliance-Instrument-Tracking-System/>

quality assurance, bug fixes, requirements analysis for improvements, and system improvements for enhancements. The Contractor shall implement improvements or enhancements if deemed necessary by the Technical Work Group and Technical Project Management.

Examples of potential Jurisdiction Management module improvements include,

- 1) Adding a new jurisdiction.
- 2) Revising or adding program components for a jurisdiction as a result of regulatory changes.
- 3) Developing other improvements as identified during CITSS operations.

- b. *User Registration*. The existing User Registration module captures and manages CITSS user information and allows for different user roles identified by data access and security roles. Working in conjunction with the Technical Work Group, the Contractor shall support the existing CITSS User Registration module. Support includes CITSS quality assurance, bug fixes, requirements analysis for improvements, and system improvements or enhancements. The Contractor shall implement improvements or enhancements if deemed necessary by the Technical Work Group and Technical Project Manager.

Examples of potential User Registration module improvements include,

- 1) Implementing new user and security roles.
- 2) Modifying existing user and security roles.
- 3) Revising or adding program components as a result of regulatory changes.
- 4) Developing other improvements as identified during CITSS operations.

- c. *Entities/Accounts*. The existing Accounts module captures and manages CITSS entity information and allows account representatives to create and maintain compliance instrument accounts. The Accounts module records and manages entity-people relationships and entity-account relationships. The Accounts module captures changes to accounts statuses (e.g. Active, Restricted, Suspended, Closed). Working in conjunction with the Technical Work Group, the Contractor shall support the existing CITSS Accounts module. Support includes CITSS quality assurance, bug fixes, requirements analysis for improvements, and system improvements or enhancements. The Contractor shall implement improvements or enhancements if deemed necessary by the Technical Work Group and Technical Project Manager.

Examples of potential Entities/Accounts module improvements include,

- 1) Capturing entity-facility relationships.
 - 2) Capturing changes in entity account types.
 - 3) Capturing changes in entity ownership, corporate associations, and account consolidations.
 - 4) Revising or adding program components as a result of regulatory changes.
 - 5) Developing other improvements as identified during CITSS operations.
- d. *Compliance Instrument Management.* The existing Compliance Instrument Management module provides jurisdictions the ability to electronically issue and track serialized allowances and offsets. Working in conjunction with the Technical Work Group, the Contractor shall support the existing CITSS Compliance Instrument module. Support includes CITSS quality assurance, bug fixes, requirements analysis for improvements, and system improvements or enhancements. The Contractor shall implement improvements or enhancements if deemed necessary by the Technical Work Group and Technical Project Manager.

Examples of potential Compliance Instrument Management improvements include,

- 1) Adding new compliance instrument types, subtypes, or categories.
 - 2) Tracking offset credit invalidation.
 - 3) Tracking offset credit reversals.
 - 4) Revising or adding program components as a result of regulatory changes.
 - 5) Developing other improvements as identified during CITSS operations.
- e. *Instrument Transfer.* The existing Instrument Transfer module records allowance and offset transfers (e.g. allocation, auction, entity-entity transfers, consignment, and retirement). The Instrument Transfer module records transfers information required by Participating Jurisdictions' regulations, enforces Participating Jurisdictions' transfer rules (e.g. multi-party approval, transfer timeframes), and notifies transferring parties of instrument transfers entered into the CITSS. Working in conjunction with the Technical Work Group, the Contractor shall support the existing CITSS Instrument Transfer module. Support includes CITSS quality assurance, bug fixes, requirements analysis for improvements, and system improvements or enhancements. The Contractor shall implement improvements or enhancements if deemed necessary by the Technical Work Group and Technical Project Manager.

Examples of potential Instrument Transfer improvements include,

- 1) Improving management of market rules (e.g. holding limits).
 - 2) Improving transfer procedures (e.g. interfaces for push-push-pull) for account representatives.
 - 3) Improving data reporting compliance instrument transfers.
 - 4) Integrating transfer modules with third-party systems (e.g. exchange clearing providers, offset project registries, or other stakeholders).
 - 5) Revising or adding program components as a result of regulatory changes.
 - 6) Developing other improvements as identified during CITSS operations.
- f. *Auction Integration.* The existing Auction Integration module provides jurisdictions the ability to electronically transfer entity account data to the Auction Administrator and Financial Services Administrator for purposes of conducting quarterly allowance auctions and price containment reserve sales. Working in conjunction with the Technical Work Group, the Contractor shall support the existing CITSS Auction Integration module. Support includes CITSS quality assurance, bug fixes, requirements analysis for improvements, and system improvements or enhancements. The Contractor shall implement improvements or enhancements if deemed necessary by the Technical Work Group and Technical Project Manager.
- Examples of potential Auction Integration improvements include,
- 1) Automating auction results processing.
 - 2) Automating price containment reserve results processing.
 - 3) Creating additional auction integration files for new Participating Jurisdictions.
 - 4) Revising or adding program components as a result of regulatory changes.
 - 5) Developing other improvements as identified during CITSS operations.
- g. *Market Monitoring Integration.* The existing Market Monitoring Integration module provides jurisdictions the ability to electronically transfer entity account data, compliance instrument data, and instrument transfer data to the Market Monitor. Working in conjunction with the Technical Work Group, the Contractor shall support the existing CITSS Market Monitoring Integration module. Support includes CITSS quality assurance, bug fixes, requirements analysis for improvements, and system improvements or enhancements. The Contractor shall implement improvements or enhancements if deemed necessary by the Technical Work Group and Technical Project Manager.

Examples of potential Market Monitoring Integration improvements include,

- 1) Creating additional Market Monitoring files for new Participating Jurisdictions.
- 2) Revising or adding program components as a result of regulatory changes or after developing new modules.
- 3) Developing other improvements as identified during CITSS operations.

- h. *Offset Project Tracking.* Working in consultation with the Technical Work Group, the Contractor shall provide an Offset Project Tracking module. The Offset Project Tracking module manages the workflow of an offset project through the various approval and review steps (e.g. project listing, project monitoring and reporting, and verification). The Offset Project Tracking module may also record and manage information initially entered in a third-party offset project information system or registry.

For completion of the Offset Project Tracking module, the Contractor shall provide requirements analysis, application design, and the system development or improvements necessary to deliver the features. The Contractor shall also support the Offset Project Tracking module. Support includes CITSS quality assurance, bug fixes, requirements analysis for improvements, and system improvements or enhancements. The Contractor shall implement the Offset Project Tracking module if deemed necessary by the Technical Work Group and Technical Project Manager.

- i. *Emissions Compliance.* Working in consultation with the Technical Work Group, the Contractor shall provide an Emissions Compliance module. The Emissions Compliance module determines the compliance status of registered CITSS entities subject to Participating Jurisdictions regulations. The Emissions Compliance module should provide all functionality necessary to assess emissions compliance (e.g. features for entering and displaying emissions obligations, retiring allowances and offsets, identifying non-compliance, and close a compliance period). The Emissions Compliance module should also consider all program rules and restrictions (e.g. offset use limits, allowance vintage requirements, and account restrictions).

For completion of the Emissions Compliance module, the Contractor shall provide requirements analysis, application design, and system improvements or enhancements. The Contractor shall also support the Emissions Compliance module. Support includes CITSS quality assurance, bug fixes, requirements analysis for improvements, and the system development or improvements necessary to deliver the features. The Contractor shall implement the Emissions Compliance module if deemed necessary by the Technical Work Group and Technical Project Manager.

- j. *Data Reporting.* Working in consultation with the Technical Work Group, the Contractor shall provide a Data Reporting module. The Data Reporting module provides regular reporting and analysis of data captured during CITSS operation. The Data Reporting module should provide functionality for various report types, as well as analytical query functions, needed to successfully implement and monitor the cap-and-trade program (e.g. Jurisdiction administrative reports, issuance reports, transfer reports, registered entity reports, offset reports, market monitor reports, compliance reports, and other ad-hoc queries).

For completion of the Data Reporting module, the Contractor shall provide requirements analysis, application design, and the system development or improvements necessary to deliver the features. The Contractor shall also support the Data Reporting module. Support includes CITSS quality assurance, bug fixes, requirements analysis for improvements, and system improvements or enhancements. The Contractor shall implement the Data Reporting module if deemed necessary by the Technical Work Group and Technical Project Manager.

- k. *Jurisdiction Functionality.* Jurisdiction Functionality includes incorporating Functionality needed for one Participating Jurisdiction into the CITSS, such as loading, providing quality assurance, and maintaining the French translation of system content, jurisdiction specific text and pages, jurisdiction specific data fields and business rules and jurisdiction specific content on program management and informational forms.

The Contractor must integrate jurisdiction functionality into the CITSS consistent with existing CITSS programming standards and practices. To harmonize workload assignments, task priorities, and project development, integration of jurisdiction functionality will be coordinated with and subject to concurrence by the Technical Work Group and the Technical Project Manager.

- l. *Application Security.* The Contractor must provide the Tracking System Functionality in conformance with industry standards and best practices for software security commensurate with the sensitivity of the application and data (e.g. financial institution and banking industry practices). In conjunction with the Technical Work Group, the Contractor shall identify recommended or required Application Security improvements necessary for conformance with industry standards and best practices. At minimum, the Contractor shall:

- 1) Document and analyze risks and risk mitigation strategies associated with CITSS implementation. The Contractors shall document risk mitigation development tasks in development tickets.
- 2) Provide an authentication and password management solution for all CITSS users.

- 3) Provide a role management solution for all CITSS users; ensuring that principles of least access, separation of functions, and need to know will be applied in the determination of user authorizations.
- 4) Provide audit logging and analysis features; ensuring CITSS captures an audit trail for all changes, additions, and deletions of data.
- 5) Program Tracking System functionality to minimize threats; based on published application security threat sources (i.e. SANS Top 25 Application errors and Open Web Application Security Project (OWASP) Top Ten).
- 6) Ensure code integrity and conduct code validation testing.
- 7) Encrypt all information with a data classification higher than “public” using industry best practices.
- 8) Provide application controls to prevent and detect data input errors, whether obtained from the user, infrastructure, external entities, or database systems.
- 9) Control access to system and application to protect the confidentiality, integrity, and availability of information for the CITSS.
- 10) Maintain all software, to the extent feasible, with the most current available hot fixes, service packs, updates, and patches.

The Contractor shall implement CITSS Security improvements or remediation in consultation with the Technical Work Group and Technical Project Manager.

5. Tracking System Operations Plan

The Contractor must provide a Tracking System Operations Plan. In developing the Plan the Contractor shall, at minimum, include the processes and procedures necessary for Tracking System Operations⁵ (Section 6). At minimum, the Contractor shall:

- 1) Outline processes and procedures for change management, production preparation, application testing, non-functional testing, database administration, and corrective and emergency maintenance (i.e. bug fixes).

⁵ The Contractor may exclude any process or procedure previously described in a Service Management Plan as required by in Section A.3 of the *Description of Services Interim Hosting and Jurisdiction Functionality for the Compliance Instrument Tracking System Service (CITSS)*.

6. Tracking System Operations

Tracking System Operations includes the activities associated with the continued use and support of the CITSS. The purpose of Tracking System Operations is to develop and implement procedures for routine CITSS feature deployments, quality assurance, and application maintenance.

In addition to the services in this section, additional operational support requirements are identified in Hosting Services Section B and Security Services Section C.

- a. *Change Management.* Working in consultation with the Technical Work Group and the hosting services provider, the Contractor shall establish and maintain change management activities to appropriately manage and document (e.g., impact analysis, version control, library management, turnover management, build management, parallel development) changes to the application and the application development environment. At a minimum, the Contractor shall:
 - 1) Define and implement procedures for tracking changes and authorizing changes.
 - 2) Work with WCI, Inc. and Participating Jurisdictions in conducting change impact analysis for proposed functional system enhancements.

Any changes to the baseline Work Plan, Tracking System Functionality, or Tracking System Operations Plan must be managed by the Change Management process and approved by WCI, Inc.

- b. *Production Preparation.* Working in consultation with the Technical Work Group and the hosting services provider, the Contractor shall provide application support for production deployment. In conjunction with the Technical Work Group, the Service Delivery Manager (as defined in the SRA/WCI, Inc. hosting contract), and the hosting services provider, the Contractor shall identify production release dates and activities necessary to successfully deploy the CITSS. At a minimum, the Contractor shall:
 - 1) Conduct three (3) CITSS production releases over the term of the contract.
 - 2) Provide CITSS improvements as a result of third-party penetration/vulnerability testing.

- c. *Application Testing.* Working in consultation with the Technical Work Group, the Contractor shall support CITSS application testing. The entire testing process shall include the Contractor, Participating Jurisdictions, and

Jurisdiction stakeholders. At a minimum, the Contractor shall support the following functional testing areas:

- 1) Develop, document, and conduct automated unit testing, automated integration testing, and automated functional testing according to user story acceptance criteria agreed upon by the Technical Work Group. The Contractor shall maintain a record of the automated tests and results in the application code and on the build server.
 - 2) In conjunction with Participating Jurisdictions, develop, document, and conduct system integration testing with third-party service providers (i.e. testing of each component of functionality requiring integration with the Auction Administrator, Financial Services Administrator, or Market Monitor) according to user story acceptance criteria agreed upon by the Technical Work Group. The Contractor shall document system integration testing and results with third-party service providers as a task in a ticket.
 - 3) In conjunction with Participating Jurisdictions, develop, document, and conduct regression testing (i.e. testing of the application ensure that all CITSS functions continue to work properly as new features are introduced) according to user story acceptance criteria agreed upon by the Technical Work Group. The Contractor shall document defects discovered during regression testing as a development ticket.
 - 4) In conjunction with Participating Jurisdictions, develop, document, and conduct end-to-end functionality testing (i.e. testing of the entire application) according to user story acceptance criteria agreed upon by the Technical Work Group. At minimum, end-to-end functionality testing must be conducted prior to each release of new CITSS functionality. End-to-end testing will also be required in coordination with other services such as Auction Administration and Market Monitoring.
 - 5) In conjunction with Participating Jurisdictions, develop, document, and conduct smoke testing in the pre-production environment. At minimum, smoke testing must be conducted prior to each release of new CITSS functionality. The Contractor shall document defects discovered during smoke testing as a development ticket.
- d. *Non-Functional Testing.* Working in consultation with the Technical Work Group and the hosting services provider, the Contractor shall support CITSS non-functional testing. The entire non-functional testing process shall include the Contractor, Participating Jurisdictions, the hosting services provider, and any independent third party contractor. At a minimum, the Contractor shall support the following non-functional testing areas:

- 1) Develop, document, and conduct performance testing according to criteria (e.g. number of concurrent users, number of concurrent transactions, expected application response times, etc.) agreed upon by the Technical Work Group. The Contractor must perform performance testing at least once during the term of the contract.
 - 2) In conjunction with the Technical Work Group, the Contractor shall provide CITSS improvements to remediate issues identified during the performance testing to ensure CITSS meets the performance standards agreed upon by the Technical Work Group.
- e. *Corrective and Emergency Maintenance.* The Contractor shall provide documentation of the repair of coding defects to ensure the production application provides the required functionality and meets agreed upon service levels. Depending on their severity, defect corrections shall be completed in a timeframe established by Technical Work Group and Technical Project Manager in consultation with the Contractor based on the level of effort to repair a defect.
- f. *Development and Testing Environments.* Working in consultation with the Technical Work Group, the Contractor shall provide environments necessary for the development and testing of CITSS. Environments shall include all necessary services required for the development and operating CITSS for the intended purpose in a secure manner retaining the confidential nature of data while using representative data in testing environments. At a minimum, the Contractor shall provide the following environments:
- 1) Build and maintain a development environment for use by the Contractor in developing and operating CITSS.
 - 2) Build and maintain a staging environment for use by the Contractor in quality assurance activities.
 - 3) Build and maintain a user acceptance testing environment to enable the Technical Work Group and Participating Jurisdictions to test CITSS. The testing environment shall allow for testing both the most recent release and new features, emails, and other modifications as required to fully test all CITSS features.
 - 4) Build and maintain a load testing environment for use by the Contractor in running performance/load test scripts.
 - 5) Build and maintain a training environment for use by the WCI, Inc. help desk staff.

7. Deliverables

Deliverables and Acceptance Criteria:

Deliverable	Notes	Acceptance Criteria	Due Date
Work Plan			January 4 th , 2013
Participate in WCI, Inc./Jurisdiction Technical Work Group			Twice a month
Meeting Minutes			Five working days after each meeting
Tracking System Operations Plan			January 31 st , 2013
Monthly Progress Reports	Monthly progress reports describing the work completed during the previous calendar month.	Confirmation of WCI, Inc. receipt.	End of every month

COST PROPOSAL

TRACKING SYSTEM SERVICES FOR THE COMPLIANCE INSTRUMENT TRACKING SYSTEM SERVICE (CITSS)

Submitted to:

Western Climate Initiative, Incorporated (WCI, Inc.)

Submitted by:



Honesty and Service®

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1 INTRODUCTION

SRA International, Inc. (SRA) is pleased to provide this proposal for the tracking system services for the Compliance Instrument Tracking System Service (CITSS), and extension of services for interim hosting. This proposal covers work defined in coordination with WCI, Inc. and documented in the contract modification for tracking system services initially provided to SRA on November 6, 2012. This proposal also covers additional interim hosting support for May, June, and July 2013.

2 APPROACH

SRA staff worked with WCI, Inc. and participating jurisdiction staff to understand the requirements related to the tracking system services, and to define the scope of requirements which would be included in this effort. The following documents have been used in the development of this proposal.

- SRA Contract – SOW Amendment 11-17-2012, received by SRA on November 28, 2012
- Appendix 1: CITSS Application Support Service Level Agreement, included below

3 COST PROPOSAL

This section provides SRA's Time and Materials cost proposal for work as discussed in this proposal. All prices are quoted in US Dollars and are exclusive of GST. Payment terms are NET30 with a 10% withhold on SRA labor. For Tracking System Services, SRA will separately invoice for the withheld amount before the beginning of any six (6) month period of work (to be invoiced at the end of June and December), or the earlier termination of this Agreement. SRA will separately invoice for the withheld amount for hosting at the end of May and then again at the end of July. This is consistent with receiving that amount at the end of the current contract period.

The following sections describe the proposed tasks, timeframe, and assumptions.

3.1 Overview

3.1.1 Tracking System Services

Tracking system services will focus on the following areas:

- Project Administration for the tracking system services
- Documentation
- Tracking System application development and enhancements for the following modules:
 - Jurisdiction Management
 - User Registration
 - Entities/Accounts
 - Compliance Instrument Management
 - Instrument Transfer
 - Auction Integration
 - Market Monitoring Integration
 - Offset Project Tracking
 - Emissions Compliance
 - Data Reporting
 - Jurisdiction Functionality
 - Application Security
- Tracking System operations

SRA did not include any development work leading up to Release 3, scheduled to occur around June 2013.



The amount of effort allocated to development will vary based on actual operational support needs.

We have included direct costs for the Atlassian support, development, testing, user-acceptance testing (UAT), help desk training and load testing environments, travel related to requirements gathering, operational support ticket system, escrow account, and license and maintenance fees for encryption software. These costs are based on our best estimates for the specified services. Actual costs will vary according to usage and/or final arrangements.

3.1.2 Interim Hosting

For the Interim Hosting extension through the end of July, SRA has assumed a level of effort similar to that required thus far, specifically business as usual operations and peak effort associated with a planned release in May or June. We have included a nominal amount of time for potential transition in July. Once a new provider is selected and requirements for the hosting transition have been defined, SRA will provide an updated estimate for transition activities.

We have included direct costs for Atlassian and mobile phone. However, at this time, we have not included additional ODCs for the hosting provider based on current and projected spending.

3.2 Timeframe

3.2.1 Project Timeframe

SRA has assumed a start date of January 1, 2013 and an end date of December 31, 2013 for tracking system services with most of the development work occurring between June and December 2013.

SRA has included a three month extension of the interim hosting support to include May, June, and July 2013.

3.2.2 Production Releases of CITSS

SRA has assumed that this work will include, at a minimum, two production releases of CITSS – one release in mid-2013 and one release at the end of 2013. The specific content and timing of these releases will be coordinated between WCI, Inc., participating jurisdictions and SRA.

3.3 General Assumptions

The following general assumptions apply.

Tracking System Services

- SRA will continue to develop software in close coordination with jurisdiction staff using an Agile software development methodology. This includes elements of test driven design with significant automatic, repeatable test coverage (unit, integration, and functional), continuous integration and deployment, and time-boxed iterations (2-week "sprints") of development work with a rapid feedback cycle and close client contact. SRA expects that jurisdiction staff will be involved in confirming user stories and participating in ongoing application testing. The subsequent work plan will provide additional detail regarding this process.

- Working in consultation with the Technical Project Manager and the Technical Working Group, SRA will prioritize tasks (including system features, documentation, environment maintenance, operations, etc.) and implement them as time and budget allow. SRA did not estimate hours for specific tasks.
- Costs related to jurisdiction-specific functionality will not be tracked separately from other tasks associated with system features, documentation, environment maintenance, operations, etc. Jurisdiction-specific functionality tasks will be tracked as part of development tickets if required.

Interim Hosting

- SRA will continue to operate the hosting environment through the end of July. July will be used as a transition period to the new hosting provider.

[illegible]

[REDACTED]				
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]				[REDACTED]
[REDACTED]				
[REDACTED]	[REDACTED]			[REDACTED]

3.5 Labor Categories

[REDACTED]

[REDACTED]

4 ADDITIONAL INFORMATION

SRA will procure a cloud hosting environment to be used for the development environment, testing environment, UAT environment, training environment, and load testing environment. SRA will configure, deploy and enhance the SRA application in the selected cloud environment.

[REDACTED]

[REDACTED]

Application support includes analysis and resolution of incidents—as defined below—for which the root cause is the CITSS production application. For clarity, service levels for hosting are defined separately. This information is provided as a basis for discussing and estimating required application support. Additional details regarding the reporting, escalation, and resolution of CITSS application incidents will be provided in the required Tracking Systems Operation Plan.

1. Severity 1
 - a. a defect with a direct security impact on CITSS that compromises sensitive data or allows access to functions outside of specified user permissions; or
 - b. a defect isolated to CITSS, for which there is no reasonable workaround, rendering CITSS completely unavailable to all system users.
2. Severity 2
 - a. a defect isolated to CITSS that substantially degrades the performance of CITSS; or
 - b. a defect isolated to CITSS, for which there is no reasonable workaround, that restricts the use of one or more features of CITSS to perform necessary business functions but does not completely restrict use.
3. Severity 3
 - a. a defect isolated to CITSS, for which there is a workaround, that restricts the use of one or more features of CITSS to perform necessary business functions; or
 - b. a defect isolated to CITSS that causes some functional restrictions but does not have a critical or severe impact on operations.
4. Severity 4
 - a. a minor defect that does not significantly impact operation; or
 - b. an anomaly in CITSS that does not substantially restrict the use of one or more features of CITSS to perform necessary business functions.
5. Defect is defined as an error, flaw, or mistake in the software that does not meet agreed user stories, comprises sensitive data, or allows access to functions outside of user permissions.
6. Business Hours are defined as 9 am - 6 pm ET.
7. Response time is defined as the time by which SRA will acknowledge receipt of the incident.
8. Status Updates are defined as verbal or written communication of the actions being taken and target resolution time.
9. Targeted resolution time is defined as the time by which SRA will endeavor to identify the defect and:
 - a. Fix the defect;
 - b. Provide a temporary fix; or
 - c. Provide a workaround.

[REDACTED]	[REDACTED] [REDACTED]	[REDACTED] [REDACTED]	[REDACTED] [REDACTED] [REDACTED]

[REDACTED]	[REDACTED] [REDACTED]	[REDACTED] [REDACTED]	[REDACTED] [REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]