

Solicitation 09-114

Cap & Trade Market Tracking System

State of California

Bid 09-114

Cap & Trade Market Tracking System

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Bid Title Cap & Trade Market Tracking System

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Description
Please read RFI thoroughly. Questions, comments, and responses shall be directed to the contacts listed in the RFI.

Market Tracking System

Request for Information



**California Air Resources Board
Office of Climate Change**

May 24, 2010

Air Resources Board
Market Tracking System

Request for Information
May 24, 2010

California Air Resources Board

Revision History

REVISION HISTORY			
REVISION #	DATE OF RELEASE	OWNER	SUMMARY OF CHANGES
1.0	5/24/2010	Matthew B	Public Release of RFI

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INTRODUCTION

The Air Resources Board (ARB) is releasing this Request for Information (RFI) to request input on the draft requirements and potential market offerings for the cap-and-trade Market Tracking System.

Purpose

The purpose of this RFI is to obtain a response from potential service providers on the overview of the Market Tracking System, availability of current information technology (IT) solutions, and the prospective cost to implement a vendor's solution.

The Air Resources Board may use the information obtained through this RFI to develop bid documents and project specifications for the Market Tracking System.

BACKGROUND

In 2006, the California Legislature passed and Governor Schwarzenegger signed AB 32, the Global Warming Solutions Act of 2006, which established in law a limit for 2020 on California's greenhouse gas (GHG) emissions." It directed the California Air Resources Board to prepare a Scoping Plan to identify how best to reach the 2020 limit.

As required by AB 32, the ARB adopted the Climate Change Scoping Plan, which includes greenhouse gas emission reduction measures designed to achieve the AB 32 emissions limit. Among these measures is a California GHG cap-and-trade program.

Building on the direction included in the Scoping Plan, ARB staff is developing the cap-and-trade regulation. Under a cap-and-trade program, an overall limit on GHG emissions from capped sectors will be established. Facilities subject to the cap will be required to hold allowances, or tradable permits to emit GHGs, equal to their emissions.

Emitters would receive allowance permits directly from the State or by purchase from an auction or an open market. Likewise, the State would require the registration of offset credits that are sold and purchased for use by regulated entities. Emitters would submit allowances and offset credits, together referred to as compliance instruments, to ARB in amounts equal to their reported emissions at the end of the compliance period. To implement the system, ARB would create the allowances and approve the use of offsets. ARB would also determine the validity of the offset credits and their proof of ownership.

The regulation will require entities to provide information directly to ARB regarding ownership and submittal of compliance instruments; it will also require the acquisition of information on transactions between market participants. Some participants submitting information could be entities that do not have compliance obligation or that are not located within California. In addition to tracking cap-and-trade compliance obligations of entities, ARB would be responsible for tracking information on a large volume of transactions in compliance instruments occurring as a result of the regulation.

Consistent with the Scoping Plan, ARB must adopt the cap-and-trade regulation by January 1, 2011, and the California GHG market itself must be operational in 2012. The auction, market registry, trade data repository, and compliance sub-systems of the cap-and-trade Market Tracking System should become operational by the end of the third quarter of 2011 to allow for the cap-and-trade program to be effective by January 1, 2012.

ARB is working on the planning and analysis needed to develop the Market Tracking System Feasibility Study Report. Through this effort, ARB is identifying the essential functions of the Market Tracking System that will be needed to effectively implement the cap-and-trade program. ARB is designing these functions to ensure effective market oversight, market transparency, and efficient allocation, compliance and enforcement procedures.

INFORMATION BEING REQUESTED

ARB requests feedback, comments and questions on the draft requirements as well as information on existing similar systems and their potential to be utilized for California's Market Tracking System. In addition to input on the draft requirements, ARB is also requesting information on the prospective cost to design, procure/build, and implement a potentially viable solution based on the draft requirements.

Please note these are only draft requirements which are subject to change. Any additional information not specifically requested, but which the provider deems important and relevant, may also be submitted.

RESPONSE INFORMATION

Responses from any company or organization operating an existing similar system or the ability to build such a system are welcome. **All information must be submitted to the ARB at:**

http://www.arb.ca.gov/lispub/comm2/bcsubform.php?listname=ct-reg-mts-rfi-ws&comm_period=1

on or before the key date listed in Table 1. After providers submit their responses, ARB may contact or hold informal meetings or teleconferences with providers to ask additional questions or for clarification. ARB's primary goal of any questions or informal meetings will be to understand the responses submitted.

Response Format and Content

The RFI is intended to be an informal document and does not constitute a solicitation. Responses to this RFI should be based upon the system concept and design information located in Appendices A – C. As a general guideline, providers should include the following information:

Cover page

- Include company name, address, and point of contact information.

Capabilities

- Discuss experience designing, implementing or operating similar systems with comparable functionality. Also include years in operation, number and location of employees, and expertise of key staff.
- Include a list of existing similar systems (shared registry and data repository services) the provider currently implements or has previously put into place for large, diverse groups of firms and institutions to implement. See Appendix A for system concept.
- Include the vendor's ability to meet the experience considerations listed in Appendix B.

Feedback

- Provide input on the requirements or areas in the attachments. Specifically, ARB is looking for:
 - Availability of current systems that perform all or a portion of the system functions listed in Appendices A and B. Alternatively, ability to build a system that meets the functions in Appendices A and B.
 - Questions, suggested modifications, or additions to the System Concept listed in Appendices A and B that would allow ARB to more effectively implement California's cap-and-trade program. Include the justification for any suggested changes and concept modifications.
 - Additional considerations not taken into account in the System Concept.

Cost and Timeframe

- Include the prospective cost to design or put in place a system according to Appendix A. This includes:
 - Anticipated costs for initial design, development and implementation.
 - Anticipated costs for ongoing maintenance and operations of the system.
 - Include any key assumptions used to craft the potential costs.
- Expected time needed to put into service the outlined system under the cost.
 - ARB expects the system to be operational by the third quarter of 2011 to allow for the cap-and-trade program to be effective by January 1, 2012.

Other

- Any other relevant information, comment, or feedback regarding the Market Tracking System is welcomed and encouraged.

Submit and View Comments or Responses**Submit**

All comments, formal responses, or submissions related to this RFI must be submitted by June 10th and entered at ARB's comment page found here:

http://www.arb.ca.gov/lispub/comm2/bcsubform.php?listname=ct-reg-mts-rfi-ws&comm_period=1

View

A publicly viewable record of all comments submitted for this RFI is available at the following webpage:

<http://www.arb.ca.gov/lispub/comm2/bccommlog.php?listname=ct-reg-mts-rfi-ws>

Contact Information

Questions related to this RFI can be directed to either:

Attn: Matthew Botill

Air Resources Board

Office of Climate Change

1001 I Street, P.O. Box 2815

Sacramento, CA 95812

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Attn: Raymond Olsson

Air Resources Board

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Sacramento, CA 95812

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RFI TIMELINE

The Key Action Dates are listed below. If ARB finds it necessary to change any of these dates, an Addendum to this RFI will be released.

Table 1: Timeline

Key Action	Date
Release of the RFI	May 24, 2010
Last Day to Submit RFI Feedback	June 10, 2010
Informal Meetings/Teleconferences with Vendors	June 21- July 2, 2010

DISCLAIMER

- Providers are not required to respond to this RFI in order to participate in the anticipated system vendor procurement document to follow.
- This RFI is issued for information and planning purposes only and does not constitute a solicitation.
- A response to this RFI is not an offer and cannot be accepted by the State to form a binding contract.
- Responders are solely responsible for all expenses associated with responding to this RFI.

Appendix A MARKET TRACKING SYSTEM OVERVIEW

I. Opportunity

As the implementing agency for AB 32, ARB will bear the primary responsibility for administering the California cap-and-trade program. The cap-and-trade regulation, once adopted by the Board, will specify the requirements for both the ARB staff and the entities covered by the regulation.* According to the preliminary draft regulation that was released in November, 2009, ARB would be responsible implementing a cap-and-trade program by which compliance instruments are created, auctioned/allocated, traded, and ultimately surrendered. This RFI outlines ARB's need for an IT system that meets a subset of implementation requirements of the overall administrative effort needed to implement California's cap-and-trade program. Detailed administrative and functional requirements of this IT system are discussed in Section III below.

When evaluating the business opportunity created by the cap-and-trade regulation and the need for an information technology solution, ARB staff considered the following important aspects of implementation of the cap-and-trade program:

Market profile and magnitude of cap-and-trade program

ARB staff estimates over 1000 entities would be utilizing the Market Tracking System, with participants varying from private industry to non-profit corporations, individuals and regional, national, and international agencies. Depending on the Program's design and linkage with external programs, 3 billion or more compliance instruments may be tracked by the system at any given time, with the potential for a fraction of these changing hands daily.

Efficient and effective market oversight services

In a well-functioning emissions market transparency, oversight, compliance, and enforcement are vital functions needed to maintain market efficiency and operation. Effective market oversight depends on ready access to comprehensive, current and historical market data including aggregated market data as well as disaggregated, time-stamped, entity and trade-specific, transactional and positional data.

Transparency in market operations

Timely, comprehensive access to market data is needed to assure market transparency and the efficiency of the emissions market. This includes access to market data in the primary, secondary, and derivative markets related to the trading of compliance instruments and contracts.

* Information on the development of the cap-and-trade regulation is available at:
<http://www.arb.ca.gov/cc/capandtrade/capandtrade.htm>

Existing ARB administrative systems

The project mainly creates a new system for implementation of the cap-and-trade regulation where none currently exists. ARB does, however, have some established components that will play vital roles in implementing the California cap-and-trade program. These components include:

- A robust emissions reporting and verification mechanism [†].
- Established regulatory enforcement procedures.

While these systems are critical to the implementation of cap-and-trade, they do not have the ability to fulfill some of the key needs of the cap-and-trade program and the implementation of a California emissions market.

II. Project Goals

ARB staff evaluated the opportunity and need detailed in Section I to set the preliminary project goals listed below in Table 2.

Table 2: Preliminary Project Goals and Solutions

Project Goals	Market Tracking System
Market transparency	Links to selected trading facilities to collect and record pre- and post-trade transactional data. Market Data Reporting system to provide timely and accurate information to market participants and the public.
Allow for market oversight, including compliance and enforcement	Trade data collection, reporting, record keeping, and audit features for oversight agencies.
Create a system for cap-and-trade program administration	Readily accessible data from a market registry with user accounts and compliance instrument tracking for administration by ARB. The registry serves as an electronic depository for all authorized compliance instruments held by California cap-and-trade program participants.
Minimize program administration costs	Automate, to the extent possible, market registry , trade data repository , and public reporting of market information. Leverage existing platforms – both technological and institutional – where appropriate and economical.
Create a functioning market tracking system for compliance instruments by the beginning of market implementation	Have system in operation aligned with legislative and regulatory deadlines, including having the cap-and-trade program operational by January 1, 2012.

[†] A possible connection includes the Reporting Tool for California GHG Emissions
<http://www.arb.ca.gov/cc/reporting/ghg-rep/ghg-tool.htm>

III. System Functional Concept

Market Registry Functions

The core market registry functions are to maintain and update the holdings of allowance and offset certificates for market participants and market administrators. The registry function must support the following cap-and-trade activities:

- a. A system for qualification and registration of market participants.
- b. A system of accounts and registry access for all registrants.
- c. A method to regularly create compliance instruments (offsets and allowances) in the registry. ARB would create billions of compliance instruments that would be serialized according to a standard format.
- d. A process to allocate compliance instruments to account holders per Executive Officer direction and authority.
- e. A connection to auction platforms to update the registry with auction results.
- f. A connection to existing emission reporting databases[‡] to receive emissions data.
- g. The ability to update account holdings and information from clearinghouses, both secondary market and derivative data.
- h. A mechanism for both registrants and administrative agencies to move allowances among accounts through automatic and manual transfers.
- i. A mechanism to surrender or voluntarily retire compliance instruments
- j. The ability to limit or restrict allowance transfers or surrenders by including regulatory requirements in the system (e.g. a limit on number of offsets surrendered).
- k. Scalability to support large numbers (1,000,000+) of potential system registrants.
- l. Scalability and information sharing features to support California linkage with WCI, national and regional trading programs, and external offset crediting systems.
- m. Reliable, secure, real-time communication with the clearing and settlement processes of relevant secondary and derivative markets, including electronic confirmation service providers or other sources of OTC derivative transaction details.
- n. Administrative features available to ARB and other agencies (CFTC, SEC, etc.) to maintain regulatory and administrative control of the Market Tracking System, including the compliance instruments and the accounts held in the registry.

[‡] A possible connection includes the Reporting Tool for California GHG Emissions
<http://www.arb.ca.gov/cc/reporting/ghg-rep/ghg-tool.htm>

The primary transaction recording functions are to collect and archive market transactions reported to ARB. The transaction recording function must support the following activities:

- a. Recording all transaction details related to the auction, allocation or trading of compliance instruments.
- b. Collecting transactional details (position and trade data) for all derivatives and over-the-counter (OTC) derivative contracts whose value is contractually related to the value of compliance instruments.
- c. Maintaining a detailed ownership record of allowances, offsets, physically-settled derivative contracts on compliance instruments, and related OTC derivative contracts.
- d. Recording transaction details needed to link California's cap and trade program to WCI, national and regional cap and trade programs, including external offset crediting systems.
- e. Scalability and information sharing features to support California linkage with WCI, national and regional trading programs, and external offset crediting systems.
- f. Reliable, secure, real-time communication with the trade confirmation processes of relevant secondary and derivative markets, including electronic confirmation service providers or clearing facilities for cap & trade-related OTC derivative transactions.
- g. Record keeping of the retiring (surrender) of compliance instruments by market participants.
- h. Provide transaction data to enable market oversight agencies to conduct price mitigation operations.
- i. Provide transaction data to enable market oversight agencies to conduct market oversight and enforcement operations.

Market Data Reporting Functions

A necessary condition for market transparency is public and market-participant access to cap-and-trade market information. The market data reporting functions must support the following activities:

- a. Provide carefully coordinated public disclosure of timely and accurate information regarding market participants' compliance activities through web based or other standard reporting mechanism.
- b. Provide carefully coordinated public disclosure of timely and accurate information regarding the attributes, status, and market value of compliance instruments through web based or other standard reporting mechanism.
- c. Public reporting of California offset credit verification, approval, retirement and trade relating to market participants and external programs.
- d. Coordinated distribution of the above information to electronic information distributors and news services.
- e. Provide standardized and ad-hoc reporting for State and Federal oversight agencies. This includes information on registrants, account holdings, and transaction/position details.

Appendix B ADDITIONAL SYSTEM DESIGN CONSIDERATIONS

I. Forward Compatibility

When California's emission market connects to external markets, or the Federal market, its participants will be best served if their tracking system supports smooth integration with the infrastructure supporting those other markets.

California's registry and transaction recording functions must be forward-compatible with the full range of financial instruments and transactions that flow from the decision to permit broad participation in its emission market. In particular, it will be necessary to support direct links with electronic confirmation service providers to the OTC derivative markets (e.g. ICE eConfirm, ConfirmHub, MarkitServ, EFETnet).

II. Network Connections

Major banks, brokerage firms and investment banks – in addition to large utilities -- supply substantial liquidity to the European and Regional Greenhouse Gas Initiative (RGGI) emission markets. Those same entities may participate in California's emissions market. To the extent possible, California's market infrastructure should support that participation by leveraging prevalent standards of financial data communication and transaction processing.

In addition to connecting to current and future emissions markets, the California tracking system must also access entity-specific emissions and offset information from GHG emission reporting databases. California entity-specific GHG emissions data is collected through ARB's Reporting Tool for California GHG Emissions[§]. The U.S. Environmental Protection Agency (U.S. EPA) is also implementing a rule^{**} that requires the reporting of GHG emissions. The EPA's planned electronic reporting tool may be another supplier of emissions information for the cap-and-trade Market Tracking System. Accepting and disseminating information from these reporting systems is a fundamental requirement of the cap-and-trade Market Tracking System.

III. Data Communication and Security Standards

ARB is in the process of defining the necessary data communication and security requirements for the Market Tracking System. At a high-level the Market Tracking System must include measures that both:

- a. Implement system security protocols and privacy technologies to support cap-and-trade processes in accordance with State of California information policies and standards^{††}; and

[§] <http://www.arb.ca.gov/cc/reporting/ghg-rep/ghg-tool.htm>

^{**} <http://www.epa.gov/climatechange/emissions/ghgrulemaking.html>

^{††} See <http://www.cio.ca.gov/OIS/>

- b. Provide a high degree of flexibility and security for management of sensitive information entered on user data entry screens and in database tables, including:
- Ability to accommodate multiple industry-standard electronic trade record message formats, such as FpML, SWIFT, FIX, and XML.
 - Ability to develop and operate a secure standardized process for registering (“onboarding”) new participants; including establishing User IDs, connectivity, security checks, etc.
 - Ability to maintain a very high standard of data security and privacy, including ongoing programs of monitoring and threat response.
 - Demonstrate that the data will be secured from external attack.
 - Ability to support high volumes or a high volume of secure file transfer via the Internet, and to develop/maintain secure internet graphical user interface.
 - Ability to comply with applicable anti-terrorism (OFAC) and anti-money laundering standards.
 - Ability to establish high-throughput, two data communications with firms using messaging middleware and private lines.
 - Ability to operate registry and transaction data recording on redundant, physically secure information processing hardware, and assure disaster recovery in hours or less.
 - Ability to link to existing electronic confirmation services such as ICE eConfirm, ConfirmHub, MarkitServ, and EFETnet.

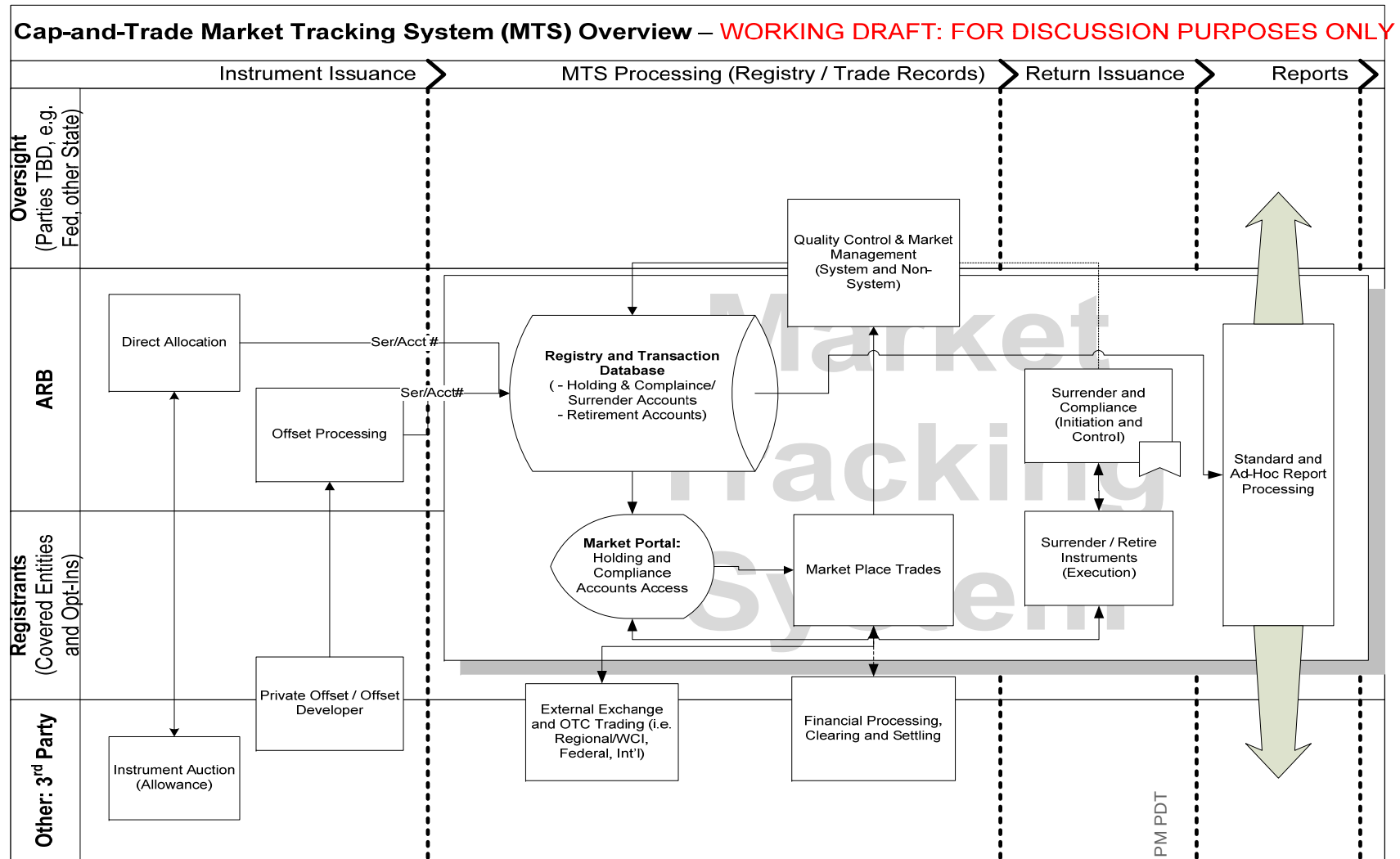
IV. Vendor Experience

ARB is using this RFI to receive information about existing resources and capabilities that could be utilized for the cap-and-trade program. When responding to this RFI, the vendor should include any relevant experience in:

- a. Building and providing shared registry and data repository services for use by large, diverse groups of firms and institutions.
- b. Managing and satisfying diverse stakeholders such as government agencies, the regulated community, and members of the public.
- c. Building and operating post-trade processing infrastructure for traded markets: securities and commodities, exchange-traded and OTC.
- d. Existing software, hardware and telecommunication assets that can be leveraged to provide the services listed in Appendix A.
- e. Ability to successfully scale up registry and repository functions to handle high transactional volumes (potentially billions of transactions) at the regional, national, or international scale.

- f. Maintaining transaction records for OTC derivatives that provide record-keeping, reporting, payment calculation, and netting services.
- g. Supporting market regulators with the ability to access all trade data at the position level, as well as run ad hoc/standard surveillance inquiries and reports on market activity, position concentrations and risk management.

Appendix C CAP-AND-TRADE MARKET FLOW (DRAFT DESIGN)



Appendix D ADDITIONAL INFORMATION AND RESOURCES

Term	Definition	Additional Information
AB 32	Assembly Bill 32 – CA Global Warming Solutions Act	http://www.arb.ca.gov/cc/ab32/ab32.htm
ARB	Air Resources Board	http://www.arb.ca.gov/homepage.htm
C&T	cap-and-trade	http://www.arb.ca.gov/cc/capandtrade/capandtrade.htm
CA	California	http://www.ca.gov/
CalEPA	California Environmental Protection Agency	http://www.calepa.ca.gov/
FSR	Feasibility Study Report	http://ocio.ca.gov/Government/IT_Policy/pdf/08_SIMM_020_FSR_Instructions_6-03v1.pdf
GHG's	Greenhouse Gases	http://www.pewclimate.org/docUploads/global-warming-science-brief-august08.pdf
IT	Information Technology	http://ocio.ca.gov/Government/IT_Policy/introduction.html
MRR	CA Mandatory Greenhouse Gas Emissions Reporting	http://www.arb.ca.gov/cc/reporting/ghg-rep/ghg-rep.htm
MTS	Market Tracking System	
OCIO	Office of the Chief Information Officer	http://ocio.ca.gov/
PDR	Cap-and-trade Preliminary Draft Regulation	http://www.arb.ca.gov/cc/capandtrade/meetings/121409/pdr.pdf
OIS	Office of Information Services	http://www.arb.ca.gov/html/org/orgois.htm
RFO	Request for Offer	http://sam.dgs.ca.gov/TOC/5200/default.htm
RFP	Request for Proposal	http://sam.dgs.ca.gov/TOC/5200/default.htm
SIMM	Statewide Information Management Manual	http://www.cio.ca.gov/Government/IT_Policy/SIMM.html
SAMM	State Administration Manual	http://sam.dgs.ca.gov/TOC/default.htm
WCI	Western Climate Initiative	http://www.westernclimateinitiative.org/

Question and Answers for Bid #09-114 - Cap & Trade Market Tracking System

OVERALL BID QUESTIONS

There are no questions associated with this bid. If you would like to submit a question, please click on the "Create New Question" button below.

Question Deadline: Jun 10, 2010 4:00:00 PM PDT