

State of California
AIR RESOURCES BOARD

LINKAGE READINESS REPORT

November 1, 2013

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LINKAGE READINESS REPORT

I. Summary

California and Québec have each committed to timely and effective action to reduce emissions of greenhouse gases (GHGs) that are contributing to climate change. Through the programs authorized by the Global Warming Solutions Act of 2006, California has a statutory requirement to reduce emissions back to 1990 levels. As required in Decree 1187-2009 made on November 18, 2009, Québec has a legislative requirement to reduce emissions to 20% below 1990 levels. To achieve these emission reductions, each jurisdiction is implementing a portfolio of programs, and each has included a comprehensive cap-and-trade program among those activities. The two cap-and-trade programs were developed collaboratively and have been determined to be compatible for linking.

In December 2012, Québec finalized its cap-and-trade program regulations to allow the linking of the Québec and California programs. Prior to linking the California program with another jurisdiction, Senate Bill 1018 (Government Code Section 12894(f)), requires that ARB notify the Governor of the proposed link, and that the Governor issue specified written findings on the proposed link that consider the advice of the Attorney General. On February 22, 2013 ARB notified the Governor of the proposed link with the Québec program, and requested that he make the findings required in Senate Bill 1018. In response to the ARB request, on April 8, 2013, Governor Brown found that the Québec program meets all the requirements for linking with the California program.¹ The California Air Resources Board (ARB) then adopted regulations that provide for the linking of the two programs to be effective as of January 1, 2014.

In his findings, the Governor directed that ARB continue to work with Québec to prepare for linking, and to report on progress by November 1, 2013. Additionally, Board Resolution 13-7 (April 19, 2013) directed ARB's Executive Officer to complete pre-linkage activities prior to January 1, 2014, including a review of processes, procedures and systems of California's and Québec's programs to ensure consistency and compatibility.

As required by the Governor, and as directed in the Board Resolution, this report describes the progress by ARB and Québec to prepare for linking. The assessment considered the full scope of the California and Québec programs because any weak or incomplete element in either program would indicate that additional work is required prior to linking. Recognizing that circumstances may arise that cannot be foreseen, this

¹ The Governor's findings are available at: <http://gov.ca.gov/news.php?id=17933> (Accessed October 17, 2013).

assessment also considered the capacity of program staff to consult constructively to address challenges as they may arise. The assessment was organized in three main parts: readiness to coordinate the linked programs to maintain harmonization and to resolve differences that may arise; readiness to enable cross-jurisdictional transfer of compliance instruments; and readiness to jointly auction emission allowances.

California and Québec staffs worked together to examine readiness in each of these three areas. Based on extensive discussion and review of program materials, this report finds that:

- ARB and Québec have in place procedures for ongoing coordination between the two programs, including early identification of proposed changes to offset protocols or plans to adopt new protocols.
- ARB and Québec have in place a process for review and public input of proposed changes in a linked jurisdiction's programs to ensure that the programs remain of comparable stringency and integrity.
- ARB and Québec have reviewed their respective mandatory reporting program processes and procedures and determined them to be consistent and compatible.
- ARB and Québec have reviewed their respective program processes and procedures for all activities related to issuing, tracking, and monitoring the trading of compliance instruments, and determined them to be consistent and compatible. Also, ARB and Québec have developed several joint draft procedures and processes for collaboratively conducting specific program activities, and are on track to finalize these procedures and processes prior to January 1, 2014. These ongoing activities include:
 - Finalizing the mechanisms for exchanging confidential and market sensitive information between program staff.
 - Updating the data on corporate associations and entering the data into the CITSS.
 - Identifying and resolving any duplicate registrations in the CITSS for the same entity or user across the two programs.
 - Updating the holding limits based on the annual allowance budgets for California and Québec, and entering the data into the CITSS.
 - Completing the joint market monitoring plan with the market monitoring contractor.

- ARB and Québec have jointly developed and tested the Compliance Instrument Tracking System Service (CITSS) to ensure that it supports linking of the two programs.

The preparations necessary to jointly auction allowances from the two programs are not complete. The auction platform continues to be developed and tested to ensure that it can perform the functions required for a joint auction. Additionally, a practice auction remains to be conducted to test and stress the auction system and procedures under real world conditions with market participants.

Based on this review, staff has concluded that the programs are prepared to link by enabling compliance instruments to be transferred between participants in the two programs as of January 1, 2014, as called for in the program regulations. Specifically, staff recommends proceeding with linking the programs to allow for the transfer of compliance instruments between California and Québec. Proceeding on schedule with this aspect of linking enables compliance instruments from both programs to be used for compliance in each. It is important to note that the programs are not yet ready to conduct joint auctions. Consequently, this report recommends that joint auctions only occur after readiness for joint auctions has been confirmed based on the auction platform being fully tested and joint auction procedures being finalized, which is anticipated to occur in 2014. Prior to initiating joint auctions, ARB will inform the Governor of the results of the auction preparations. Thus, California and Québec should continue to hold separate auctions until all preparations are complete for joint auctions. These recommendations are summarized in the following table.

Summary of Readiness Assessment and Recommendations

| Readiness Area | Assessment Results | Recommendations |
|-----------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| Readiness to Coordinate Linked Programs | Procedures and processes are in place. Linking Agreement signed. | Ready to proceed with linking on January 1, 2014. |
| Readiness for Cross-Jurisdictional Transfer of Compliance Instruments | Procedures and processes are consistent and compatible between the two programs. Procedures to be performed jointly by the two programs can be finalized by January 1, 2014. | Finalize joint procedures. Ready to proceed with cross-jurisdictional transfer of compliance instruments on January 1, 2014. |
| Readiness for Joint Auctions | The auction platform has not been fully developed and tested to support joint auctions. Joint auction procedures have not been developed fully. | Individual jurisdiction auctions should continue until readiness for joint auctions is confirmed. |

II. Background

The California Global Warming Solutions Act of 2006 (AB 32, Nuñez, Chapter 488, Statutes of 2006) addresses climate change by requiring that California reduce GHG emissions in a cost-effective manner.² AB 32 also directed ARB to maintain California's leadership in climate change mitigation and to develop *integrated and cost-effective regional, national, and international greenhouse gas reduction programs*. Linking California's Cap-and-Trade Program with a similar program in Québec helps to fulfill these objectives.

The California Climate Change Scoping Plan (Scoping Plan) laid out a comprehensive program to scale back California's GHG emissions to 1990 levels by 2020, reduce dependence on fossil fuels, stimulate investment in clean and efficient technologies, and improve air quality and public health.³ The coordinated set of policies in the Scoping Plan employ strategies tailored to specific needs, including market-based compliance mechanisms, performance standards, technology requirements, and voluntary reductions. The Scoping Plan described a conceptual design for a cap-and-trade program, based on accurate and verified data reported by covered entities, that included linkage to other cap-and-trade programs to form a larger regional program.

In December 2010, the Board adopted California's Cap-and-Trade Regulation as a key element of the State's climate strategy. It includes an aggregate GHG emission limit on the sources responsible for 85 percent of California's GHG emissions, establishes a price signal needed to drive long-term investment in cleaner fuels and more efficient use of energy, and affords those regulated by the program flexibility to seek out and implement the lowest-cost options to reduce emissions. The Cap-and-Trade Program was designed to work in concert with other measures, such as standards for cleaner vehicles, low-carbon fuels, renewable electricity, and energy efficiency. The program also complements and supports California's existing efforts to reduce criteria and toxic air pollutants.

California's Cap-and-Trade Regulation was developed concurrently with other U.S. states and Canadian provinces through the Western Climate Initiative (WCI). WCI was initiated in February 2007 as a collaboration of independent jurisdictions working together to identify, evaluate, and implement policies to tackle climate change at a regional level, including the design and implementation of a market-based mechanism, such as a regional cap-and-trade program. WCI began with five U.S. states: California;

² California Assembly Bill 32 (September 27, 2006), available at: http://www.leginfo.ca.gov/pub/05-06/bill/asm/ab_0001-0050/ab_32_bill_20060927_chaptered.pdf (Accessed October 7, 2013).

³ California Air Resources Board, Climate Change Scoping Plan (December 2008), available at: http://www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf (Accessed October 7, 2013).

Washington; Oregon; Arizona; and New Mexico. These states were subsequently joined in the collaboration by two additional states, Montana and Utah, and four Canadian provinces, British Columbia, Manitoba, Ontario, and Québec. Following extensive consultation with stakeholders, the WCI Partner jurisdictions released comprehensive recommendations that each jurisdiction could use to design and implement an emissions trading program.⁴

California and Québec have each adopted and implemented cap-and-trade programs that are based on the WCI program design recommendations. In 2009, Québec amended its Environmental Quality Act to provide for a cap-and-trade system.⁵ In December 2011, Québec adopted implementing regulations,⁶ and in December 2012, Québec finalized its implementing regulations to harmonize its program with California's program, and to allow the linking of the Québec and California programs.⁷ In December 2010 ARB adopted the cap-and-trade regulation,⁸ and in April 2013 adopted a regulation linking the California program with the Québec program as of January 1, 2014.⁹

As part of the process for linking the California program to other programs, California Government Code section 12894(f) and (g) require that the Governor review any program to which California proposes to link, and with advice from the Attorney General, to assess whether the proposed link satisfies four requirements:

- The jurisdiction with which the state agency proposes to link has adopted program requirements for greenhouse gas reductions, including, but not limited

⁴ Western Climate Initiative, Design for the WCI Regional Program (July 27, 2010), available at: <http://www.westernclimateinitiative.org/the-wci-cap-and-trade-program/program-design> (Accessed October 7, 2013).

⁵ Government of Québec (2009) Bill 42- An Act to amend the Environment Quality Act and other legislative provisions to climate change. June 2009. Québec National Assembly Bill, codified at R.S.Q., c. Q-2, r. 46.1
<http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?type=5&file=2009C33A.PDF>.

⁶ Regulation respecting a Cap-and-trade system for greenhouse gas emission allowances, R.R.Q., c. Q-2, r. 46.1 ("Québec Trading Regulation") at:
http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?type=3&file=/Q_2/Q2R46_1A.HTM

⁷ The Regulation amending the Regulation pertaining to the Cap-and-trade system for greenhouse gas emission allowances was enacted by Decree No. 1184-2012 and published in the Québec Official Gazette, Part 2, number 51 on December 19th 2012, page 5480 (page 3485 of the English version), available at:
<http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?type=1&file=2012A%2F2392.PDF>.

⁸ Rulemaking documents for the California Cap-and-Trade Program are available at:
<http://www.arb.ca.gov/regact/2010/capandtrade10/capandtrade10.htm>.

⁹ Rulemaking documents for linking the California Cap-and-Trade program to the Québec program are available at: <http://www.arb.ca.gov/regact/2012/capandtrade12/capandtrade12.htm>.

to, requirements for offsets, that are equivalent to or stricter than those required by the California program.

- Under the proposed linkage, the State of California is able to enforce its program against any entity subject to the regulation, and against any entity located within the linking jurisdiction to the maximum extent permitted under the United States and California Constitutions.
- The proposed linkage provides for enforcement of program requirements that are equivalent to or stricter than those required in California.
- The proposed linkage and any related participation of the State of California in Western Climate Initiative, Incorporated, shall not impose any significant liability on the state or any state agency for any failure associated with the linkage.

On April 8, 2013, Governor Brown found that the Québec program meets all the requirements for linking with the California program.¹⁰ ARB then adopted regulations that provide for the linking of the two programs to be effective as of January 1, 2014.

To support linkage among emissions trading programs, California, Québec, and other WCI Partner jurisdictions are working together to implement the tools to operate the programs, including a tracking system for compliance instruments, an auction platform, and market monitoring. In 2011, the WCI Partner jurisdictions formed a non-profit corporation, Western Climate Initiative, Inc. (WCI, Inc.), to provide coordinated and cost-effective administrative and technical support for emissions trading programs.

Governed by representatives from its participating jurisdictions, WCI, Inc. is providing coordinated administrative support to California and Québec.¹¹

III. Methodology

A. Scope of the Assessment

To assess the readiness to link the California Cap-and-Trade Program with the Québec program, ARB and Québec staff examined in detail the manner in which each of the programs is being implemented, and identified any additional activities required once the programs are linked. During the process of adopting regulations to link the programs, ARB and Québec demonstrated that the two sets of program regulations are consistent and compatible for linking. The Governor's review found, among other things, that the authority and resources needed to enforce the respective program in each jurisdiction are in place and sufficient to support linking.

¹⁰ The Governor's findings are available at: <http://gov.ca.gov/news.php?id=17933> (Accessed October 17, 2013).

¹¹ Information on WCI, Inc. is available at: <http://www.wci-inc.org/>.

Also in his findings, the Governor directed ARB to report on the progress of work with Québec in the following areas:

- Testing and evaluating the auction platform and trading systems to ensure that they are compatible and ready to be implemented and that linkage can be accomplished without disruption to California's program.
- Specifying a process for review and public input of changes in a linked jurisdiction's program to ensure that the programs remain of comparable stringency and integrity.

The Governor's findings also recognized the progress that ARB and Québec had made on procedures for coordinating the two programs, including monitoring changes to offset protocols or adoption of new protocols.

Responding to the Governor's direction, this assessment defined three questions to guide the evaluation of the readiness to link programs:

- Are the procedures and systems being used to implement the program in each jurisdiction compatible with each other and do they ensure the integrity of the program?
- Are the procedures and systems that need to be conducted jointly by the linked jurisdictions well defined and in place to support linking?
- Do the two jurisdictions have in place procedures to work collaboratively and constructively to maintain the harmonization of the linked programs and to resolve differences that may arise?

This assessment considered the full scope of the California and Québec programs because any weak or incomplete element in either program would indicate that additional work is required prior to linking. The assessment was organized in three main parts to correspond to the three main groupings of program activities being examined: readiness to coordinate the linked programs; readiness to enable cross-jurisdictional transfer of compliance instruments; and readiness to jointly auction emission allowances.

- Coordinating the Linked Programs: This first portion of the assessment focuses on the procedures that California and Québec have in place to work collaboratively throughout the implementation of their respective programs. This portion of the assessment addresses the Governor's direction that ARB ensure that ARB and Québec have in place a process for review and public input regarding any changes proposed to a linked jurisdiction's program, including changes or additions to offset protocols.

- Cross-jurisdictional Transfer of Compliance Instruments: This second portion of the assessment examines all program elements that affect the compliance instruments themselves and consequently the environmental integrity of the programs. These activities broadly cover the cap-and-trade programs, including: managing the mandatory emissions reporting process and data; issuing and tracking emission allowances; issuing and tracking offset credits; operating the CITSS; registering program participants in the CITSS; monitoring and evaluating instrument transfers in the CITSS; and examining transactions that underlie the instrument transfers in the CITSS and that occur in related markets.
- Joint Auctions: This third portion of the assessment examines the program elements required for California and Québec to hold auctions jointly, at which emission allowances from both programs would be offered for sale. This area focuses on: the auction platform, including financial services; auction procedures performed in each jurisdiction, such as approval of auction applicants; and auction procedures performed jointly by the two jurisdictions, such as review and acceptance of the report prepared by the independent market monitor.

B. Evaluation Process

California and Québec staffs worked together to review and assess readiness for linking. To assess the readiness for coordinating the linked programs, staff focused on putting in place a linking agreement (described below) that defines the manner in which the two jurisdictions will manage their working relationship. Staff also documented the ongoing work group process by which California and Québec staffs develop program procedures and specifications for the CITSS and the auction platform.

To assess readiness to enable cross-jurisdictional transfer of instruments, the program elements that needed to be examined were identified. The procedures for each element used in each jurisdiction's respective program were shared and reviewed jointly. During this review, several joint procedures were identified that are needed to support linked activities.

The following criteria were used to assess the procedures used in each of the program elements:

- Completeness: Do the procedures and processes cover the full set of activities needed to implement that element of the program? Are all regulatory requirements met?
- Management Control: Do the procedures provide effective management control? Are roles, responsibilities, and approvals clearly defined? Is the responsibility for key activities (such as the transfer of allowances from jurisdiction accounts)

properly divided among staff to ensure that no single individual can execute the activities?

- Accuracy: Do the procedures ensure data accuracy through validation and multiple levels of review? Do assigned staff have the necessary background to perform the data reviews?
- Security: Do the procedures protect confidential and market sensitive information? Is access to confidential and market sensitive information restricted to staff that require access?
- Auditability: Do the procedures include an audit trail for all decisions and actions? Are those records retained securely?

The application of these criteria was facilitated by the fact that many of the program procedures involve working through the CITSS. California and Québec worked together for several years to specify the functionality and security built into the CITSS. Consequently, as discussed below, this review found that the two jurisdictions conduct many processes in essentially identical ways in order to use the CITSS as it has been designed and implemented.

Finally, to assess the readiness for joint auctions, the staff first examined the status of the current auction platform, including financial services. As discussed below, although the auction platform has been used for California auctions and fully tested for Québec auctions, the functionality for joint auctions has not been completed and tested. Consequently, additional analysis and evaluation of auction procedures and processes are recommended prior to holding joint auctions.

IV. Readiness to Coordinate Linked Programs

Successfully linking the California Cap-and-Trade Program to another jurisdiction's program requires that California coordinate the implementation of its program effectively with the other jurisdiction. This section describes the relationship that has been established between California and Québec and examines the readiness of the two jurisdictions to implement their programs collaboratively. This section first examines the process for collaborating on program implementation. Then, the ability to coordinate potential program changes is examined. The section ends with a discussion of coordinating the release of program information.

A. Collaborating on Program Implementation

California and Québec have each adopted regulations for their respective mandatory greenhouse gas emissions reporting and cap-and-trade programs. Through extensive consultation between the jurisdictions, the regulations have been harmonized in all

respects necessary to ensure that they are compatible and ready for linking. Each jurisdiction included in its regulations the ability to link with the other, including specifying that compliance instruments from the linked program can be used for compliance and allowing for the joint auctioning of emission allowances.

Although each jurisdiction's program regulations are in place and operating, it is anticipated that the jurisdictions will continue to make adjustments during the implementation of their programs that will affect program operations. To ensure that the California and Québec programs remain harmonized, the jurisdictions must work together to identify and address implementation issues as they arise. Collaboration is also required to ensure that both programs enforce their respective requirements in a consistent manner. Harmonized enforcement helps ensure that the same high standards of compliance are maintained throughout the two programs. Recognizing these needs, California and Québec have established procedures for working collaboratively on the implementation of their respective programs.

The overall framework for this collaboration is formalized in an agreement between the two jurisdictions, titled: "Agreement Between the California Air Resources Board and the Government of Québec Concerning the Harmonization and Integration of Cap-and-Trade Programs for Reducing Greenhouse Gas Emissions," also referred to as the "Linking Agreement."¹² The agreement objectives are defined in Article 1:

"The objective of this Agreement is for the Parties to work jointly and collaboratively toward the harmonization and integration of the Parties' mandatory greenhouse gas emissions reporting programs and Cap-and-Trade Programs for reducing greenhouse gas emissions."

As further defined in the agreement, California and Québec will continue to consult each other regularly and constructively. This consultation builds on existing staff-level working relationships (discussed below) which have proven capable of resolving program design and implementation issues to harmonize the California and Québec programs.

To ensure that the collaboration between California and Québec remains effective, the Linking Agreement calls for a Consultation Committee, comprised of the ARB Executive Officer and the Assistant Deputy Minister for Climate Change, Air and Water at the Ministère du Développement Durable, de l'Environnement, de la Faune et des Parcs. The Consultation Committee is responsible for monitoring the activities being

¹² California Air Resources Board and Le Gouvernement de Québec, Agreement Concerning the Harmonization and Integration of Cap-and-Trade Programs for Reducing Greenhouse Gases (September 2013), available at: http://www.arb.ca.gov/cc/capandtrade/linkage/ca_Québec_linking_agreement_english.pdf [hereafter Linking Agreement] (Accessed October 10, 2013).

undertaken to harmonize and integrate the programs. Additionally, any issues or concerns that cannot be resolved at the staff level will be brought to the Consultation Committee for resolution. The committee will report at least annually on the effectiveness of the collaboration. Table 1 lists the major provisions of the agreement.

Given its importance, the Linking Agreement emphasizes collaboration on program enforcement, including in its objectives that the two programs shall: “develop compatible market regulations that are ***applied and enforced for all participants*** in the Parties’ respective cap-and-trade programs” (emphasis added). The ability to achieve consistent and effective enforcement is further provided by the provisions to share information “to support each Party’s effective analysis, supervision and enforcement of the applicable laws and regulations.”

Staff-level collaboration is an important aspect of achieving and maintaining the harmonization and integration of the programs. With administrative support from WCI, Inc., California and Québec have three active program implementation work groups:

Table 1: Highlights of the Linking Agreement Between California and Québec

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| <p><u>Consultation Committee</u>: Establish a consultation committee to monitor the coordination of the programs and report at least annually.</p> <p><u>Regulatory Harmonization</u>: Consult regularly and constructively to harmonize the regulations for the mandatory reporting and cap-and-trade programs.</p> <p><u>Regulatory Changes</u>: Notify each other and work together on potential regulatory changes, with the objective of retaining harmonization. Respect each other’s regulatory procedures, including public review and comment.</p> <p><u>Program Coordination</u>: As provided for in the respective program regulations:</p> <ul style="list-style-type: none">• Recognize compliance instruments from each other’s programs.• Enable compliance instruments to be traded across programs.• Hold joint auctions of allowances.• Work cooperatively to prevent fraud, abuse and market manipulation and share information to support each other’s effective analysis, supervision and enforcement of the applicable laws and regulations.• Inform each other and coordinate on public announcements. <p><u>Administrative Systems</u>:</p> <ul style="list-style-type: none">• Work together to develop and use common program registry and auction platforms.• Continue to coordinate administrative and technical support through the Western Climate Initiative, Inc. |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

- Tracking System Work Group (TSWG): The TSWG is the forum in which California and Québec staffs discuss issues related to the development and operation of the CITSS. The work group ensures that the regulatory requirements in each jurisdiction program are properly reflected in the CITSS specifications and operations. As needed, the TSWG discusses and resolves issues related to CITSS development priorities and schedules. Information from the TSWG discussions is used by WCI, Inc. staff to manage CITSS development and operations contractor.

The TSWG is also the forum in which California and Québec staffs discuss the requirements for the CITSS help desk. The work group reviews help desk activities and ensures that the information on each of the jurisdiction programs is properly reflected in the help desk reference materials. Information from the TSWG discussions is used by WCI, Inc. staff to manage its help desk contractor.

- Auction and Monitoring Work Group (AMWG): The AMWG is the forum in which California and Québec staffs discuss issues related to the development of the auction platform and the conduct of the auctions. The work group ensures that the regulatory requirements in each jurisdiction program are properly reflected in the auction platform specifications and operations. As needed, the AMWG discusses and resolves issues related to auction platform development priorities and schedules. Information from the AMWG discussions is used by WCI, Inc. staff to manage its auction platform development and operations contractor.

The AMWG is also the forum in which California and Québec staffs discuss the requirements for market monitoring analyses. The work group discusses and resolves issues related to the requirements for the analyses conducted by the market monitoring contractor. Information from the AMWG discussions is used by WCI, Inc. staff to manage its market monitoring contractor.

- Management Work Group (MWG): The California and Québec staff on the MWG set the overall priorities and track the progress of the staff-level work groups. Any issues that cannot be resolved in the other work groups are raised to the MWG for consideration. Additionally, the MWG informs WCI, Inc. of the jurisdictions' priorities for developing and maintaining the administrative capabilities needed by each jurisdiction's program. These priorities are used by WCI, Inc. to develop its plans for consideration by its Board of Directors.

Through these work groups, California and Québec have demonstrated the ability to maintain the harmonization of their respective programs. As needed, additional work groups can be formed to address specific needs that may arise, either on an ongoing

basis or for temporary needs. The Linking Agreement between California and Québec builds on these established processes. The track record of successful work group collaboration, combined with the commitment from both California and Québec embodied in the Linking Agreement, demonstrate the readiness to continue to collaborate effectively following linkage of the two programs.

B. Collaborating on Program Changes

It is likely that from time to time, California and Québec will consider making changes to their respective program regulations. Any such changes will be adopted under the administrative procedures in each jurisdiction, including public review and comment that is part of those processes. Recognizing the importance of collaborating on any proposed changes to linked programs, Resolution 13-7 directs the ARB Executive Officer to report to the Board at least six months prior to any linked jurisdiction doing the following:¹³

- Changing the stringency of its program, including changes to its cap;
- Adopting a new compliance offset protocol or significant amendments to an existing compliance offset protocol;
- Linking to another cap-and-trade program; and
- Any other program change that would significantly affect the stringency, integrity, enforceability, or successful functioning of the linked programs.

Similarly, the Linking Agreement also recognizes the importance of collaborating on any program changes, including (Article 4):

“Either Party, or the Parties together, may consider making changes to their respective programs, including changes or additions to emissions reporting regulation, Cap-and-Trade Program regulation, and program related operating procedures. To support the objective of harmonization and integration of the programs, any proposed changes or additions to those programs shall be discussed between the Parties. The Parties acknowledge that sufficient time is required to enable effective public review and comment prior to adoption. The Parties shall consult regarding changes that may affect the harmonization and integration process or have other impacts on either Party. Each Party’s public process for making program changes must be respected.”

California and Québec have a long track record collaborating on their respective program regulations and regulatory changes, dating back to the 2008 and 2010 WCI

¹³ California Air Resources Board, Resolution 13-7 (April 19, 2013) available at: <http://www.arb.ca.gov/regact/2012/capandtrade12/res13-7.pdf> (Accessed October 2, 2013).

program design recommendations discussed above, and the regulatory actions that followed. In both 2012 and 2013, ARB staff developed recommended changes to the Cap-and-Trade Program Regulation. These recommendations were discussed in detail with Québec staff. As part of considering the most recent set of proposed changes, Québec staff participated in ARB's June 25, 2013 public workshop on Compliance Retirement, Market-Related Reporting, and Cost Containment.¹⁴ Québec staff presented their perspectives on the regulatory changes being considered by California, and participated in the public discussion with stakeholders.

In the past year, Québec has also amended its program regulations. The proposed amendments were reviewed thoroughly with California staff, and were developed based on detailed assessments of the harmonization of the two programs.

The offset program is an area of particular interest to program participants and stakeholders. California and Québec have committed to continue collaborating on the development of the offset components of their programs, including offset protocols.¹⁵ Most recently, California has been considering the adoption of an offset protocol for mine methane capture.¹⁶ Québec staff participated in the Technical Working Group convened as part of the process to develop that protocol, ensuring that California and Québec staffs have access to the information needed to develop the protocol collaboratively. California will continue to coordinate with Québec staff to ensure the final protocol meets the requirements of both jurisdictions.

In addition to the demonstrated working relationship between California and Québec, Québec has an established public process for adopting regulations, analogous to the Administrative Procedure Act requirements in California. The Québec requirements, presented in the Québec Regulations Act,¹⁷ include that any proposed regulation or regulatory amendment be published in the Québec *Gazette*,¹⁸ followed by a public comment period. Section 124 of the Québec Environment Act requires that the public comment period be 60 days, and also requires that the Minister consider all the written

¹⁴ Workshop materials, including the Québec staff presentation, are available at: <http://www.arb.ca.gov/cc/capandtrade/meetings/meetings.htm> (Accessed October 2, 2013).

¹⁵ Article 5 of the Linking Agreement focuses specifically on collaborating in the development of offset protocols.

¹⁶ The mine methane capture protocol development activities are described at: <http://www.arb.ca.gov/cc/capandtrade/protocols/mmcp/protocol.htm> (Accessed October 2, 2013).

¹⁷ The Québec Regulations Act is available at: http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?type=2&file=/R_18_1/R18_1_A.html (Accessed October 2, 2013).

¹⁸ The portion of the *Gazette* that includes proposed regulations and regulatory amendments is available at: <http://www3.publicationsduquebec.gouv.qc.ca/gazetteofficielle/lawsregulations.en.html> (Accessed October 2, 2013).

comments received.¹⁹ Following resolution of stakeholder concerns and issues, the Minister presents the proposed final regulation to the Québec Council of Ministers for approval. Following approval, the final regulation is published in the *Gazette*.

This Québec process provides an opportunity for California stakeholders to comment directly on any proposed changes to the Québec regulations. Additionally, any concerns can be raised with California staff during this process, who will also be consulting with Québec staff regarding proposed program changes.

Although it is not anticipated, exigent circumstances could arise in one or both of the programs that require a rapid and coordinated response. Critical issues may arise regarding the program infrastructure (e.g., the CITSS or the auction platform), market conditions, or other aspects of program operations. Because the Consultation Committee includes high level officials from both California and Québec, this committee will be the forum for ensuring that coordinated action will be taken in the time necessary.

Emergency amendments to the program regulations may be required in one or both jurisdictions in response to exigent circumstances. Both California and Québec have the authority to adopt emergency regulations. California Government Code Section 11346.1 defines the requirements for California and Sections 12 and 18 of the Québec Regulations Act define the requirements for Québec. ARB and Québec staffs have reviewed these provisions, and are familiar with the steps that would be required to collaboratively develop and adopt regulatory changes under existing emergency authority.

Through these processes, California stakeholders and the Board will be aware of program developments in any linked jurisdictions, and any necessary Board actions can be developed and considered. The process for collaboration also maintains the openness and transparency of each jurisdiction's activities, including public comment and consultation. Among the assurances for transparency is a commitment from California and Québec in the Linking Agreement to respect each other's public process for considering and adopting changes to their programs. The track record of successful collaboration on the program regulations demonstrates the readiness to continue to collaborate effectively on any program changes.

C. Release of Program Information Publicly

Effective operation of market-based programs such as cap-and-trade requires that program participants have access to accurate and timely program information. The

¹⁹ The Québec Environment Quality Act is available at: http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?type=2&file=/Q_2/Q2_A.html (Accessed October 2, 2013).

California and Québec program regulations both specify that certain information shall be released publicly. With input from stakeholders, as well as advice from the Emissions Market Assessment Committee (EMAC),²⁰ ARB and Québec staffs have developed an approach for releasing program information in a coordinated manner.

The topics on which information release will be coordinated were presented and discussed at a public workshop on June 25, 2013,²¹ and include the following:

- List of covered entities and their reported emissions, which form the compliance obligation for each entity.
- Aggregate allowance allocation data.
- CITSS registration data, listing the entities registered in the CITSS.
- Compliance account balance data, summarizing the number of compliance instruments held across all CITSS compliance accounts.
- Compliance instrument retirement data, listing the compliance instruments retired for compliance purposes.
- Offset project listings, offset project data, and offset credit issuance data.
- Auction and reserve sale summary results.

Québec and California staffs have reviewed the requirements for preparing and releasing these data and are prepared to provide the information in a coordinated manner once the content and timing of the reports are finalized. Of particular importance is that market-sensitive information be made available so that all program participants have equal access to the information at the same time. Examples of market-sensitive information include: reported emissions data; offset project listings; offset credit issuance, compliance account balance data; and auction results.

Both California and Québec are continuing to examine options for releasing data on the transfer of compliance instruments in the CITSS (i.e., the recording in the CITSS of the sale of instruments from one program participant to another). While information is currently available on prices from other sources, the market for allowances and offset credits will be further informed by the regular and timely release of accurate information on the quantity of CITSS transfers taking place and the prices listed for those transfers. This topic is scheduled for discussion at the November 14, 2013 EMAC meeting. Once

²⁰ Information on the Emissions Market Assessment Committee is available at: <http://www.arb.ca.gov/cc/capandtrade/emissionsmarketassessment/emissionsmarketassessment.htm> (Accessed October 17, 2013).

²¹ The June 25, 2013 workshop materials are available at: <http://www.arb.ca.gov/cc/capandtrade/meetings/meetings.htm> (Accessed October 17, 2013).

the method and timing for releasing this information are defined, California and Québec plan to release this information in a coordinated manner.

V. Cross-Jurisdiction Transfer of Instruments

The primary operational aspect of linking the California and Québec programs is that compliance instruments issued by California can be used to comply with the Québec program, and compliance instruments issued by Québec can be used for compliance in California. To be properly prepared for linking, the programs must be able to accommodate the transfer of compliance instruments among participants in the two programs.

Readiness for instrument transfers was examined in two respects. First, the status of the CITSS was reviewed to evaluate whether it is prepared to enable transfers among participants in the two programs. This portion of the assessment focused on the functional capability of the CITSS. Second, California and Québec staffs examined the processes and procedures that are used to issue and manage compliance instruments throughout the programs. This portion of the assessment focused on the consistency of the procedures between the two programs and the ability of each program to ensure that the compliance instruments are equivalent in their suitability for compliance purposes. This section is organized into the following subsections:

- A. Compliance Instrument Tracking System Service
- B. Ensure the Efficacy of Compliance Instrument Issuance
- C. Effective Mandatory Reporting
- D. Ensure Requirements for CITSS Registrants are Effectively Applied
- E. Comprehensive Market Monitoring.

A. Compliance Instrument Tracking System Service

The Compliance Instrument Tracking System Service (CITSS) is an online tracking system that supports the implementation of the California and Québec cap-and-trade programs. The CITSS provides accounts for program participants to hold and retire compliance instruments and to record transactions of compliance instruments with other account holders.

The CITSS is used to:

- register entities participating in the California and Québec programs;
- track the ownership of compliance instruments;

- enable and record compliance instrument transfers;
- facilitate the submission of compliance instruments as required for compliance; and
- support market oversight by providing access to account and transfer data.

The CITSS was designed and implemented collaboratively by California, Québec and other WCI Partner jurisdictions. The system supports the regulatory requirements of each program. Although the CITSS was designed and tested to enable compliance instruments to be transferred across participating programs, to date this transfer functionality between programs has not been activated. This assessment examined the readiness to enable this function so that compliance instruments can be transferred between the California and Québec programs starting January 1, 2014.

In anticipation of the January 1, 2014 linking, California and Québec staffs have re-tested the functionality of the CITSS between the two jurisdictions. Testing not only examined the ability to transfer instruments, but incorporated other key CITSS functions, such as: application of Holding limits; confirming the functionality of corporate associate groups within and across both Québec and California; and ensuring accurate data reporting for market monitoring for each program.

ARB and Québec staffs have completed this testing, and no significant issues have been identified. The next step in the process is to prepare a deployment plan in collaboration with the CITSS development and operations contractor, after which the updated configuration of the CITSS would be deployed to support linking on January 1, 2014. Because the CITSS was designed originally to accommodate linked programs, and because testing has been completed, this update is considered routine and is being executed with oversight from the Tracking System Work Group (discussed above).

B. Ensure the Efficacy of Compliance Instrument Issuance

Compliance instruments (emission allowances and offset credits) are fundamental to the design and operation of cap-and-trade programs. As part of considering whether to link the California program with the Québec program, the stringency of the two programs was evaluated and found to be consistent. This finding means that the number of emission allowances being issued by each program, and the number and type of offset credits that can be used in each program, result in similar program stringency. Given that the programs are similarly stringent, this assessment focused on the processes and procedures used in each program that could affect the efficacy of those instruments.

All of the steps required to issue allowances and make them available to participants in the California and Québec programs are performed using the CITSS. Consequently,

both the California and Québec programs perform the same steps within the CITSS to: issue and transfer allowances into the jurisdictions' accounts; transfer allowances from jurisdiction accounts to participants' accounts (for example, as part of administrative or "free" allocation of allowances to covered entities); transfer allowances from jurisdiction accounts to the auction holding account; transfer allowances from the auction holding account to successful auction bidders' accounts; and retire allowances from participants' compliance accounts.

For each of these functions, the CITSS requires that the individuals authorized to initiate these functions are separate from the individuals authorized to approve the completion of the functions. Consequently, no single individual is capable of performing these functions. Additionally, the CITSS retains an audit trail at each step, recording the identities of the individuals who initiate and approve the actions in the CITSS. The CITSS includes special safeguards that prevent modifications to the number of allowances issued. This assessment has found, therefore, that the CITSS functionality enforces consistency and reproducibility in the processes for issuing and managing emission allowances in the two programs.

As part of this assessment, California and Québec staffs also reviewed the processes internal to each program that are required before authorized individuals take action in the CITSS. This examination focused on the processes for performing and approving the staff work that precedes proposing and approving actions in the CITSS. Of particular interest was ensuring appropriate review of staff calculations for proposed allowance transfers to and from jurisdiction accounts, and management approval of that work. In all cases, the California and Québec procedures were found to be equivalent. For example, in addition to the CITSS audit trail of activities, both programs include paper-based checklists and work flow forms for these CITSS actions, each of which must be signed by senior managers before action is taken. These forms are retained in a secure location for each program, providing an independent audit trail of the work that underlies the action and the management approval that was provided.

While the processes and procedures used in the two programs were found to be consistent, the Québec and California staffs have recommended two measures be added to support the linked programs.

- **Transfer Summary:** Prior to transferring allowances from jurisdiction accounts to participants' accounts, staff recommends that the jurisdiction provide a summary report to the other jurisdiction that shows the purpose of the transfer, the total number of allowances that will be transferred, and the source of the allowances. This summary report will enable each jurisdiction to provide an added check on the other's proposed transfer. Also, it will ensure that both of the linked programs know at all times exactly how many allowances have been put into circulation.

- **CITSS Balance:** Staff recommends that at least monthly, the total number of allowances held throughout the CITSS should be reconciled to ensure that the totals match the records of what has been issued and what has been put into circulation. While each of the programs has been performing this reconciliation prior to linking, staff recommend that following linking the reconciliation be conducted jointly so that both programs are assured that there have been no deviations from the total issuance in the CITSS.

The existing reporting functions within the CITSS support these two added processes, and the two programs have developed the data required for these reports individually. The California and Québec staffs are prepared to produce the necessary materials and plan to start exchanging and reconciling the data prior to January 1, 2014.

California and Québec staffs also reviewed the processes and procedures for issuing and managing offset credits. As was found for allowances, the CITSS provides a consistent set of procedural requirements for both programs. However, issuing offset credits requires substantial work outside of the CITSS, including:

- receiving and reviewing offset project reports and data, including verification reports and verification opinions;
- maintaining a pool of accredited offset project verifiers and ensuring for their proper oversight;
- making available for public review the reports and data on offset projects.

California and Québec staffs examined the processes used in each program, including the level of data review and analysis performed and the management reviews required prior to issuing offset credits. Additionally, staff verified that offset project data will be made available publicly under both programs. While the procedures and processes were found to be consistent across the two programs, it was also recognized that California issued offset credits for the first time in September 2013,²² and Québec has yet to issue any offset credits. Consequently, the internal processes are expected to be more fully exercised in both programs in the coming months. California and Québec staffs will continue sharing information regarding the issuance of offset credits as the programs link on January 1, 2014.

C. Effective Mandatory Reporting

Accurate and timely emissions reporting by covered entities is required for an effective cap-and-trade program. As part of considering whether to link the California program

²² The announcement regarding the first offset credits issued by ARB is available at: <http://www.arb.ca.gov/newsrel/newsrelease.php?id=504> (Accessed October 17, 2013).

with the Québec program, the mandatory reporting requirements in each jurisdiction were evaluated and found to be equivalent. The two programs adopted reporting requirements based on recommendations developed during the WCI collaboration. Given that the reporting regulations are equivalent, this assessment focused on the manner in which the reporting programs are implemented, including receiving the data, managing the data securely, ensuring effective third-party verification, and performing quality checks to ensure the data are suitable for use in the cap-and-trade programs.

Both California and Québec use a web-based reporting tool system to manage the reporting, certification, submission, and verification of GHG emissions data. Although they were developed independently by the respective jurisdictions, the California Electronic Greenhouse Gas Reporting Tool (Cal e-GGRT) and the Québec Air Emissions Inventory (*Inventaire québécois des émissions atmosphériques*, or IQEA) reporting system have similar functionalities. In both tools, individual reporters register as users in the system, establish an electronic signature or authentication that allows them to certify and submit data without a written signature, enter the required data into the online reporting forms, and electronically transmit the GHG emissions data report to the regulatory agency. The reporting tool systems are secured with firewalls and each reporting account can be accessed only by registered users associated with the account. The third-party verifier contracted by the reporting entity must also register and establish a reporter-verifier relationship in the system in order to gain read-only access to the GHG emissions data report and confirm that data verification has been completed.

After GHG emissions data are submitted via the reporting system, both California and Québec protect the data by limiting staff access to only the agency staff in the reporting/verification team that is assigned to perform data analyses, data validation, and quality assurance/quality control (QA/QC) checks. Staff is also trained to handle confidential and market-sensitive information. The evaluation of the data collection and data handling measures by Québec and California are comparable.

Both California and Québec employ the use of independent third-party verifiers to ensure data quality. For its third-party verification, Québec relies on auditing bodies accredited by outside organizations, the Standards Council of Canada (SCC) and American National Standards Institute (ANSI), both members of the International Accreditation Forum. Accreditation is in conformance with ISO 14065 (accreditation of verification body). Third-party verification is conducted in accordance with ISO 14064-3, *Specification with guidance for the validation and verification of greenhouse gas assertions*. For managing conflict of interest to ensure the impartiality of the verification, reporters in Québec must demonstrate conformance with the conflict of interest management guidelines in ISO 14065.

California's verification program is administered by ARB. Verification body accreditation is consistent with ISO 14065 and 14066. ARB requires individual verifiers to take a training class and pass an exam on the requirements of the mandatory GHG reporting regulation prior to accreditation. Verifiers must submit a conflict of interest review application to ARB and obtain ARB's approval before commencing verification services. ARB's conflict of interest review criteria is consistent with ISO 14065.

Québec currently does not audit the verifiers but is in discussions with SCC and ANSI to contract with them for oversight of their verification program for the 2013 emissions data reported in 2014, the first year with a cap-and-trade compliance obligation. This oversight will conform to the specification of ISO Standard 14065, which specifies principles and requirements for GHG validation or verification bodies. ARB administers its own Oversight and Audit program to ensure consistency and quality in verification services. ARB audits 10-15% of verifications each year and audits each active verification body at least once during each year. The ARB verification program is also based on the ISO standard, so that both programs are consistent with Western Climate Initiative Essential Requirements recommendations and are consistent in their outcomes.

Both California and Québec take steps to ensure that their respective reporting programs capture all GHG emission sources subject to the reporting regulation. Québec Ministry of Sustainable Development, Environment, Wildlife and Parks (*Ministère du Développement Durable, de l'Environnement, de la Faune et des Parcs*, or MDDEFP) has been working directly with their covered industries for the past 20 years and knew all the subject industrial facilities (approximately 80 facilities) before the GHG reporting program was launched. With approximately 700 facilities, California has significantly more industrial facilities and emitting activities. California strives to ensure that all facilities and entities subject to GHG reporting are compliant with the program but continues to monitor data from other programs, including information from local air districts, ARB, and other state and national agencies. MDDEFP is working with their government agencies to identify entities that may be subject to their reporting regulation. MDDEFP is monitoring transportation fuel suppliers to ensure this group is complying as required.

To facilitate compliance with the regulation and ensure data quality, staff in both jurisdictions proactively reach out to reporting entities to minimize non-compliance with reporting requirements, the reporting and verification deadlines, and acquiring verification services. Both MDDEFP and ARB have the ability to monitor reporting and verification activities in the reporting system real-time. If reasonable progress has not been made in the weeks before the deadlines, the relevant staff in both jurisdictions notifies reporters of deadlines to facilitate compliance with the reporting regulation, if needed.

The third-party verification program serves an important role in ensuring data quality in both jurisdictions. Besides third-party verification, MDDEFP and ARB staffs perform additional QA/QC checks on the data. In California, Cal-e-GGRT has many validation checks and emissions calculation formula already built into the reporting tool system that help reduce potential errors in the report before data are submitted to ARB. ARB staff also manually checks for consistency among the data elements in a report and compares the reported numbers against the energy and emissions data compiled by the California Energy Commission, U.S. Environmental Protection Agency, and U.S. Department of Energy. In Québec, the IQEA reporting tool has less built-in validation functions as compared to Cal-e-GGRT, but because of the smaller number of reporters in Québec, MDDEFP staff can manually conduct similar data validation and QA/QC checks to achieve the same outcomes as California. The staff in both jurisdictions conduct QA/QC checks every year before the data are used for calculating compliance obligations and before release to the public.

If a report receives an adverse verification statement due to a material misstatement in the reported emissions, the cap-and-trade compliance obligation is not calculated based on the reported quantities. Staff assigns an emissions level based on available information from which a reasonable estimate can be derived, missing data substitution procedures that are designed to produce conservatively high emissions numbers, or additional information provided by the reporting entities during the post-verification phase of the process. At ARB, this “assigned emissions level” process has been in place since 2012.

Both California and Québec have enforcement procedures that are used when reporting entities submit inaccurate emissions, misreport information, are in non-compliance with the rule provisions, fail to submit a report or to obtain verification service, or miss deadlines. Both jurisdictions use this enforcement capability as leverage to incentivize timely compliance. Based on this review, the California and Québec mandatory reporting programs are prepared for linking on January 1, 2014.

D. Ensure Requirements for CITSS Registrants are Effectively Applied

Covered entities that are required to comply with each jurisdiction’s cap-and-trade program, and entities that voluntarily participate in the program, are required to register in the CITSS. In addition to providing the mechanism by which entities can hold and transfer compliance instruments, this registration in the CITSS provides for the following:

- **Confirmed Identities of Individuals:** The identities of all individuals with access to the CITSS are confirmed with a thorough “Know Your Customer” (KYC) process. This process substantially eliminates the risk of individuals participating in the program under false identities.

- **Confirmed Authorization:** To have access to accounts within the CITSS, a registered individual must be properly authorized by the account holder (which may be a company). This authorization ensures that not only is the individual responsible for any actions he or she takes on behalf of the account holder, but the account holder accepts responsibility for the authorized individual's actions as well.
- **Legal Presence in the Jurisdiction:** Each account holder is required to have a legal presence in the jurisdiction (i.e., in California for the California program) to ensure that the jurisdiction can legally serve the account holder.
- **Disclosure of Corporate Associations:** Each company with accounts in the CITSS is required to disclose their corporate associations as defined in the program regulations. Corporate associations include parent companies, subsidiaries, and other arrangements that provide for common control of company activities. Associated entities with a direct corporate association (i.e., greater than 50% common ownership or control) are required to share limits on allowance holdings and allowance purchases at auctions imposed by the regulations on all program participants. Understanding a registered company's corporate structure also allows the jurisdictions to monitor market activity across related carbon and energy markets in which the registered entity may also be a participant through a parent or subsidiary.
- **Subject to the Jurisdiction Authority:** Individuals and companies that register in the CITSS acknowledge and agree that they are subject to the program requirements and recognize the authority of the jurisdiction to enforce those requirements.

These registration requirements enhance the security of the CITSS and ensure that regulatory authorities have the ability to identify individuals and companies and hold them accountable for their activity in the CITSS. These strict requirements also increase public confidence in the program by demonstrating that the regulatory authorities have the information and authority to enforce the program requirements on all participants.

The California and Québec program regulations include essentially identical requirements for registering in the CITSS. Because the CITSS is used for both programs, the requirements are implemented in nearly identical fashion across the programs. For this assessment, California and Québec staffs focused on the internal procedures used to verify the information provided by individuals and companies prior to approving the registrations.

Both California and Québec staff receive original copies of registration documentation and signed attestations for review and verification. For the California program, the documents must be notarized by a notary public. For the Québec program, a notary or attorney must attest that the notary or attorney has established the identity of the person and certify the authenticity of the documents. Both California and Quebec staff maintain strict physical control of the material, and access to the documentation is limited to those team members involved in validating registration information. Using data appropriate to each jurisdiction, the documents and the information are verified. Any discrepancies are noted and resolved directly with registrants. The completeness of the registration information and the internal verification process is reviewed by staff who did not conduct the verification. The complete package is then reviewed and approved by management prior to accepting the registration. The documents are retained in a secure location for each program, along with documentation of the verification performed and signed review and approval forms.

As part of this review, California and Québec staffs focused on the required disclosure of corporate associations by the registered entities. Prior to linking, an entity's holding limit is shared among entities with direct corporate associations within each individual program. As of January 1, 2014, any entities with direct corporate associations with entities in the other program will be required to share their holding limit with the directly associated entities registered in the other program. Entities from the two programs with direct associations will also be required to share their purchase limits, as applicable, in joint auctions. California and Québec staffs have prepared for this update to the holding limit and purchase limit allocations by identifying the affected entities. Each entity will be contacted and will be required to update their holding limit and purchase limit allocations so that the updated information can be entered in the CITSS prior to January 1, 2014. California and Québec staffs are also working with the market monitoring contractor, who has confirmed the corporate association information provided to each program individually, and is in the process of combining the data to ensure that a comprehensive corporate association data set is maintained for the linked programs.

E. Comprehensive Market Monitoring

Well-functioning markets for allowances and offset credits are fundamental to the implementation of a cap-and-trade program. To ensure that these markets are free of abuse and disruptive activity so they can appropriately reflect the supply and demand for compliance instruments, California and Québec are conducting market surveillance and analysis. The program regulations for the two programs include identical market rules, including holding limits, purchase limits, disclosure of corporate associations, and recording of all holdings and transfers of allowances and offset credits in the CITSS.

The two programs also have the authority and resources needed to investigate suspected market abuses and take enforcement actions if needed.

To prepare for program linking, California and Québec are collaborating on market surveillance and analysis. With the administrative support provided through WCI, Inc., both programs are working with the same market monitoring contractor. This approach ensures that the contractor and staff from both programs have access to the full set of activity in the entire market serving both programs. Also, because all holdings and transfers are recorded in the CITSS, both programs have access to the same comprehensive market monitoring reports generated by the system.

With mechanisms for sharing confidential and market sensitive information between the California and Québec staff, the two programs are working with the market monitoring contractor to complete a joint market monitoring plan. Included among the activities being initiated prior to January 1, 2014 are regular market monitoring conference calls with the market monitoring contractor and staff from both programs. Through this process the programs can ensure that market information is fully examined in both programs and responses to any market issues will be coordinated. This process also provides the mechanism for collaborating on market-related enforcement. As discussed above, to ensure that market rules are applied consistently across both programs, enforcement of those requirements must also be consistent. This market monitoring process enables issues to be identified jointly that warrant consideration for enforcement.

As discussed above, the market monitoring contractor is also assisting to confirm and maintain the corporate association data received from entities registered in the CITSS. Using these data, the market monitoring contractor and California and Québec staffs are reviewing market activity to identify any coordinated activities among associated entities that may be of a concern. These reviews include not only transfers of allowances and offset credits recorded in the CITSS, but activity in related carbon and energy markets. Notably, activities in related markets could be conducted by entities that are not registered in the CITSS but have corporate associations with entities that are registered in the CITSS. Complete and accurate corporate association data enable this level of market monitoring to be performed.

One of the resources available to the California program for market monitoring is the Emissions Market Assessment Committee (EMAC), discussed above. In preparation for linking, Québec staff has participated with California staff in discussions with the EMAC. Additional collaboration is available as needed to ensure effective market monitoring. For the Québec program, the Autorité des marchés financiers (AMF) is

available to support Québec staff in the oversight of the market, including in monitoring and enforcement.²³

As part of this assessment, California and Québec staffs also examined the procedures within each program to maintain the security of confidential and market sensitive information. Both programs have procedures for separating the relevant data into secure systems and maintaining records in secure locations with access control. By relying on the CITSS, both programs are assured of the security of the underlying data. Additionally, both programs verify the identities of staff with access to these data.

VI. Conduct Allowance Auctions

Following linking of the California and Québec programs, allowances from both programs can be offered for sale at auctions conducted jointly by the two programs. To be properly prepared to hold joint auctions, the programs must have a fully tested auction platform that supports joint auctions and the procedures for conducting a joint auction must be complete.

California and Québec staffs have worked together for several years to specify the requirements for the auction platform (including financial services) and to develop the system to ensure that it supports individual auctions by each program as well as joint auctions between the two programs. The auction requirements in the program regulations are essentially identical for the two programs. Consequently, the auction platform supports a comprehensive set of auction processes and procedures, including:

- Accepting auction applications, including accepting data exported from the CITSS on program participants.
- Tracking the submission and review of bid guarantees by auction participants, including data exchange with the auction financial services contractor.
- Approval (or rejection) of each auction application by authorized jurisdiction officials.
- Conduct of the auction, including accepting bids from approved auction participants and enabling authorized jurisdiction market monitoring staff and the market monitoring contractor to oversee the conduct of the bidding.
- Evaluation of the bids and application of program requirements, including holding limits, purchase limits, and bid guarantee limitations.

²³ Information regarding the Autorité des marchés financiers is available at: <http://www.lautorite.qc.ca/en/about-amf-corpo.html> (Accessed October 28, 2013).

- Determination of the auction clearing price (settlement price) and identification of the successful bids and bidders.
- Generation of auction reports for review and analysis by the market monitoring contractor and the authorized jurisdiction staff.
- Certification of the auction results by authorized jurisdiction staff.
- Notification to successful bidders of the auction results.
- Financial settlement after auction certification and the transfer of purchased allowances to entity accounts.

The system has been fully tested and deployed for California auctions, with four auctions having been held to date. Québec has tested the platform with a practice auction and its first auction is scheduled for December 3, 2013.

However, the auction platform has not been fully developed or tested to support joint auctions. Through the Auction and Monitoring Work Group (AMWG, discussed above), California and Québec staffs are working with the auction platform contractor to complete the requirements for joint auctions. Through this process, staff is also identifying processes and procedures that will be conducted jointly between the two programs. For example, to be certified, a joint auction must be certified by both jurisdictions.

A practice joint auction is also recommended to test and stress the auction platform and procedures under real world conditions with program participants. This practice auction will not be completed until after January 1, 2014.

Based on this assessment, the following activities are recommended prior to holding a joint auction:

- Complete the development and testing of the auction platform.
- Complete the specification of processes and procedures that will be conducted jointly by the two programs to hold a joint auction.
- Hold a practice joint auction to test and stress the auction platform and procedures.

Following successful completion of these steps, the linked programs will be prepared to hold joint auctions.

California and Québec should continue to hold separate auctions until all preparations are complete for joint auctions. Auctions are integral to the design and implementation

of the two programs, providing effective price discovery and enabling covered entities to obtain allowances needed for compliance. Collaborating during separate auctions also helps further the development of joint auction procedures and processes.

VII. Recommendations and Next Steps

As required by the Governor, and as directed in the Board Resolution, this report describes the progress by ARB and Québec to prepare for linking their respective cap-and-trade programs. To assess readiness, ARB and Québec staffs examined in detail the manner in which each of the programs is being implemented, and identified any additional activities required once the programs are linked. Recognizing that the two sets of program regulations have already been determined to be consistent and compatible for linking staff focused on:

- the procedures and systems being used to implement the program in each jurisdiction;
- the procedures and systems needed to be conducted jointly by the linked jurisdictions; and
- the procedures needed to work collaboratively and constructively to maintain the harmonization of the linked programs and to resolve differences that may arise.

The assessment considered the full scope of the California and Québec programs because any weak or incomplete element in either program would indicate that additional work is required prior to linking.

This report finds that:

- ARB and Québec have in place procedures for ongoing coordination between the two programs, including early identification of proposed changes to offset protocols or plans to adopt new protocols.
- ARB and Québec have in place a process for review and public input of proposed changes in a linked jurisdiction's programs to ensure that the programs remain of comparable stringency and integrity.
- ARB and Québec have reviewed their respective mandatory reporting program processes and procedures and determined them to be consistent and compatible.
- ARB and Québec have reviewed their respective program processes and procedures for all activities related to issuing, tracking, and monitoring the trading of compliance instruments, and determined them to be consistent and

compatible. Also, ARB and Québec have developed several draft joint procedures and processes for collaboratively conducting specific program activities, and are on track to finalize these procedures and processes prior to January 1, 2014.

- ARB and Québec have jointly developed and tested the Compliance Instrument Tracking System Service (CITSS) to ensure that it supports linking of the two programs.

The preparations necessary to jointly auction allowances from the two programs are not complete. The auction platform continues to be developed and tested to ensure that it can perform the functions required for a joint auction. Additionally, a practice auction remains to be conducted to test and stress the auction system and procedures under real world conditions with market participants.

Based on this review, staff has concluded that the programs are prepared to link by enabling compliance instruments to be transferred between participants in the two programs as of January 1, 2014, as called for in the program regulations. Specifically, staff recommends proceeding with linking the programs to allow for the transfer of compliance instruments between California and Québec. Proceeding on schedule with this aspect of linking enables compliance instruments from both programs to be used for compliance in each. The following activities are ongoing in support of linking on January 1, 2014:

- Finalizing the mechanisms for exchanging confidential and market sensitive information between program staff.
- Deploying the CITSS update that enables the transfer of instruments across programs.
- Updating the data on corporate associations and entering the data into the CITSS.
- Identifying and resolving any duplicate registrations in the CITSS for the same entity or user across the two programs.
- Updating the holding limits based on the annual allowance budgets for California and Québec, and entering the data into the CITSS.
- Completing the joint market monitoring plan with the market monitoring contractor.

California and Québec staffs are also continuing to collaborate on the implementation of the offset program, which is in its early stages in each jurisdiction.

It is important to note that this assessment found that the programs are not ready to conduct joint auctions. Consequently, this report recommends that joint auctions only occur after readiness for joint auctions has been confirmed based on the auction platform being fully tested and joint auction procedures being finalized, which is anticipated to occur in 2014. Prior to initiating joint auctions, ARB will inform the Governor of the results of the auction preparations. Thus, California and Québec should continue to hold separate auctions until all preparations are complete for joint auctions.