# APPENDIX I.
# WESTERN CLIMATE INITIATIVE
# DETAILED PROGRAM DESIGN DOCUMENT

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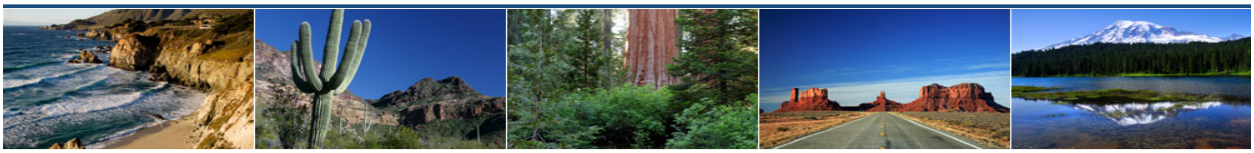
Western Climate Initiative



# Design for the WCI Regional Program

July 2010

Western Climate Initiative

July 27, 2010

To All Interested Parties:

Today, the Partner jurisdictions of the Western Climate Initiative are pleased to release the "Design for the WCI Regional Program." Since the release of the WCI Design Recommendations in September 2008, we have been working together to develop these design details which are needed to implement the program.

This document provides a roadmap to inform the WCI Partner jurisdictions in their development of implementing regulations. It has been developed by the WCI Partner jurisdictions working collaboratively with stakeholders, advisors, and outside experts who have all made invaluable contributions. We especially want to recognize Franz Litz and Nicholas Bianco at the World Resources Institute in Washington, D.C. and Lydia Dobrovolny at Ross & Associates in Seattle, WA for their outstanding efforts in the preparation of this document.

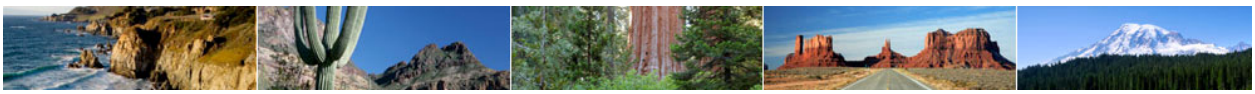
The release of this Program Design is a major milestone for the WCI. Between now and the program start date of January 2012, the WCI Partners will continue working together to resolve outstanding design issues and begin putting in place the administrative systems and infrastructure needed to operate the program.

While not all WCI Partner jurisdictions will implement the cap-and-trade program when it begins in January 2012, those currently expecting to move ahead at the start will create a robust market for achieving GHG emissions reductions in the western U.S. and Canada. It is also important to recognize that all WCI Partners have participated in crafting the program design and that the program is structured so that additional Partners can join in the future.

From the beginning, the Partners' strategy for addressing climate change has recognized the need for broad collaborative action to reduce GHG emissions. All of the WCI Partner jurisdictions have adopted climate action plans, and are taking steps to reduce emissions. In addition to our efforts to implement a cap-and-trade program, we are working to advance other policies needed to reduce GHG emissions. WCI Partner jurisdictions are also working closely with our federal governments to promote national and international action and ensure coordination among state, provincial, regional, and national programs.

On behalf of the governors and premiers of the Western Climate Initiative jurisdictions, we thank you for your interest in this work and for your ongoing contributions to our effort. We know that together we can meet the challenge of climate change while promoting economic vitality throughout the region.

Sincerely,
The WCI Partners



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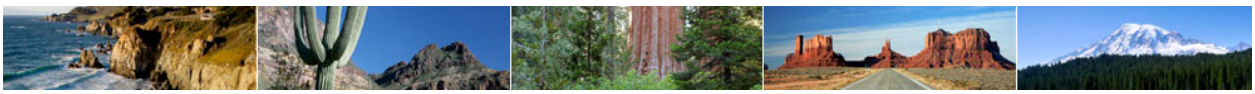

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# DESIGN SUMMARY

## 1. Introduction

The Western Climate Initiative (WCI) is a collaboration of seven U.S. states and four Canadian provinces that have been working together since 2007 to identify, evaluate, and implement policies to address climate change.[1] The WCI Partner jurisdictions reflect diverse geographies, climates, populations, industries, and energy and transportation infrastructures (see Figure 1). Nevertheless, the Partners share a commitment to tackling the economic, energy, and environmental challenges associated with greenhouse gas (GHG) emissions, recognizing that:

- Adverse impacts of climate change are already being experienced in our states and provinces.
- Acting now reduces the risk of far more significant adverse climate change impacts and associated unacceptable economic harm.
- Acting now reduces costs for future generations and provides substantial economic opportunities for the residents of our jurisdictions, contributing to job growth and economic recovery, and reducing reliance on imported fossil fuels.

### *A Comprehensive Initiative*

The WCI Partner jurisdictions have developed a comprehensive strategy to reduce regional GHG emissions to 15 percent below 2005 levels by 2020. This goal is based on the individual GHG emission reduction goals of the Partner jurisdictions. Our strategy will also spur investment in and development of clean-energy technologies, create green jobs, and protect public health. The WCI Partner jurisdictions' plan includes the following elements:

- **Using the power of the market.** A market-based approach that caps GHG emissions and uses tradable permits will provide incentives for companies and inventors to create new technologies that increase efficiency, promote greater use of renewable or lower-polluting fuels, and foster process improvements that reduce dependence on fossil fuels.
- **Encouraging reductions throughout the economy.** To reduce compliance costs and encourage emissions reductions, offset certificates will reward emissions reductions in sectors such as forestry and agriculture that are not covered by emissions caps.

[1] Memorandum of Understanding establishing the Western Regional Climate Action Initiative. February 26, 2007.



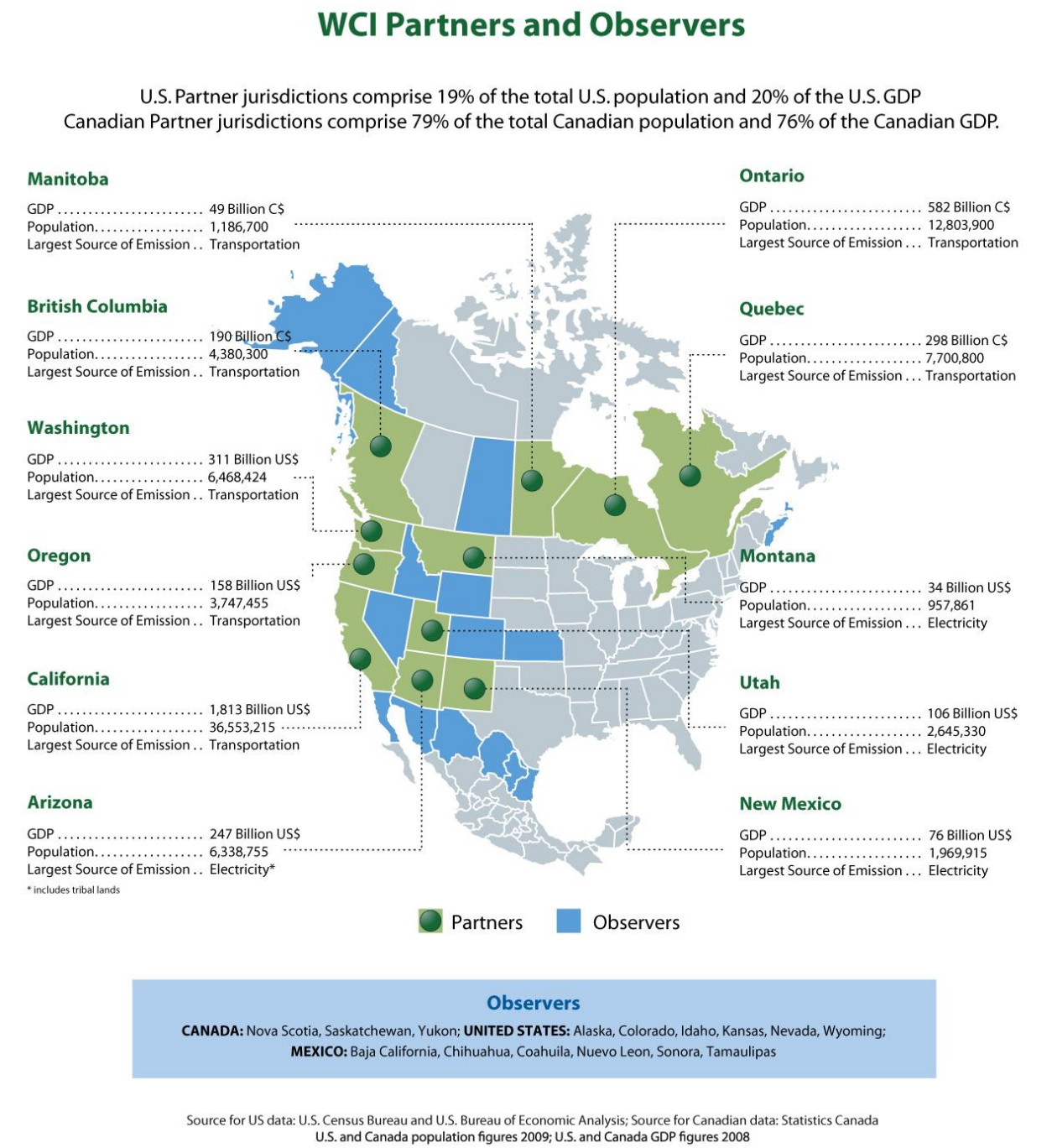
- **Advancing core policies and programs to speed the transition to a clean energy economy** by targeting cost-effective emissions reductions, including:
  - Expanding energy efficiency programs that reduce customer utility bills;
  - Encouraging additional renewable energy sources that diversify supply resources and reduce air and water pollution;
  - Tackling transportation emissions through vehicle emissions standards, fuel standards, and incentives for improved community and transportation planning;
  - Establishing performance benchmarks and standards for high-emitting industries to spur innovation and improve competitiveness; and
  - Identifying best practices in workforce and community programs to help individuals transition to new jobs in the clean energy economy.

The WCI Partner jurisdictions' comprehensive strategy is good for the environment and good for the economy. It encourages the lowest cost reductions in GHG emissions and improved energy efficiency. Economic modeling conducted by the Partner jurisdictions indicates that the program will result in modest cost savings between 2012 and 2020. The strategy balances the principles adopted by the WCI Partner jurisdictions to maximize total benefits throughout the region, including reducing air pollutants, diversifying energy sources, and advancing economic, environmental, and public health objectives, while also avoiding localized or disproportionate environmental or economic impacts.

From the beginning, the Partner jurisdictions' strategy for addressing climate change has recognized the need for broad collaborative action to reduce GHG emissions. All of the WCI Partner jurisdictions have adopted climate action plans, and are taking steps to reduce emissions. We also are in discussions with other regional greenhouse gas initiatives—the Regional Greenhouse Gas Initiative (RGGI) and the Midwestern Greenhouse Gas Reduction Accord—to further broaden the collaboration on mitigation activities. In addition, WCI Partner jurisdictions are working closely with our federal governments to promote national and international action, and to ensure coordination among state, provincial, regional, and national programs.

The WCI Partner jurisdictions understand that even if it were possible to substantially reduce or even eliminate GHG emissions today, our jurisdictions would still feel the impacts of climate change due to emissions that have already occurred. Scientific research continues to confirm that our water resources, natural ecosystems, air quality, and environment-dependent industries like agriculture and tourism will be significantly impacted by changes in climate. Consequently, in addition to limiting GHG emissions, efforts are needed to address the impacts of climate change. The WCI Partner jurisdictions are therefore also committed to undertaking preparation and adaptation efforts.

**Figure 1: Western Climate Initiative Partners and Observers**





### *Expanding Collaborative Action on Climate Change*

GHG emissions are emitted from a broad range of activities worldwide. Unlike other air pollutants, GHG emissions contribute equally to climate change regardless of source or location. Efforts to mitigate climate change must ultimately address emissions from all major sources on a global basis.

As the WCI Partner jurisdictions move forward in the months and years ahead, the Partners will continue collaborating to develop a portfolio of core policies and programs to reduce GHG emissions. The governors and premiers of the Partner jurisdictions invite their colleagues across North America, including leaders of Native American tribes and Canada's First Nations, to join us to expand our effort to reduce GHG emissions and limit the impacts of a changing climate.

### *Sharing Our Progress through this Report*

This document updates the design for the WCI Regional Cap-and-Trade Program, providing a roadmap to inform the WCI Partner jurisdictions in their development of implementing regulations. During the nearly two years since *Design Recommendations for the WCI Regional Cap-and-Trade Program* was released, the WCI Partner jurisdictions have worked collaboratively with stakeholders, advisors, and experts to develop the details needed to put the program in place. The WCI Partner jurisdictions have also had the benefit of building on the experience of program operations in Europe and RGGI, as well as proposed programs in other regions and countries.

The remainder of this document is organized as follows:

**Design Summary**: The Design Summary provides the highlights of the WCI Cap-and-Trade Program. The presentation is organized around the primary policy recommendations for the program, as follows:

- The WCI Cap-and-Trade Program
- Relying on High-Quality Emissions Data From Rigorous Reporting
- Setting the Program Emissions Limits
- Enhancing Compliance Flexibility and Program Adaptability to Manage Compliance Costs
- Maintaining Competitiveness and Preventing Emissions Leakage
- Electricity Sector
- Designing for High-Quality Offsets
- Designing a Fair and Transparent Auction
- Ensuring a Well-Functioning Market
- Linking Programs
- Coordinating Program Administration

**Documentation**: Referenced throughout the document are materials prepared by WCI committees and teams that form the basis for the program design recommendations. In most instances, the relevant white papers and/or draft recommendations were released for stakeholder comment and were discussed in public conference calls and/or meetings. These materials are listed at the end of the Design Summary and are available on the WCI website.[2]

[2] See www.westernclimateinitiative.org.



**Detailed Design**: The Detailed Design is organized around the primary operational components of the program. As the WCI Partner jurisdictions developed the Detailed Design, we found that variations in jurisdictional authorities, regulatory procedures, and administrative requirements inevitably lead to differences in the manner in which program rules are written. Consequently, the Detailed Design was prepared with the understanding and expectation that each jurisdiction's rule language may vary from the material included here. The intent, however, is that even with differences in language or approach, the ability to implement the core program design in a compatible manner across jurisdictions is preserved, so that the integrity of the regional effort is assured.

## 2. The WCI Cap-and-Trade Program

As part of a comprehensive strategy to reduce GHG emissions, the WCI Partner jurisdictions have recommended a market-based program that provides an incentive to limit emissions and promotes technological innovation.[3] Cap-and-trade has proven to be a successful means of reducing air pollution. It also is considered one of the most cost-effective and reliable strategies for pricing carbon emissions and providing emitters of GHG emissions with an incentive to limit pollution. With the trading component, cap-and-trade allows emitters to be flexible and creative in how to make needed reductions (see Figure 2).

The WCI program design includes a broad scope, encompassing nearly 90 percent of economy-wide emissions in the WCI Partner jurisdictions. The merits of pricing emissions broadly throughout the economy have been recognized in most of the recent federal proposals in the U.S. A forthcoming study by the National Research Council also recommends a broad scope, stating: "An economy-wide carbon pricing policy would provide the most cost-effective reduction opportunities, would lower the likelihood of significant emissions leakage, and could be designed with a capacity to adapt in response to new knowledge."[4] Similarly, in 2009 the National Round Table on the Environment and the Economy published a report on carbon pricing in Canada, including: "To achieve stated reduction targets at the least possible cost, all emissions must be covered as fully as possible. This requires a unified pricing policy that consciously takes into account all emissions across all sectors and all jurisdictions."[5]

The WCI Partner jurisdictions understand that in addition to covering most sectors of the economy, a broad geographic scope will also reduce overall

[3] In September 2008, following 18 months of stakeholder consultation, analysis, and Partner deliberations, the WCI released *Design Recommendations for the WCI Regional Cap-and-Trade Program*.

[4] National Research Council of the National Academies, Limiting the Magnitude of Future Climate Change, The National Academies Press, Washington, D.C., forthcoming, p. 5. Prepublication summary available at: www.nap.edu/catalog/12785.html.

[5] The National Round Table on the Environment and the Economy, *Achieving 2050 : A Carbon Pricing Policy for Canada, 2009*, p.29.



compliance costs and can help mitigate leakage risks. A larger carbon market across a diverse set of emission sources provides a wider range of reduction opportunities. There are multiple paths for achieving the broad geographic and economy-wide coverage that is preferred for a cap-and-trade program. The WCI Partner jurisdictions also recognize alternative schedules for implementation can be accommodated and will continue to encourage additional jurisdictions to join the program after the expected start date of January 1, 2012.

**Figure 2: How the WCI Cap-and-Trade Program Works**

The WCI Cap-and-Trade Program will be composed of the individual jurisdictions' cap-and-trade programs implemented through state and provincial regulations. Each WCI Partner jurisdiction implementing the cap-and-trade program design will issue "emission allowances" to meet its jurisdiction-specific emissions goal. The total number of available allowances serves as the "cap" on emissions. The allowances can be bought and sold ("traded"). A regional allowance market is created by the Partner jurisdictions recognizing one another's allowances for compliance. Through this recognition, the emissions allowances issued by each jurisdiction will be usable throughout the jurisdictions for compliance purposes.

The WCI Cap-and-Trade Program includes rigorous emissions reporting requirements that ensure accurate and timely measurement and recording of GHG emissions by the entities included in the program. At least once each three years, covered entities are required to turn into the state or province one "emission allowance" for each metric ton of carbon dioxide equivalent ($CO_2e$) emissions they emit and report. To reduce the total amount of emissions, the number of allowances issued will be reduced over time.

There is no restriction on who can own emission allowances—they can be sold between and among covered entities or third parties. Entities that reduce their emissions below the number of allowances they hold can sell their excess allowances or hold them for later use. Selling excess allowances allows entities to recoup some of their emissions reduction costs, while holding allowances for later use will lessen future compliance costs. This "trading" of emission allowances keeps compliance costs lower than would otherwise be the case because it provides flexibility in how and when reductions are made. It also puts a price on the emissions, which provides an incentive to innovate and find new ways to reduce emissions.

The WCI program design includes important features to ensure that the participating jurisdictions achieve their emissions goals affordably and cost-effectively. Emission offsets, representing emissions reductions from sources not covered by the program, can be used for compliance in limited quantity along with allowances from other trading programs that have been recognized by the WCI Partner jurisdictions. There is no limitation on how long an emission allowance may be held for future use. Allowing entities to turn in allowances in three-year periods provides flexibility as to when emissions reductions are made.



## 3. Relying on High-Quality Emissions Data from Rigorous Reporting

Accurate, timely, and consistent GHG emissions data is essential for an effective GHG emissions reduction effort. A cap-and-trade program in particular requires that all emitters in the program have high-quality emissions data so they can submit the correct number of emission allowances to cover their emissions. Accordingly, the WCI Partner jurisdictions have developed a reporting program that specifies quantification methods that are rigorous, technically feasible, cost-effective, and sufficiently accurate to support the cap-and-trade program.[6]

To minimize the reporting burden in the U.S., the WCI Partners' reporting requirements are harmonized with the U.S. EPA Mandatory Reporting Rule for GHG emissions[7] so that a facility will be able to submit a single report satisfying both the WCI Partners' requirements and the U.S. EPA rule. Because the U.S. EPA reporting rule is not designed to support a cap-and-trade program, it includes a range of quantification and measurement methods. The WCI Partners' specifications often require the more rigorous methods among the options included in the U.S. EPA rule in order to achieve the accuracy required in the WCI Partners' program.

The WCI Partner jurisdictions are also developing a Canadian version of the reporting requirements. Any necessary adjustments to existing requirements will be phased in over time. Several Canadian WCI Partners are developing a one-window GHG emissions reporting interface with Environment Canada. A report by a facility to the one window interface would meet the requirements of both the federal and provincial government, thus obviating the need for duplicate reporting.

The WCI Partner jurisdictions are continuing to develop reporting protocols for some emission sources that do not yet have adequate quantification methods. Chief among these are oil and gas production, natural gas processing, and natural gas transmission and distribution, which are significant sources of GHG emissions in some WCI Partner jurisdictions. In the spring of 2010, U.S. EPA released proposed requirements for GHG emissions reporting for oil and gas operations. To support the U.S. EPA's effort to require reporting in this sector and to align U.S. EPA reporting requirements with WCI Partner needs, the WCI Partner jurisdictions evaluated the proposed rule and submitted extensive comments to EPA.[8]

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[6] *Final Essential Requirements for Mandatory Reporting*. July 2009.

[7] *Proposed Harmonization of Essential Requirements for Mandatory Reporting in U.S. Jurisdictions with EPA Mandatory Reporting Rule*. June 2010. Information about the U.S. EPA Greenhouse Gas Reporting Program is available at: http://www.epa.gov/climatechange/emissions/ghgrulemaking.html.

[8] *WCI Comments on the Proposed Mandatory Reporting of GHG Emissions from Proposed Reporting for Oil and Gas Operations (Subpart W)*. June 2010.



For Canadian jurisdictions, specific quantification methods may be required for some sources due to different royalty data systems, equipment specifications, and metering requirements. The WCI Partner jurisdictions will review EPA's final reporting rule for the oil and gas sector and determine its appropriateness for a regional cap-and-trade program.

## 4. Setting the Program Emissions Limits

The WCI Cap-and-Trade Program is designed to reduce GHG emissions to 15 percent below 2005 levels by 2020, which is the sum of the emissions goals of the Partner jurisdictions. The emissions limit is created by each jurisdiction issuing a limited number of "emission allowances," referred to as the jurisdiction's allowance budget, and requiring emitters to:

- Report their emissions annually;[9] and
- Submit sufficient emission allowances and offset certificates[10] to cover their reported emissions.

The jurisdiction's allowance budget therefore is the primary determinant of the total limit on the emissions from all the emitters in the program in the jurisdiction, along with the number of offset certificates that can be used.

The WCI Partner jurisdictions recommend that each jurisdiction develop its allowance budget in the same manner to ensure consistency and transparency throughout the program.[11] Additionally, the Partner jurisdictions recommend a common limit on the use of offset certificates be applied uniformly.[12]

### *Partner Allowance Budgets*

The WCI Partner jurisdictions recommend setting allowance budgets to provide for a gradual emission reduction to the 2020 emission target. Accordingly, the Partners recommend that each Partner's 2012 allowance budget for emitters covered in 2012 be the best estimate of actual emissions anticipated in 2012. With this approach, the allowance budgets are sufficient to enable emissions to continue as expected in the first year of the program.

In 2015, the program is designed to expand to cover providers of transportation fuels and residential and commercial fuels.[13] Consequently, Partners' allowance budgets increase in 2015 to reflect the addition of these emissions. The increase in the allowance budgets in 2015 to cover these emissions is recommended to be the best

[9] Reporting is discussed above in section 3.

[10] Offsets are discussed below in section 8.

[11] *Guidance for Developing WCI Partner Allowance Budgets*. June 2010.

[12] *WCI Recommendations for Implementing the Offset Limit*. March 2010.

[13] The WCI Partner jurisdictions acknowledge that individual jurisdictions may utilize other fiscal measures, such as British Columbia's carbon tax, to address transportation fuels and fuel use by residential and commercial sources that contribute to achieving overall comparable GHG emissions reductions and internalize the price of carbon as expected through the cap-and-trade program.



estimate of expected actual emissions from these sources. So, again, the allowance budgets are sufficient to cover expected emissions from the sources during the first year they are included in the program.

The remainder of the Partners' allowance budgets are defined by calculating the 2020 budget and the values from 2012 to 2015 and from 2015 to 2020. The WCI Partner jurisdictions recommend that the 2020 allowance budgets be set to achieve each jurisdiction's economy-wide 2020 emissions target, so that the number of allowances issued plus emissions from uncapped sectors will equal each jurisdiction's 2020 target. A linear decline from 2012 to 2015, and then from 2015 to 2020, is recommended to enable a gradual ramp-down.

WCI Partners' economic analysis has shown that this gradual linear decline can be achieved with a slight net savings.[14] Figure 3 graphically illustrates an allowance budget.

### *Recognizing Early GHG Reductions with Allowances*

The WCI Partner jurisdictions recognize the value of reducing emissions as soon as possible, including prior to the start of the program. A number of approaches have been identified that some Partners may use to provide incentives for early action, including issuing Early Reduction Allowances (ERAs) for emissions reductions that occur during the period of 2008 through 2011. To be eligible to receive ERAs, the reductions must be voluntary, additional, real, verifiable, permanent, and enforceable.[15] Once issued, the ERAs may be used in the same manner as other emission allowances.

### *Offset Certificates and Instruments from Other Programs*

The WCI Partner jurisdictions recommend that offset certificates and approved compliance instruments from other programs (such as another cap-and-trade program) be used along with emission allowances to comply with the program. The WCI Partners' economic analysis found that the use of such instruments can help reduce compliance costs for emitters. However, the WCI Partner jurisdictions believe that covered emitters should make the majority of the emissions reductions needed to achieve the 2020 emissions goal. Accordingly, the WCI Partner jurisdictions recommend that the use of offsets certificates and other approved instruments not exceed 49 percent of the aggregate required emissions reductions across all the Partner jurisdictions' programs.

Using the sum of the Partner allowance budgets, a total limit on the use of offset certificates and approved compliance instruments from other programs will be calculated and applied to all emitters in the program in all of the compliance periods. The limit will be expressed as a portion of the emitters' emissions that can be covered by offset certificates or approved compliance instruments from other programs. For example, if

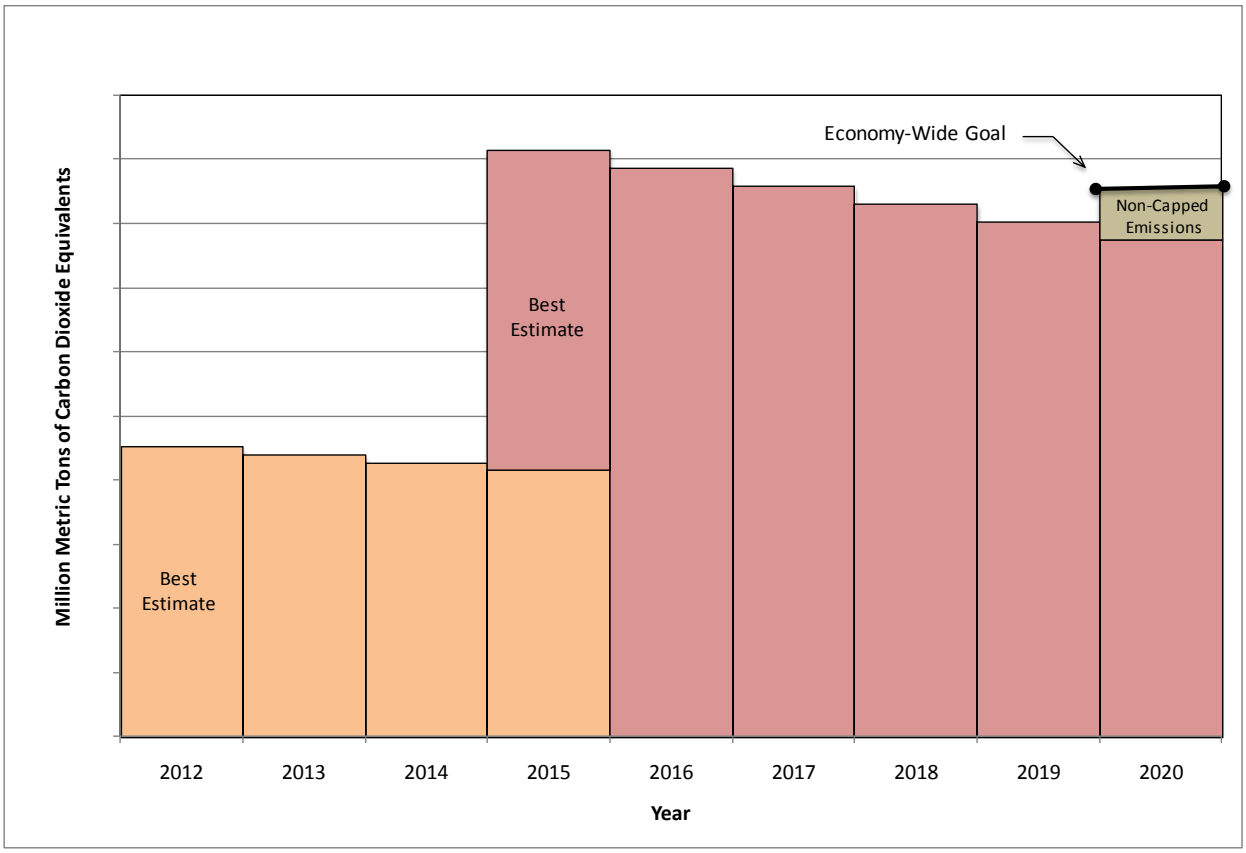
[14] *Updated Economic Analysis of the WCI Regional Cap-and-Trade Program*. July 2010.

[15] *Guidance for Distributing Early Reduction Allowances*. June 2010.

the limit is calculated to be 5 percent,[16] then an emitter of 100,000 metric tons of $CO_2e$ could comply with the program using at most 5,000 offset certificates or approved compliance instruments from other programs. The remainder of the emissions (95,000 metric tons in this example) would need to be covered by emission allowances issued by a WCI Partner.

In sum, emission allowances, ERAs, offset certificates, and approved compliance instruments from other programs constitute the total allowable emissions from emitters in the WCI Cap-and-Trade Program.

**Figure 3: Graphic Illustration of a Jurisdiction Allowance Budget**




The 2012 allowance budget declines through 2015, when the newly covered emissions are added to the program. The budget then declines through 2020. The 2020 allowance budget is shown below the 2020 economy-wide goal because some emissions are not covered by the cap-and-trade program. The difference between the 2020 allowance budget and the economy-wide goal is the emissions that are not covered by the cap-and-trade program.

[16] Note that 49 percent of emissions reductions translates into a much smaller percentage of total emissions allowed under the program.



## 5. Enhancing Compliance Flexibility and Program Adaptability to Manage Compliance Costs

The WCI Cap-and-Trade Program is designed to achieve its environmental objectives reliably and cost effectively. Multiple program features provide compliance flexibility while ensuring that emission goals are achieved (see Figure 4). WCI Partners' analysis of the program design finds that these features ensure that the program is supportive of economic growth and job creation.[17]

WCI Partners' analysis also examined scenarios in which potential future conditions could lead to compliance costs being higher than expected. The findings show that combinations of circumstances could result in compliance cost increases that may impact consumers or industry competitiveness, and increase emissions leakage risk.[18] Examples of such conditions may include:

- Technology Costs: Technologies to reduce emissions may be more costly or may require more time to install than anticipated.
- Weather: Increased incidence or prolonged duration of droughts, possibly associated with the early physical impacts of climate change, may unexpectedly reduce the availability of hydroelectric power, requiring increased reliance on fossil fuel generating resources. Similarly, heat waves or periods of extreme cold associated with greater weather variability may increase demand for electricity or heating fuels.
- Electric Sector Upset: Disruptions to low-carbon electricity supplies, such as unplanned maintenance at a nuclear power facility or loss of transmission capacity to wind resources, could lead to temporary increases in reliance on fossil fuel generating resources.
- Uncertainty in Emissions Estimates: Continuing uncertainty about the strength and timing of the economic recovery makes estimates of expected emissions in 2012 and 2015 uncertain. Inadvertently setting the allowance budget too low due to this uncertainty may lead to greater emissions reductions being required than planned, and higher compliance costs.

The WCI Partner jurisdictions recognize that one or more of these types of conditions could occur, individually or in combination. Accordingly, approaches that enable the program to adapt to changing circumstances are under consideration, including the following:

1. Partners could establish allowance reserves from which emission allowances could be released under high-price conditions. Allowance reserves have been included in recent U.S. legislative proposals, which provide examples for consideration. The WCI Partner jurisdictions will further evaluate how allowance reserves might reduce the risks of high compliance costs, including examining:

[17] *Updated Economic Analysis of the WCI Regional Cap-and-Trade Program*. July 2010.

[18] Emissions leakage is discussed in section 6.



– The appropriate size of reserves;
– Methods for filling the reserves while maintaining the environmental integrity of the program;
– Conditions under which the reserves would be activated;
– Mechanisms for releasing allowances from the reserves; and
– Purposes for which allowances released from the reserves could be used.

2. Entities could be allowed to comply using a limited number of allowances from the next compliance period. The design recommends prohibiting borrowing allowances from future compliance periods to comply in the current period. However, this prohibition could be relaxed in recognition that some allowances from the next compliance period will already be in circulation at the time of the current compliance deadline. Consequently, some allowances from the next period will already be owned, and entities need not borrow them in order to use them to comply. Adding this provision to the program design could help reduce the risk of allowance prices spiking just prior to the compliance deadline. The WCI Partner jurisdictions will consider how this approach might be used, including:

   – The conditions under which allowances for the next compliance period could be used to comply in the current period;
   – Potential limits on the use of allowances from the next compliance period; and
   – Risks of increasing the stringency of the next compliance period and options for reducing these risks.

3. Special purpose allowance pools or other mechanisms could be created that target localized conditions that affect compliance costs locally. For example, allowances could be released in response to an electric sector upset in a jurisdiction. The WCI Partner jurisdictions will further consider the use of such special purpose allowance pools or other mechanisms in the context of:

   – The size needed to mitigate individual jurisdictional risks;
   – The conditions for activating allowance pools or mechanisms; and
   – Methods for filling and managing special pools at the individual jurisdiction level.

When combined with an auction floor price (see Figure 4), these mechanisms would help create boundaries on the range of allowance prices: new features under consideration would mitigate risks of high compliance costs and high allowance prices, while the auction floor price reduces the risks of low allowance prices. The auction floor price could also result in allowances remaining unsold at auction, which could be transferred to help fill allowance reserves. The WCI Partner jurisdictions recommend these types of mechanisms as preferred over hard price caps that have the potential to undermine the environmental integrity of the program and which could limit the ability to link to other cap-and-trade programs in the future.



**Figure 4: WCI Program Design Recommendations that Provide Compliance Flexibility**

| Mechanisms | Impact |
|---|---|
| Allow a limited number of offset certificates and other approved compliance instruments for compliance | Allowing offset certificates and other approved compliance instruments for compliance can reduce compliance costs and reduce allowance prices. The limit on the use of offset certificates and other approved compliance instruments recommended by WCI Partner jurisdictions ensures that a majority of the required emissions reductions are achieved at the covered sources. |
| Unlimited banking | Unlimited banking allows compliance entities to decide how best to use emission allowances over time. This flexibility can substantially reduce compliance costs across compliance periods. |
| Multi-year compliance period | Multi-year compliance periods provide flexibility for compliance entities, and recognize that emission reduction efforts may take time to phase in, particularly in the early years of the program. |
| Linking among programs | Linking among cap-and-trade programs (such as among the WCI Partner jurisdictions), improves efficiency and reduces compliance costs by enlarging the carbon market across a diverse set of emissions sources with a range of emission reduction opportunities. |
| Broad scope | A broad scope for the cap-and-trade program helps improve efficiency and reduce compliance costs by covering a diverse set of sources with a range of emission reduction opportunities. |
| Other low-carbon core policies and programs | Other low-carbon core policies and programs can motivate or require emissions reductions that—due to market barriers—would not otherwise be undertaken solely in response to price considerations. These policies can reduce overall program compliance costs. |
| Auction floor price | The auction floor price keeps allowances out of the market, at least temporarily, in the event that the demand at auction results in a price that would be below an acceptable level. This feature helps correct an inadvertent over-allocation of allowances. |

## 6. Maintaining Competitiveness and Preventing Emissions Leakage

The WCI Partner jurisdictions' recommendations are designed to maintain and enhance economic competitiveness while preventing emissions leakage. Competitiveness can be enhanced by early investments in cost-effective efficiency improvements, diversifying fuel supplies—particularly in the transportation sector—spurring innovation, and reducing exposure to fossil fuel price volatility. Improved air quality and public health also make our communities more livable, attracting families and businesses that create new economic opportunities and jobs.

Emissions leakage would occur if production activity shifts from WCI Partner jurisdictions to non-Partner jurisdictions so that emissions

> Benchmarking is an approach for promoting efficiency by evaluating GHG emissions performance among similar facilities or operations in an industrial sector. It uses an objective indicator of efficiency (a benchmark) to compare the facilities or operations to an industry standard or best practice metric. Benchmarking can be used in a cap-and-trade program as a basis for distributing allowances to industrial facilities covered by the program. Using benchmarks in this way can recognize and reward facilities that use best practices or that have already reduced emissions.

reductions in the WCI Partner jurisdictions are negated by comparable increases in another jurisdiction. Incentives may be used, particularly through the allocation of emission allowances, to minimize leakage risks and support WCI Partner jurisdictions' economic growth and jobs. Although the WCI Partner jurisdictions recommend that the value of the emission allowances be directed to enhance economic competitiveness and prevent emissions leakage, each Partner jurisdiction has the opportunity to apply these resources in the ways that best meet its needs.

WCI Partner jurisdictions have been focusing on energy-intensive, trade-exposed ("EITE") industries, which may be particularly vulnerable to competition and leakage. Free distribution of emission allowances to EITE industries has been identified as one approach to promote competitiveness and minimize leakage, with benchmarking being considered as a basis for distributing allowances.[19] Free distribution based on benchmarking is the approach the EU proposes to take for its Phase III, and is embodied in leading national U.S. legislative proposals. A different approach would require imports into WCI Partner jurisdictions to comply with their cap-and-trade rules. This approach is recommended for the electricity sector and is described in more detail in the next section.

Differing allowance allocation methods could also affect competitiveness among WCI Partner jurisdictions, particularly for EITE industries. WCI Partner jurisdictions are continuing to examine harmonizing allowance distribution approaches, particularly among similar facilities or entities in the same industry. Use of common benchmarking approaches would facilitate this harmonization, thereby addressing potential competitiveness concerns prior to the program initiation.

If analysis demonstrates that allowance distribution to a particular sector could be harmonized by some WCI Partner jurisdictions to maintain competitiveness among similar facilities or entities—and if that analysis reveals that it is advisable to address those competitiveness issues—WCI Partner jurisdictions may recommend standardizing the distribution of allowances in those circumstances. Sectors where analysis is required include those with process (non-combustion) emissions where the greatest

[19] Two WCI co-sponsored workshops examined benchmarking issues. Materials from the September 17, 2009 Benchmarking Workshop in Toronto, ON are available: http://www.ene.gov.on.ca/en/air/climatechange/benchmarking.php. Materials from the May 19th, 2010 Greenhouse Gas Benchmarking Symposium in Seattle, WA are available at http://www.westernclimateinitiative.org/component/remository/Partner-Meeting-Materials/2010-05-19-(Seattle-Benchmarking-Symposium)/.



emission reduction potential is associated with large technology changes and high GHG emission intensity, such as aluminum, steel, cement, lime, pulp and paper, and oil refining.

## 7. Electricity Sector

The electricity sector has unique characteristics that are reflected in the WCI Cap-and-Trade Program design recommendations. The interconnected nature of the North American electricity grid creates the potential for leakage, and existing practices see considerable quantities of electricity transacted among jurisdictions. To maintain a level playing field and a consistent price for carbon, the emissions associated with imports of electricity are included in WCI Partner jurisdiction emissions. In addition, environmental requirements and voluntary initiatives have created existing markets for renewable energy in many jurisdictions, raising issues of their potential interaction with a cap-and-trade market. These issues have been examined and recommendations have been developed to address them.

### *Electricity Imports*

The WCI Partner jurisdictions recommend that emissions from electricity generated outside the WCI Partner jurisdictions but consumed within them be included in the program. To include these emissions, the point of regulation is defined as the First Jurisdictional Deliverer (FJD), which is the first entity that delivers electricity over which the consuming WCI Partner jurisdiction has regulatory authority.[20]

Different approaches were examined in extensive consultations with stakeholders to determine how to define the boundary for FJD and treat transactions which pass through multiple jurisdictions. After considering practical, administrative, regulatory and enforcement aspects, the WCI Partner jurisdictions recommend the use of individual jurisdiction boundaries for FJD.[21] For jurisdictions that are not able to implement the full FJD approach, the Administrative Approach was developed as an alternative, under which the jurisdiction creates a reserve of allowances to cover emissions associated with imports.[22]

Imported power may be from a known generation source (with known emissions) or from an unspecified source. For the purposes of assigning emissions to unspecified sources, the *Default*

[20] The FJD recommendation and consequences have been further examined and refined in stakeholder consultations and consultant studies including the *Electricity Leakage Analysis Summary Report* (March 2009); *Draft Open Access Technologies Inc. (OATI) Analysis of Electricity Imports in the Western Electricity Coordinating Council (WECC) Region* (February 2010); and *Electricity Imports, Exports and Leakage in the Eastern WCI Partner jurisdictions: Quebec, Ontario and Manitoba* (July 2010).

[21] Considerations on the boundary issue are described in *Discussion Paper on FJD Boundary Options for Regulating Electricity Imports* (January 2009), and the decision laid out in *Announcement Regarding the FJD Approach* (July 2009).

[22] *Covering Emissions From Imported Electricity: An Administrative Approach*. May 2010.



*Emissions Calculator*[23] was developed and the concept validated with stakeholders. With this approach, all generators in a jurisdiction or area are identified along with their recent historical emissions. Using criteria on capacity factors and type of generation, marginal generation available to supply the imported power is identified and an emissions factor calculated.

### *Renewable Energy*

To address the interaction between the WCI Cap-and-Trade Program and existing markets for renewable energy, WCI Partner jurisdictions recommend:

- Renewable Energy Certificates (RECs) will have no compliance role in the WCI Cap-and-Trade Program. This recommendation maintains the separate and distinct markets for RECs and GHG allowances, and avoids complications from overlap of the two regulatory regimes.[24]
- To recognize the impacts of voluntary investments in renewable energy, an optional mechanism was developed for use by WCI Partner jurisdictions. This approach employs a set-aside of allowances to be retired in recognition of voluntary renewable energy purchases, thus enabling voluntary investments to reduce GHG emissions under a cap-and-trade regime.[25]

Recognizing the importance of renewable energy in reducing GHG emissions, Partner jurisdictions can choose to freely allocate allowances from within their allowance budgets to entities that export renewable electricity (e.g., hydroelectricity) outside WCI Partner jurisdictions, in accordance with section 6 of the Detailed Design.

### *Competitiveness*

The highly interconnected nature of the electricity sector in North America led to a focus on competitiveness in the electricity sector, and the recommendation that the distribution of allowance value or auction revenues in that sector could be standardized as a means to address competitiveness across WCI Partner jurisdictions.[26] While the FJD compliance obligation helps to maintain the competitiveness of electricity generation in WCI Partner jurisdictions with respect to imported electricity, for WCI Partner jurisdictions that currently export electricity, fossil-fired electricity exports that would be less competitive in non-WCI markets must also be considered.[27] The WCI Partner jurisdictions are examining potential options for mechanisms to address this issue.

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[23] *2007* and *2006* *Draft Default Emission Factor Calculators*. February 2010.

[24] Considerations on the treatment of RECs are described in the discussion paper *Renewable Portfolio Standards, Renewable Energy Certificates, and GHG Accounting (RECs) Accounting* (December 2008). The decision is further explained in the announcement *Treatment of Renewable Energy Credits in the WCI Cap-and-Trade Program* (May 2010).

[25] This approach is described in *Voluntary Renewable Energy Market: Issues and Recommendations*. July 2010.

[26] This issue was explored in *GHG Allowance Allocation Options in the Electricity Sector*. January 2009.

[27] An example of this effect can be found in the report *Electricity Imports, Exports and Leakage in the Eastern WCI Partner Jurisdictions: Quebec, Ontario and Manitoba*. July 2010.



## 8. Designing for High-Quality Offsets

The WCI Partner jurisdictions include offsets in the WCI Cap-and-Trade Program design to reduce compliance costs by introducing a broader range of emissions reduction opportunities. The WCI Partner jurisdictions' recommendations for offsets maintain the integrity of the emissions cap by ensuring that emissions reductions or removals achieved through an offset project are functionally equivalent to emissions reductions achieved by a regulated emissions source. Emphasis is placed on assuring the quality of offsets, not only to ensure that the program's environmental goals are achieved, but also with the objective of informing the national and international deliberations on offsets.

The WCI Partner jurisdictions recommend the following for the definition of an offset and criteria to evaluate an offset project.

- **Definition**: A GHG offset is a reduction or removal of GHG emissions as a result of a project or activity that occurs outside the sectors regulated by the cap-and-trade program. An offset certificate issued by a WCI Partner jurisdiction represents a reduction or removal of one metric ton of $CO_2e$. To be issued an offset certificate by a WCI Partner jurisdiction, each reduction or removal must meet all recommended offset criteria, have clearly identified ownership, follow an accepted protocol, and result from a project located in Canada, the U.S., or Mexico.
- **Criteria**: Offset projects approved by WCI Partner jurisdictions will meet the criteria described in the *Offset System Essential Elements Final Recommendations*.[28] The criteria recommended by WCI Partner jurisdictions are consistent with the leading offset systems in use worldwide, and will allow the adoption of protocols that produce consistent offsets across the WCI region. The other North American emissions trading systems—RGGI and the Midwestern Greenhouse Gas Reduction Accord—share the goal of ensuring the quality of offsets. The three regional programs released a paper on offset quality that is consistent with the offset criteria recommended by the WCI Partner jurisdictions.[29]

WCI Partner jurisdictions will leverage existing protocols to align with the essential criteria and, through their rulemaking processes, make the protocols applicable for use in all WCI Partner jurisdictions. WCI Partner jurisdictions have evaluated existing protocols against WCI Partners' offset criteria,[30] and are continuing to establish key protocol components for each priority project type. This is being done in consultation with sector experts and stakeholders, enabling where possible the use of existing protocols and flexibility for the

[28] *Offsets System Essential Elements Final Recommendations*. June 2010.

[29] *Ensuring Offset Quality: Design and Implementation Criteria for a High Quality Offset Program*. May 2010.

[30] *Review of Existing Offset Protocols Against WCI Offset Criteria*. April 2010.



protocol authors and national or voluntary offset program developers to easily take advantage of and harmonize with WCI Partner jurisdiction progress.

Similar to the essential criteria, the process of offset project approval through certificate issuance contains important features to ensure offset quality. The WCI Partner jurisdictions are continuing to finalize the process, with the goal of having a streamlined process and protocols in time for adoption by Partners who need to incorporate these elements into their legislative and/or regulatory processes. These steps will include specific requirements for registration, validation, monitoring, quantification, reporting, verification, certification, and issuance of offsets. WCI Partner jurisdictions will harmonize the project approval process in consultation with stakeholders prior to the start of the program.

## 9. Designing a Fair and Transparent Auction

Selling emission allowances at auction is one mechanism for distributing allowances. Both the European program and RGGI use auctions, with RGGI relying almost exclusively on auctions for distributing allowances. The WCI Partner jurisdictions expect to auction allowances as one component of allowance distribution. The portion of allowances auctioned may vary across jurisdictions based on jurisdiction-specific authorities and circumstances, and may also change over time.

The WCI Partner jurisdictions plan to auction emission allowances in a regionally coordinated manner to ensure fairness and transparency, maximize efficiency, and ensure consistent application of state and provincial laws. To accomplish these objectives, the WCI Partner jurisdictions recommend the following for the design of a regionally coordinated auction:

- **Auction format, timing and frequency**: A sealed bid, single round, uniform price (lowest winning bid) auction that will take place quarterly. The sealed bid, single round auction format mitigates the potential for market manipulation and is relatively simple to understand. A quarterly auction balances the cost of running the auctions with flexibility for participants, and creates regular market price signals. This approach is consistent with auctions in other cap-and-trade programs.
- **Reserve price**: A reserve or "floor" price applied to all of the allowances on offer at the auction. As further described in section 10, this feature addresses an inadvertent over-allocation of allowances to the market and the risk of persistently low compliance costs. The method for determining a reserve price will be set in advance of the first auction.
- **Vintages**: Allowances from future compliance periods may be sold concurrently to aid market liquidity, reduce uncertainty, and contribute to market efficiency.
- **Lot size**: Allowances will be sold in lot sizes of 1,000 (equal to 1,000 metric tons),



allowing flexibility for auction participants. This lot size is not so large as to discourage participation by smaller entities, yet of sufficient size to make transaction costs manageable.

- **Participant access and financial assurance**: An auction that is open to anyone with an account in the tracking system and able to meet pre-qualification financial assurance requirements will ensure fairness. Requiring bidders to submit an approved form of financial assurance (e.g., cash, bond, letter of credit) that covers the full value of their bid will contribute to accountability and help prevent market manipulation. Such assurances are consistent with auction procedures in other cap-and-trade programs.
- **Information transparency**: The clearing price and total number of purchased allowances will be disclosed publicly after the auction. Disclosure of auction results contributes to both transparency and price discovery and is also consistent with other programs.
- **Mitigation of market manipulation**: Auctions will include a purchase limit and WCI Partner jurisdictions will undertake monitoring and reporting measures that will mitigate market manipulation.

WCI Partner jurisdictions continue to consult on several auction design elements that require additional analysis, including the following:

- Methods for determining reserve prices.
- A non-competitive auction component that would allow bidders to purchase a limited number of allowances, without submitting a bid schedule, at the clearing price as determined by the competitive bidding.
- The ability of Partner jurisdictions to incorporate a consignment option that would allow parties to make their allowances available for purchase in the auction.
- The level of detail to disclose when announcing the auction results, to balance the need for transparency while protecting auction participant information.
- Currency exchange issues relating to a potential bi-national auction.

Partner jurisdictions also continue to discuss recommendations for treatment of allowances that remain unsold at auction. WCI Partner jurisdictions can retire allowances, roll allowances to a future auction, or supply allowance reserves. In addition, the WCI Partner jurisdictions are developing a method for jurisdictions that are not auctioning allowances to manage their allowance budgets in a way that is equitable and supports the WCI Partner jurisdiction's cost containment goals.



## 10. Ensuring a Well-Functioning Market

The WCI Cap-and-Trade Program is designed to harness market forces to spur technological innovation and reduce GHG emissions at the lowest possible cost. For the program to achieve these goals, participants must be able to trade emission allowances and offset certificates in a well-functioning market. To accomplish this, the WCI Partner jurisdictions are recommending specific policies to ensure fair and equal access to the market, transparent operations and timely public disclosure of critical information to maintain public confidence, and a market free of manipulation so that prices reflect supply and demand conditions.

Recent market events in the U.S. and elsewhere underscore the need for comprehensive and effective market monitoring and oversight. To achieve the necessary level of effectiveness, the WCI Partner jurisdictions recommend coordinating among several institutions based on existing authorities and capabilities. Financial reform under consideration in the U.S. and Canada could alter existing authorities, with the expectation of enhancing oversight. As needed, these recommendations may be revised in light of financial reform to ensure comprehensive and effective oversight is maintained.

The WCI Partner jurisdictions' recommendations reflect the following roles:

- The U.S. and Canadian WCI Partner jurisdictions have primary responsibility for the auction market, including all aspects of its design, operation, monitoring, and enforcement.
- The U.S. and Canadian WCI Partner jurisdictions also have primary responsibility for oversight and enforcement of the "cash market" in which allowances and offset certificates are traded for immediate delivery. Oversight responsibility may be shared, however, with trading organizations.
- In the U.S., the Commodity Futures Trading Commission has primary responsibility for oversight of the derivatives market.[31] In Canada, provincial regulatory authorities provide derivative market oversight. The WCI Partner jurisdictions have been in discussions with these organizations to develop this approach, and recommend formalizing the coordination prior to the start of the program.

Recommendations for the areas in which WCI Partner jurisdictions have primary responsibility are to: [32] impose necessary requirements on all owners of allowances and offset certificates; encourage the use of effective trading venues; and conduct effective monitoring of market activity and conditions. The requirements that apply to owners of allowances and offset certificates focus

[31] A derivative is a financial instrument that derives its value from one or more other underlying assets. A contract to purchase an emission allowance in six months at a specific price is an example of a derivative. Derivatives are traded on exchanges and between individual parties (referred to as "over the counter" or OTC).

[32] The WCI Partner market oversight recommendations are listed in the *Market Oversight July Status Update*. For a discussion of market oversight options, see *Market Oversight Draft Recommendations*. April 2010.

on providing information that enables the WCI Partner jurisdictions to know the identity and inter-relationships of market participants and to evaluate their activity in the auction and cash markets. Key aspects of this information will be disclosed publicly so that the public will know how the markets are working.

Reporting and disclosure also will help regulators uncover conditions that may make manipulation possible. To further reduce the risk of manipulation, the WCI Partner jurisdictions are considering placing a limit on the allowances and offset certificates that any one entity can hold. [33] Such a limit would be in addition to the limit on purchases in any single auction, discussed above. The WCI Partner jurisdictions note that some of the information provided by allowance and offset certificate owners must be maintained as confidential to avoid revealing information that would assist market manipulation rather than prevent it.

Market participants' use of well organized and effectively managed trading venues (such as exchanges) will help ensure transparent and competitive pricing and equal access to the market, benefitting market participants and the public. Accordingly, the WCI Partner jurisdictions propose to encourage qualified venues to develop cash markets, provided the venues conduct effective oversight of their cash markets and enable access for regulatory oversight.

Vigilant market monitoring will be necessary across all aspects of these recommendations. The WCI Partner jurisdictions recommend that professional market intermediaries be identified and registered. Provisions for collaborative analysis and information sharing among Partner jurisdictions are also recommended to ensure effective and comprehensive monitoring across the program.

[33] For a discussion of holding limits under consideration by the WCI Partner jurisdictions, see *Report on Holdings Limits*. May 2010.



## 11. Linking Programs

The WCI Partner jurisdictions are committed to promoting broad collaborative action to reduce GHG emissions. Accordingly, the WCI program recommendations are designed to facilitate linking among the WCI Partner jurisdictions as well as linking with jurisdictions participating in other programs. Several benefits of linking include:

- Incorporating more opportunities to reduce GHG emissions can improve cost-effectiveness while also achieving greater emissions reductions.
- Expanding the geographic coverage of the price on GHG emissions can reduce the risk of emissions leakage and maintain competitiveness.
- Enlarging the market for emission allowances and offsets can improve market liquidity, reduce volatility, and reduce the likelihood of manipulation.
- Collaborating among jurisdictions can provide an opportunity to share administrative functions, reducing the costs of program operation and enhancing consistency across jurisdictions.

Linking among the WCI Partner jurisdictions will be achieved by recognizing each other's instruments for compliance purposes. Through this recognition, the emission allowances and offset certificates issued by each jurisdiction will be usable throughout the linked jurisdictions for compliance purposes. Prior to linking, a Partner jurisdiction will have the opportunity to review each jurisdiction's program to assess its consistency with the program design, including: allowance budgets; information requirements and tracking systems; emissions accounting for electricity traded between Partner jurisdictions; monitoring, reporting, verification, compliance, and enforcement provisions; and treatment of offsets. Ensuring consistency with the program design will protect the integrity of each jurisdiction's program and the regional effort as linking is instituted.

The WCI Partner jurisdictions are also actively exploring linkages with other government-approved cap-and-trade systems. Initially, WCI Partner jurisdictions will consider unilateral linking to accept compliance instruments from trading programs external to WCI Partner jurisdictions. Prior to initiating a unilateral link, external programs will also be evaluated to ensure that they exhibit the integrity inherent in the WCI Cap-and-Trade Program design recommendations. In particular, a mechanism will be developed to ensure the compliance instruments from external programs can only be used once.

WCI Partner jurisdictions will also consider the recognition of offsets that are not part of an external cap-and-trade program. In this case, the criteria that are relevant for offsets will be used to evaluate the acceptability of the external offset program.[34]

Over the longer term, WCI Partner jurisdictions will work with jurisdictions participating in other

[34] The specific mechanisms for recognizing offsets from other systems are still under consideration.



regional trading programs to explore bilateral or multilateral linkages so that compliance instruments from those jurisdictions and compliance instruments issued by WCI Partner jurisdictions are fully fungible. Jurisdictions participating in the three regional climate initiatives in North America—WCI, RGGI, and the Midwestern Greenhouse Gas Reduction Accord—have been working cooperatively to share experiences in the design and implementation of regional cap-and-trade programs, inform federal decision making on climate change policy, and explore the potential for further collaboration among the three regional programs. This work will provide a potential roadmap for developing bilateral or multilateral linkages.

## 12. Coordinating Program Administration

Implementation of the WCI Cap-and-Trade Program by Partner jurisdictions requires effective administrative processes. This section describes three areas of proposed coordination: the tracking system for emission allowances and other compliance instruments; compliance verification and enforcement; and a regional administrative organization.

### *Tracking System*

The tracking system is an integral component of the WCI Cap-and-Trade Program. Its purpose is to ensure the accurate accounting of the issuance, holding, transfer, retirement, and cancellation of compliance instruments. The tracking system must be simple to use, secure, flexible in an evolving environment, consistent with legal requirements in WCI Partner jurisdictions, and meet the WCI Partner jurisdictions' transparency objectives. The WCI Partner jurisdictions will ensure a regional tracking system is in place prior to the start of the program.

The WCI Partner jurisdictions will establish and maintain a tracking system that enables an effective and transparent regional cap-and-trade program. The tracking system will notably:

- Be a standardized electronic database that is accessible online.
- Contain separate accounts to record the compliance instruments held by each person or entity and to whom and from whom they are issued or transferred.
- Ensure there are no transfers incompatible with the rules implementing the WCI Cap-and-Trade Program.
- Provide for public access to relevant information, as well as confidentiality of information as appropriate.
- Restrict certain functions to account holders, to authorized staff of regulatory authorities, or to system maintenance service providers.
- Have the ability to generate specific public reports.

Section 7 of the Detailed Design contains more information on the tracking system. The WCI Partner jurisdictions are evaluating the suitability

of developing the tracking system from others already in use in other markets.

### *Compliance Verification and Enforcement*

Each WCI Partner jurisdiction will use its authority to enforce compliance with the WCI Cap-and-Trade program within its own jurisdiction. The WCI Partner jurisdictions recognize that during the first compliance period, unforeseen issues are likely to arise. Each WCI Partner jurisdiction should aim for full compliance, and engage in compliance promotion to reduce the potential for non-compliance. Consequently, the WCI Partner jurisdictions are committed to providing appropriate technical and compliance assistance to the program participants.

A degree of harmonization and a necessary level of stringency for compliance verification and enforcement are essential in linking cap-and-trade programs among WCI Partner jurisdictions to ensure consistent programmatic outcomes and a level playing field for covered sources. The degree of harmonization is subject to each WCI Partner jurisdiction's legislative and administrative processes and acknowledges that each jurisdiction maintains sovereignty in the administration of its program.

Of particular importance is ensuring that all linked programs can take similarly effective steps in the event that a covered source does not have sufficient compliance instruments to cover its emissions for the previous compliance period. In such circumstances, requirements must apply that:

- Operate without requiring the cooperation of the covered source;
- Are non-discretionary; and
- Are of sufficient magnitude to incentivize compliance.

To achieve this common level of performance, the WCI Partner jurisdictions recommend that:

- One compliance instrument be submitted for each ton of emissions by the compliance deadline; and
- Emissions for which compliance instruments are not provided by the compliance deadline be considered "excess emissions," with the following increased compliance obligation:
  - One compliance instrument to cover each metric ton of excess emissions (the compliance requirement had compliance instruments been submitted on time); and
  - Three additional compliance instruments for each metric ton of excess emissions.

The increased compliance obligation for excess emissions does not preclude WCI Partner jurisdictions from also establishing administrative, civil and criminal penalties for non-compliance. If a WCI Partner jurisdiction is unable to implement the increased compliance obligation for excess emissions, the Partner jurisdiction may substitute a monetary payment that provides a comparable incentive for timely compliance.

### *Regional Administrative Organization*

Implementation of a regional cap-and-trade program requires coordination between WCI Partner jurisdictions in order to ensure integrity, efficiency and consistency. This coordination may be achieved through a Regional Administrative

Organization that is designed to perform the following functions to support the WCI Cap-and-Trade Program:

- Coordinate the regional auction of allowances.
- Track emissions and provide public information on progress towards the WCI Partners' emissions goals.
- Report to Partners on market activity.
- Serve as a forum for WCI Partner jurisdictions to update one another on program progress.
- Coordinate Partner review and adoption of protocols of offsets.
- Coordinate Partner review and adoption of updated reporting protocols.
- Coordinate Partner review and issuing of offsets certificates.
- Suggest criteria and means for Partners to accredit service providers to deliver validation and verification services.

The WCI Partner jurisdictions are considering creating a regional organization or retaining an existing organization to provide these services. RGGI has created a non-profit corporation, RGGI Inc., which is an example of the type of organization that the WCI Partner jurisdictions are considering.



# DOCUMENTATION

The following materials were developed by WCI committees and teams, and form the basis for the WCI program design recommendations. In most cases, white papers, technical documents, and draft recommendations were developed and/or reviewed in consultation with stakeholders through written comment, public conference calls, and meetings.

**Reporting**

- *Final Essential Requirements for Mandatory Reporting*. July 2009. Available at: http://www.westernclimateinitiative.org/component/remository/Reporting-Committee-Documents/Final-Essential-Requirements-for-Mandatory-Reporting Note: An amended version of these essential requirements, appropriate for use in the Canadian Partner jurisdiction, is under development.
- *Proposed Harmonization of Essential Requirements for Mandatory Reporting in U.S. Jurisdictions with EPA Mandatory Reporting Rule*. June 2010. Available at: http://www.westernclimateinitiative.org/component/remository/Reporting-Committee-Documents/Proposed-Harmonization-of-Essential-Requirements-for-Mandatory-Reporting-in-U.S.-Jurisdictions-with-EPA-Mandatory-Reporting-Rule
- *WCI Comments on the Proposed Mandatory Reporting of GHG Emissions from Proposed Reporting for Oil and Gas Operations (Subpart W)*. June 2010. Available at: http://www.westernclimateinitiative.org/component/remository/general/WCI-Comments-on-the-Proposed-Mandatory-Reporting-of-GHG-Emissions-from--Proposed-Reporting-for-Oil-and-Gas-Operations-(Subpart-W)

**Setting the Program Emissions Limits**

- *Guidance for Developing WCI Partner Allowance Budgets*. June 2010. Available at: http://www.westernclimateinitiative.org/component/remository/Cap-Setting--and--Allowance-Distribution-Committee-Documents/Guidance-for-Developing-WCI-Partner-Allowance-Budgets/
- *WCI Recommendations for Implementing the Offset Limit*. March 2010. Available at: http://www.westernclimateinitiative.org/component/remository/Cap-Setting--and--Allowance-Distribution-Committee-Documents/WCI-Offset-Limit-Recommendations
- *Guidance for Distributing Early Reduction Allowances*. June 2010. Available at: http://www.westernclimateinitiative.org/component/remository/Cap-Setting--and--Allowance-Distribution-Committee-Documents/Guidance-for-Distributing-Early-Reduction-Allowances/

**Electricity Sector**

- *Electricity Leakage Analysis Summary Report*. March 2009. Available at: http://www.westernclimateinitiative.org/component/remository/Electricity-Team-Documents/Electricity-Leakage-Analysis-Summary-Report
- *Electricity Imports, Exports and Leakage in the Eastern WCI Partner jurisdictions: Quebec, Ontario and Manitoba*. July 2010. Available at: http://www.westernclimateinitiative.org/component/remository/Electricity-Team-Documents/Electricity-Analysis-in-the-Eastern-WCI-Partners
- *Draft Open Access Technologies Inc. Analysis of Electricity Imports in the Western Electricity Coordinating Council (WECC) Region*. February 2010. Available at: http://www.westernclimateinitiative.org/component/remository/Electricity-Team-Documents/Draft-OATI-Analysis-(2-18-10)
- *Announcement Regarding the FJD [First Jurisdictional Deliverer] Approach*. July 2009. Available at: http://www.westernclimateinitiative.org/component/remository/Electricity-Team-Documents/Announcement-Regarding-the-FJD-Approach
- *Discussion Paper on FJD [First Jurisdictional Deliverer] Boundary Options for Regulating Electricity Imports*. January 2009. Available at: http://www.westernclimateinitiative.org/component/remository/Electricity-Team-Documents/FJD-Boundary-Options-Discussion-Paper
- *Covering Emissions From Imported Electricity: An Administrative Approach*. May 2010. Available at: http://www.westernclimateinitiative.org/component/remository/Electricity-Team-Documents/Covering-Emissions-From-Imported-Electricity-An-Administrative-Approach/

  *2007 and 2006 Draft Default Emission Factor Calculators*. February 2010. Available at: http://www.westernclimateinitiative.org/component/remository/Electricity-Team-Documents/2007-Draft-Default-Emissions-Factor-Calculator and www.westernclimateinitiative.org/component/remository/Electricity-Team-Documents/2006-Draft-Default-Emissions-Factor-Calculator. Note: Various methodologies can be used to calculate default emission factors. The WCI Electricity Team discussed these options with stakeholders on a conference call in December 2008 and developed this simplified spreadsheet approach that approximates the load duration curve modeling methodology discussed with stakeholders. The Team will develop spreadsheets for additional years as needed, and use these spreadsheets to calculate the default emission factors that will be recommended to the Partners for use by WCI jurisdictions.

- *Discussion Paper on Renewable Portfolio Standards, Renewable Energy Certificates, and GHG Accounting*. December 2008. Available at: http://www.westernclimateinitiative.org/component/remository/Electricity-Team-Documents/Discussion-Paper-Renewable-Energy-Certificates-(RECs)-Accounting
- *Treatment of Renewable Energy Credits in the WCI Cap-and-Trade Program*. May 2010. Available at: http://www.westernclimateinitiative.org/component/remository/Electricity-Team-Documents/Treatment-of-Renewable-Energy-Credits-in-the-WCI-Cap-and-Trade-Program
- *Voluntary Renewable Energy Market: Issues and Recommendations*. July 2010. http://www.westernclimateinitiative.org/component/remository/Electricity-Team-Documents/Voluntary-Renewable-Energy-Market-Issues-and-Recommendations/
- *GHG Allowance Allocation Options in the Electricity Sector*. January 2009. Available at: http://www.westernclimateinitiative.org/component/remository/Electricity-Team-Documents/Jan-15-2009-Technical-Advisory-Group-Meeting-Materials/GHG-Allowance-Allocation-Options-in-the-Electricity-Sector

**Offsets**

- *Offset System Essential Elements Final Recommendations*. June 2010. Available at: http://www.westernclimateinitiative.org/component/remository/Offsets-Committee-Documents/Offsets-System-Essential-Elements-Final-Recommendations.
- *Review of Existing Offset Protocols Against WCI Offset Criteria*. April 2010. Available at: http://www.westernclimateinitiative.org/component/remository/Offsets-Committee-Documents/WCI-Review-of-Existing-Offset-Protocols

**Auction Design**

- *Auction Design White Paper*. April 2010. Available at: http://www.westernclimateinitiative.org/component/remository/Markets-Committee-Documents/Auction-Design-White-Paper. Note: This white paper served to inform the decisions by the WCI Partner jurisdictions on auction design. See Section 9, above, for the final auction design recommendations.

**Ensuring a Well-Functioning Market**

- *Status Update on Market Oversight Recommendations*. July 2010. Available at: http://www.westernclimateinitiative.org/component/remository/Markets-Committee-Documents/Markets-Oversight-July-Status-Update

- *Market Oversight Draft Recommendations*. April 2010. Available at: http://www.westernclimateinitiative.org/component/remository/Markets-Committee-Documents/Market-Oversight-Draft-Recommendations
- *Report on Holdings Limits*. May 2010. Available at: http://www.westernclimateinitiative.org/component/remository/Markets-Committee-Documents/Report-on-Holdings-Limits

**Economic Analysis**

- *Updated Economic Analysis of the WCI Regional Cap-and-Trade Program*. July 2010. Available at: http://www.westernclimateinitiative.org/component/remository/Economic-Modeling-Team-Documents/Updated-Economic-Analysis-of-the-WCI-Regional-Cap-and-Trade-Program

# DETAILED DESIGN

## Contents

## 1. Purpose

Over the past 18 months, the Western Climate Initiative (WCI) Partner jurisdictions (the "Partners") have developed the detailed design necessary to implement the program described in their September 2008 Design Recommendations for the WCI Regional Cap-and-Trade Program. In addition to providing a detailed program design summary, this document sets out the process the Partners will use for continued cooperation in the design and implementation of individual Partner-level components of the program. This design summary represents a significant milestone in a more than 3-year cooperative effort to develop a regional cap-and-trade program that will reduce greenhouse gas (GHG) emissions and stimulate economic growth in participating Partner jurisdictions.

1.1 Brief History. This cap-and-trade design is one part of a broader cooperative effort among seven U.S. states and four Canadian provinces to reduce GHG emissions throughout their jurisdictions. The cooperative effort began in February 2007 between the governors of Arizona, California, New Mexico, Oregon and Washington, who have since been joined by the premiers of British Columbia, Manitoba, Ontario and Quebec, and the governors of Montana and Utah. These governors and premiers called for the Partners to collaborate on setting an overall regional GHG reduction goal consistent with the jurisdiction-by-jurisdiction goals, and a design for a regional multi-sector mechanism to achieve the GHG reduction goal. They also called for promotion of clean and renewable energy, increased energy efficiency, and national policies that reflect the needs and interests of the Partner jurisdictions.

1.2 Purpose and Use of this Document. Each Partner jurisdiction will seek any necessary legislative authority and develop its own administrative rules in order to participate in a WCI regional cap-and-trade program. This detailed program design is intended to inform the development of proposed legislation and/or regulatory language in Partner jurisdictions in order to enable those jurisdictions to implement state- and provincial-level cap-and-trade programs that can be linked together in a common market. This document specifies the areas of program design that are expected to be the same across all participating Partner jurisdictions in order to create that common market and those areas that may vary. This is not a model rule.

1.3 Process for Amending the Detailed Program Design. The Partners acknowledge that this detailed program design represents a starting point for individual Partner jurisdiction's participation in a WCI regional cap-and-trade program. The Partners further acknowledge that each Partner jurisdiction is subject to its own legislative and administrative processes. The basis of the WCI Regional Cap-and-Trade Program is to provide opportunities to obtain low-cost emissions reductions through emission trading on a common market, allowance banking, and inclusion of an offsets component. This common market provides for "allowances" or other compliance instruments issued by one jurisdiction to be recognized by another and "traded" across state and provincial borders. Certain elements of the program design need to be the same in order to create a functional multi-jurisdictional market, and to establish a single WCI-wide transparent carbon price. If during the development and implementation individual Partner jurisdictions find they must vary from the agreed upon design parameters but desire to remain linked to the other

implementing Partner jurisdictions, the individual Partner jurisdiction will prepare a written proposal for how the variance will not adversely affect the regional carbon market.

## 2. Definitions

*This section provides some of the key terms that a Partner jurisdiction may decide to use in the drafting of legislation or rule language. It is expected that individual Partner jurisdictions will have substantial flexibility in constructing definitions sections. Actual terms used within a Partner's law or regulation need not match the terms used here so long as they accomplish the same substantive end as the terms here defined. Partners will consider, however, instances in which the use of same terminology is beneficial to the functioning of the regional cap-and-trade market, and in those instances may recommend use of the same terminology.*

2.1 Account number. The identification number given by the program authority or its agent to each WCI Tracking System (WTS) account in accordance with WCI's numbering system. This identification number is unique within the WCI Regional Cap-and-Trade Program, and will identify the jurisdiction that opened the account.

2.2 Allocate or allocation. The distribution by the program authority of a number of allowances, either by auction, sale, or at no cost, to a covered unit or other individual for any other reason, or temporarily to an allocation set-aside or other special purpose account.

2.3 Allowance. A type of compliance instrument that is a limited authorization by the program authority or a participating jurisdiction under the Partner jurisdiction's Cap-and-Trade Program to emit up to one metric ton in carbon dioxide equivalent ($CO_2e$) of GHGs, subject to all applicable limitations contained in this detailed program design summary, that may be allocated by the program authority out of its annual allowance budget under section 5.1.

2.4 Alternate authorized account representative. For a covered source and each covered unit at the source, the natural person who is authorized by the owners and operators of the source and all covered units at the source, in accordance with 4.3.2, to represent and legally bind each owner and operator in matters pertaining to the Partner jurisdiction's Cap-and-Trade Program or, for a general account, the natural person who is authorized, under section 7.2.2.2, to transfer or otherwise dispose of compliance instruments held in the general account.

2.5 Approved trading program. A system of reducing GHG emissions external to the WCI Cap-and-Trade Program that a Partner jurisdiction, in consultation with all other participating Partner jurisdictions, determines should be linked to the Partner jurisdiction's Cap-and-Trade program under section 9 of the detailed program design summary. An approved trading program may be a program focused exclusively on project-based reductions.

2.6 Approved program compliance units. The compliance instrument from an approved trading program that may be used for compliance purposes in the Partner jurisdiction's Cap-and-Trade program,

subject to any limitations set out in this detailed program design. An approved program compliance unit can be a project-based reduction from an approved trading program.

2.7 Authorized account representative. For a covered source and each covered unit at the source, the natural person who is authorized by the owners and operators of the source and all covered units at the source, in accordance with section 4.3.1, to represent and legally bind each owner and operator in matters pertaining to the Partner jurisdiction's Cap-and-Trade Program or, for a general account, the natural person who is authorized, under 7.2.2.2, to hold, transfer, retire or cancel or otherwise dispose of compliance instruments held in the general account.

2.8 Award. The determination by the program authority of the number of Early Reduction Allowances to be issued into the compliance account of a covered unit or a covered source pursuant to section 5.2, or the determination by the program authority of the number of offset certificates to be recorded in the general account of a project sponsor pursuant to section 8.

2.9 Bilateral link or linking. The acceptance of approved program compliance units from an approved trading program to meet compliance obligations under the Partner jurisdiction's Cap-and-Trade Program, and the reciprocal approval of compliance instruments issued by participating Partner jurisdictions to meet compliance obligations in the approved trading program.

2.10 Budget emissions limitation. For a covered source, the metric-ton equivalent in verified emissions for the compliance period that is equal to the total quantity of compliance instruments in the source's compliance account and available for compliance surrender or deduction for the source on the compliance instrument surrender deadline.

2.11 Budget permit.[1] The legally binding and enforceable permit issued by the program authority pursuant to the program authority's permitting regulations, to a covered source or covered unit which specifies the Partner jurisdiction's Cap-and-Trade Program requirements applicable to the covered source and to each covered unit at the covered source, and to the owners and operators and the authorized account representative of the covered source and each covered unit.

2.12 $CO_2$ equivalent ($CO_2e$). A measure for comparing carbon dioxide with other GHGs, based on the quantity of any given GHG multiplied by its Global Warming Potential (GWP).

2.13 Combined cycle system. A system comprised of one or more combustion turbines, heat recovery steam generators, and steam turbines configured to improve overall efficiency of electricity generation or steam production.

2.14 Combustion turbine. An enclosed fossil or other fuel-fired device that is comprised of a compressor (if applicable), a combustor, and a turbine, and in which the flue gas resulting from the combustion of fuel in the combustor passes through the turbine, rotating the turbine.

[1] Some Partner jurisdictions will use permitting as one of the mechanisms for enforcing program requirements. Others will enforce requirements under their laws and regulations and through interaction with covered sources and holders of compliance instruments through the WTS.

2.15 Commence operation. To begin any mechanical, chemical, or electronic process, including, with regard to a unit, start-up of a unit's combustion chamber or start-up of any processes that produce GHG emissions. For First Jurisdictional Deliverers and fuel suppliers, to begin to deliver electricity or supply fuel into the Partner jurisdiction.

2.16 Compliance account. A WTS account, established by the program authority or its agent for a covered source under section 7.2.1, in which are held compliance instruments available for use by the source for a compliance period for the purpose of meeting the requirements of section 4.4.

2.17 Compliance instrument. An allowance, an offset certificate or an approved program compliance unit.

2.18 Compliance instruments held or hold compliance instruments. The compliance instruments recorded by the program authority or its agent, or submitted to the program authority or its agent for recordation, in accordance with section 7.2.4, in a WTS account.[2]

2.19 Compliance instrument deduction or deduct compliance instruments.[3] The permanent withdrawal of compliance instruments by the program authority or its agent from a WTS compliance account to cover the verified emissions from a covered source for a compliance period, determined in accordance with section 7.2.5, or for the forfeit or retirement of compliance instruments as provided for in this detailed program design. This constitutes the permanent removal of the compliance instrument from circulation or use in any participating Partner jurisdiction and cannot be reversed or altered by any person or jurisdiction, except to correct for compliance instruments erroneously deducted.

2.20 Compliance instrument surrender deadline.[4] Midnight of the June 30th occurring after the end of the relevant compliance period or, if that June 30th is not a business day, midnight of the first business day thereafter and is the deadline by which compliance instruments must be submitted for recordation in a covered source's compliance account surrendered in order for the source to meet the requirements of section 4.4 for the compliance period immediately preceding the deadline.[5]

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[2] This provision is consistent with past practice in U.S. cap-and-trade programs. It is important to note that there will be differences in the way that participating partner jurisdictions in Canada implement the compliance mechanism for the program. The most significant of these differences will be noted throughout this document.

[3] This method of deducting compliance instruments from a source's compliance account represents current practice in the United States. An acceptable alternative method is contained in the British Columbia legislation, where a covered sources are required to transfer surrender compliance units into its compliance account, where the surrendered compliance units will be retired by the program authority where they cannot be removed except by the program authority for compliance deduction.

[4] At present, Partner jurisdictions are considering whether the June 30th deadline is practical. If the June 30th deadline is not practical, the Partner jurisdictions will agree on the earliest practical date for a common compliance instrument surrender deadline.

[5] Some Partner jurisdictions are considering whether to require interim surrender obligations in years prior to the end of the compliance periods. Prior to making a recommendation, the Partner jurisdictions are assessing potential impacts on the compliance instrument market and the implications of interim surrender requirements varying among Partner jurisdictions.

2.21 Compliance obligation. The requirement to surrender sufficient compliance instruments to cover verified emissions during the compliance period.

2.22 Compliance period. The compliance period is a three-calendar-year time period. The first compliance period is from January 1, 2012 to December 31, 2014. Each subsequent sequential three-calendar-year period is a separate compliance period.

2.23 Covered Entity. Any entity subject to the Partner jurisdiction's Cap-and-Trade program by meeting the applicability criteria of section 3.2.

2.24 Covered source. A source that includes one or more covered units and is subject to the Partner jurisdiction's Cap-and-Trade Program requirements under section 3.2.

2.25 Covered unit. A unit that is subject to the Partner jurisdiction's Cap-and-Trade Program requirements.

2.26 Early reduction allowance. A type of allowance that is awarded to the covered source that has implemented eligible projects or activities pursuant to section 5.2.

2.27 Electricity importer.[6] An owner of imported electricity as it is delivered to the first point of delivery in the Partner jurisdiction of the final point of delivery.

2.28 Electricity Source. A stationary source that emits greenhouse gases other than from eligible biomass in the process of producing electricity for sale.

2.29 Electricity transmission and distribution operation" means all electric power transmission and distribution systems that operate gas-insulated substations, circuit breakers, other switchgear, gas insulated lines, or power transformers containing SF6 or PFC that are part of an electric power system.

2.30 Eligible biomass. Each Partner jurisdiction will define eligible biomass in its discretion, provided it must be carbon neutral. $CO_2$ emissions from combustion of eligible biomass are not included in the Partner jurisdiction's Cap-and-Trade Program, except for purposes of reporting.

2.31 Excess emissions. Each metric ton of carbon dioxide equivalent (CO2e) emitted by a covered source for which the owner or operator has not surrendered compliance instruments by the compliance instrument surrender deadline, and which therefore exceeds the budget emissions limitation for the covered source.

2.32 First Jurisdictional Deliverer or FJD. The owner or operator of an electricity source in a Partner jurisdiction, or an electricity importer that is jurisdictional to the program authority or the immediate downstream purchaser or recipient of electricity from a non-jurisdictional electricity importer.

2.33 Fossil fuel. Natural gas, petroleum, coal, or any form of solid, liquid, or gaseous fuel derived from such material.

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[6] Given the differences in electricity systems among Partner jurisdictions, it is likely that the definitions related to the first jurisdictional deliverer will vary from jurisdiction to jurisdiction.

2.34 Fossil fuel-fired. A fossil fuel-fired unit is a unit that, alone or in combination with any other fuel, combusts fossil fuels.

2.35 Fuel. A solid, liquid or gaseous combustible material.

2.36 Fuel supplier. Suppliers of petroleum products or natural gas, whether distributors or importers.

2.37 General account. A WTS account, established under section 7, which is not a compliance account and is not any other special purpose account created for this program. General accounts may be established for specific purposes required for program administration.

2.38 Greenhouse Gas or GHG. Any of the following atmospheric gases: carbon dioxide ($CO_2$), methane ($CH_4$), nitrogen trifluoride ($NF_3$), nitrous oxide ($N_2O$), sulfur hexafluoride ($SF_6$), hydrofluorocarbons (HFCs), and perfluorocarbons (PFCs).

2.39 Global Warming Potential (GWP). A measure of the radiative forcing (heat-absorbing ability) of a particular gas relative to that of carbon dioxide ($CO_2$) after taking into account the decay rate of each gas (the amount removed from the atmosphere over a given number of years) relative to that of $CO_2$. Global Warming Potentials used in this design summary are defined in Table WCI.10-1 of the *Final Essential Requirement for Mandatory Reporting*[7].

2.40 Hydrofluorocarbons or HFCs. A class of GHGs consisting of hydrogen, fluorine, and carbon, including all HFCs listed in Table WCI.10-1 of the *Final Essential Requirement for Mandatory Reporting*.

2.41 Industrial Source. Any stationary source that:

2.41.1 is not an electricity source; and

2.41.2 is in—

2.41.2.1 the manufacturing sector or other industrial sectors as defined in North American Industrial Classification System codes 21, 31, 32, and 33; or

2.41.2.2 the natural gas processing or natural gas pipeline transportation sector (as defined in North American Industrial Classification System codes 211112 or 486210).

2.42 Imported electricity. Electricity brought into a participating Partner jurisdiction that did not originate in any participating Partner jurisdiction.

2.43 Link or linking. The process by which non-Partner-jurisdiction trading programs are approved by the Partner jurisdiction, thereby qualifying approved program compliance units for use as compliance instruments in the Partner jurisdiction's Cap-and-Trade Program.

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[7] Available at: http://www.westernclimateinitiative.org/component/remository/Reporting-Committee-Documents/Final-Essential-Requirements-for-Mandatory-Reporting.

2.44 Multi-jurisdictional retail provider. A retail provider that provides electricity to consumers in the Partner jurisdiction and in one or more other participating Partner jurisdictions in a contiguous service territory.

2.45 Offset certificate. A type of compliance instrument that is awarded by the program authority in a participating Partner jurisdiction under the Partner jurisdiction's Cap-and-Trade program to the sponsor of a GHG emissions offset project subject to all applicable limitations contained in this detailed program design summary.

2.46 Offset project. An offset project includes all equipment, materials, items, or actions directly related to the reduction of GHG emissions or the sequestration of carbon specified in a registration submitted pursuant to section 8. Equipment, materials, items, or actions unrelated to an offset project reduction of GHG emissions or the sequestration of carbon, but occurring at a location where an offset project occurs, shall not be considered part of an offset project, unless specified in section 8.

2.47 Operator. Any person who operates, controls, or supervises a covered unit or a covered source and shall include, but not be limited to, any holding company, utility system, or plant manager of such a unit or source.

2.48 Output. The amount of a good or service, or intermediate feedstock, produced by a covered entity; for electricity sources, MWh of electricity produced, for industrial sources the units of production included in the Federal Reserve's Industrial Production and Capacity Utilization Report or another metric approved by the Partner jurisdiction.

2.49 Owner. Any of the following persons:

2.49.1 Any holder of any portion of the legal or equitable title in a covered unit; or

2.49.2 Any holder of a leasehold interest in a covered unit, other than either a passive lessor or a person who has an equitable interest through such lessor, whose rental payments are not based, either directly or indirectly, upon the revenues or income from the covered unit; or

2.49.3 Any purchaser of power from a covered unit under a life-of-the-unit contractual arrangement in which the purchaser controls the dispatch of the unit; or

2.49.4 With respect to any general account, any person who has an ownership interest with respect to the compliance instruments held in the general account and who is subject to the binding agreement for the authorized account representative to represent that person's ownership interest with respect to the compliance instruments.

2.50 Participating Partner jurisdiction. A jurisdiction that has adopted a corresponding regulation as part of the WCI Regional Cap-and-Trade Program and that has mutually acknowledged the compliance instruments of the Partner jurisdiction.

2.51 Partner jurisdiction's Cap-and-Trade Program. The regulatory system created in individual Partner jurisdictions informed by this detailed program design. When linked to other Partner jurisdictions' Cap-and-Trade Programs, the linked system is the WCI Regional Cap-and-Trade Program.

2.52 Perfluorocarbons or PFCs. Synthetic compounds derived from hydrocarbons through the replacement of hydrogen with fluorine atoms, including the PFCs listed in Table WCI.10-1 of the *Final Essential Requirement for Mandatory Reporting*.

2.53 Petroleum and natural gas system. Means (a) natural gas distribution facility as that term is proposed for definition in 40 CFR 98.238 in vol 75 Federal Register No. 69; (b) onshore petroleum and natural gas production facility as that term is proposed for definition in 40 CFR 98.238 in vol 75 Federal Register No. 69;[8] (c) onshore natural gas processing plants as that term is proposed for definition in 40 CFR 98.230 in vol 75 Federal Register No. 69; and (d) all other petroleum and natural gas systems that constitute a facility for purposes of application of the reporting thresholds under United States proposed regulations for reporting of GHG emissions

2.54 Point of delivery. A point on an electricity transmission or distribution system where a power supplier delivers electricity to the receiver of that electricity. This point can be an interconnection with another system or a substation where the transmission provider's transmission and distribution systems are connected to another system, or a distribution substation where electricity is imported into the Partner jurisdiction over a multi-jurisdictional retail provider's distribution system.

2.55 Process emissions. The emissions from industrial processes (e.g., cement production, ammonia production) involving chemical or physical transformations other than fuel combustion. For example, the calcination of carbonates in a kiln during cement production or the oxidation of methane in an ammonia process that results in the release of process GHG emissions to the atmosphere. Emissions from fuel combustion to provide process heat are not part of process emissions, whether the combustion is internal or external to the process equipment.

2.56 Program authority. The agency or government department charged with administering the Partner jurisdiction's Cap-and-Trade Program.

2.57 Province. Any Canadian province or territory.

2.58 Serial number. When referring to allowances and offset certificates, the unique identification number assigned to each allowance by the program authority or its agent under sections 6 and 7.2.4 in accordance with the WCI's numbering system.

2.59 Source.[9] Any governmental, institutional, commercial, or industrial structure, installation, plant, building, that emits or has the potential to emit any air pollutant; or any entity or installation that

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[8] The proposed definition aggregates certain operations based on the three digit Geological Province Code of the American Association of Petroleum Geologists. WCI Partners may also choose to aggregate all operations that are otherwise within the definition of onshore petroleum and natural gas production facility that are within their jurisdiction.

[9] The definitions of source and unit should be read to prevent the splitting of physical facilities or entities into smaller facilities or entities to avoid triggering applicable emissions thresholds. The Partner jurisdictions intend, for example, to combine the emissions from units that are located on one or more contiguous or adjacent properties; are under common control of the same owner(s) or operator(s); and form a producing unit, function as a single integrated site, or have the same first two digits of the Standard Industrial Classification or same first three digits of the North American Industry Classification System.

distributes petroleum-based or coal-based liquid fuel, petroleum coke, or natural gas liquid that when combusted will emit any air pollutant; or any entity or installation that delivers electricity generated outside participating Partner jurisdictions into a Partner jurisdiction; or any electricity transmission and distribution operation or a petroleum and natural gas system. A "source" with multiple units shall be considered a single "source."

2.60 State. Any U.S. State, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, and American Samoa and includes the Commonwealth of the Northern Mariana Islands.

2.61 Submit or serve. To send or transmit a document, information, or correspondence to the person specified in accordance with the applicable regulation.

2.62 Unit. A fossil fuel-fired stationary boiler, combustion turbine, combined cycle system, mobile non-road equipment, or any industrial process equipment that emits GHGs, or the entity or installation that distributes petroleum-based or coal-based liquid fuel, petroleum coke, or natural gas liquid that when combusted will emit any air pollutant; or the entity or installation that delivers into a Partner jurisdiction electricity generated outside participating Partner jurisdictions.

2.63 Unit operating day. A calendar day in which a unit emits any GHG.

2.64 Verification. A systematic, independent and documented process for the evaluation of a covered source's emissions data report against the Program Authority's reporting procedures and methods for calculating and reporting GHG emissions.

2.65 Verified emissions. The total number of metric tons of GHGs in $CO_2e$ emitted by a covered source, or a covered unit, quantified, monitored, reported and verified in accordance with sections 4.1 and 7.1.

2.66 Voluntary renewable energy purchase.[10] The permanent retirement of renewable energy certificates by a retail electricity customer or by a load-serving entity on behalf of its customers. The renewable energy certificates retired for a voluntary renewable energy purchase must be tracked by the program authority and generated by a VRE-eligible facility and must not have been used to comply with a mandatory renewable energy standard.

2.67 VRE-eligible facility.[11] An electricity generation facility that uses renewable resources or fuels deemed eligible by the program authority.

2.68 WCI Numbering system. The method of assigning allowances and offset certificates identifiers to indicate the vintage year, the year allocated or awarded, the participating Partner jurisdiction and order issued, and of assigning identification numbers for each WTS account.

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[10] This definition is necessary only if an optional voluntary renewable energy set-aside program is implemented by the participating Partner jurisdiction as described in 6.3.

[11] This definition is necessary only if an optional voluntary renewable energy set-aside program is implemented by the participating Partner jurisdiction as described in 6.3.

2.69 WCI Regional Cap-and-Trade Program. A multi-jurisdiction GHG emissions reduction program established consistent with this detailed program design on carbon pricing within participating Partner jurisdictions and corresponding regulations in other participating Partner jurisdictions as a means of reducing GHG emissions from covered sources.

2.70 WCI tracking system, or WTS. The tracking system that enables accounts to be established for the creation, issuance, cancellation, banking, transfer, surrendering, and deletion of compliance instruments.

## 3. Program Coverage

*Section 3 establishes the coverage of the program, including the emissions and covered emissions sources. It is expected that Partners will attempt to adhere to these coverage provisions, including the timing of coverage, and that deviations from coverage and timing requirements would need to be proposed to other Partners before linking with other Partner jurisdictions. The sections below detail the greenhouse gases covered (section 3.1), the emissions and sources covered (section 3.2) and the liability provisions for owners, and operators and first deliverers (section 3.3).*

*This document does not repeat the descriptions of the emissions reporting requirements, the foundation of the Cap-and-Trade Program that are already been described in the Final Essential Requirements for Mandatory Reporting*[12]*. It is expected that each participating Partner jurisdiction will implement emissions reporting requirements consistent with the Final Essential Requirements for Mandatory Reporting.*

3.1 Covered Gases

3.1.1 The Partner jurisdiction's Cap-and-Trade Program covers the following greenhouse gases: carbon dioxide ($CO_2$), methane ($CH_4$), nitrous oxide ($N_2O$), nitrogen trifluoride ($NF_3$), sulfur hexafluoride ($SF_6$), hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs).

3.1.2 If, from time to time, the Partners determine that an additional GHG should be covered by the program, they will confer and make a recommendation to add the GHG.

3.2 Covered Emissions Sources

Any source that, at any time, meets the requirements of paragraph 3.2.1, 3.2.2, or 3.2.3 below, shall be a covered unit or a covered source and be subject to the requirements of the Partner jurisdiction's Cap-and-Trade Program, provided if a source demonstrates that its verified emissions have fallen below the 25,000-metric-ton $CO_2e$ threshold for three consecutive calendar years, then the source may apply to the program authority for a determination that the source is no longer subject to

[12] Available at: http://www.westernclimateinitiative.org/component/remository/Reporting-Committee-Documents/Final-Essential-Requirements-for-Mandatory-Reporting.

the Partner jurisdiction's Cap-and-Trade Program.[13] In the event that a program authority determines that a source is no longer covered by the Partner jurisdiction's Cap-and-Trade Program, then it may, as a condition of its determination, require that the source return any allowances that have been distributed to the source's compliance account for years that the source will not have a compliance obligation. A program authority may also require a source receiving such a determination to accept an enforceable condition, in a permit or otherwise, limiting the source's emissions to a level below the 25,000-metric-ton $CO_2e$ threshold and/or to continue monitoring and reporting its emissions under section 4.1 below. In the event that a source receiving a determination of non-applicability under this section emits 25,000 metric tons $CO_2e$ or more in any year subsequent to the determination, that source will be once again subject to the requirements of the Partner jurisdiction's Cap-and-Trade Program beginning in the year the source reaches or exceeds the threshold.

3.2.1 Any source that emits 25,000 or more metric-tons $CO_2e$ in any calendar year in total verified emissions, excluding emissions from combustion of eligible biomass, from one or more of the activities listed in this paragraph.[14,15] This determination shall be based on the source's highest verified emissions during any year after January 1, 2009, collected pursuant to sections 4.1 and 7.1. A source will be subject to a compliance obligation beginning in 2012, or commencing in the year the source first emits 25,000 metric tons $CO_2e$ in verified emissions, whichever is later.

3.2.1.1 General stationary fuel combustion at sources.

3.2.1.2 Process or other emissions from industrial activities at sources in the following categories:

3.2.1.2.1 Adipic acid manufacturing

3.2.1.2.2 Aluminum manufacturing

3.2.1.2.3 Ammonia manufacturing

3.2.1.2.4 Cement manufacturing

3.2.1.2.5 Electricity generation

3.2.1.2.6 Electronics manufacturing

[13] Individual Partner jurisdictions may implement requirements that are more stringent for covered sources that seek a determination that the Partner jurisdiction's Cap-and-Trade Program no longer applies to them.

[14] Individual emission points within the listed sources will be examined by the Partners for applicability to the 25,000-metric-ton threshold and may be withheld if quantification methods do not form a suitable basis for market trading. Additional activities (e.g., magnesium production, underground coal mines, wastewater treatment, etc.) may be added once appropriate quantification methods have been developed.

[15] A source emitting more than 25,000 metric tons CO2e for the first time in a calendar year starting in 2012 will have reported its GHG emissions in the following calendar year. This delay might create some administrative issues when trying to cover the source for this first year it emits more than the threshold and Partner jurisdictions will work together to find ways to mitigate those issues.

3.2.1.2.7 Ferroalloy production

3.2.1.2.8 Fluorinated GHG production

3.2.1.2.9 Glass Production and other uses of carbonates

3.2.1.2.10 HCFC-22 production and HFC-23 Destruction

3.2.1.2.11 Hydrogen production

3.2.1.2.12 Iron and steel manufacturing

3.2.1.2.13 Lead production

3.2.1.2.14 Lime manufacturing

3.2.1.2.15 Nitric acid manufacturing

3.2.1.2.16 Petrochemical production

3.2.1.2.17 Petroleum and natural gas systems

3.2.1.2.18 Petroleum refineries

3.2.1.2.19 Phosphoric acid production

3.2.1.2.20 Pulp and paper manufacturing

3.2.1.2.21 SF6 emissions from electrical equipment

3.2.1.2.22 Soda ash manufacturing

3.2.1.2.23 Zinc production

3.2.1.2.24 Ore pelletization

3.2.1.2.25 Titanium dioxide production

3.2.1.2.26 Ethanol production

3.2.1.2.27 Silicon carbide production

3.2.1.2.28 Any other industrial facilities

3.2.2 Any first jurisdictional deliverer of electricity,[16] including generators, retail providers, and marketers, that provide electricity into the participating Partner jurisdiction, the production of which generates 25,000 metric tons $CO_2e$ or more in any calendar year in total verified emissions, excluding emissions from combustion of eligible biomass.[17] This determination shall be based on the source's

[16] Partner jurisdictions will consider provisions necessary to prevent entities from circumventing applicability by dividing electricity deliveries in a manner designed to stay below the applicability threshold. Partners may also chose to address electricity imports through an administrative approach, detailed below in section 6.4.

[17] A source emitting more than 25,000 metric tons CO2e for the first time in a calendar year starting in 2012 will have reported its GHG emissions in the following calendar year. This delay might create some administrative issues when trying to cover the

highest verified emissions during any year after January 1, 2009, collected pursuant to sections 4.1 and 7.1. A source will be subject to a compliance obligation beginning in 2012, or commencing in the year the source first emits 25,000 metric tons $CO_2e$ in verified emissions, whichever is later.

3.2.3 From and after January 1, 2015, any fuel supplier within the participating Partner jurisdiction that distributes liquid transportation fuel, petroleum coke, natural gas, propane, heating fuel, or any other fossil fuel sold or imported for consumption in the participating Partner jurisdiction in quantities that when combusted would emit 25,000 metric tons $CO_2e$ or more in any calendar in total verified emissions, excluding emissions from combustion of eligible biomass.[18,19] This determination shall be based on the source's highest verified emissions during any year after January 1, 2009, collected pursuant to sections 4.1 and 7.1. A source will be subject to a compliance obligation beginning in 2015, or commencing in the year the source first emits 25,000 metric tons $CO_2e$ in verified emissions, whichever is later.

3.2.4 In the event that a source does not have verified emissions data meeting the requirements of sections 4.1 and 7.1, the program authority may make the determination of applicability based on available emissions data collected pursuant to sections 4.1 and 7.1.

3.2.5 If the program authority determines that emissions data collected pursuant to the requirements of sections 4.1 and 7.1, is not available for any year after 2009, a source that commenced operation prior to January 1, 2012 may apply to use other emissions data acceptable to the program authority for that year to demonstrate that the requirements of the Partner jurisdiction's Cap-and-Trade Program do not apply.

3.3 Compliance Liability

Any provision of the Partner jurisdiction's Cap-and-Trade Program that applies to a covered source or covered unit (including those requirements applicable to the authorized account representative of a covered source or unit) shall also apply to the owners and operators of such source or unit, except that the requirements applicable to first jurisdictional deliverers and deliverers of fuel from outside the participating Partner jurisdiction shall apply only to the owners of the electricity or the fuel at the time it enters the participating Partner jurisdiction.

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source for this first year it emits more than the threshold and Partner jurisdictions will work together to find ways to mitigate those issues.

[18] WCI Partners acknowledge that individual jurisdictions may utilize other fiscal measures, such as British Columbia's carbon tax, to address transportation fuels and fuel use by residential and commercial sources that contribute to achieving overall comparable GHG emissions reductions and internalize the price of carbon as expected through the WCI Regional Cap-and-Trade Program.

[19] A source emitting more than 25,000 metric tons CO2e for the first time in a calendar year starting in 2015 will have reported its GHG emissions in the following calendar year. This delay might create some administrative issues when trying to cover the source for this first year it emits more than the threshold and Partner jurisdictions will work together to find ways to mitigate those issues.

## 4. Requirements for Covered Sources

*Section 4 details all of the requirements applicable to covered sources under the Partner jurisdiction's Cap-and-Trade Program. Although implementing language may vary from what is presented here, it is expected that Partner jurisdictions will adhere to the substance of these minimum requirements when drafting individual Partner jurisdiction laws and regulations. Partner jurisdictions may impose additional requirements on their sources. Partners jurisdictions are expected to require a covered source or entity to: (a) quantify, monitor, report, and verify emissions for purposes of determining the compliance instrument surrender requirement (section 4.1); (b) take all necessary actions to make the program requirements enforceable (section 4.2); (c) adhere to the requirements of the WTS (section 4.3); (d) surrender compliance instruments to cover emissions in the compliance period (sections 4.4 and 4.5); (e) comply with requirements to surrender additional compliance instruments in the event the source fails to meet surrender requirements by the compliance instrument surrender deadline (section 4.6); and (f) keep records available for inspection by the Partner jurisdiction for a minimum number of years (section 4.7).*

4.1 Quantification, monitoring, reporting and verification requirements

4.1.1 The owners and operators and, to the extent applicable, the authorized account representative of each covered source and each covered unit at the source shall comply with the requirements of Section 7.1 of this detailed program design summary.

4.1.2 The emissions measurements recorded and reported in accordance with Section 7.1 shall be used to determine the number of compliance instruments that must be surrendered under Section 4.4.

4.2 Making Cap-and-Trade Program requirements enforceable

Participating Partner jurisdictions will enforce program requirements contained in their laws and regulations, and through interaction with covered sources and holders of compliance instruments in the WCI tracking system. Some participating Partner jurisdictions may also incorporate program requirements in the permits of covered sources.

4.3 Authorized account representative requirements

4.3.1 Authorization and responsibilities of the authorized account representative

4.3.1.1 Except as provided under section 4.3.2, each covered source, including all covered units at the source, shall authorize as their agent one and only one authorized account representative, with regard to all matters under the Partner jurisdiction's Cap-and-Trade Program concerning the source or any covered unit at the source.

4.3.1.2 As determined by each Partner jurisdiction, the authorized account representative of the covered source shall be selected by an agreement binding on the owners and operators of the source and all covered units at the source.

4.3.1.3 Upon receipt by the program authority or its agent of a complete account certificate of representation under section 4.3., the authorized account representative of the source shall

represent and, by his or her representations, actions, inactions, or submissions, legally bind each owner and operator of the covered source represented and each covered unit at the source in all matters pertaining to the Partner jurisdiction's Cap-and-Trade Program, notwithstanding any agreement between the authorized account representative and such owners and operators. The owners and operators shall be bound by any decision or order issued to the authorized account representative, by the program authority, or a court regarding the source or unit.

4.3.1.4 No WTS account shall be established for a covered source or covered unit, until the program authority or its agent has received a complete account certificate of representation under section 4.3.4 for an authorized account representative of the source and the covered units at the source.

4.3.1.5 Each submission under the Partner jurisdiction's Cap-and-Trade Program shall be submitted, signed, and certified by the authorized account representative for each covered source and covered unit on behalf of which the submission is made. Each such submission shall include the following certification statement by the authorized account representative: "I am authorized to make this submission on behalf of the owners and operators of the covered sources or covered units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment."

4.3.1.6 The program authority or its agent will accept or act on a submission made on behalf of owners or operators of a covered source or a covered unit only if the submission has been made, signed, and certified in accordance with section 4.3.1.5.

4.3.2 Alternate authorized account representative

4.3.2.1 An account certificate of representation may designate one and only one alternate authorized account representative who may act on behalf of the authorized account representative. The agreement by which the alternate authorized account representative is selected shall include a procedure for authorizing the alternate authorized account representative to act in lieu of the authorized account representative.

4.3.2.2 Upon receipt by the program authority or its agent of a complete account certificate of representation under section 4.3.3, any representation, action, inaction, or submission by the alternate authorized account representative shall be deemed to be a representation, action, inaction, or submission by the authorized account representative.

4.3.2.3 Except in this section and sections 4.3.1.1, 4.3.2, 4.3.3, and 7.2.2.2, whenever the term "authorized account representative" is used in this detailed program design, the term shall be construed to include the alternate authorized account representative.

4.3.3 Changing the authorized account representative and the alternate authorized account representative; changes in owners or operators

4.3.3.1 Changing the authorized account representative. The authorized account representative may be changed at any time upon receipt by the program authority or its agent of a superseding complete account certificate of representation under section 4.3.4. Notwithstanding any such change, all representations, actions, inactions, and submissions by the previous authorized account representative or alternate authorized account representative prior to the time and date when the program authority or its agent receives the superseding account certificate of representation shall be binding on the new authorized account representative and the owners and operators of the covered source and the covered units at the source.

4.3.3.2 Changing the alternate authorized account representative. The alternate authorized account representative may be changed at any time upon receipt by the program authority or its agent of a superseding complete account certificate of representation under section 4.3.4. Notwithstanding any such change, all representations, actions, inactions, and submissions by the previous or alternate authorized account representative or alternate authorized account representative prior to the time and date when the program authority or its agent receives the superseding account certificate of representation shall be binding on the new alternate authorized account representative and the owners and operators of the covered source and the covered units at the source.

4.3.3.3 Changes in the owners and operators

4.3.3.3.1 In the event a new owner or operator of a covered source or a covered unit is not included in the list of owners and operators submitted in the account certificate of representation, such new owner or operator shall be deemed to be subject to and bound by the account certificate of representation, the representations, actions, inactions, and submissions of the authorized account representative and any alternate authorized account representative of the source or unit, and the decisions, orders, actions, and inactions of the program authority, as if the new owner or operator were included in such list.

4.3.3.3.2 Within 30 days following any change in the owners and operators of a covered source or a covered unit, including the addition of a new owner or operator, the authorized account representative or alternate authorized account representative shall submit a revision to the account certificate of representation amending the list of owners and operators to include the change.

4.3.4 Account certificate of representation

4.3.4.1 A complete account certificate of representation for an authorized account representative or an alternate authorized account representative shall include the following elements in a format prescribed by the program authority or its agent:

4.3.4.1.1 Identification of the covered source and each covered unit at the source for which the account certificate of representation is submitted;

4.3.4.1.2 The name, address, email address, telephone number, and facsimile transmission number of the authorized account representative and any alternate authorized account representative;

4.3.4.1.3 A list of the owners and operators of the covered source and of each covered unit at the source;

4.3.4.1.4 The following certification statement by the authorized account representative and any alternate authorized account representative: "I certify that I was selected as the authorized account representative or alternate authorized account representative, as applicable, by an agreement binding on the owners and operators of the covered source and each covered unit at the source. I certify that I have all the necessary authority to carry out my duties and responsibilities under the Partner jurisdiction's Cap-and-Trade Program the owners and operators of the covered source and of each covered unit at the source and that each such owner and operator shall be fully bound by my representations, actions, inactions, or submissions and by any decision or order issued to me by the program authority or a court regarding the source or unit."; and

4.3.4.1.5 The signature of the authorized account representative and any alternate authorized account representative and the dates signed.

4.3.4.2 Unless otherwise required by the program authority or its agent, documents of agreement referred to in the account certificate of representation shall be submitted to the program authority or its agent. Neither the program authority nor its agent shall be under any obligation to review or evaluate the sufficiency of such documents when submitted.

4.3.5 Objections concerning the authorized account representative

4.3.5.1 Once a complete account certificate of representation under section 4.3.4 has been submitted and received, the program authority and its agent will rely on the account certificate of representation unless and until the program authority or its agent receives a superseding complete account certificate of representation under section 4.3.4.

4.3.5.2 Except as provided in subdivision 4.3.3.1 and 4.3.3.2, no objection or other communication submitted to the program authority or its agent concerning the authorization, or any representation, action, inaction, or submission of the authorized account representative shall affect any representation, action, inaction, or submission of the authorized account representative or the finality of any decision or order by the program authority or its agent under the Partner jurisdiction's Cap-and-Trade Program.

4.3.5.3 Neither the program authority nor its agent will adjudicate any private legal dispute concerning the authorization or any representation, action, inaction, or submission of any authorized account representative, including private legal disputes concerning the proceeds of compliance instrument transfers.

4.3.6 Delegation by authorized account representative and alternate authorized account representative

4.3.6.1 An authorized account representative may delegate, to one or more natural persons, his or her authority to make an electronic submission to the program authority or its agent under this program.

4.3.6.2 An alternate authorized account representative may delegate, to one or more natural persons, his or her authority to make an electronic submission to the program authority or its agent under this program.

4.3.6.3 In order to delegate authority to make an electronic submission to the program authority or its agent in accordance with sections 4.3.6.1 and 4.3.6.2, the authorized account representative or alternate authorized account representative, as appropriate, must submit to the program authority or its agent a notice of delegation, in a format prescribed by the program authority that includes the following elements:

4.3.6.3.1 The name, address, email address, telephone number, and facsimile transmission number of such authorized account representative or alternate authorized account representative;

4.3.6.3.2 The name, address, email address, telephone number and facsimile transmission number of each such natural person;

4.3.6.3.3 For each such natural person, a list of the type of electronic submissions under sections 4.3.6.1 and 4.3.6.2 for which authority is delegated to him or her; and

4.3.6.3.4 The following certification statements by such authorized account representative or alternate authorized account representative:

4.3.6.3.4.1 "I agree that any electronic submission to the program authority or its agent that is by a natural person identified in this notice of delegation and of a type listed for such electronic submission agent in this notice of delegation and that is made when I am an authorized account representative or alternate authorized account representative, as appropriate, and before this notice of delegation is superseded by another notice of delegation under section 4.3.6.4 shall be deemed to be an electronic submission by me."

4.3.6.3.4.2 "Until this notice of delegation is superseded by another notice of delegation under section 4.3.6.4, I agree to maintain an email account and to notify the program authority or its agent immediately of any change in my email address unless all delegation authority by me under section 4.3.6 is terminated."

4.3.6.4 A notice of delegation submitted under section 4.3.6.3 shall be effective, with regard to the authorized account representative or alternate authorized account representative identified in such notice, upon receipt of such notice by the program authority or its agent and until receipt by the program authority or its agent of a superseding notice of delegation by such authorized account representative or alternate authorized account representative as appropriate. The superseding notice of delegation may replace any previously identified electronic submission agent, add a new electronic submission agent, or eliminate entirely any delegation of authority.

4.3.6.5 Any electronic submission covered by the certification statement in section 4.3.6.3.4.1, and made in accordance with a notice of delegation effective under section 4.3.6.4, shall be deemed to be an electronic submission by the authorized account representative or alternate authorized account representative submitting such notice of delegation.

4.3.7 Following the establishment of a WTS account under section 7.2, all submissions to the program authority or its agent pertaining to the account, including, but not limited to, submissions concerning the deduction or requests to surrender or transfer of compliance instruments from in the account, shall be made only by the authorized account representative for the account or someone with delegated authority under section 4.3.6.

4.4 Compliance instrument surrender requirement

4.4.1 The owners and operators of each covered source and each covered unit shall surrender a number of compliance instruments equal to the total verified emissions from that covered source by available for compliance deductions under section 7.2.5, not exceeding the offset certificate usage limit established by the program authority, as of the compliance instrument surrender deadline at the latest.

4.4.2 Each metric ton of verified emissions emitted in excess of the number of compliance instruments surrendered or deducted (i.e., emissions exceeding the budget emissions limitation) shall constitute a separate violation of program requirements and applicable law.

4.4.3 A covered unit shall be subject to the requirements under section 4.4.1 starting on the later of January 1, 2012 or the date on which the unit commences operation and meets the applicability requirements of section 3.2.

4.4.4 Compliance instruments shall be held in, surrendered to or deducted from, or transferred among WTS accounts in accordance with sections 4.3, 4.4, 4.5, 4.6, and 7.2.

4.4.5 A compliance instrument shall not be surrendered/deducted, in order to comply with the requirements under section 4.4.1, for a compliance period that ends prior to the year for which the compliance instrument was allocated or issued.[20] An offset certificate or an approved program compliance unit shall not be surrendered or deducted, in order to comply with the requirements under section 4.4.1, beyond the applicable percent limitations on the use of offsets established by the program authority.

4.4.6 A compliance instrument under the Partner jurisdiction's Cap-and-Trade Program is a limited authorization by the program authority or a participating Partner jurisdiction to emit one metric ton of $CO_2e$ in accordance with the Partner jurisdiction's Cap-and-Trade Program. The program authority or a participating Partner jurisdiction shall retain the right to terminate or limit such authorization.

[20] Partner jurisdictions are considering additional mechanisms to address cost risks. Among the options under consideration is the limited use for compliance of allowances that are already owned and that were allocated or issued for future compliance periods.

4.4.7 A compliance instrument under the Partner jurisdiction's Cap-and-Trade Program does not constitute a property right for any purpose.

4.5 Compliance certification requirement[21]

4.5.1 Applicability and deadline for submission. For each compliance period in which a covered source is subject to the surrender requirements of section 4.5.3, the authorized account representative of the source shall submit to the program authority or its agent by midnight on June 30th following the relevant compliance period, a compliance certification report.[22]

4.5.2 Contents of report. The authorized account representative shall include in the compliance certification report under section 4.5.1 the following elements, in a format prescribed by the program authority:

4.5.2.1 Identification of the source and each covered unit at the source;

4.5.2.2 The total metric tons of GHG emissions in $CO_2e$ from the source and each covered unit at the source, monitored, reported, and verified in compliance with sections 4.1 and 7.1;

4.5.2.3 At the authorized account representative's option, the serial numbers of the compliance instruments that are to be surrendered and/or deducted from the covered source's compliance account under section 7.2.5 for the compliance period, including the serial numbers of any offset certificates that are to be surrendered and/or deducted subject to the limit on the use of offsets certificates established by the program authority; and

4.5.2.4 The compliance certification under section 4.5.3.

4.5.3 Compliance certification. In the compliance certification report under 4.5.3.1 of this section, the authorized account representative shall certify, based on reasonable inquiry of those persons with primary responsibility for operating the source and the covered units at the source in compliance with the Partner jurisdiction's Cap-and-Trade Program, whether the source and each covered unit at the source for which the compliance certification is submitted was operated during the calendar years covered by the report in compliance with the requirements of the Partner jurisdiction's Cap-and-Trade Program. The compliance certification report shall include the following information:

4.5.3.1 Whether the covered source was operated in compliance with the requirements of section 4.4 (compliance instrument surrender requirements); and

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[21] This requirement to provide a certification report is included as just one example of how compliance instrument surrender and deductions might be handled by a Partner jurisdiction. It is possible to carry out this mechanism without a certification statement.

[22] At present, Partner jurisdictions are considering whether the June 30th deadline is practical. If the June 30th deadline is not practical, the Partner jurisdictions will agree on the earliest practical date for a common compliance instrument surrender deadline. Some Partner jurisdictions are also considering whether to require interim surrender obligations in years prior to the end of the compliance periods. Prior to making a recommendation, the Partner jurisdictions are assessing potential impacts on the compliance instrument market and the implications of interim surrender requirements varying among Partner jurisdictions.

4.5.3.2 Whether the source was operated in compliance with the requirements of section 4.1 (emissions monitoring and reporting requirements).

4.6 Additional requirements in the event of non-compliance. The owners and operators of a covered source that has excess emissions in any compliance period shall:

4.6.1 Forfeit the compliance instruments required for surrender and/or deduction under section 7.2.5.4, provided offset certificates shall not be used to cover such excess emissions; and

4.6.2 Pay any fine, penalty, or assessment or comply with any other remedy imposed under the Partner jurisdiction's other laws and regulations.

4.7 Recordkeeping requirements

4.7.1 Unless otherwise provided, the owners and operators of the covered source and each covered unit at the source shall keep on site at the source each of the following documents for a period of 7 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 7 years, in writing by the program authority.

4.7.1.1 The account certificate of representation for the authorized account representative for the source and each covered unit at the source and all documents relied on as a basis for the statements in the account certificate of representation, in accordance with section 4.5.3, provided that the certificate and documents shall be retained on site at the source beyond such 7-year period until such documents are superseded because of the submission of a new account certificate of representation changing the authorized account representative.

4.7.1.2 All emissions monitoring information, (including information regarding gaps in or a lack of monitoring) in accordance with [*Refer to program authority's reporting rule*].

4.7.1.3 Copies of all reports, compliance certifications, and other submissions and all records made or required under the Partner jurisdiction's Cap-and-Trade Program.

4.7.1.4 Copies of all documents referenced or relied on to complete a covered permit application (if applicable) and any other submission under the Partner jurisdiction's Cap-and-Trade Program or to demonstrate compliance with the requirements of the Partner jurisdiction's Cap-and-Trade Program.

4.7.2 The authorized account representative of a covered source and each covered unit at the source shall submit the compliance reports and compliance certifications to the program authority required under the Partner jurisdiction's Cap-and-Trade Program, including those under section 4.5.3.

## 5. Compliance Instruments

*Section 5 details the compliance instruments that may be issued and recognized in the Partner jurisdiction's Cap-and-Trade Program. It is expected that each participating Partner jurisdiction will adopt allowance budget-setting processes (section 5.1), as well as provisions to issue and accept early*

*reduction allowances (section 5.2), issue offset certificates (section 5.3) and accept approved compliance unit provisions (section 5.4) of this detailed program summary. In the event that a participating Partner jurisdiction wishes to issue a compliance instrument not agreed to below, or to recognize as a compliance instrument allowances or offsets that are not contemplated in this design summary, the participating Partner jurisdiction will first raise the proposal with the other participating Partner jurisdictions to ensure that any linking arrangements can be preserved.*

5.1. Establishing annual allowance budgets

The process for establishing annual allowance budgets for each Partner jurisdiction is detailed in *Guidance for Developing WCI Partner Allowance Budgets*.[23]

5.2. Early reduction allowances (ERAs)

The program authority may award early reduction allowances (ERAs) to a covered source for certain reductions in the covered source's GHG emissions that are achieved by the source during the early reduction eligibility period in accordance with the requirements of this section.

5.2.1. Eligibility

5.2.1.1. General requirements. Early reduction allowances may be awarded for a clearly identified project or action carried out at a covered source during the eligibility period that meets all criteria under this Section 5.2.

5.2.1.2. Government-controlled covered sources. Covered sources that are government controlled are eligible to receive ERAs provided they meet all requirements of this section 5.2.

5.2.1.3. Eligibility period. The program authority may issue ERAs for eligible ERA projects that reduce emissions on or after January 1, 2008 and prior to January 1, 2012.

5.2.2. Criteria applicable to all ERA projects

5.2.2.1. Real. To be eligible for the award of ERAs, the project must produce a reduction or removal of one metric ton of $CO_2e$ for each ERA, without any increase in emissions intensity at the covered source. A reduction is not considered real if it comes from a decrease in production alone or from a shutdown or a closure of a source or a facility. Instead, the covered source must demonstrate a reduction in emissions intensity and a reduction in absolute emissions during the eligibility period. A Partner jurisdiction may also require sources or facilities to show reductions are beyond best practice standards. Best practice standards can be defined by the Partner jurisdiction for certain types of covered sources. An applicant covered source may be required to prepare an evaluation demonstrating their actions are beyond best practices in their industry.

[23] Available at http://www.westernclimateinitiative.org/component/remository/Cap-Setting--and--Allowance-Distribution-Committee-Documents/Guidance-for-Developing-WCI-Partner-Allowance-Budgets/.

5.2.2.2. Voluntary. An ERA project and the accompanying reductions in emissions must be surplus to any requirements from existing legislation, regulation, executive order and other regulatory obligations.

5.2.2.3. Permanent. To be eligible for the award of ERAs, the project must produce a reduction or removal that is permanent. For ERAs, permanent means that the reductions or removals are not reversible.[24]

5.2.2.4. Additional. To be eligible for the award of ERAs, the project must produce a reduction or removal that might have been deferred until after the start of the Partner jurisdiction's Cap-and-Trade Program. A reduction or removal will be deemed additional if:

5.2.2.4.1. The ERA project was initiated during the eligibility period;

5.2.2.4.2. The annual GHG emissions and emissions intensity for the period of time ERAs are requested are below the annual averages of absolute emissions and emission intensity for the years 2005 to 2007; and

5.2.2.4.3. If the project or action is fuel switching, the fuel to which the covered source switched was more costly during the eligibility period than the fuel from which the covered source switched, or the covered source underwent an equipment change during the eligibility period to enable the switch to a lower-carbon fuel.

5.2.2.5. Verifiable. To be eligible for the award of ERAs, the project must produce a reduction or removal that is verifiable. For ERAs, verifiable means that the reduction or removal has been well documented and transparent, such that an objective review is possible by a Partner jurisdiction or a certified verifier.

5.2.2.6. Ownership. To be eligible for the award of ERAs, the applicant covered source must demonstrate that it owns the emissions reductions resulting from the project or action.

5.2.2.7. Enforceable. To be eligible for the award of ERAs, the applicant covered source must be accountable to the Partner jurisdiction for all statements and information provided regarding the application for ERAs.

5.2.3. Application by covered source

5.2.3.1. Application deadline. All applications for the award of ERAs must be filed with the Partner jurisdiction where the reductions and removals that are the subject of the application took place no later than July 1, 2012.

[24] For carbon capture and storage projects, the Partner jurisdiction must (a) have in place monitoring and verification requirements that are sufficient to enable the Partner jurisdiction to establish that the sequestration is permanent; (b) have the ability to assure that ERAs will be replaced where a reversal occurs; and (c) apply these requirements to the applicable project.

5.2.3.2. Application forms and consultation. Partner jurisdictions may request any applications be made using forms developed in consultation with other participating Partner jurisdictions. Applicants may also be provided with pre-application consultation with the Partner jurisdiction.

5.2.4. Quantification of reductions

5.2.4.1. Data requirements

5.2.4.1.1. Emissions. All quantification of reductions under this section 5.2 shall be done using verified emissions data or equivalent methods approved by the Partner jurisdiction.

5.2.4.1.2. Output.[25] Reliable measures of covered source output will be prescribed by the Partner jurisdiction for purposes of quantifying reductions. Output is the amount of a good or service produced by a covered source.

5.2.4.1.3. Verification and recordkeeping. All emissions and output reports used to establish ERA baselines or calculate ERAs must be verified by an independent third party approved by the Partner jurisdiction or the program authority. The applicant covered source must retain all records relating to the ERA application for a period of at least 7 years and submit, under request, all documents related to the quantification of the reduction or removal.

5.2.4.2. Quantification by covered source. ERAs will be calculated based on the cumulative reductions during the eligibility period at the covered source, to be calculated as follows:

If $I_{base} \leq I_{ERA}$, then:
Total ERAs Awarded = 0

If $I_{base} > I_{ERA}$, then:
Total ERAs Awarded = $A \times (E_{base} - E_{ERA})$ If $P_{base} \leq P_{ERA}$
Total ERAs Awarded = $[A \times (E_{base} - E_{ERA})] \times (P_{ERA}/P_{base})$ If $P_{base} > P_{ERA}$

Where:
**A** is the number of consecutive calendar years from when the ERA project/action begins and the end of 2011. The applicant will indicate the number of years for which he requests ERAs.

$\mathbf{E_{base}}$ and $\mathbf{P_{base}}$ are the average yearly emissions and production from January 1, 2005 to the end of 2007.

$\mathbf{E_{ERA}}$ and $\mathbf{P_{ERA}}$ are the average yearly emissions and production during the years where the applicant covered source is seeking ERAs (i.e. the number of consecutive calendar years from when the ERA project begins and the end of 2011).

[25] Electricity generators should report net MWh of electricity produced. Industrial sources should use standardized forms of reporting, where such data is available. For example, industrial sources located in the U.S. could report production using the same metrics as provided to the Federal Reserve for their *Industrial Production and Capacity Utilization Report*. However, in the event that such metrics are not accurate measures of output for a particularly class of sources, then WCI partner jurisdictions may wish to allow those sources to propose alternative metrics. To mitigate gaming, facilities should use the same metric for approximating output in both the base period (years 2005 to 2007) and the early reduction period (years 2008 to 2012).

$I_{base}$ is the average emission intensity (emissions per unit of output) of the base period (2005-2007) for the applicant covered source

$I_{ERA}$ is the average emission intensity (emissions per unit of output) during the years for which the applicant the applicant covered source is seeking ERAs (i.e. the number of consecutive calendar years from when the ERA project begins and the end of 2011).

When using the above equations, the applicant covered source should use entire calendar years. Thus, the ERA period must start either on January 1, 2008, January 1, 2009, January 1, 2010, or January 1, 2011.

5.2.5. Award by program authority without application

5.2.5.1. Requirements. A Partner jurisdiction may, in lieu of requiring an application from a covered source, award ERAs to a covered source upon a finding that the covered source has undertaken a project or action meeting the requirements of sections 5.2.1 and 5.2.2.

5.2.5.2. Quantification of ERAs by program authority. A Partner jurisdiction may quantify ERAs on its own motion, provided the Partner jurisdiction has access to the data required in section 5.2.4.1, and utilizes the quantification methodology prescribed in section 5.2.4.2, and the information used is verified by a government agency or independent third party.

5.2.5.3. The information used to determine the number of ERAs a Partner jurisdiction expects to award will be verified by a government agency or independent third party after the reductions take place. In the case emissions reductions are lower than expected; the total number of ERAs to be awarded will be reduced to reflect actual reductions that took place during the eligibility period.

5.2.6. Special provisions for specific ERA types

This section provides additional guidance for project types that present unique challenges to ensuring that their emissions reductions are voluntary, additional, real, verifiable, permanent, and enforceable.

5.2.6.1. Fuel switching. Switching from high to low carbon intensity fuels can help a covered source reduce its GHG emissions. Sometimes fuel switching will occur naturally due to changes in relative fuel prices. To ensure that ERAs are only rewarded for projects adopted due to the ERA program, fuel switching projects should only qualify for reductions if the fuel switched to is more costly during the ERA period than the fuel switched from, or if the covered source underwent an equipment change during the ERA period to enable the switch to a lower carbon fuel. As discussed previously under section 5.2.2.6, applicants must demonstrate that they have ownership over the emissions reductions for which they are applying for ERAs. Therefore, if an applicant covered source wishes to receive ERAs for switching from a high to a low carbon fuel, then they must demonstrate that the reductions are not also being claimed by the fuel provider and thus double counted in any other regulatory or voluntary program (e.g., to meet renewable fuel standards or low carbon fuel standards).

5.2.6.2. Fuel providers. Fuel providers can receive ERAs for a reduction in on-site emissions. They can also receive ERAs for reductions that result from the reduction in the carbon intensity of the provided fuel, through the use of lower-carbon, or carbon-neutral sources. However, for such reductions to qualify for ERAs, they cannot contribute to compliance with any required low carbon

fuel standard or renewable fuel standard. Reductions in fuel sales are not eligible for ERAs because such projects do not result in a reduction in the intensity of emissions. As discussed previously under section 5.2.2.6, applicants must demonstrate that they have ownership over the emissions reductions for which they are applying for ERAs. Therefore, if an applicant covered source wishes to receive ERAs for reducing the carbon intensity of their fuels, then they must demonstrate that the reductions are not also being claimed by the user of the fuel and thus double counted in any other regulatory or voluntary program (e.g., as ERAs or as offsets in a voluntary registry). Also, the applicant must demonstrate that the reductions are indeed voluntary, and are not being used to meet renewable or low carbon fuel standards.

5.2.6.3. Electricity importers. ERAs may be issued to first jurisdictional deliverers of electricity imported into a participating Partner jurisdiction originating outside of participating Partner jurisdictions, assuming it meets all other criteria outlined in this section 5.2. A first jurisdictional deliverer would apply to the Partner jurisdiction with which they have a compliance obligation. To qualify as an ERA, the FJD will need to show ownership of a qualifying reduction in both absolute emissions and emissions intensity at a specific facility whose power is produced for consumption within the WCI Partner jurisdiction.

5.2.7. Timing of award among participating Partner jurisdictions. The award of ERAs will occur on the same day no later than the first quarter of 2013 after information concerning the number of ERAs to be issued is announced publicly.

5.3 Offset certificates

The program authority may accept offset certificates as a compliance instrument awarded in accordance with Section 8, provided acceptance of offset certificates is subject to the limitation to be established by the program authority.

5.4 Approved program compliance units

The program authority may accept approved program compliance units as a compliance instrument, provided acceptance of approved program compliance units is subject to the limitation on the use of such units to be established by the program authority. The Partner jurisdiction will develop, in consultation with other participating Partner jurisdictions, a mechanism to ensure the validity of external compliance units and to make sure those units can only be used once for compliance by any program.

## 6. Distributing Allowances

*Section 6 relates to the distribution of allowances. The Partner jurisdictions have largely left allowance distribution decisions open to the discretion of each Partner jurisdiction, with the exception of the process-related agreements detailed below concerning timing and notice of distributions (section 6.1), and the use of a common auction platform (section 6.2). In addition, two optional set-aside provisions are included relating to recognition of voluntary renewable energy purchases (section 6.3) and the administrative approach to covering electricity imports (section 6.4).Participating Partner jurisdictions can choose to freely allocate allowances from within their allowance budgets (e.g., to entities that export*

*renewable hydroelectricity outside participating Partner jurisdictions in order to acknowledge the importance of renewable energy in reducing GHG emissions).*

6.1 Allowance decisions and competitiveness

Each Partner jurisdiction will (a) notify other Partners in advance of the first compliance period, and at least one year before the beginning of each subsequent compliance period, about the total quantity of allowances it will allocate for that period; how and when it proposes allowances will be distributed, including if and how it will take into account the need to provide access to allowances for new entrants; and what will happen to allowances if a covered source shuts down; and (b) discuss and seek to address any competitiveness issues or concerns another Partner may have about the Partner's allowance distribution method. WCI Partner jurisdictions may standardize the distribution of allowances as necessary to address competitive impacts in advance of the first compliance period. After January 1, 2012, any public disclosure of information pertaining to the quantity of allowances that will be allocated; how and when those allowances will be distributed, including allowances for new entrants and the treatment of covered sources that have shut down, will be done in a coordinated manner among Partner jurisdictions to minimize the risk of inappropriate market impacts.

6.2 Coordinated auctions

Allowances to be auctioned will be sold through regionally coordinated auctions, which would be run in accordance with the auction design recommendations contained in Section 9 of the Detailed Summary.

6.3 Voluntary renewable energy set-aside allocation[26]

6.3.1 For each compliance period in which the WCI Partner jurisdiction chooses to maintain the program, the Partner Jurisdiction shall allocate to the voluntary renewable energy set-aside account a certain number of allowances, calculated as set forth below, from the Partner jurisdiction's Cap-and-Trade Program base budget. The program authority will open an account and administer the voluntary renewable energy set-aside program.

6.3.1.1 The number of allowances allocated to the voluntary renewable energy market set-aside account in a specific compliance period is determined by first projecting the amount of electricity used for voluntary renewable energy purchases produced by VRE-eligible facilities in that WCI Partner jurisdiction.[27] Each WCI Partner jurisdiction shall determine which technologies or fuel sources are eligible for its program. The estimate of voluntary renewable energy purchases shall be made regardless of the location of the purchaser. The megawatt-hours (MWh) of projected voluntary renewable energy purchases in the compliance period shall be multiplied by an appropriate greenhouse gas

[26] Implementation of the voluntary renewable energy set-aside program is optional at the discretion of each Partner jurisdiction.

[27] A WCI Partner jurisdiction may also wish to add the following program element to the end of this sentence, "or produced by VRE-eligible facilities not located in a participating Partner jurisdiction and sold on a specified basis in the Partner jurisdiction." See the discussion in *Voluntary Renewable Energy Market: Issues and Recommendations* for more information.

emissions rate, as determined by the program authority. A Partner jurisdiction may elect to limit the total allowances allocated to such an account.

6.3.1.2 As of the December 31 that is after the end of a compliance period for which an allocation has been made to the voluntary renewable energy set-aside account, the program authority shall determine the actual MWh of voluntary renewable energy purchases that occurred during the compliance period. To the extent possible, the program authority will use established renewable energy credit tracking systems that span some or all of the participating Partner jurisdictions, such as the Western Renewable Energy Generation Information System. The program authority shall retire allowances in the voluntary renewable energy set-aside account in an amount up to the number of allowances represented by actual voluntary renewable energy purchases multiplied by the emissions factor used in 6.3.1.1 above.

6.3.1.3 If following the end of a compliance period, the number of allowances allocated to the voluntary renewable energy set-aside account is less than the number of allowances represented by the actual MWh of voluntary renewable energy purchases during the compliance period multiplied by the emissions factor, the program authority will make up the difference by retiring unallocated allowances remaining from the previous compliance period, adding the difference between allowances represented by actual purchases and allowances held in the set-aside account to the projection for the following compliance period, or a combination of the two. If following the end of a compliance period, the number of allowances allocated to the voluntary renewable energy set-aside account is greater than the number of allowances represented by the actual MWh of voluntary renewable energy purchases during the compliance period, the program authority will add the allowances remaining in the set-aside from the previous compliance period to the allowances dedicated to a purpose chosen by the Partner jurisdiction.

6.4 Administrative approach to covering first jurisdictional deliverers

In lieu of covering first jurisdictional deliverers as covered sources under the Partner jurisdiction Cap-and-Trade Program, a Partner jurisdiction may chose to cover emissions attributable to imported electricity through the administrative approach detailed in *Covering Emissions from Imported Electricity: An Administrative Approach*.[28] This approach calls for the creation of an optional reserve pool of allowances, a portion of which are to be retired to cover the emissions attributable to imported electricity during the compliance period.

[28] Available at http://www.westernclimateinitiative.org/component/remository/Electricity-Team-Documents/Covering-Emissions-From-Imported-Electricity-An-Administrative-Approach.

## 7. Administration of the Program by the Program Authority

*Section 7 details the implementation responsibilities of the participating Partner jurisdiction, including: (a) the rules for emissions monitoring and reporting (section 7.1), and (b) the operating parameters for the emissions and allowance tracking system (section 7.2).*

7.1 Quantification, monitoring, verification, reporting and recordkeeping requirements

Owners and operators, and to the extent applicable, the authorized account representative of a covered unit, shall comply with the monitoring, recordkeeping and reporting requirements as provided in the Essential Requirements of Mandatory Reporting.

7.2 Emissions and compliance instrument tracking system.[29]

This section relates the tracking system that participating Partner jurisdictions will establish and maintain. The tracking system will (a) be a standardized electronic database, accessible online; (b) contain separate accounts to record the compliance instruments held by each person; (c) ensure there are no transfers that are incompatible with the rules implementing the cap-and-trade program in different jurisdictions; (d) provide for public access to certain information and confidentiality as appropriate; (e) restrict certain functions to account holders, to authorized staff of regulatory authorities, or to system maintenance service providers; and (f) have the ability to generate specific public reports and customized reports for regulatory authorities.

7.2.1 Establish compliance accounts for covered sources

7.2.1.1 Nature and function of compliance accounts. Consistent with section 7.2.1.2, the program authority or its agent will establish (or require each covered source to establish) one compliance account for each covered source. Surrenders, deductions or transfers of compliance instruments pursuant to sections 7.2.5 and 7.2.6 will be recorded in the tracking system. *[Allowances allocated to covered sources under sections 6 and 7.2.4 will be recorded in the compliance or general accounts.]*

7.2.1.2 Establishment of compliance accounts. Upon receipt of a complete account certificate of representation under section 4.3.4, the program authority or its agent will establish a compliance account for each covered source for which the account certificate of representation was submitted.

7.2.2 Establish general accounts

7.2.2.1 Nature and function of general accounts. Consistent with section 7.2.2.2, the program authority or its agent will establish, upon request, a general account that any person that meets the requirements outlined in 7.2.2 can obtain. Transfers of compliance instruments under this section will be recorded in the tracking system.

[29] Wherever submissions are required in the tracking system, electronic submissions are anticipated.

7.2.2.2 Establishment of general accounts upon application. Any person may apply to open a general account for the purpose of holding and transferring compliance instruments. An application for a general account must designate a single authorized account representative and a single alternate authorized account representative who may act on behalf of the authorized account representative. The agreement by which the alternate authorized account representative is selected shall include a procedure for authorizing the alternate authorized account representative to act in lieu of the authorized account representative. A complete application for a general account shall be submitted to the program authority or its agent and shall include the following elements in a format prescribed by the program authority or its agent:

7.2.2.2.1 Name, address, email address, telephone number, and facsimile transmission number of the authorized account representative and any alternate authorized account representative;

7.2.2.2.2 At the option of the authorized account representative, organization name and type of organization;

7.2.2.2.3 A list of all persons subject to a binding agreement for the authorized account representative or any alternate authorized account representative to represent their ownership interest with respect to the compliance instruments held in the general account, including a statement of each beneficial owner's percentage ownership interest and a statement of affiliations between beneficial owners;

7.2.2.2.4 The following certification statement by the authorized account representative and any alternate authorized account representative: "I certify that I was selected as the authorized account representative or the alternate authorized account representative, as applicable, by an agreement that is binding on all persons who have an ownership interest with respect to compliance instruments held in the general account. I certify that I have all the necessary authority to carry out my duties and responsibilities under the Partner jurisdiction's Cap-and-Trade Program on behalf of such persons and that each such person shall be fully bound by my representations, actions, inactions, or submissions and by any order or decision issued to me by the program authority or its agent or a court regarding the general account.";

7.2.2.2.5 The signature of the authorized account representative and any alternate authorized account representative and the dates signed; and

7.2.2.2.6 Unless otherwise required by the program authority or its agent, documents of agreement referred to in the application for a general account shall not be submitted to the program authority or its agent. Neither the program authority nor its agent shall be under any obligation to review or evaluate the sufficiency of such documents, if submitted.

7.2.2.3 Authorization of authorized account representative

7.2.2.3.1 Upon receipt by the program authority or its agent of a complete application for a general account under section 7.2.2.2:

7.2.2.3.1.1 The program authority or its agent will establish a general account for the person or persons for whom the application is submitted.

7.2.2.3.1.2 The authorized account representative and any alternate authorized account representative for the general account shall represent and, by his or her representations, actions, inactions, or submissions, legally bind each person who has an ownership interest with respect to compliance instruments held in the general account in all matters pertaining to the Partner jurisdiction's Cap-and-Trade Program, notwithstanding any agreement between the authorized account representative or any alternate authorized account representative and such person. Any such person shall be bound by any decision or order issued to the authorized account representative or any alternate authorized account representative by the program authority or its agent or a court regarding the general account.

7.2.2.3.1.3 Any representation, action, inaction, or submission by any alternate authorized account representative shall be deemed to be a representation, action, inaction, or submission by the authorized account representative.

7.2.2.3.2 Each submission concerning the general account shall be submitted, signed, and certified by the authorized account representative or any alternate authorized account representative for the persons having an ownership interest with respect to compliance instruments held in the general account. Each such submission shall include the following certification statement by the authorized account representative or any alternate authorized account representative: "I am authorized to make this submission on behalf of the persons having an ownership interest with respect to the compliance instruments held in the general account. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I consent to the jurisdiction of the [Insert name of State or Province] and its courts for purposes of enforcement of the laws, rules and regulations pertaining to the Partner jurisdiction's Cap-and-Trade Program and the WTS, and I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment."

7.2.2.3.3 The program authority or its agent will accept or act on a submission concerning the general account only if the submission has been made, signed, and certified in accordance with section 7.2.2.4.

7.2.2.4 Changing authorized account representative and alternate authorized account representative; changes in persons with ownership interest.

7.2.2.4.1 The authorized account representative for a general account may be changed at any time upon receipt by the program authority or its agent of a superseding complete application for a general account under section 7.2.2.2. Notwithstanding any such change, all representations, actions, inactions, and submissions by the previous authorized account representative, or

the previous alternate authorized account representative prior to the time and date when the program authority or its agent receives the superseding application for a general account shall be binding on the new authorized account representative and the persons with an ownership interest with respect to the compliance instruments in the general account.

7.2.2.4.2 The alternate authorized account representative for a general account may be changed at any time upon receipt by the program authority or its agent of a superseding complete application for a general account under section 7.2.2.2. Notwithstanding any such change, all representations, actions, inactions, and submissions by the previous authorized account representative, or the previous alternate authorized account representative, prior to the time and date when the program authority or its agent receives the superseding application for a general account shall be binding on the new alternate authorized account representative and the persons with an ownership interest with respect to the compliance instruments in the general account.

7.2.2.4.3 In the event a new person having an ownership interest with respect to compliance instruments in the general account is not included in the list of such persons in the application for a general account, such new person shall be deemed to be subject to and bound by the application for a general account, the representations, actions, inactions, and submissions of the authorized account representative and any alternate authorized account representative, and the decisions, orders, actions, and inactions of the program authority or its agent, as if the new person were included in such list.

7.2.2.4.4 Within 1 day following any change in the persons having an ownership interest with respect to compliance instruments in the general account, including the addition or deletion of persons, the authorized account representative or any alternate authorized account representative shall submit a revision to the application for a general account amending the list of persons having an ownership interest with respect to the compliance instruments in the general account to include the change.

7.2.2.5 Objections concerning authorized account representative

7.2.2.5.1 Once a complete application for a general account under section 7.2.2.2 has been submitted and received, the program authority or its agent will rely on the application unless and until a superseding complete application for a general account under section 7.2.2.2 is received by the program authority or its agent.

7.2.2.5.2 Except as provided in sections 7.2.2.4.1 and 7.2.2.4.2, no objection or other communication submitted to the program authority or its agent concerning the authorization, or any representation, action, inaction, or submission of the authorized account representative or any alternate authorized account representative for a general account shall affect any representation, action, inaction, or submission of the authorized account representative or any alternate authorized account representative or the finality of any decision or order by the program authority or its agent under the Partner jurisdiction's Cap-and-Trade Program.

7.2.2.5.3 Neither the program authority nor its agent will adjudicate any private legal dispute concerning the authorization or any representation, action, inaction, or submission of the authorized account representative or any alternate authorized account representative for a general account, including private legal disputes concerning the proceeds of compliance instrument transfers.

7.2.2.6 Delegation by authorized account representative and alternate authorized account representative

7.2.2.6.1 An authorized account representative may delegate, to one or more natural persons, his or her authority to make an electronic submission to the program authority or its agent provided for under section 7.2.2 and 7.2.5.

7.2.2.6.2 An alternate authorized account representative may delegate, to one or more natural persons, his or her authority to make an electronic submission to the program authority or its agent provided for under sections 7.2.2 and 7.2.5.

7.2.2.6.3 In order to delegate authority to make an electronic submission to the program authority or its agent in accordance with sections 7.2.2.6.1 and 7.2.2.6.2, the authorized account representative or alternate authorized account representative, as appropriate, must submit to the program authority or its agent a notice of delegation, in a format prescribed by the program authority that includes the following elements:

7.2.2.6.3.1 The name, address, email address, telephone number, and facsimile transmission number of such authorized account representative or alternate authorized account representative;

7.2.2.6.3.2 The name, address, email address, telephone number and facsimile transmission number of each such natural person, herein referred to as "electronic submission agent";

7.2.2.6.3.3 For each such natural person, a list of the type of electronic submissions for which authority is delegated to him or her; and

7.2.2.6.3.4 The following certification statements by such authorized account representative or alternate authorized account representative:

7.2.2.6.3.4.1 "I agree that any electronic submission to the program authority or its agent that is by a natural person identified in this notice of delegation and of a type listed for such electronic submission agent in this notice of delegation and that is made when I am a authorized account representative or alternate authorized account representative, as appropriate, and before this notice of delegation is superseded by another notice of delegation under 7.2.2.6.3 shall be deemed to be an electronic submission by me."

7.2.2.6.3.4.2 "Until this notice of delegation is superseded by another notice of delegation under section 7.2.2.6.3, I agree to maintain an email

account and to notify the program authority or its agent immediately of any change in my email address unless all delegation authority by me is terminated."

7.2.2.6.4 A notice of delegation submitted under section 7.2.2.6.3 shall be effective, with regard to the authorized account representative or alternate authorized account representative identified in such notice, upon receipt of such notice by the program authority or its agent and until receipt by the program authority or its agent of a superseding notice of delegation by such authorized account representative or alternate authorized account representative as appropriate. The superseding notice of delegation may replace any previously identified electronic submission agent, add a new electronic submission agent, or eliminate entirely any delegation of authority.

7.2.2.6.5 Any electronic submission covered by the certification in section 7.2.2.6.3.4 and made in accordance with a notice of delegation effective under section 7.2.2.6.3 shall be deemed to be an electronic submission by the authorized account representative or alternate authorized account representative submitting such notice of delegation.

7.2.3 Account identification. The program authority or its agent will assign an identifying number that is unique within the WCI Regional Cap-and-Trade Program and in accordance with the WCI Numbering System to each account established under sections 7.2.1 and 7.2.2.

7.2.4 Provide for recordation of allowances in accounts

7.2.5 Provide for the surrender and/or deduction of compliance instruments from compliance accounts using compliance certification statements and/or default method.[30]

7.2.5.1 Compliance instruments available for compliance surrender and/or deduction. Compliance instruments that meet the following criteria are available to be surrendered and/or deducted in order for a covered source to comply with the requirements of section 4.4 for a compliance period.

7.2.5.1.1 The allowances, other than offset certificates, are of allocation years that fall within a prior compliance period or the same compliance period for which the allowances will be surrendered and/or deducted.

7.2.5.1.2 The compliance instruments are held in the covered source's compliance account as of the compliance instrument surrender deadline for that compliance period or are transferred into the compliance account by a compliance instrument transfer correctly submitted for recordation under section 7.2.6 by the compliance instrument surrender deadline for that compliance period.

[30] As discussed above, a Partner jurisdiction could implement the allowance deduction mechanism in alternative ways. The method provided here as an example is the approach taken by the U.S. Environmental Protection Agency in its cap-and-trade programs. 40 CFR Part 96.

7.2.5.1.3 For offset certificates, the number of offset certificates that are available to be surrendered and/or deducted in order for a covered source to comply with the requirements of section 4.4 for a compliance period may not exceed the limit established by the program authority as a percentage of the covered source's compliance obligation for that compliance period, as determined in accordance with section 4.1 and 7.1.

7.2.5.1.4 The compliance instruments are not necessary for surrender and/or deductions for excess emissions for a prior compliance period under section 7.2.6.

7.2.5.2 Surrender and/or Deductions for compliance. Following the recordation, in accordance with section 7.2.6, of compliance instrument transfers submitted for recordation in the covered source's compliance account by the compliance instrument surrender deadline for a compliance period, the program authority or its agent will surrender and/or deduct compliance instruments available under section 7.2.5.1 to cover the covered source's verified GHG emissions (as determined in accordance with section 7.1) for the compliance period, as follows:

7.2.5.2.1 Until the amount of compliance instruments deducted equals the number of metric tons of total verified emissions, determined in accordance with section 7.1, from all covered units at the covered source for the compliance period; or

7.2.5.2.2 If there are insufficient compliance instruments to complete the compliance instrument surrender and/or deductions in section 7.2.5.2.1, the source shall exhaust all compliance instruments available under section 7.2.5.1 remaining in the compliance account.

7.2.5.3 Identification of available compliance instruments by serial number; default compliance instrument surrender and/or deductions

7.2.5.3.1 The authorized account representative for a source's compliance account may request that specific compliance instruments, identified by serial number, in the compliance account be surrendered and/or deducted for emissions or excess emissions for a compliance period in accordance with sections 7.2.5.2 and 7.2.5.4. Such identification shall be made in the compliance certification report submitted in accordance with section 4.5.

7.2.5.3.2 The program authority or its agent will deduct compliance instruments for a compliance period from the covered source's compliance account, in the absence of an identification or in the case of a partial identification of available compliance instruments by serial number under section 7.2.5.3.1, in the following order:

7.2.5.3.2.1 First, subject to the relevant compliance instrument surrender and/or deduction limitations under sections 7.2.5.1.3 and 7.2.5.4, offset certificates and approved program compliance units. Offset certificates and approved program compliance units shall be surrendered and/or deducted in chronological order (i.e., those from earlier years shall be surrendered and/or deducted before those from later years).

7.2.5.3.2.2 Second, any allowances that are available for surrender and/or deduction under section 7.2.5.1. Allowances shall be surrendered and/or deducted in

chronological order (i.e., allowances from earlier allocation years shall be surrendered and/or deducted before compliance instruments from later allocation years). In the event that some, but not all, allowances from a particular allocation year are to be surrendered and/or deducted, allowances shall be surrendered and/or deducted by serial number, with lower serial number compliance instruments surrendered and/or deducted before higher serial number compliance instruments.

7.2.5.4 Surrender and/or Deductions for excess emissions

7.2.5.4.1 After making the deductions for compliance under section 7.2.5.3, the program authority or its agent will deduct from the covered source's compliance account a number of compliance instruments, from allocation years that occur after the compliance period in which the source has excess emissions, equal to three times the number of the source's excess emissions (3x the allowances shortage). In the event that a source has insufficient compliance instruments to cover three times the number of the source's excess emissions, the source shall be required to immediately transfer sufficient compliance instruments into its compliance account. Offset certificates and/or approved program compliance units shall not be used cover excess emissions.

7.2.5.4.2 The program authority may prevent any transfer of allowances from any general account held by the owners and operators of the covered source or covered units that has excess verified emissions.

7.2.5.4.3 Any compliance instrument deduction required under section 7.2.5.4.1 shall not affect the liability of the owners and operators of the covered source or the covered units at the source for any fine, penalty, or assessment, or their obligation to comply with any other remedy, for the same failure to timely comply with the surrender obligation, as imposed under applicable Jurisdiction law. The following guidelines will be followed in assessing fines, penalties, assessments or other remedies.[31]

7.2.5.4.3.1 For purposes of determining the number of days of violation for a fine, penalty or assessment, if a covered source has excess emissions for a compliance period, each day after the compliance period that the source remains out of compliance constitutes a day in violation unless the owners and operators of the unit demonstrate that a lesser number of days should be considered.

7.2.5.4.3.2 Each metric ton of excess verified emissions is also a separate violation.

7.2.5.4.4 The propriety of the program authority's or its agent's determination that a covered source had excess emissions and the concomitant deduction of compliance instruments from that GHG covered source's account may be later challenged in the context of the initial administrative enforcement, or any civil or criminal judicial action arising from or encompassing that

[31] It should be noted that the provisions of section 7.2.5.4.3 apply to enforcement actions that may be taken by the program authority and not to the requirement to surrender three additional allowances to cover each metric ton of excess emissions.

excess emissions violation. The commencement or pendency of any administrative enforcement, or civil or criminal judicial action arising from or encompassing that excess emissions violation will not act to prevent the program authority or its agent from initially deducting the compliance instruments resulting from the program authority's original determination that the relevant covered source has had excess emissions. Should the program authority's or its agent's determination of the existence or extent of the covered source's excess emissions be revised either by a settlement or final conclusion of any administrative or judicial action, the program authority or its agent will act as follows:

7.2.5.4.4.1 In any instance where the program authority's or its agent's determination of the extent of excess emissions was too low, the program authority or the agent will take further action under sections 7.2.5.4.1 and 7.2.5.4.2 to address the expanded violation.

7.2.5.4.4.2 In any instance where the program authority's or its agent's determination of the extent of excess emissions was too high, the program authority or the agent will distribute to the relevant covered source a number of compliance instruments equaling the number of compliance instruments deducted which are attributable to the difference between the original and final quantity of excess emissions. Should such covered source's compliance account no longer exist, the compliance instruments will be provided to a general account selected by the owner or operator of the covered source from which they were originally deducted.

7.2.5.5 The program authority or its agent will record in the appropriate compliance account all deductions from such an account pursuant to sections 7.2.5.1 and 7.2.5.4.

7.2.5.6 Action by the program authority on submissions

7.2.5.6.1 The program authority may review and conduct independent audits concerning any submission under the Partner jurisdiction's Cap-and-Trade Program and make appropriate adjustments of the information in the submissions.

7.2.5.6.2 The program authority may deduct compliance instruments from or transfer compliance instruments to a source's compliance account based on information in the submissions, as adjusted under section 7.2.5.4.3.

7.2.6 Provide for compliance instrument transfers

7.2.6.1 Submission of compliance instrument transfers. The authorized account representatives wanting to transfer compliance instruments shall propose the transfer through the online tracking system. When proposing a transfer, the following information will need to be provided in a format specified by the program authority or its agent:[32]

[32] The information required for transfer of compliance instruments will be used to execute the transfer in the WTS, to conduct market oversight, and to support transparency. Information that could be used to identify parties to a transaction will be maintained confidential and not released to the public. Aggregate volume data and aggregate price data (that do not reveal individual trade data) are expected to be released publicly on a coordinated basis at regular intervals, such as daily or weekly.

7.2.6.1.1 The numbers identifying both the transferor and transferee accounts;

7.2.6.1.2 A specification by serial number of each compliance instrument to be transferred; and

7.2.6.1.3 The printed name and signature of the authorized account representative of the transferor account and the date signed;

7.2.6.1.4 The purchase price for each instrument or group of instruments transferred, except when the transfers were from affiliates disclosed on the affiliated entities list.

7.2.6.2 Recordation

7.2.6.2.1 Within five business days of receiving an compliance instrument transfer, except as provided section 7.2.6.2.2, the program authority or its agent will record a compliance instrument transfer by moving each compliance instrument from the transferor account to the transferee account as specified by the submission, provided that the transfer is correctly submitted section 7.2.6.1; and the transferor account includes each compliance instrument identified by serial number in the transfer.

7.2.6.2.2 A compliance instrument transfer into or out of a compliance account that is submitted for recordation following the compliance instrument surrender deadline and that includes any compliance instruments that are of allocation years that fall within a compliance period prior to or the same as the compliance period to which the compliance instrument surrender deadline applies will not be recorded until after completion of the deduction process under section 7.2.5.

7.2.6.2.3 Where a compliance instrument transfer submitted for recordation fails to meet the requirements of section 7.2.6.1, the program authority or its agent will not record such transfer.

7.2.6.3 Notification

7.2.6.3.1 Notification of recordation. Within five business days of recordation of a compliance instrument transfer under section 7.2.6.2, the program authority or its agent will notify each party to the transfer. Notice will be given to the authorized account representatives of both the transferor and transferee accounts.

7.2.6.3.2 Notification of non-recordation. Within 10 business days of receipt of a compliance instrument transfer that fails to meet the requirements of 7.2.6.1, the program authority or its agent will notify the authorized account representatives of both accounts subject to the transfer of a decision not to record the transfer, and the reasons for such non-recordation.

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See Section 10 of the Design Summary and the *Market Oversight July Status Update* for a description of the market oversight recommendations.

7.2.6.3.3 Nothing in this section shall preclude the resubmission of a compliance instrument transfer for recordation following notification of non-recordation.

7.2.7 Provide for banking of compliance instruments not deducted or transferred. Each compliance instrument that is held in a compliance account or a general account will remain in such account unless and until the compliance instrument is surrendered and/or deducted, or transferred.

7.2.8 Correcting account errors. The program authority or its agent may, at its sole discretion and on his or her own motion, correct any error in any WTS account. Immediately, and in no event later than 10 business days of making such correction, the program authority or its agent will notify the authorized account representative for the account.

7.2.9 Allow for closing of general accounts

7.2.9.1 An authorized account representative of a general account may instruct the program authority or its agent to close the account by submitting a statement requesting deletion of the account from the WTS and by correctly submitting for recordation under section 7.2.6 a compliance instrument transfer of all compliance instruments in the account to one or more other WTS accounts.

7.2.9.2 If a general account shows no activity for a period of six years or more and does not contain any compliance instruments, the program authority or its agent may notify the authorized account representative for the account that the account will be closed in the WTS 20 business days after the notice is sent. The account will be closed after the 20-day period unless before the end of the 20-day period the program authority or its agent receives a correctly submitted transfer of compliance instruments into the account under section 7.2.6 or a statement submitted by the authorized account representative demonstrating to the satisfaction of the program authority or its agent good cause as to why the account should not be closed. The program authority or its agent will have sole discretion to determine if the authorized account representative demonstrated that the account should not be closed.

## 8. Offsets Program

*Section 8 sets out the essential criteria for the issuance of offset certificates. The steps for Partner jurisdictions to create offset certificate include specific requirements for registration, validation, monitoring, quantification, reporting, verification, certification and issuance of offsets. These requirements are detailed in an upcoming WCI paper on Offset Process Draft Recommendations on which WCI Partners will solicit stakeholder input.*

8.1 Offset certificates will be issued only for reductions that are real, additional, permanent, verifiable and enforceable, as described in the definitions for each in the table below.

| Criteria | Definition |
|---|---|
| Real | The offset certificate represents a reduction or removal of one metric ton of $CO_2e$ that results from a clearly identified action or decision. The offset project's reduction or removal is quantified using accurate and conservative methodologies that appropriately account for all relevant greenhouse gas sources and sinks and leakage risks. Offset projects result in emissions reductions or removals that take place at sources controlled by the project proponent. |
| Quantification, Uncertainty, and Accuracy | Quantification: WCI Partner jurisdictions shall ensure that net emissions reductions or removals are capable of being measured or modeled in a reliable and repeatable manner that includes all relevant sources and sinks. Quantification methodologies for GHG emissions or emissions reductions shall:<br>• Be appropriate to the GHG source or sink<br>• Be current at the time of quantification<br>• Consider local conditions, whenever applicable<br>• Account for uncertainty—be calculated in a manner that yields accurate and reproducible results<br>When uncertainty is above the defined threshold, apply the principle of conservativeness to GHG.<br>During quantification procedures, project proponents shall convert each type of GHG to metric tons of $CO_2e$. In addition, offset protocols shall use uniform quantification methods whenever feasible.<br>Uncertainty and accuracy: Quantification methodologies and measurement techniques shall set standards for acceptable statistical precision and be based on the best available science. They shall also reduce bias, except for promoting conservative estimates. When uncertainty remains high in quantifying the amount of a greenhouse gas emission reduction or removal, the principle of conservativeness shall be applied.<br>Principle of conservativeness: Where uncertainties are above the defined threshold, offset quantification methods should use more conservative quantification parameters, assumptions, and measurement techniques that minimize the risk of overestimating emissions reductions and removals credited for a given project. The principle should be employed when significant uncertainties arise to ensure a higher level of confidence that all calculated reductions are real. |
| Leakage | To address activity-shifting and market leakage, WCI Partner jurisdictions will require assessments of whether functional equivalence has been maintained within projects and require that WCI offset protocols include methods for leakage assessments. Offset protocols will evaluate functional equivalence for each project. Offset protocols will also require an assessment of potential leakage associated with each project type. In general, WCI Partner jurisdictions prefer the following methods to review leakage risk:<br>• A quantitative assessment of leakage will be performed whenever possible.<br>• When a quantitative assessment is not feasible, a qualitative risk assessment will determine whether the risk of systematic leakage is significant or not.<br>• Offset protocols will include a threshold to identify significant leakage.<br>If leakage is found to be above the threshold, the offset protocol quantification methodology will include a factor to account for leakage. |

| Criteria | Definition |
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| Additional | Offset certificates will be awarded only for the portion of greenhouse gas emissions reductions or removals that would not have happened under a baseline scenario.<br><br>The WCI Partner jurisdictions intend for additionality to be established in a manner that will require offset projects to be evaluated against a baseline that reflects conservative assumptions that are consistent across all WCI Partner jurisdictions. These assumptions will be described in the procedures for setting a baseline in offset protocols. Modeling or other methods of developing the baseline shall use assumptions, methodologies, and values which assure that GHG reductions or removals from a project are not over-estimated.<br><br>When possible, the baseline shall be set using a sector-specific or activity-specific performance standard which is set in offset protocols based on a regional assessment of project performance or common practice. WCI Partners intend that all baselines will reflect the most stringent regulatory and legal requirements of any WCI Partner jurisdiction (those requirements leading to the most conservative calculation of emissions reductions). When a baseline based on the most stringent regulatory requirement is not practical because of regional differences, the WCI Partners may recommend a protocol using an alternative method.<br><br>When it is not possible to set a baseline using a performance standard, a project-specific baseline may be used. Then the baseline will be set to reflect all binding agreements, regulatory requirements and legal requirements applicable to the project and also to ensure that the project is beyond business as usual. |
| Eligibility Date | Offsets may be awarded only for projects that are initially commenced on or after January 1, 2007, the date of the original WCI Memorandum of Understanding (MOU) beginning the development of the WCI cap-and-trade program. An offset project proponent must apply to register its project with a WCI Partner Jurisdiction within one year of project commencement. Projects that commenced prior to finalization of the applicable offset protocol must apply within one year of that protocol's finalization. |
| Crediting Period | The crediting period for non-sequestration offset projects will be 10 years. At the end of a crediting period a project proponent may renew a project subject to the current offset protocol for that project type. Renewal of a project at the end of a crediting period will include a reevaluation of a project's additionality and reevaluation of how the reductions are quantified and verified. Thus, the baseline scenario will be reevaluated at each renewal.<br><br>The crediting period for sequestration projects will be specified by the applicable offset protocol. However, any individual crediting period may not exceed 25 years before a renewal, and the total crediting period including all renewals may not exceed 100 years for sequestration projects. The applicable offset protocol will also lay out the requirements for project renewal. At a minimum, the project must reevaluate quantification and monitoring methods based on the current offset protocol. If possible, projects will also need to reassess project additionality and baselines in order to renew the project. |
| Permanent | With respect to offset project activities, permanence means either that reductions or removals are not reversible or that, if reductions or removals are reversed, the provisions outlined in the remainder of this recommendation must be met.<br><br>Sequestration projects must be designed so that the net atmospheric effect of their greenhouse gas removal is comparable to the atmospheric effect achieved by non-sequestration projects. The atmospheric effect will be based on the current |

| Criteria | Definition |
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| | international standard established by the UNFCCC, which is currently 100 years. This international standard may be updated from time to time.<br><br>If an emission reduction is reversed after credits are issued, the project developer must either replace the reversed credits with other compliance units from within the system or return credits that were issued to the project. Applicable approaches to assuring permanence for a project type will be included in the appropriate offset protocol.<br><br>In conformance with the applicable offset protocols, project proponents shall follow or establish effective (i) monitoring systems, (ii) risk mitigation approaches, and (iii) contingency plans which address how, in the event of a reversal that is the result of proponent intention or negligence, any affected offset certificates will be replaced. The contingency plan shall include specific mechanisms that are exercisable at the time a reversal is identified whether or not the proponent is solvent, exists in its original form, and/or has ownership of or responsibility for the project.<br><br>WCI Partner jurisdictions will establish mechanisms to address reversals that are not the result of proponent intention or negligence and where proponents' contingency measures prove inadequate. |
| Verifiable | With respect to offset project activities, verifiable means that a GHG reduction or removal, or assertion thereof, is well documented and transparent such that it lends itself to an objective review by a qualified verifier. Verifiers for offsets will be independent third parties who have been accredited to a standard acceptable by the WCI Partner jurisdiction in which the project is registered. |
| Validation | Validation is a required review by an accredited independent third party or the WCI Partner jurisdiction to assess conformance of a proposed project to WCI requirements, criteria and an offset protocol. The WCI Partner jurisdictions may not require third party validation in all cases but may approve protocols that require a validation step. |
| Enforceable | Each Partner jurisdiction will, to the extent permissible by law, put in place sufficient compliance/enforcement mechanisms and detail for the jurisdiction to compel compliance with its requirements and with offset protocols. |
| Material | Material misstatement means that errors, omissions or an aggregation of both in the reported GHG reductions or assertion exceeds a +5% threshold. The verifier must be able to state with reasonable assurance the total reported reductions or removals are free of material misstatement. |
| Transparency | The offset system will provide transparency such that sufficient and appropriate protocol, project and certificate information is disclosed in a timely manner to allow offset system participants and the general public to make decisions with reasonable confidence. |
| Assessment of Environmental or Social Impacts | Offset projects must meet all applicable local environmental regulations and be in compliance with all applicable laws in the jurisdiction where the project is located. Offset protocols for specific offset project types may require analysis of environmental and socioeconomic impacts beyond what the local jurisdiction would otherwise require and may require additional mitigation of potential negative impacts. |

## 9. Linking to Other Programs

*Section 9 relates to whether and how Partner jurisdictions will link their individual trading programs with other Partner jurisdictions, as well as whether and how Partner jurisdictions will accept compliance units from Non-WCI programs.*

9.1 Approval of link to another program

In evaluating another program for purposes of determining whether to link the Partner jurisdiction's Cap-and-Trade program to the other program, the Partner jurisdiction will consult with other participating Partner jurisdictions and consider whether the other program:

9.1.1 Implements a binding and annually declining aggregate total greenhouse gas emissions cap that limits the quantity of allowances that can be issued and covers one or more economic sectors; and

9.1.2 Includes the following, to the extent deemed necessary under the circumstances:

9.1.2.1 The transparent allocation of allowances;

9.1.2.2 Provisions to avoid the double counting of emissions or allowances in the electric sector;

9.1.2.3 A standardized and secured tracking system in the form of an electronic database containing common data elements to track the issuance, holding, transfer and cancellation of compliance instruments, to provide for public access and confidentiality as appropriate, and to ensure that there are no transfers which are incompatible with the Partner jurisdiction's implementation of the Cap-and-Trade program;

9.1.2.4 A comprehensive account registration requirement for all tracking system accounts;

9.1.2.5 The capability to transfer relevant and necessary information on all transactions and transfers between accounts in linked jurisdictions;

9.1.2.6 Provisions to ensure that offset certificates accepted into the system provide equal or greater assurance of the integrity of such offset certificates to that called for in the detailed program design;

9.1.2.7 Restrictions to the use of offset certificates comparable to the quantitative usage limit established in the detailed program design;

9.1.2.8 Provisions for comparable monitoring, reporting, verification, compliance, and enforcement of its greenhouse gas emissions to that set forth in the *Final Essential Requirements for Mandatory Reporting*; and

9.1.2.9 Provisions that compliance instruments that are voluntarily retired or used to meet an obligation to surrender compliance instruments equal to verified emissions are disqualified from further use in any system.

9.1.2.10 Existing links with other programs meet similar criteria

9.1.3 Includes enforcement mechanisms that:

9.1.3.1 Provide general market surveillance, identify suspect transactions, and provide for investigations and enforcement actions;

9.1.3.2 Ensure consequences for noncompliance are comparable between the systems to be linked, and in particular that the consequences of failing to meet compliance unit surrender requirements are automatic;

9.1.3.3 Respond in a timely manner to requests by enforcement agencies in the Partner jurisdiction and all jurisdictions approved by the Partner jurisdiction for relevant and necessary information on market participants under investigation; and

9.1.3.4 Transfer between systems in a timely manner relevant and necessary notice and information concerning all relevant enforcement actions undertaken by the system's jurisdictional enforcement authority

9.1.4 Is capable of transferring between linked jurisdictions all information necessary to monitor market trends on a regional basis, including:

9.1.4.1 Aggregate verified emissions data, the compliance status of entities covered by the cap and trade program and expected issuance of offset certificates;

9.1.4.2 Information that can be released to the public in a coordinated and consistent manner; and

9.1.4.3 Information necessary to collaborate on market oversight functions.

9.1.5 Provides an equal degree of protection for confidential business information.

9.2 Establishing a bilateral link to another program

Once a Partner jurisdiction determines that another program meets the criteria in section 9.1, the Partner jurisdiction and the other jurisdiction will mutually acknowledge that their programs are compatible and will:

9.2.1. Allow the mutual recognition of compliance instruments issued to meet compliance obligations;

9.2.2. Provide that after any compliance instrument is used to meet an obligation to surrender compliance instruments, it shall be disqualified for subsequent use under any system, whether such use is a sale, exchange, or submission to meet an obligation to surrender compliance instruments under a cap-and-trade program; and

9.2.3. Ensure that the tracking system (or systems) permits the transfer of compliance instruments from one jurisdiction to another, that a jurisdiction will record when a compliance instrument is transferred out of its tracking system, and that the system can be counted on to sever the linking relationship should severance be necessary.

9.3 Establishing a unilateral link to another program

9.3.1 In the absence of mutual recognition of compliance instruments between a Partner jurisdiction and another trading program, unilateral linking can be accomplished by allowing sources with a compliance obligation to surrender compliance instruments from an approved trading program. The same criteria can be applied in determining whether to approve the external trading program. In the case of a unilateral link to an external program that generates offsets but is otherwise not a cap-and-trade program, the Partner jurisdiction will apply only those criteria that are relevant to offset programs.

9.3.2 In the case of unilateral links, the Partner jurisdictions will develop a suitable mechanism to ensure the validity of external compliance units and to make sure those units can only be used once for compliance in any program.