Offset System Essential Elements Draft Recommendations Paper
April 2010

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1 Executive Summary

This paper is the second paper issued by the WCI Offsets Committee as part of its efforts to design the WCI Offset System. The first paper, entitled Offset Definition (Task 1.1) and Eligibility Criteria (Task 1.2) White Paper\(^1\) (“the Criteria White Paper”) was released in July and presented options for defining a WCI offset and the essential criteria. The release of the first paper was followed by a period of gathering stakeholder input through webinars and written comments.\(^2\) This recommendations paper was prepared by members of the WCI Offsets Committee based on the first options paper, stakeholder feedback, and input from WCI Partners. This recommendations paper presents draft recommendations for the offset definition and essential criteria. Following the release of this paper, stakeholders will have an opportunity to provide feedback prior to issuing the final WCI recommendations. A final recommendations paper is expected to be released in early spring 2010.

For ease of reference, all of the draft recommendations in this paper are copied in Table 1.0 below.

Table 1.0 Draft Recommendations

<table>
<thead>
<tr>
<th>Section</th>
<th>Criteria</th>
<th>Draft Recommendation</th>
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<tbody>
<tr>
<td>3.1</td>
<td>Offset Definition</td>
<td>A WCI offset certificate is issued by a WCI Partner Jurisdiction and represents a reduction or removal of one metric ton of carbon dioxide equivalent (tCO(_2)e). The reduction or removal must meet the recommended essential criteria for reductions and removals to be real, additional, permanent, and verifiable. Reductions and removals must also be clearly owned, adhere to recommended protocols, and result from a project located in a qualifying geographic area.</td>
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<td>3.2.1</td>
<td>Offset Ownership</td>
<td>An offset project proponent must have legal ownership of the greenhouse gas emission reduction or removal resulting from the offset project. The offset project proponent will be responsible for all statements and information provided to the</td>
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\(^1\) Available at: http://www.westernclimateinitiative.org/components/com_publiccomments/documents/WCI-Offset_Definition_and_Criteria_072409.pdf

\(^2\) The stakeholder comments are archived here: http://www.westernclimateinitiative.org/public-comments/document/7
| 3.2.2 | Use of Recommended Protocols | A WCI Partner jurisdiction will issue WCI offset certificates for compliance with the WCI cap-and-trade program only from projects which employ protocols that have been recommended through the WCI protocol review process (“WCI offset protocols”). |
| 3.2.3 | Geographic Limits | A WCI Partner jurisdiction may issue offset certificates for projects located within its own jurisdiction as well as jurisdictions outside the WCI cap-and-trade region within North America. A WCI Partner jurisdiction will accept offset certificates issued by other WCI Partner jurisdictions. As described in section 9.8 of WCI’s design document, WCI Partner jurisdictions may also accept offset certificates from outside North America. |
| 4.1 | Real | A WCI offset certificate represents a reduction or removal of one metric ton of CO2e that results from a clearly identified action or decision. A WCI 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. WCI offset projects result in emissions reductions or removals that take place at sources controlled by the project proponent. |
| 4.2.1 | Quantification, Uncertainty, and Accuracy | Quantification: WCI Partner Jurisdictions shall ensure that net emission 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 emission reductions shall:  
- Be appropriate to the GHG source or sink  
- Be current at the time of quantification  
- Consider local conditions, whenever applicable  
- Account for uncertainty – be calculated in a manner that yields accurate and reproducible results  
- When uncertainty is above the defined threshold, apply the principle of conservativeness to GHG accounting.  
During quantification procedures, project proponents shall |
convert each type of GHG to metric tons of CO2e. In addition, WCI offset protocols shall use uniform quantification methods whenever feasible.

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.

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 emission 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.

| 4.2.2 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 protocols include methods for leakage assessments. WCI offset protocols will evaluate functional equivalence for each project. WCI offset protocols will also require an assessment of potential leakage associated with each project type. In general, WCI jurisdictions prefer the following methods to review leakage risk:

- A quantitative assessment of leakage will be performed whenever possible.
- When a quantitative assessment is not feasible, a qualitative risk assessment will determine whether the risk of systematic leakage is significant or not.
- WCI offset protocols will include a threshold to identify significant leakage.
  
  If leakage is found to be above the threshold, the protocol quantification methodology will include a factor to account for leakage. |
5.1 Additional

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 jurisdictions. These assumptions will be described in the procedures for setting a baseline in WCI offset protocols. Modeling or other methods of developing the baseline shall use assumptions, methodologies, and values that provide the WCI Partner jurisdictions with assurance that GHG reductions or removals from a project are not over-estimated (consistent with the principle of conservativeness in 4.2.1).

When possible, the baseline shall be set using a sector-specific or activity-specific performance standard; otherwise a project-specific baseline may be used. Performance standards used to establish a baseline will be set so as to reflect the most stringent regulatory requirements and legal requirements of any WCI Partner jurisdiction (those requirements leading to the most conservative calculation of emission reductions). When a project specific baseline is used, the baseline will be set so as to reflect all binding agreements, regulatory requirements and legal requirements in the jurisdiction where the project is located.

5.2.1 Eligibility Date

Offsets may only be awarded for projects that are initially commenced on or after September 23, 2008; the date of the WCI Design Recommendations that identified the priority project types for WCI offsets. Offsets may be awarded for all GHG reductions or removals occurring after September 23, 2008.

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 protocol must apply within one year of the protocol’s finalization.

5.2.2 Crediting Period

The crediting period for non-sequestration WCI offset projects will be 10 years, which may be once renewed for an additional 10 years. The crediting period for sequestration projects will be specified by the applicable 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...
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<th>6.1</th>
<th>Permanent</th>
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With respect to offset project activities, permanence means either that reductions or removals are not reversible or that, if reductions or removals are reversible, then the text outlined in the remainder of this recommendation are met.

Sequestration projects must ensure the atmospheric effect of their greenhouse gas removal will endure for a period that is comparable to the atmospheric effect achieved by non-sequestration projects. The duration for this period is to be based upon current scientific findings that are widely accepted and followed. The current international standard of 100 years has been established by the UNFCCC and will be followed by WCI Partner jurisdictions. WCI Partner jurisdictions will adopt new international standards (likely UNFCCC) if/when they are updated.

Offset projects where the reduction or removal is maintained for less than the WCI standard may be pro-rated and/or replaced in order to maintain the environmental integrity of the offsets system. If pro-rating is allowed for a project type it will be included in the appropriate WCI offset protocol.

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.

WCI Partner Jurisdictions will establish mechanisms to address reversals that are not the result of proponent intention or
negligence and to ensure replacement of credits where proponent’s contingency measures prove inadequate.

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<td><strong>7.1</strong></td>
<td><strong>Verifiable</strong></td>
<td>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 WCI 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.</td>
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<td><strong>7.2.1</strong></td>
<td><strong>Validation</strong></td>
<td>With regards to WCI offsets, validation is a review by an independent third party to assess the likely result of reductions or sequestration from a proposed project that would use a WCI offset protocol. The WCI Partner Jurisdictions may not require third party validation in all cases but may approve protocols that require a validation step.</td>
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<td><strong>7.2.2</strong></td>
<td><strong>Enforceable</strong></td>
<td>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 WCI offset protocols.</td>
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<td><strong>7.2.3</strong></td>
<td><strong>Material</strong></td>
<td>Material misstatement means that errors, omissions or an aggregation of both in the reported GHG reductions or assertion exceeds a ±5% threshold. For a WCI offset, the verifier must be able to state with reasonable assurance the total reported reductions or removals are free of material misstatement.</td>
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<td><strong>8.1</strong></td>
<td><strong>Transparency</strong></td>
<td>The WCI 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.</td>
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<td><strong>8.2</strong></td>
<td><strong>Co-Benefits</strong></td>
<td>WCI Partners recognize the environmental, social, economic and health benefits that may arise from an offset project and the offset system will focus on those benefits directly related to mitigating climate change. A WCI offset project is required only to result in a greenhouse gas emission reduction or removal.</td>
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| **8.3** | **Assessment of Environmental or Social Impacts** | WCI 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. If environmental or socioeconomic assessments of the
proposed project have been done, the project’s registration application should reference this work and include a summary of the findings. 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.

2 Purpose and Background

The purpose of the WCI Offset Committee is to make recommendations to the WCI Partner Jurisdictions on the design and operation of the offset system as part of the WCI cap-and-trade program. In particular, this paper includes the Offsets Committee’s recommendations for criteria that reductions must meet in order to demonstrate that reductions from offset projects are rigorous enough to meet compliance obligations within the regional cap-and-trade program. The WCI’s September 2008 Design Recommendations included that the criteria ensure offsets result in a GHG reduction or removal that is real, additional, permanent, and verifiable. The design of the offsets system must also ensure that the quantification of the GHG reduction or removal is accurate and not double-counted. According to the WCI’s design principles, reductions from offsets must also be enforceable by the WCI Partner jurisdictions.

This Draft Recommendations White Paper is the second stage in developing a clear definition of a WCI greenhouse gas (GHG) offset and the detailed eligibility criteria for GHG offset projects used for compliance purposes as identified in the WCI 2009/10 Work plan released February 2009. On July 24, 2009 the WCI Offsets Committee released the Offset Definition (Task 1.1) and Eligibility Criteria (Task 1.2) White Paper (“the Criteria White Paper”) describing options for defining a WCI GHG offset and the WCI essential offset criteria (real, additional, verifiable, and permanent), as well as other principles and technical considerations that are important in establishing criteria for the WCI offset system. On July 30, 2009 and August 27, 2009, the WCI Offset Committee held stakeholder webinars to discuss the released white paper. Stakeholders also submitted written comments via the WCI website by the August 21, 2009 deadline.

Specifically this draft recommendations white paper provides the following:

- a draft recommendation for the criteria, reflecting the criteria’s essential requirements
- a summary of stakeholder comments received, and
- a discussion of the criteria recommendation.

Each of the additional principles and technical considerations are nested under the related essential criteria or included in Section 8’s “Other considerations.” These principles and technical considerations include ownership, use of recommended protocols, and geographic limits (Section 3); quantification, uncertainty and accuracy, conservativeness, and leakage (Section 4); additionality tests, baseline determination, eligibility date, and crediting period (Section 5); validation, enforcement, and materiality (Section 7); and transparency, co-benefits, and assessment of environmental and social impacts (Section 8).

The purpose of this draft recommendation paper is to seek stakeholders’ input prior to a final decision by the WCI Partner jurisdictions.

These recommendations will provide the basis for further work of the WCI Offsets Committee. The next paper to be released by Task 1, referred to as the “Process White Paper“ will present options for detailed requirements for the registration, validation, monitoring, quantification, reporting, verification, certification, and issuance of offsets; aspects of regulation and enforcement related to offsets that should be included in the cap-and-trade essential elements; and functions of the regional administrative body and tracking system related to the offset system. Task 3, the review and development of WCI offset protocols; will use the draft recommendations as the basis for the offset protocol evaluation. It will also provide a basis for Task 2’s review of offsets and allowances from outside the WCI jurisdictions. The recommendations from Task 1 may not universally apply to Task 2. Rather Task 2 will have to determine the extent to which the criteria and supporting criteria are appropriate to offsets from other systems. For example, this paper includes a recommendation for the appropriate length of crediting periods used by WCI Partner Jurisdictions. That does not imply that the offsets any other system which uses crediting periods of a different length would be ineligible to meet compliance obligations established by WCI Partners Jurisdictions.

This paper frequently employs the terms such as “WCI offset”, “WCI offset projects” and “WCI Offset System”. This paper uses the terms to succinctly describe an offset certificate issued by a WCI Partner Jurisdiction, the projects from which these offsets are generated and resulting system created by WCI Partner Jurisdictions.
3 Definition of an Offset

The offset definition should establish the tradability of offsets and provide guidance about their fungibility within the WCI cap-and-trade program. The definition should also address how offsets are created and recognized.

3.1 Offset

A major consideration for defining an offset is how broad the definition should be. For example, the definition could require that offsets meet all WCI recommendations; alternatively, the system recommendations could be specified in the offset definition itself or referred to in other parts of the regulation or program design. The Criteria White Paper discussed three options:

- Option A: Specific parameters or requirements included in the definition;
- Option B: General parameters or requirements covered in the definition with specific requirements referred to elsewhere in the document; and
- Option C: Specific parameters or requirements with the condition that additional requirements specified in the WCI offset system must be met.

The draft recommendation below most closely resembles Option B.

3.1.1 Draft recommendation

A WCI offset certificate is issued by a WCI Partner Jurisdiction and represents a reduction or removal of one metric ton of carbon dioxide equivalent (tCO2e). The reduction or removal must meet the recommended essential criteria for reductions and removals to be real, additional, permanent, and verifiable. Reductions and removals must also be clearly owned, adhere to recommended protocols, and result from a project located in a qualifying geographic area.

3.1.2 Summary of stakeholder input

Stakeholders offered various comments regarding the offset definition. The comments generally support a simpler offset definition and/or a definition that is open and flexible to cover any projects that have direct or indirect potential to reduce emissions. Stakeholders wanted to ensure fungibility across WCI Partner Jurisdictions to increase market fluidity.

3.1.3 Explanation of draft recommendation

The WCI Offsets Committee is recommending a definition using Option B because it is simple, flexible, and should support a robust offset market. The proposed offset definition requires that WCI offsets meet the essential criteria of the WCI offsets system (i.e., real, additional, permanent, and verifiable) but does not specify parameters or requirements for those criteria.
Carbon dioxide equivalent is an internationally accepted standard of measurement of the radiative forcing of greenhouse gases. Establishing that a WCI offset represents one metric ton carbon dioxide equivalent (tCO$_2$e) allows it to be employed interchangeably with a WCI emission allowance which also represent one tCO$_2$e. It also facilitates linkage internationally, which is a design principle of the WCI program, with other programs using this accepted measurement standard.

One issue which the WCI Offsets Committee internally debated for its draft recommendation was whether to define the offset as the reduction or removal itself or as the compliance unit. The recommendation above equating an offset with the compliance unit is based on the understanding that a reduction or removal is just a reduction or removal until a WCI Partner Jurisdiction has recognized it as an offset through the issuance of a compliance unit. The committee also discussed whether the definition should include a positive statement that offsets are tradable and bankable. Since these features seemed to more appropriately belong to the domain of the overall cap-and-trade program than to the offsets system, such a statement was not included.

3.2 Other considerations

This section further discusses three key considerations referenced in the final sentence of the offsets definition draft recommendation. These considerations are offset ownership, use of recommended protocols, and geographic limitations of recognized offsets.

3.2.1 Ownership issues

Establishing clear ownership of the emissions reductions generated by an offset project is important prior to registration, acceptance, and issuance of offsets in the WCI program. In regards to ownership, it is useful to distinguish between ownership claims to a reduction or removal prior to the issuance of compliance and the ownership of those compliance units after their issuance. The draft recommendation below focuses on the former, while the latter is an issue for a subsequent paper.

3.2.1.1 Draft recommendation

An offset project proponent must have legal ownership of the greenhouse gas emission reduction or removal resulting from the offset project. The offset project proponent will be responsible for all statements and information provided to the WCI Partner Jurisdiction issuing the offset certificate during the creation of the offset certificate and verification of the

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4 See the final bullet point in the WCI Design Principles section on pages 52-53 of the WCI Design Recommendations Document.
reduction or removal. The WCI Partners should establish a registry of offset certificates issued and make the registry publicly available.

3.2.1.2 Summary of stakeholder input
Nearly all respondents supported a clear delineation of offset ownership. Many of the respondents supported the creation of a centralized registry, and/or legal contracts that specify and establish ownership claims.

3.2.1.3 Explanation of draft recommendation
Clear rules around ownership are necessary in a trading system. The draft recommendation attempts to reduce the likelihood of disagreement over ownership by clarifying the expectations for the project proponent. The proponent may or may not have an ownership interest in the project itself or in the emissions source(s) or sink(s) that lie within the project’s boundaries. The proponent may be a person(s) or entity(ies) acting on behalf of the project owner(s). The identity of the project owner (who receives the issued compliance units) and the project proponent (who makes the offset application), as well as their relationship to each other, must be clear.

After issuance, the WCI offsets system will require tracking offsets, perhaps through a registry. Registry rules would govern ownership of the issued compliance units. Possible provisions and recommendations for an offset registry or other tracking methodologies are a topic for the WCI Offsets Committee’s upcoming Process White Paper.

3.2.2 Use of recommended protocols
The WCI Partners will recommend protocols that will detail specific instructions for project developers, describe standard approaches, equipment, procedures and requirements for projects. The protocols will apply to all aspects of the project life cycle including: planning, operation, monitoring, calculation, reporting, and verification. Recommended protocols must meet the WCI’s essential criteria.

3.2.2.1 Draft recommendation
A WCI Partner jurisdiction will issue WCI offset certificates for compliance with the WCI cap-and-trade program only from projects which employ protocols that have been recommended through the WCI protocol review process (“WCI offset protocols”).

3.2.2.2 Summary of stakeholder input
Stakeholders supported the use of existing protocols from other programs. None suggested that the WCI Partners should not consider using or adapting protocols that have already been developed.
3.2.2.3 Explanation of draft recommendation

Establishing WCI offset protocols help ensure the integrity of the offsets issued and accepted by the WCI Partner Jurisdictions. The WCI Offsets Committee Task 3 (Offset Protocols) group is evaluating which existing protocols in the priority project type areas meet the WCI Partners’ recommended criteria and are consistent with ISO standards. Protocols will be recommended for WCI Partner Jurisdiction review and will include adequate stakeholder engagement prior to final WCI Partner Jurisdiction adoption.

3.2.3 Geographic limits

Geographic limits can take different forms and may restrict offsets from certain geographic areas. One form would restrict from where WCI Partners might accept offsets; another would restrict where the WCI Partners might issue offsets. The WCI Partners have previously indicated a restriction of this latter type. More specifically, the WCI Design Document (September 23, 2008) recommended that the WCI Partner Jurisdictions would issue offsets for reductions or removals only in the three North America countries Canada, Mexico, and the United States. The recommendation in this paper reaffirms that earlier policy decision.

3.2.3.1 Draft recommendation

A WCI Partner jurisdiction may issue offset certificates for projects located within its own jurisdiction as well as jurisdictions outside the WCI cap-and-trade region within North America. A WCI Partner jurisdiction will accept offset certificates issued by other WCI Partner jurisdictions. As described in section 9.8 of WCI’s design document, WCI Partner jurisdictions may also accept offset certificates from outside North America.

3.2.3.2 Summary of stakeholder input

Many stakeholders’ responses to the Criteria White Paper included comments regarding geographic limits. Some stakeholders opposed setting geographic limits because doing so would limit potential compliance cost savings. Multi-national organizations would be restricted from pursuing their lowest cost offset projects regardless of location and organizations with offset projects located outside of Canada, Mexico, and the United States would be excluded. Other stakeholders expressed a preference for limiting offset projects to States and Provinces.

3.2.3.3 Explanation of draft recommendation

As the Design Recommendations document stated, “The WCI Partner jurisdictions encourage the development of offset projects located inside WCI Partner jurisdictions for compliance purposes in the WCI cap-and-trade regulatory program in order to capture collateral benefits
associated with some offsets projects, such as health, social, and environmental benefits.”⁵ In addition, there are practical concerns about implementing and overseeing an offset system beyond North America. Even within North America, MOUs or other agreements between WCI Partner jurisdictions and non-WCI jurisdictions may be needed to help oversee projects located outside of the WCI jurisdictions.

The WCI Partner Jurisdictions are concerned that offset reductions or removals are not counted in multiple registries. They will have to develop a mechanism to ensure reductions are not counted in both the WCI offset system and any other offset system.⁶

The WCI Partner Jurisdictions may still accept offsets generated from reductions or removals outside these three countries, but another program authority will have to issue those offsets. As part of its work under Task 2, the WCI Offsets Committee will recommend standards for evaluating and (if appropriate) accepting compliance units (offsets and allowances) from other programs.

4 Defining the criterion Real

4.1 Real

The WCI offset criteria must ensure that all offset projects generate real GHG reductions or removals. WCI offset protocols must ensure that the quantification of a reduction or removal is accurate and not double counted.⁷ For this reason, robust accounting methods are essential to any offsets system. Inaccurate or incomplete accounting could lead to crediting offset reductions that did not actually occur. Offsets can be used in place of emissions reductions at capped sources, and thus offsets become fungible compliance units. It is therefore critical that offset reductions or removals are real in order to ensure the integrity of the cap-and-trade system.

4.1.1 Draft recommendation

A WCI offset certificate represents a reduction or removal of one metric ton of CO₂e that results from a clearly identified action or decision. A WCI offset project’s reduction or removal is quantified using accurate and conservative methodologies that appropriately account for all

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⁵ Ibid. p. 40.
⁶ This may be a topic in part for the upcoming Process White Paper, specifically relating to the offset tracking system as part of Task 1.5.
⁷ WCI Design – Section 9.2 (September 2008)
relevant greenhouse gas sources and sinks and leakage risks. WCI offset projects result in emissions reductions or removals that take place at sources controlled by the project proponent.

4.1.2 Summary of stakeholder input
Several stakeholders believe that a definition of real is necessary. Some stakeholders contended that a specific definition of real is not needed and suggested that issues around real and double counting be addressed in verification or certification. Some stakeholders included in their comments that the WCI Partners should issue offsets for indirect emission reductions achieved through electricity efficiency.

4.1.3 Explanation of draft recommendation
Assuring that offsets are real is closely related to other criteria such as permanent, verifiable, and quantifiable. Permanence is discussed in Section 6, verifiable in Section 7, and quantification, uncertainty, conservativeness, accuracy, and leakage are discussed later in this section.

It is vital that reductions or removals in the WCI program are not double counted and not claimed in other voluntary or mandatory GHG trading programs. The Process White Paper will detail administrative options and mechanisms to register, track, and retire offsets in order to prevent double counting. The registration and tracking systems play a key role in ensuring rigorous accounting – the transfer of ownership of an offset credit must be clearly defined and documented.

WCI offsets must be generated from reductions or removals within the project boundary of a registered project. Only reductions which occur at controlled sources may be included in the project boundary. For example, renewable energy and energy efficiency projects (typically) result in indirect emission reductions. These would not be recognized under the WCI offset criteria.

In addition, WCI Design recommendations describes offsets as “… emission reduction project[s] undertaken to address emissions not included in a cap-and-trade program” (emphasis added). The electricity sector will be subject to the cap. This recommendation was designed to prohibit double counting by the offsets system.

At least one stakeholder responding to the Criteria White Paper advocated for allowing offsets from industrial source emitters which fall below the threshold for inclusion in the cap and trade program. Projects which occur outside of capped sectors or generate reductions at facilities that fall below the threshold for compliance could be eligible for offsets.

Real is generally understood to mean that all credited emission reductions or removals genuinely took place. Thus, real offsets have the following requirements:

- Account for uncertainty and accuracy in calculating reductions or removals (Section 4.2.1)
- Require sound quantification methodologies (Section 4.2.1)
- Prohibit double counting (Section 4.1.3)
- Account for emissions leakage (Section 4.2.2)
- Ensure reductions or removals are permanent (Section 6)
- Verify reductions or removals (Section 7)

### 4.2 Supporting criteria

This section examines supporting criteria for real: quantification, uncertainty, and accuracy are considered, followed by a section addressing leakage.

#### 4.2.1 Quantification, uncertainty, and accuracy

Accurate quantification ensures that offsets represent real reductions that can be converted into a common currency that accurately reflects the GHG reductions or removals generated by an offset project.

Sound methods to measure and quantify GHG reductions are a prerequisite for eligible offset project types. Quantification methods will be subject to periodic review to make sure they reflect current science and accurate GHG accounting practices. In addition, it is worthwhile to encourage consistency in quantification and monitoring procedures across project types.

Higher levels of uncertainty in calculating emission reductions from project activities lead to lower levels of confidence that all offsets generated by a project are real. It is vital for an offsets system to consider how to address uncertainty within project protocols.

A number of offset programs employ a principle of conservativeness to address uncertainty and ensure that emissions reductions are real. The concept is that where uncertainty exists, it is best to credit reductions where there is high confidence that reductions actually occurred. This option is distinct from using a discount factor to address uncertainty. A principle of conservativeness would mean using uncertainty values at the lower end of the range whenever possible to ensure that there is a high level of confidence that all calculated reductions are real.
4.2.1.1 Draft recommendation

Quantification: WCI Partner Jurisdictions shall ensure that net emission 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 emission reductions shall:

- Be appropriate to the GHG source or sink
- Be current at the time of quantification
- Consider local conditions, whenever applicable
- Account for uncertainty – be calculated in a manner that yields accurate and reproducible results
- When uncertainty is above the defined threshold, apply the principle of conservativeness to GHG accounting.

During quantification procedures, project proponents shall convert each type of GHG to metric tons of CO$_2$e. In addition, WCI offset protocols shall use uniform quantification methods whenever feasible.

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.

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 emission 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.

4.2.1.2 Summary of stakeholder input

Quantification: Several stakeholders commented on quantification. Support was expressed for conservative quantification methods or approaches in general. There was support for the use of existing quantification methods where possible and a call to customize quantification methods for local environmental conditions. In addition, the stakeholders generally supported the use of methods and models for quantification that are peer reviewed, based on science, and rigorous.
Uncertainty and accuracy: Public comments generally supported an assessment of uncertainty, although proposed methods varied. Stakeholders generally commented that assessments of uncertainty may vary by scale. Some suggested that uncertainty be considered in the quantification methods not as stand-alone assessments, while others suggested that uncertainty discounts should be applied or that project types with high uncertainty should be excluded.

Conservativeness: Stakeholders who provided public comments on this topic generally (but not uniformly) supported the use of “conservative” methods for quantifying offsets.

4.2.1.3 Explanation of draft recommendation

Quantification generally means that reductions must be accurately quantified and includes these components:

- Using calculation methods that are measurable, credible, and reproducible.
- Undergoing periodic review of quantification methods to ensure appropriateness and consideration of local conditions.

Uncertainty assessments should be carried out, whenever possible, during protocol review and development phases. The assessment should determine if uncertainty is or is not significant.

Where appropriate, project protocols should strive to set standards for precision and allowable error defined by acceptable standards for statistical sampling at the project level. Statistical accuracy and precision (reduced error) standards will increase confidence in quantification methods and thus the overall quantity of offsets credited for a given project. Protocols should provide straightforward guidelines on how to assess uncertainty and how to appropriately adjust the quantification based on risk assessments or analysis of sampling confidence.

Periodic review of protocols is recommended to ensure that quantification methods reflect current science and adequately address uncertainty, accuracy, and conservativeness.

An initial step in scoping and developing an offset project is to reduce uncertainty and error to the extent possible during protocol development and review stages. In dealing with uncertainties in protocol quantification the protocol should apply principles of conservativeness should be used to ensure that any resulting offsets are real and not over-estimated.

A principle of conservativeness should be applied when relatively uncertain parameters or data sources are used to determine baselines and the quantification of project GHG reductions and removals. Employing this principle when high levels of uncertainty are encountered during protocol development would make reductions and removals more likely to be under-estimated instead of over-estimated.
Protocols should call for project documentation that details how chosen assumptions and parameters are conservative (more details and guidance in *Process White Paper*). Use of this principle does not dictate the use of the “most conservative” set of assumptions and methodologies. Implementing a principle of conservativeness means erring on the side of caution, and it requires balancing standards for accuracy with the need for cost-effective offset projects. When less accurate methods are selected, more conservative assumptions and methodologies should be applied at the protocol level.

### 4.2.2 Leakage

Leakage is an increase in GHG emissions outside of a project’s boundary as a result of the offset project’s activity. Reviewed offset systems often define two types of leakage:

- **Activity-shifting leakage**: greenhouse gas emissions that result from the displacement of activities from inside the project’s boundary to locations outside of the project’s boundary as a result of the project activity.
- **Market leakage**: greenhouse gas emissions that occur outside a project’s boundaries resulting from substitution or replacement due to the project activity impacting an established market for goods.

As discussed in the Criteria White Paper, there are several options available to address leakage. One is to require that each WCI offset protocol include a method to account for leakage in emission reductions or removal calculations specific to a project type. A second option is to have a project validation step that requires an opinion or assessment of leakage risk associated with a project. This step would require further elaboration and guidance to determine the outcome and significance of the validator’s opinion or assessment. A final option to assess leakage is to use standard algorithms and methods for leakage quantification – as CDM does for some of their methodologies.

#### 4.2.2.1 Draft recommendation

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 protocols include methods for leakage assessments. WCI offset protocols will evaluate functional equivalence for each project. WCI offset protocols will also require an assessment of potential leakage associated with each project type. In general, WCI jurisdictions prefer the following methods to review leakage risk:

- A quantitative assessment of leakage will be performed whenever possible.
- When a quantitative assessment is not feasible, a qualitative risk assessment will determine whether the risk of systematic leakage is significant or not.
• WCI offset protocols will include a threshold to identify significant leakage.

If leakage is found to be above the threshold, the protocol quantification methodology will include a factor to account for leakage.

4.2.2.2 Summary of stakeholder input

Stakeholder comments generally supported the consideration of leakage, although proposed methods varied. Several suggested that leakage should be addressed in protocol development, and some suggested that it be addressed through discount rates.

4.2.2.3 Explanation of draft recommendation

Emissions leakage is an important concern for any offsets system. Market leakage is difficult to address on a regional level because commercial markets are often national or multi-national in scale. Ensuring functional equivalence means that project proponents must demonstrate that emissions are not shifted within an organization or entity (from within the project boundary to sources or sinks outside the project boundary). Practical leakage quantification methods do exist. For this reason, WCI jurisdictions prefer that project protocols:

• Quantify leakage risks whenever possible,
• Conduct a qualitative assessment of leakage risk when quantification of leakage proves to be unfeasible, and
• Employ factors to address leakage when risk is determined to be significant within the project type protocol.

If leakage risk is found to be medium or high, then the protocol quantification methodology should include a factor to account for leakage to ensure that offsets generated in the system are real.

5 Defining the criterion Additional

The concept of additionality addresses the need for offsets to represent reductions or removals of GHG emissions that would not have otherwise occurred but for the incentive provided by the offset program. Additionality is essential to maintaining the integrity of the emissions cap. To be considered additional, emissions reductions or sequestrations are those that occur beyond the business-as-usual baseline of emission activity that would occur without the offset project.
5.1 Additionality and Baseline

In defining additionality it is important to identify the type of tests that will be used to ensure the offset activity would not have occurred on its own in the absence of the WCI offset opportunity. The Criteria White Paper identified these options for analyzing additionality:

Option A: Project Specific – The additionality of each individual project activity is scrutinized through application of specific additionality tests.

Option B: Performance Standard – For each sector or project type, a performance standard is established where projects meeting or exceeding the standard are considered to be additional.

Option C: Protocol Specific Approach – Approach to additionality assessment may vary by protocol, seeking to adopt the best approach for each sector or class of activities.

Option D: Hybrid Approach – A combination of Options A, B, and C would set a performance standard, but still include some aspects of a project-specific additionality, and may vary by protocol.

In order to determine if a project is additional the baseline emissions for that project must be modeled. The options to estimate the baseline scenario revolve around how to estimate the emission activity that would occur in the absence of the offset project. One option is to use a regulatory floor of required compliance activity as the baseline scenario. Another option is to use sector specific performance standards as the measure of baseline emission activity. The WCI Partner Jurisdictions could also require that baselines be estimated for individual offset projects such one based on historical practices on an individual piece of land. Alternatively, baselines can be calculated at a sector-specific scale where an aggregate of project activity is estimated as the baseline.

5.1.1 Draft recommendation

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 jurisdictions. These assumptions will be described in the procedures for setting a baseline in WCI offset protocols. Modeling or other methods of developing the baseline shall use assumptions, methodologies, and values that provide the WCI Partner jurisdictions with assurance that GHG reductions or removals from a project are not over-estimated (consistent with the principle of conservativeness in 4.2.1).

When possible, the baseline shall be set using a sector-specific or activity-specific performance standard; otherwise a project-specific baseline may be used. Performance standards used to establish a baseline will be set so as to reflect the most stringent regulatory requirements and legal requirements of any WCI Partner jurisdiction (those requirements leading to the most
conservative calculation of emission reductions). When a project specific baseline is used, the baseline will be set so as to reflect all binding agreements, regulatory requirements and legal requirements in the jurisdiction where the project is located.

5.1.2 Summary of stakeholder input

There was fairly little stakeholder input about how the WCI Partner Jurisdictions should specifically define additionality. However, the WCI Partners received comments that supported all four of the additionality options highlighted above. Of those that commented directly on the options, many preferred Option D, with significant support for Option B as well. This indicates widespread preference to a performance standard approach to additionality and baseline, but at the same time some flexibility to incorporate alternative tests should a performance standard approach proves infeasible.

Stakeholders generally favored that specific methods to estimate baseline be laid out in protocols. There was also some support for modeling the baseline using historical practices in either one or multiple years prior to the start date of the project and for using performance standards that exceed common practice. For stakeholders that commented on project-specific additionality tests, there was some support for common practice tests but at the same time, near unanimous dislike for financial, funding, or investment tests.

5.1.3 Explanation of draft recommendation

The recommended definition of additionality and baseline is consistent with the International Standards Organization’s (ISO) 14064-2 standard by defining what is additional as reduced or sequestered emissions beyond any reductions or sequestration achieved under a baseline scenario. At a minimum, the baseline scenario must incorporate reductions or sequestration of emissions required through regulation or other legal requirements. Offset projects can generate offsets for early adoption of activities that will be required in the future by a current or expected regulation until the requirement takes effect. However, new regulations or requirements that were not implemented or expected during project registration or renewal will not affect project additionality until the end of the current crediting period.

Each WCI offset protocol must lay out the methodologies that a project proponent shall use to determine additionality and model the baseline scenario. The WCI Partners prefer protocols that take a performance standard approach to determining additionality. In this method, the baseline is set as the performance standard or the minimum actions required by law, whichever is higher. When a performance standard approach is not the best alternative for a certain project type or it will take a number of years to develop a reasonable performance standard, the WCI Partners may recommend including protocols that use alternative methods as long as they meet the criteria for determining additionality and baseline.
Regulatory baselines are viewed by the WCI Partners as a minimum. The WCI Partners intend to use baselines that exceed this minimum by favoring performance standards since performance standards generally set higher baselines and are thus more conservative. Performance standards are designed to capture common practice or business-as-usual investment activity such that there is high confidence that the reductions or removals of greenhouse gas emissions by offset projects exceed those already occurring—especially when what is already occurring exceeds regulatory requirements.

The WCI Partners are retaining the option of using proportional additionality as the means to develop performance standards for sequestration projects in agriculture and forestry. Proportional additionality models sector activity in aggregate—the level of project activity that would occur absent the WCI offset program (i.e., baseline activity) and the level of aggregate project activity that is induced in response to the WCI offset program. The portion of a project’s emissions reductions or sequestration over the sectoral baseline is considered additional.

The WCI Partners’ draft recommendation for additionality and baseline sets an overall standard but at the same time provides flexibility by deferring to the offset protocols the specific methods used to achieve the standard. For example, protocols may include additionality tests for project types that do not lend themselves to a performance standard approach. In this way, protocols for project types that otherwise would be excluded can still be included in the WCI offset program. The WCI Offset Committee generally concurs with the prevailing view of commenting stakeholders concerned about using investment, funding or financial barriers tests in determining additionality. Thus, the WCI offsets system will not require them on a system-wide level, although they could be required by a protocol where they are deemed appropriate for a given project type.

5.2 Supporting criteria

Two other considerations related to additionality—eligibility date and crediting period—related to additionality are discussed in this section.

5.2.1 Eligibility date

The issues regarding eligibility date can be divided into two areas: the earliest start date that offset projects may be undertaken to be eligible for inclusion in the WCI offset system and the earliest year in which offsets arising from a project can be eligible for verification and use in the WCI Partner jurisdictions. The first seeks to identify a cut-off date, where projects initiated before that date would not be eligible. If the date identified in the first is before the start of the first WCI compliance period (i.e., 2012), the second gets at what vintages of offsets arising from
these projects may be used in the WCI jurisdictions. The consideration is whether reductions need to occur over the same time period as the emissions that they are offsetting or whether earlier offsets can be banked and used against later emissions. For projects undertaken before 2012, one approach would be to consider the reductions occurring before 2012 to be early actions, while reductions after 2012 would generate offsets (subject to crediting period limits).

The *Criteria White Paper* outlined three primary options for eligibility dates for project initiation and qualifying reductions:

- both dates coincide with the launch of WCI cap-and-trade program in 2012
- project initiation may precede 2012, but WCI Partners may issue offsets only for reductions in 2012 or later
- project initiation may precede 2012, and the WCI Partners may issue offsets for all reductions resulting from project activity (at least through the initial crediting period).

### 5.2.1.1 Draft recommendation

Offsets may only be awarded for projects that are initially commenced on or after September 23, 2008; the date of the WCI Design Recommendations that identified the priority project types for WCI offsets. Offsets may be awarded for all GHG reductions or removals occurring after September 23, 2008.

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 protocol must apply within one year of the protocol’s finalization.

### 5.2.1.2 Summary of stakeholder input

There was support from stakeholders who would be either offset purchasers or developers for both a start-date and eligibility date pre-2012. The suggested dates ranged from 2000 to the year the jurisdiction sourcing the project joined the WCI.

### 5.2.1.3 Explanation for draft recommendation

The WCI Partners recommend a project start and eligibility date of the date the WCI Design Framework was released. This supports the discussions about establishing a WCI offset system and the need to establish a rigorous offset system to support WCI Partner Jurisdictions. By choosing one date for all jurisdictions we provide consistency in eligibility across all jurisdictions. We also believe that the chosen date provides a good compromise. It hopefully works to bring offsets into the WCI system in the early years, while ensuring the quality of offsets allowed into the system. Projects will be able to seek verification for offsets based on the WCI Jurisdictions’ recommended protocol for the offset project type. Verified offsets for the reduction or sequestration of emissions occurring before 2012 will still need to meet the strict monitoring and verification standards laid out in each protocol. For any offsets that have
previously been issued in any voluntary or compliance offset system, those offsets must be retired or removed from the other system before a WCI Partner Jurisdiction may issue a compliance unit in recognition of that reduction.

5.2.2 Crediting period

A crediting period determines how long an offset project is eligible to generate offsets once it has been approved by a WCI Partner Jurisdiction. Different project types may have different crediting periods. For example, sequestration projects tend to have longer crediting periods because their gradual greenhouse gas removals occur over longer timescales. In general, the length of crediting period should give project developers some certainty in their investment. Another option is to adopt shorter crediting periods but at the same time allow for their renewal based on a periodic review of conditions for eligibility. All or some of the following could be re-evaluated at the time of renewal and only those projects passing would be renewed:

Eligibility— Is the project type still eligible as a WCI offset project?
Applicable Protocol – Besides questions of additionality and baseline, has the WCI Partner Jurisdiction adopted a revised or new protocol for the project type that is now applicable?
Additionality and Baseline – Are their new regulatory or other legal requirements that need to be incorporated into the project baseline? Similarly, have performance standards evolved since the original baseline determination? For project types that originally needed to pass project-specific additionality tests, are there now available performance standards that could be used as an alternative?
Quantification – Is there opportunity to incorporate new quantification methods that reduce the uncertainty in the measurement of offsets or modeling of baselines?

5.2.2.1 Draft recommendation

The crediting period for non-sequestration WCI offset projects will be 10 years, which may be once renewed for an additional 10 years. The crediting period for sequestration projects will be specified by the applicable 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.

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.

5.2.2.2 Summary of stakeholder input

Stakeholder comments on the length of crediting periods varied. Many comments stated it was necessary to credit offsets for a minimum period of time in order to provide some investment
certainty for project developers. Many stakeholders supported longer crediting periods with more opportunity for renewals, including some who favored unlimited renewal of crediting periods. By contrast, others generally supported shorter initial crediting periods with fewer opportunities to renew.

### 5.2.2.3 Explanation of draft recommendation

The recommendation above tries to balance investment certainty with the need to develop a rigorous offset system. Project types eligible for offsets will likely be subject to advances in common practice, technological revolutions, increasing regulatory standards, and other factors that make periodic reevaluation of additionality prudent.

Presently the WCI Offsets Committee is recommending a fixed 10-year crediting period for all non-sequestration projects. Alternatively, the Committee considered recommending that crediting periods be determined by the applicable protocol but no longer than 10 years. Since there was not a non-sequestration project type currently under consideration for which the Committee thought a period shorter than 10 years would be clearly preferred, the Committee is recommending this uniform period, although it acknowledges that this recommendation may need future reevaluation.

The recommendation also recognizes that sequestration require long-term investment and commitment by project developers and provides the option of longer crediting periods for them. Within a crediting period, protocols for projects with longer crediting periods may require updates to changes in quantification methodologies to reflect current science. For sequestration projects, there is not a cap on the number of renewals, just a cap on the total length of the crediting period including all renewals.

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. For projects whose crediting period has expired and not been renewed, previously verified offsets will still need to meet protocol requirements for permanence, and any reversal of previously verified reductions remain subject to the WCI Partner Jurisdictions’ enforcement provisions.

### 6 Defining the criterion Permanent

The *Criteria White Paper* outlined a range of options for the definition and implementation of permanence. This section reviews stakeholder comments to that paper and offers the WCI Partners’ draft recommendation for ensuring permanence.
6.1 Permanent

As an offset element, permanence refers to the duration of an emission reduction. Permanence needs to be addressed in projects which involve a risk or reversal, most notably geologic and terrestrial (i.e., carbon that is stored in biomass and soil) sequestration of carbon. The draft recommendation below outlines the mechanisms required to ensure equivalency of offset emissions reductions across different project types.

Implementation mechanisms discussed in the Criteria White Paper fell into two broad categories: *ex ante* and *ex post facto*. *Ex ante* mechanisms do not guarantee against a reversal but do make a legally binding commitment which, in the case of land-based projects, “run with the land” and can serve to reduce the risk on non-permanence. *Ex post facto* obligations provide assurance in the case of failure of permanence and are achieved through replacement of lost tons.

6.1.1 Draft recommendation

With respect to offset project activities, permanence means either that reductions or removals are not reversible or that, if reductions or removals are reversible, then the text outlined in the remainder of this recommendation is met.

Sequestration projects must ensure the atmospheric effect of their greenhouse gas removal will endure for a period that is comparable to the atmospheric effect achieved by non-sequestration projects. The duration for this period is to be based upon current scientific findings that are widely accepted and followed. The current international standard of 100 years has been established by the UNFCCC and will be followed by WCI Partner jurisdictions. WCI Partner jurisdictions will adopt new international standards (likely UNFCCC) if/when they are updated.

Offset projects where the reduction or removal is maintained for less than the WCI recommended standard may be pro-rated and/or replaced in order to maintain the environmental integrity of the offsets system. If pro-rating is allowed for a project type it will be included in the appropriate WCI offset protocol.

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. WCI Partner Jurisdictions will establish mechanisms to address reversals that are not the result of proponent intention or negligence.
and to ensure replacement of credits where proponent’s contingency measures prove inadequate.

6.1.2 Summary of stakeholder input

Stakeholder groups offered valuable feedback on the permanent criterion. There was consensus that the environmental integrity of the offsets system needs to be ensured. There was also broad agreement that the benchmark of permanent should be a 100 year standard. Methods for ensuring the environmental effect of this standard varied, but the objective of ensuring that sequestration offsets may be employed with equal confidence as emission allowances or non-sequestration offsets was universal.

Stakeholder comments included these suggestions which vary from the draft recommendation:

- creating temporary or short-term credits
- having the purchaser of sequestration offsets assume the liability of replacement in the event of a reversal
- avoiding long-term monitoring as much as possible
- allowing a force majeure safe harbor (i.e., in the event of an unintentional reversal, project proponents would not be immediately liable for offset replacement, although they would be required to accrue additional removals to build carbon stocks up to the level that had been depleted)

6.1.3 Explanation of draft recommendation

Strictly speaking the true time frame for permanence is forever. However, practicality and GHG accounting conventions suggest a more finite time be utilized. The second IPCC report effectively established a 100-year standard for permanence. This was adopted by the UNFCCC. The WCI Partners intend to remain consistent with international GHG accounting conventions. Thus, as UNFCCC conventions are updated the WCI Partner recommendations will also be updated. Still, the WCI Offsets Committee envisions that the standard for permanence in effect at the start of a project’s crediting period would remain the standard for reductions achieved in that crediting period and would not be changed retroactively. This certainty should facilitate investor confidence.

The draft recommendation establishes strict liability for intentional or avoidable reversals. It also establishes the broad recommendation of monitoring and risk mitigation for all sequestration projects, but specific requirements may vary by project type. Thus, guidelines will be established through a combination of universally applied WCI offset program essential elements and WCI offset protocols which may allow for flexibility by project.
Protocols for sequestration projects should require the projects in general, and their monitoring and risk mitigation plans in particular, be developed and carried out in a manner which considers project specific risks from climate change. These risks might include susceptibility to fire, drought, flooding, windstorms, or insects. Risk mitigation plans could include ex ante permanence mechanisms such as conservation easements.

Contingency plan measures to be established or followed by the proponent to ensure the replacement of offsets in the event of an intentional reversal or a reversal which occurs as the result of proponent negligence might include:

- Contractual or other arrangements for securities, contingency funds, discounts or set-asides
- Insurance or other guarantees

Ultimately the WCI Partner Jurisdictions will adopt measures and mechanisms that provide a degree of confidence that the environmental credibility of the offset system is assured. Potential WCI Partner contingency plan measures might include:

- A buffer pool (established through contributions which would be determined through a project risk assessment)
- Contractual or other arrangements for securities, contingency funds, discounts or set-asides
- Insurance or other guarantees established to replace offsets in the event of a reversal

7 Defining the criterion Verifiable

This section provides the WCI Partners’ draft recommendation for defining the verifiable offset criterion. This section also includes recommendations for three other supporting criteria.

7.1 Verifiable

For something to be verifiable, it must be transparent and documented well enough that a person can objectively review the GHG assertion or reduction and make a finding that the GHG assertion or reduction is accurate. However, the biggest question related to the term verifiable is who will be that person objectively reviewing the GHG assertion or reduction.

As outlined in the Criteria White Paper, there are three options for whom that person should be. The first is to follow international convention and only allow third-party independent verifiers to verify GHG assertions or reductions. An alternative is for jurisdictions to play that role, and the last option is to allow the project developers to self-certify that they are providing accurate and truthful information about reductions.
7.1.1 Draft recommendation

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 WCI 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.

7.1.2 Summary of stakeholder input

Most stakeholder comments supported third-party verification.

7.1.3 Explanation of draft recommendation

In order for a stated GHG reduction to be verifiable it must be developed using transparent methods and be well documented. Only reductions that meet these conditions lend themselves to careful review by a third-party. Review should be conducted by an accredited verifier that is recognized by WCI Partner Jurisdictions. The WCI’s Reporting Committee is building accreditation mechanisms and criteria for third-party verification of reported emissions. The WCI’s offset system could build on that work and help foster a consistent approach to verification within the overall program. Most importantly, independent third-party verification of offsets is an international practice in existing voluntary programs and in the CDM.

7.2 Supporting Criteria

7.2.1 Validation

Validation is the process of reviewing the documentation and other information related to an offset project before it is actually implemented. The process provides assurance to the project developer that they are meeting the full requirements of the project protocol and the project is expected to produce GHG reductions if implemented as documented. WCI Partners could choose to recommend validation or make it optional. In either case, a project developer may be able to use a third-party validator or a jurisdiction could play that role.

7.2.1.1 Draft recommendation

With regards to WCI offsets, validation is a review by an independent third party to assess the likely result of reductions or sequestration from a proposed project that would use a WCI offset protocol. The WCI Partner Jurisdictions may not require third party validation in all cases but may approve protocols that require a validation step.
7.2.1.2 Summary of stakeholder input
Several respondents suggested that validation be optional or at the discretion of the project developer. Others supported mandatory validation including requiring third-party audit of application materials, or including validation as part of the verification process.

7.2.1.3 Explanation for draft recommendation
In a program where standardized protocols for specific project types must be approved, validation may not be necessary. Programs, like CDM, require validation because each reduction project is considered unique and project protocols allow some flexibility in how they are applied. Since the draft recommendations in this document also include following a standardized project protocol approach, validation would be an extra unnecessary step.

If the WCI Partners recommend that validation be optional at the discretion of the project developer and is thereby an option that has no legal weight within the WCI program, it is not necessary to develop a definition or include the concept in WCI Partner rule-making language. Implementing this option could be as simple as making project developers aware that they may engage a consultant to review their documentation and proposed project before it is implemented.

7.2.2 Enforceable
Enforceability is key to maintaining the WCI offset system’s integrity. Enforcement ensures that the parties involved with the WCI offset system comply with the protocols and system recommendations.

7.2.2.1 Draft recommendation
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 WCI offset protocols.

7.2.2.2 Summary of stakeholder input
Stakeholders offered few comments for defining enforceable. Stakeholder comments generally supported offsets being enforceable. One comment supported strict enforcement for the WCI offset program. Another comment suggested supporting local enforcement and suggested enforcement should be similar to those in other environmental programs. Another comment suggested that capped entities that purchase offsets must be held responsible for surrendering valid credits for their emissions.
7.2.2.3 Explanation of draft recommendation

Since a definition for “enforceable” was not found in any existing offset system, the Black Law Dictionary was referenced to draft the recommended definition above. Although it does not define “enforceable,” it does define “enforce” and “enforcement.”

Experience shows that compliance is ensured only by assurance that enforcement can be taken. Compliance assurance mechanisms in the enforcement process must be sufficiently effective to ensure enforceability within the WCI offset system. Compliance mechanisms are not directly referenced in the definition of enforceable above, but the Process White Paper will expand upon them and how their role in the enforcement process relates to enforceability. The following is a non-exhaustive list of enforcement mechanisms for further consideration:

- MOUs or contracts;
- Legal authority;
- Transparency;
- Penalty structures and mechanisms for collecting fines;
- Enforcement staff, infrastructure and capacity necessary to enforce;
- Registration and tracking system to establish and track ownership;
- Attestation of Title;
- Prohibitions for “double counting”;
- Monitoring, reporting and third-party verification;
- Mechanism for project reversals, and
- Recourse for early project termination.

Another issue which the draft recommendation above does not address is the relationship between the enforcing regulatory authority and project proponents, as well as with any other persons or entities participating in the offsets system. The WCI’s Design Recommendations document stated that “each WCI Partner jurisdiction will retain and/or enhance its regulatory and enforcement authority and responsibilities to enforce compliance with the cap-and-trade program within its own jurisdiction,” and similarly that, “offset projects must also be enforceable by the individual WCI partner jurisdiction that is issuing the credit, and the credit must be verifiable by the individual WCI Partner jurisdiction that is accepting it.”

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9 “…Enforce. To put into execution, to cause to take effective; as, to enforce a particular law, a writ, a judgment, or the collection of a debt or fine; to compel obedience to…”. Also: “Enforcement. The act of putting something such as a law into effect; the execution of a law; the carrying out of a mandate or command”. (Taken from Black’s Law Dictionary, Sixth Edition, Centennial Edition (1891-1991) page 528. No definition was available for “enforceable”.)

10 WCI Design Recommendations, p. 12.
11 Ibid. p. 10.
offset system participants follow the rules and do not harm the integrity of the offsets system. The Process White Paper will lay out additional options for the relationship between the WCI’s regulatory authorities and offset system participants.

7.2.3 Material

A term of art specific to verification is ‘materiality.’ This term relates to a threshold where differences above that number in reported emissions/reductions are deemed unacceptable. The WCI Essential Reporting Requirements document has a materiality threshold of ±5%, consistent with EU ETS and The Climate Registry. As briefly discussed in the Criteria White Paper, the WCI offset system could have a lower materiality threshold to be conservative. In regards to materiality, the WCI offset system could also apply an asymmetric materiality threshold that would entail not allowing any errors that overestimate the total emission reductions but accepting errors that underestimate reductions within a prescribed materiality threshold.

The term “material misstatement” refers to any error or aggregation of errors found by a verifier that would cause a verifier to believe with reasonable assurance that the GHG assertion does not meet the materiality threshold.

7.2.3.1 Draft recommendation

Material misstatement means that errors, omissions or an aggregation of both in the reported GHG reductions or assertion exceeds a ±5% threshold. For a WCI offset, the verifier must be able to state with reasonable assurance the total reported reductions or removals are free of material misstatement.

7.2.3.2 Summary of stakeholder input

WCI Partners received limited stakeholder input regarding materiality criteria. Comments received supported the ±5% threshold.

7.2.3.3 Explanation of draft recommendation

The recommended threshold of ±5% for the WCI offsets system is consistent with the materiality threshold for emitters with mandatory reporting obligations in the WCI Jurisdictions (as described in the Essential Reporting Requirements document). Neither the WCI Offsets Committee nor its stakeholders have identified a sufficient reason to alter the materiality threshold for offsets from what has previously been suggested for mandatory reporting.
8 Other considerations

In addition to the main criteria of real, additional, permanent, and verifiable, the WCI Offsets Committee also identified other factors to consider. Those factors were discussed previously in the Criteria White Paper. Following the format of the previous sections in this paper, this section includes for each of those factors a recap of that discussion, a draft recommendation, a summary of stakeholder comment, and an explanation for the draft recommendation.

8.1 Transparency

Transparency means that assumptions and methodologies for offset projects and protocols should be clearly explained and available for the public and system users. Transparency standards should allow users and stakeholders to assess and replicate projects and protocols in the offsets system.

Options to enhance transparency focus on increasing stakeholder input and public comment on project and protocol development, as well as public access to offset project information, except where important confidentiality issues exist.

8.1.1 Draft recommendation

The WCI 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.

8.1.2 Summary of stakeholder input

Overall stakeholders expressed their support for transparency within the WCI offset system. Specifically stakeholders supported a transparent protocol development process with public access to information on offset projects, tracking numbers, ownership, selling price, audit/enforcement activities, use for compliance and protocol quantification methodologies that are well documented for all algorithms and models. Some stakeholders qualified their support that information should be made available with consideration of confidentiality concerns. Some stakeholders supported public comment of offset protocols, project documents, credit issuance and enforcement, while other stakeholders supported limited public consultation, suggesting exclusion public consultation for project registration.

8.1.3 Explanation of draft recommendation

As identified in the WCI Offsets Task 1, the forthcoming Process White Paper will evaluate information needs for system users and the public, including details on how the review and approval of offset projects and protocols will take place, as well as standards for information
releases. This paper confirms the importance of transparency and the Process White Paper and subsequent draft recommendations will identify options when the paper is released.

8.2 Co-benefits

Offset projects provide benefits in the form of greenhouse gas reductions or removals. An offset project may also lead to a number of other benefits (“co-benefits”) beyond the emission reductions or removals. These co-benefits may include categories such as air quality improvements and economic development activity. Whether to require offset projects to generate co-benefits is an important question in establishing an offset system. Most offset systems do not require projects to generate co-benefits with some exceptions, most notably the Clean Development Mechanism. Note that this question is focused on the generation of co-benefits above and beyond what may exist prior to implementation of the offset project, and not on maintaining or mitigating the loss of co-benefits in existence prior to the project.

8.2.1 Draft recommendation

WCI Partners recognize the environmental, social, economic and health benefits that may arise from an offset project and the offset system will focus on those benefits directly related to mitigating climate change. A WCI offset project is required only to result in a greenhouse gas emission reduction or removal.

8.2.2 Summary of stakeholder input

Most stakeholder comments did not support requiring project co-benefits to be generated in order for a project to receive credit as a WCI offset. Some stakeholders generally supported making the presence of co-benefits either a necessary criterion to receive credit, or a weighting factor when evaluating offset projects against each other. Others supported requiring documenting, but not requiring, co-benefits in the process to apply for and credited with compliance units.

8.2.3 Explanation of draft recommendation

The draft recommendation on co-benefits keeps the WCI offset program focused on greenhouse gas reductions and removals—the reason behind establishing the WCI regional cap-and-trade program. A WCI offset makes no claim to any benefits or properties associated with the offset project other than the greenhouse gas emission reduction or removal resulting from implementation of the project. Any benefits attributable to an offset project beyond the greenhouse gas reduction or removal properties of the project are incidental to the offset. Under this recommendation, the WCI Partners remain neutral on how co-benefits associated with an offset project may be treated or claimed by policies or programs other than the greenhouse gas cap-and-trade program. By remaining “policy neutral” regarding co-benefit attributes associated with an offset project, jurisdictions are free to take different approaches
towards using these attributes in emerging attribute valuation schemes, such as ecosystem service markets (e.g., markets in habitat protection or wetland mitigation).

8.3 Assessment of Environmental or Social Impacts

Offset projects reduce or remove greenhouse gas emissions. However, offset project activity may impact its environment or social environment. Transparency can be enhanced by informing stakeholders about the impacts of an offset project. Examples of options for assessing the impacts of offset projects include requiring documentation of impacts in the project plan, a policy of “offsets should do no net harm,” requirements to meet all local environmental regulations, or having no specific requirement.

8.3.1 Draft recommendation

WCI 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. If environmental or socioeconomic assessments of the proposed project have been done, the project’s registration application should reference this work and include a summary of the findings. 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.

8.3.2 Summary of stakeholder input

Stakeholders were divided about whether the WCI Partner Jurisdictions should require projects to provide an assessment of environmental or social impacts. Some stakeholders stated that they do not support any recommendations for impact assessments. Other stakeholders suggested that WCI Partner Jurisdictions should ensure that offset projects do no net environmental or social harm through consultation in the protocol development process. Others suggested that projects provide proof, through an EIA assessment or other form, which the project does not result in net negative impacts.

8.3.3 Explanation of draft recommendation

WCI Design Recommendations state that the WCI cap-and-trade system will aim to “[maximize] total benefits in jurisdictions 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” (p. 52). The draft recommendation is consistent with this earlier policy direction. WCI Partners will consider recommending additional assessments on a case by case basis as part of their protocol recommendation process.
9 Conclusion

This paper provides the WCI Partner Jurisdictions’ draft recommendations for defining a WCI offset and defining the WCI Partners’ main offset criteria of real, additional, permanent and verifiable. It has also offers recommended definitions for other criteria in support of the offset definition and main offset criteria, as well as recommendations for a few other considerations. This paper summarizes stakeholder response to the Criteria White Paper and attempts to explain the reasoning for the Committee’s recommendations.

The WCI Offsets Committee will receive stakeholder comment on this paper and its recommendations before issuing its final recommendations. Written comments may be received via the WCI website through May 12, 2010. As with the Criteria White Paper, the WCI Offsets Committee will also hold two stakeholders calls. The first call on Thursday April 22, 2010 from 10:30 a.m. to 12:00 p.m. Pacific Time will provide an initial presentation and discussion of this paper. The second call on Wednesday May 5, 2010 from 9:00 to 10:30 a.m. Pacific Time will be focused on hearing from stakeholders and responding to stakeholder questions.

The WCI Offsets Committee poses these questions to stakeholders:

- What is your impression of the draft recommendations overall and individually?
- What has been your experience with offset systems utilizing these or similar recommended definitions for an offset and its essential criteria? Have the advantages of these definitions outweighed the disadvantages?

This is the second paper from the WCI Offsets Committee Task 1 work. A forthcoming white paper will cover the process of registration, validation, monitoring, quantification, reporting, verification, certification, and issuance of offsets.

This draft recommendations paper supports the WCI Offsets Committee’s work to reach final definitions for a WCI GHG offset and the detailed eligibility criteria for GHG offset projects for compliance purposes.