

*Overview and Frequently Asked Questions*  
**Afforestation Offset Projects in Chicago Climate Exchange™**

***Summary***

- Forestry projects remove a significant amount of greenhouse gas from the atmosphere.
- Forestation is widely recognized greenhouse gas mitigation method.
- The Intergovernmental Panel on Climate Change (IPCC) reported in its third assessment that 10-30% of human-induced global GHG emissions are due to Land Use, Land Use Change, and Forestry.
- The IPCC concluded that globally, changes in forest management could induce future carbon sequestration adequate to offset an additional 15-20% of CO<sub>2</sub> emissions.
- Afforestation projects initiated on land that was degraded or bare as of January 1, 1990 and not required by law can earn CCX offsets.
- Afforestation projects that are implemented along with forest conservation can earn CCX Offsets for both additional removal of greenhouse gases and the avoidance of deforestation.

## *Offsets Summary*

- Inclusion of Offset projects in the CCX™ market helps foster a broad array of win-win and cost-effective climate solutions.
- In 2007 the Intergovernmental Panel on Climate Change (“IPCC”) identified approximately three dozen currently viable GHG mitigation actions. A majority of these actions are appropriately implemented via a project-based Offsets approach.
- Every CCX offset project advances a mitigation action identified by the IPCC as currently viable.
- The following principles used to define eligible projects and determine the quantity of tradable Offsets issued:
  - To qualify, a projects must be beyond regulation, recently implemented, or as applicable, best-in-class
  - Conservative crediting
  - Independent verification by expert entities
  - Reserve pools for sequestration performance assurance
  - All Carbon Financial Instrument® contracts(i.e. CCX Allowances and CCX Offsets) are equivalent when surrendered for compliance
- The CCX principle of using standardized rules for defining eligible projects and quantifying project crediting is becoming widely adopted in programs across North America.
- To assure quality and legitimacy of Offsets transacted in CCX, CCX rules require an independent verification report on project eligibility and effectiveness before the exchange will issue Offsets to the Member’s CCX Registry account.
- To ensure that Offset Projects enrolled in CCX have not “double sold” credits by selling in both CCX and elsewhere CCX uses a unique serial number system in the CCX Registry and requires appropriate contractual provisions for project enrolled in CCX.
- CCX rules are designed to assure overall environmental progress and prevent “cherry picking”. Any entity that seeks to register CCX Offsets that also has significant GHG emissions at its own facilities can be eligible to earn Offsets only if makes the CCX legally binding commitment to manage its facility emissions under the CCX Emission Reduction Schedule.

## *CCX Overview*

Chicago Climate Exchange (“CCX”) is an international rules-based greenhouse gas emission reduction, audit, registry and trading program based in the U.S. Launched as a pilot program in 2003, the market now includes over 350 entities. CCX participants in the industrial,

governmental and academic sectors execute legally binding commitments to meet annual emission reduction goals of 4% below baseline for 2006 and 6% below baseline by 2010.<sup>1</sup> CCX rules require that all emission baselines, annual reduction commitments and Offset projects are annually subjected to independent audit by authorized experts.

As of this writing, the total included baseline emissions of Chicago Climate Exchange members is in excess of 500 million metric tons CO<sub>2</sub>. No country in the world has as much industrial emissions under a legally binding GHG emission reduction commitment.

Every active or proposed GHG cap-and-trade program worldwide includes a role for project-based emission reduction credits - "Offsets". Offsets are tradable credits produced by implementing mitigation projects in sectors not covered by the emissions cap. Every GHG mitigation project enrolled in CCX must meet eligibility standards and undergo independent verification before it can be issued tradeable Offsets in the CCX Registry.

Achieving the goals of Chicago Climate Exchange on a scale with global significance meant it was necessary to move beyond debate and set credible and practical standards for project-based crediting. Offset projects enrolled in CCX produce multiple social, economic and ecological co-benefits. The participation of Offset providers in CCX broadens market participation, and the carbon price produced by the CCX market rewards innovation and efficiency, and encourages investment and risk taking that stimulates development of superior environmental technologies.

It is noteworthy that as various proposals to activate carbon markets emerge around North America, the CCX principle of applying standardized, predictable rules for defining Offsets, and, as well, the specific CCX definitions of eligible projects, are becoming widely accepted practice.

U.S. legislative proposals for limiting greenhouse gases call for major reductions in net emissions in the coming decades. The stringency of the proposed rules warrant the deployment of every possible mitigation option to achieve the legislated targets and to effect the needed scale of global emissions mitigation. Most of the currently viable GHG mitigation options identified by the Intergovernmental Panel on Climate Change can be fully implemented only if a robust and diverse program for engaging project-based mitigation is developed. CCX rules serve to proactively engage many of these diverse mitigation options, thereby advancing global environmental objectives.

The remainder of this document provides a description of the rules, rationale and experience with Offsets in CCX. Details on CCX rules for specific GHG mitigation projects are found elsewhere on this website.

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<sup>1</sup> CCX core rules are found at: [http://www.chicagoclimateexchange.com/about/pdf/ChicagoAccord\\_050623.pdf](http://www.chicagoclimateexchange.com/about/pdf/ChicagoAccord_050623.pdf)

## *Frequently asked questions about CCX Afforestation Carbon Offsets*

Q: What are CCX Afforestation Offset Projects?

A: Eligible forestry projects involving afforestation via plantings initiated on or after January 1, 1990, on land that had been degraded or in unforested condition on December 31, 1989 can earn Exchange Forestry Offsets. Qualifications for degraded land will be determined by CCX Forestry Committee on a case-by-case basis depending on the region and project attributes.

Q: What is the carbon sequestration baseline for these projects?

A: The baseline is the quantity of forest carbon stocks on included project lands prior to planting of the trees. Offset issuance is based on annual increments in carbon sequestered in the specified forest carbon pools included in the project.

Q: For afforestation projects, why did CCX select 1990 as the first eligible planting date?

A: This start date aligns with the one adopted in the international market via the Kyoto Protocol. Further, allowing such earlier start dates (Offset generation does not begin until 2003 and is based on carbon accumulation in years 2003 and later) provides cases where non-trivial amounts of carbon are being accumulated. Due to slow growth rates of many species, and the predominant use of seedlings as planting stock, using a much later earliest-eligible date (e.g. 1999) would have prevented CCX and its members from realizing the many important learnings needed to better understand issues associated with forest carbon Offsets.

Q: Is forest management, such as harvesting or thinning, allowed under afforestation rules?

A: Afforestation projects which included some management of growing trees are defined under CCX rules as Forest Management projects that can be enrolled under specific CCX provisions for such projects.

Q: How are forest carbon stocks quantified under the CCX Afforestation Protocol?

A: Exchange Forestry Offsets are issued at a rate based on the annual increase in the carbon stocks in the live tree and soil organic carbon portion of the carbon pool forest during the CCX program years (2003-2010). Afforestation projects undertaken in the continental United States may quantify forest carbon sequestration through the use of CCX carbon accumulation tables. Project proponents may also use detailed forestry growth-and-yield models subject to the approval of the CCX Forestry Committee.

Q: What is the role of an Independent third-party verifier? Who are approved third-party verifiers for forestry?

A: All afforestation offset projects must be verified by a CCX-approved verifier. CCX-approved verifiers provide independent third party review of project reports, maintenance of project activity and attest to the accuracy of the data. Field verification is intended to confirm the appropriate use of the approved quantification method, species mix, age class, and enrolled acres. A list of CCX approved verifiers can be found on the CCX website. <http://www.theccx.com/content.jsf?id=102>

Q: Do CCX rules account for possible losses in forest carbon?

A quantity of CCX Offsets equal to 20% of all Exchange Forestry Offsets generated by CCX eligible forestry projects is held in a CCX Forest Carbon Reserve Pool. Exchange Forestry Offsets in the Forest Carbon Reserve Pool will be used to compensate for any catastrophic losses. All CCX Exchange Forestry Offsets in the reserve pool shall be released to project owners at the end of the program provided no losses in carbon have occurred on the enrolled acres.

Q: How is permanence addressed under the CCX Afforestation Offset protocol?

A: In addition to using the Forest Carbon Reserve Pool, mechanism, upon registration of the afforestation project with CCX, the Offset Provider or Offset Aggregator must present to CCX an attestation that the carbon stocks in forest parcels included in a project will be subject to long-term maintenance. This includes a contractual agreement between the aggregator and each participating landowner to maintain the enrolled land as forest for at least 15 years from enrolled date and a signed letter of intent from each registered landowner.

Q: Are CCX forest carbon rules similar to those of other programs?

A: Generally yes. As an example, the forest carbon rules of the Regional Greenhouse Gas Initiative are compared to CCX rules in the table below.

<i>Program</i>	<b>Regional Greenhouse Gas Initiative</b>	<b>Chicago Climate Exchange</b>
Additionality Consideration	Projects undertaken after specified dates on sites unforested for at least ten years	Projects undertaken after specified dates on sites unforested at the end of 1989
Eligible projects	Projects meeting above and commencing no more than 3 years 26 days prior to start of first compliance year (2009). Project proponents must be certified as sustainable foresters.	Projects meeting above and plantings occurring on or after January 1, 1990. Project proponents must be certified as sustainable foresters.
Provisions for improving chances of long-term carbon storage	Long-term conservation easements required	20% of earned Offsets placed in reserve pool; immediate cancellation of reserve units can occur if needed to address reversals. Project proponent must execute signed statement attesting that long-term carbon storage is a goal of its plantings.
Are project owners with significant emissions required to also include those under the program's emission cap?	No	Yes, if emissions are in U.S., or other developed country.
Independent verification required?	Yes	Yes
Harvesting allowed?	Yes	No
Debits for reductions in stored carbon	Yes	Yes