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## WIND FARMS

### WINTER CONFERENCE STATE BAR OF MICHIGAN REAL PROPERTY LAW SECTION

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#### ***MATERIALS:***

- Vicki R. Harding, *Wind Farm Leases: Some Basics*, 35 MICHIGAN REAL PROPERTY REVIEW 168 (2008)
- Vicki R. Harding, *Wind Farms: Property Tax Treatment*
- Jane C. Luxton, Todd B. Reinstein, William J. Walsh, *Green for Green: Financial Incentives Available for Renewable Energy Development*, PEPPER HAMILTON LLP CLIENT ALERT (January 20, 2010)
- See also <http://www.themedc.org/Products-Services/A-Z-Programs/Default.aspx> for information on Michigan incentives



## WIND FARM LEASES: SOME BASICS

By Vicki R. Harding\*

Several years ago, as telecommunications companies built out and expanded their wireless networks, landowners were able to generate supplemental income by entering into cell tower leases. Cell tower leases (or licenses) and related road and utility easements are generally typical real estate documents. However, many of the details that require negotiation are specific to cell towers (such as rights to revenues from co-location, FCC and tall structure compliance, and security to assure funding for removal of the tower and foundation at the end of the lease).

Large commercial scale wind projects can present a similar opportunity for landowners (particularly farmers in western Michigan and the Thumb area). Lawyers representing the landowners need to be prepared to negotiate typical real estate documents (such as an option, lease, and easements), taking into account considerations specific to wind projects. A general understanding of the industry and wind projects can be helpful in identifying areas that are likely to be of interest.

### Wind Energy Expansion

After a slow start,<sup>1</sup> wind energy is poised for significant expansion in Michigan over the next few years. Since wind energy is somewhat more costly than other traditional forms of energy, development has been driven to a significant extent by incentives and mandates, particularly the Federal production tax credit

1 In 2007, Michigan had approximately 3 megawatts (MW) installed wind capacity. In 2008, the first large scale wind project became operational, adding 52.8 MW capacity. A second large scale wind project, which is expected to provide an additional 60 MW capacity, is under construction.

(a corporate income tax credit) and state renewable portfolio standards.

As with other tax credits, the Federal production tax credit ("PTC")<sup>2</sup> effectively provides a source of revenue that helps make wind energy more competitive. The significant contribution of the PTC to expansion of the wind industry is illustrated by the slowdown in development each time that the PTC expired.<sup>3</sup> The PTC was set to expire again on December 31, 2008. However, the Energy Improvement and Extension Act of 2008 (one of the acts in the "bailout" legislation) extended the PTC for wind facilities through the end of 2009.<sup>4</sup>

A renewable portfolio standard or goal ("RPS") typically involves establishing goals or requirements that utilities use renewable energy (such as wind, solar, hydro or biomass) for a percentage of the electricity that they supply. Renewable portfolio standards, which have been adopted by a number of states, have also played a significant role in driving wind energy development.<sup>5</sup> This is logical since an RPS creates demand for renewable energy, including wind. There is also a perception that a state must adopt an RPS

2 26 U.S.C. § 45.

3 See Energy Efficiency and Renewable Energy, U.S. Dept. of Energy, 20% Energy by 2030: Increasing Wind Energy's Contribution to U.S. Electricity Supply (May 2008) (hereinafter "DOE Report"), p 5.

4 Energy Improvement and Extension Act of 2008, H.R. 1424, §101 (amending 26 U.S.C. § 45(d)(1)).

5 See Soji Adelaja & Yohannes G. Hailu, Land Policy Institute, Michigan State University, Effects of Renewable Portfolio Standards and Other State Policies on Wind Industry Development in the U.S. (2008).

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to be competitive in attracting both wind projects and supporting manufacturing businesses.

## Michigan Energy Act

Based in part on these considerations, Michigan adopted the “Clean, Renewable, and Efficient Energy Act”<sup>6</sup> (the “Energy Act”), which contains a version of an RPS. Generally, electric providers are required to develop plans that will allow them to achieve a 10% renewable energy credit portfolio by 2016.<sup>7</sup> Large electric utilities are also required to achieve designated levels of renewable energy capacity by 2013 and 2015.<sup>8</sup>

Unlike a typical RPS, energy optimization credits<sup>9</sup> and advanced cleaner energy credits<sup>10</sup> may be used to meet 10% of the renewable energy credit requirements (i.e., 1% of the energy portfolio)<sup>11</sup> under the Energy Act. The Michigan legislation also has provisions that have the effect of giving regulated utilities a competitive edge over independent wind developers.

Under the Energy Act, regulated utilities are required to submit a plan describing how they intend to meet the renewable energy requirements, including the expected incremental cost of compliance, within ninety days after the Public Service Commission (“PSC”) issues a temporary order implementing the act.<sup>12</sup> The PSC is required to determine the appropriate charges that will permit recovery of the incremental costs (subject to certain caps), and a utility is entitled to start billing its customers to recover the expected costs starting ninety days after its plan is approved by the PSC.<sup>13</sup> The ability to fund project costs by collecting from ratepayers in advance of incurring the costs provides

6 Public Act 295 of 2008.

7 MCL 460.1027(3).

8 MCL 460.1027(1). An electric provider with more than 1 million but less than 2 million retail customers is required to have 200 megawatts of renewable energy capacity by 2013, and 500 megawatts by 2015, and an electric utility with more than 2 million retail customers is required to achieve 300 megawatts and 600 megawatts, respectively.

9 Energy optimization includes energy efficiency, load management that reduces overall energy usage, and energy conservation to the extent that it decreases consumption of electricity. MCL 460.1005(e).

10 Advanced cleaner energy means energy generated by gasification facilities, industrial cogeneration facilities, coal fired electric generation facilities where 85% or more of the carbon dioxide emissions are captured and permanently geologically sequestered, or an electric generating facility or system that uses technologies not in commercial operation on the effective date of the act. MCL 460.1003(c).

11 See generally MCL 460.1028(7).

12 MCL 460.1021.

13 MCL 460.1045.

utilities a significant advantage over independent wind developers who are seeking funding through the capital markets. This advantage is particularly significant today given the general disarray in the capital markets.

Related legislation also reduced the potential market for independent wind developers. The “Customer Choice and Electricity Reliability Act”<sup>14</sup> was adopted in 2000 to give retail customers a choice of electric suppliers by encouraging development of merchant plants (meaning plants not owned by utilities). A key element in accomplishing this goal was the requirement that electric utilities make their transmission and distribution systems available to merchant plants (referred to as alternate electric suppliers) so that they can deliver electricity to retail customers. However, at the time the Energy Act was adopted, the Customer Choice and Electricity Reliability Act was also amended to provide that generally a utility is required to accept no more than 10% of retail sales from alternate electric suppliers.<sup>15</sup> Consequently, retail customers of an electric utility are limited in their ability to choose an alternative electric supplier.

Since the legislation does not address how the potential 10% retail market is to be allocated among alternate electric suppliers,<sup>16</sup> it seems likely that the uncertainty will discourage independent wind developers from proceeding with projects in Michigan based on selling merchant power. However, presumably as a *quid pro quo* for other utility favorable provisions, the Energy Act also provides that large electric utilities (i.e., DTE Energy and Consumers Power) must acquire at least 50% of their renewable energy credits from third parties.<sup>17</sup> So, developers considering projects in Michigan will at least have assurance that there will be access to the wholesale market.

## Wind Projects

As background, a large scale wind project includes both a cluster of wind turbines (which are used to generate electricity from the wind) and the equipment and transmission lines required to deliver the generated electricity to the power grid.

A typical wind turbine has a rated capacity of between 1 MW and 3 MW, and consists of three rotor blades mounted on a horizontal axis, which is housed (along with gear boxes, control systems and other related parts)

14 MCL 460.10bb.

15 MCL 460.10a, as amended by Public Act 286 of 2008.

16 The PSC is required to issue orders setting procedures for allocating the available load. *Id.*

17 MCL 460.1033.

in a “nacelle” mounted on top of a monopole tower. Tower heights are typically between 60 meters (197 feet) and 100 meters (328 feet), with the diameter of the rotor blades between 60 meters (197 feet) and 90 meters (295 feet).<sup>18</sup> A large wind project also requires control of a substantial area surrounding the wind turbines in order to avoid interference with the wind resource. The footprint of improvements is only approximately 2% to 5% of the wind project land area.<sup>19</sup>

Harvest Wind Farm, which is the first large-scale wind farm to begin commercial operation in Michigan, provides an example. The project extends over 3,200 acres, and includes 32 wind turbines rated at 1.65 MW each (52.8 MW total). The turbines have an 80 meter (262 feet) hub height, with an overall height of 120 meters (393 feet). The rotor blades are 40 meters (131 feet) long.<sup>20</sup>

As another example, the White Pines Wind Farm project, which has been proposed for installation on national forest system land, includes 20 to 28 wind turbines (2.5 MW each) with a hub height of 262 feet and a total height of approximately 420 feet. The project boundary includes approximately 10,024 acres, 8,600 acres of which are located within national forest service lands. The area to be disturbed during construction is estimated to be about 1.1 acres per wind turbine, with the footprint reduced to less than 0.2 acre after construction is complete. Other project components include roads, underground electrical interconnections, a new substation, above-ground transmission lines, and 199-foot tall meteorological monitoring towers. Of the 8,600 acres located within the national forest service lands, the footprint of the project components would be only approximately 75 acres.<sup>21</sup>

## Siting

A primary issue in siting a wind project is the viability of the wind resource. Other general siting issues include concerns about the impact of a turbine failure, noise, impacts on birds (particularly raptors, or birds of prey) and bats, visual impact (including “shadow flicker,” caused by the interaction between sunshine and rotating rotor blades), and the effect on property values.

18 DOE Report, *supra* note 3. at 61.

19 *Id.* at 110 & 156.

20 Wolverine Power Cooperative presentation at April 23, 2008, Michigan Wind Working Group meeting.

21 Huron-Manistee National Forest, Michigan, White Pines Wind Farm Project, 73 Fed. Reg. 52945 (September 12, 2008) (Forest Service, Department of Agriculture, notice of intent to prepare an environmental impact statement).

Developers evaluating projects in Michigan will need to take into account local treatment of land use and siting considerations. The Department of Labor & Economic Growth developed siting guidelines for wind energy systems.<sup>22</sup> It also issued sample zoning ordinance language.<sup>23</sup> These documents suggest ways to address siting concerns, including suggestions regarding setbacks and noise levels, as well as required impact studies, and may be a useful indicator of restrictions and requirements that are in the process of being developed at the local government level.

The issues raised by the siting guidelines are explained in an extension bulletin issued by Michigan State University.<sup>24</sup> More than 20 Michigan local jurisdictions have already adopted ordinance language addressing wind systems.<sup>25</sup> The ordinances typically establish limits on noise, setback requirements based on height, impact study requirements, maximum height, and blade clearance. Familiarity with current or proposed local requirements can be an important part of the negotiations. For example, setback requirements may limit the options available for configuration of the wind turbines.

## Wind Agreements

Michigan State University Extension (“MSUE”) has prepared a worksheet to assist landowners in evaluating wind contracts.<sup>26</sup> The guidelines, which have been revised and updated, identify issues that a landowner should consider in negotiating a contract. In addition to providing a useful checklist, monitoring changes to the worksheet may provide indications of current developments in wind contract negotiations. For example, an earlier version of the worksheet assumed that the wind contract would be a lease, while the current version describes wind contracts as “typically provided in two forms—as leases or as easements.”<sup>27</sup> The form

22 Department of Labor & Economic Growth, Michigan Siting Guidelines for Wind Energy Systems (March 5, 2007).

23 Department of Labor & Economic Growth, Sample Zoning for Wind Energy Systems (April 16, 2008).

24 Land Policy Institute, Michigan State University Extension, Michigan Land Use Guidelines for Siting Wind Energy Systems (October 2007).

25 *Id.* at 16-18.

26 Stephen B. Harsh, David Schweikhardt & Lynn Hamilton, Department of Agricultural, Food and Resource Economics, Michigan State University, Landowner Guidelines for Evaluating Wind Energy Production Contracts (July 2008). The guidelines can be found at <http://web1.msue.msu.edu/wind> (follow the Wind Lease/Easements Worksheet hyperlink).

27 Compare February 2008 version with July 2008 version. Used in this context, easement refers to the primary contract, as opposed to the ancillary rights traditionally addressed through easements, such as access road and utilities.

of the document is not necessarily determinative of the rights and responsibilities of the parties. However, if a landowner is expecting a lease-type relationship, appropriate terms will need to be added to an easement form (e.g., enforcement mechanisms and ability to terminate interests and clear title).

In working with the MSUE checklist, it is helpful to understand how a project develops. As a practical matter, a developer will require a minimum of a year of site-specific wind data to support a project. Given the logistics of collecting data together with assembling a large area of land, it is inevitable that a developer will ask for an option that will tie up the land without any commitment it to proceed with a wind project. In negotiating option terms, be aware that the party negotiating the option with the landowner may not have any current intentions to pursue a project. Instead, it could be a speculator assembling rights and data with a goal of selling its position. Alternatively, it could be trying to tie up land to preclude access by its potential competitors.

During the option period, the developer will require access for purposes of installing and monitoring one or more anemometers to collect the wind data. Bird and other wildlife impact studies are also typically conducted as part of the preliminary assessment, both to determine whether a site is feasible and to provide data so that the project can be configured to mitigate impacts.

The option can be in the form of a separate option agreement, or can be built into the primary contract. It will be important to assure that the developer does not retain any residual rights or restrictions if the option is not exercised (particularly if the option is included in the primary contract).

Assuming the project moves forward, during the initial stages, the developer will require more extensive rights to permit construction. Installation of a large wind turbine requires heavy construction equipment, particularly a large capacity crane to raise the tower and install the nacelle and rotor, as well as a laydown area for the components. As noted above, the White Pines Wind Farm proposal estimates that 1.1 acres per turbine is required during construction and only 0.2 acres per turbine during ongoing operations. In evaluating the impact of the project on the existing use, consideration should include the expanded intrusion during the construction phase.

As a general matter, a wind installation can be expected to have a life cycle of at least 20 years. On

an ongoing basis, the project owner requires access to the turbines for operations and maintenance, as well as to the transmission system that delivers the generated electricity from the wind turbines into the electrical grid. In addition, as illustrated by some of the early commercial projects installed in California, the wind project owner may also decide to “repower” a project—meaning the initial wind turbines are replaced by current wind turbines. Consequently, it is not unusual to see lease terms of 25 to 50 years or more.

In defining the developer’s rights and responsibilities during the post-construction period of the wind contract, the contract should be explicit about the limited nature of ongoing activities so that the landowner will not be surprised by unexpected developments. For example, repowering a project involves the same considerations as initial construction. So, if that is a possibility, the parties should consider restrictions and compensation similar to those applicable to the initial construction. Similarly, if compensation is based on continued operations, the landowner’s expectations for future compensation need to be addressed. For example, if compensation is based on number of turbines or sales of electricity generated by turbines located on the property, then it will be important to address the consequences of changing operations (replacing the initial turbines with a smaller number of larger turbines, curtailing or ceasing generation of electricity, etc.).

Intangible rights that a developer may require for a wind project include easements for noise, overhang, shadow flicker or other similar issues to assure that the wind farm project does not have liability to the landowner or adjacent landowners. In addition, it will be crucial to the wind developer to assure that there is no interference with the wind resource, perhaps documented as a negative covenant. Consider including a mechanism that will permit the landowner to clear title and terminate these easements when they are no longer needed, preferably using a procedure that does not require affirmative action by the developer (since 50 or 75 years from now, it may be difficult to locate any remaining representatives).

To the extent that wind turbines are no longer used, the landowner will want the project owner to remove the improvements. At a minimum, this involves removing the tower and turbines, although it probably does not include removing the entire foundation (which may be 1/3 to 2/3 the height of the tower). However, there should be an obligation to remove the foundation down to a level that will allow the land to be returned to its normal productive use.

## Compensation

The landowner's compensation can be based on the number of acres leased, a percentage of revenues, the number of turbines installed, or a variety of other terms. As with cell tower leases, compensation for wind projects is driven by the market, which can vary depending on the area, the type of developer, and other factors.

When the Energy Act was enacted, Senator Birkholz, sponsor of the act, stated: "Our farming community is really excited about this. The U.S. Department of Energy says that a farmer can earn \$7,500 a year per turbine that they put up on their property. They also say, the Department of Energy, that we are one of the top eight states for wind."<sup>28</sup> This probably overstates the compensation that most Michigan landowners can reasonably expect. A general survey of compensation typically being offered as fixed yearly payments, percentage of gross revenues or some combination suggested that the general rules of thumb in 2005 were \$2,500 to \$5,000 per year per turbine, \$3,000 to \$4,000 per year per megawatt of capacity, or 2-4% of gross revenues.<sup>29</sup>

As discussed earlier, the turbine footprint constitutes only a very small part of the overall land required for a wind project. Consequently, compensation that is tied to the number of installed turbines or the revenue generated does not necessarily mean that the landowner will receive any compensation, since the primary contract will almost certainly be signed before the final configuration of the wind project is determined.

Sometimes landowners attempt to negotiate a minimum number of wind turbines, although developers usually resist any commitment since the configuration will be based on maximizing the project. If payment is based on electricity generated and/or revenues, landowners will want to see a commitment to continue operations at some level, which can also be difficult to obtain. Consequently, landowners often consider negotiating minimum compensation to assure they will receive adequate royalties even if the contemplated wind turbines are not located on the landowner's property and even if a wind turbine performs poorly.

28 2008 Journal of the Senate 195 (No. 77, September 18, 2008).

29 Windustry's Wind Easement Work Group, Compensation Packages for Wind Energy Land Agreements (September 2005). The paper can be found at <http://www.windustry.org/leases> (follow Compensation Packages for Wind Energy Land Agreements hyperlink).

If payments are based on gross revenues, then consideration should be given to revenues in addition to sales of electricity, specifically including sales or other revenue generated as a result of renewable energy tax credits or other similar economic benefits.

Another issue to consider in structuring compensation is the effect of possible developments in the wind industry. In particular, the Federal PTC is based on kilowatt hours of electricity produced by the taxpayer and sold to an unrelated person during the taxable year. As a result, the typical wind project is designed to maximize immediate sales of power. However, during the 20 or 30 years that a wind farm lease is in place, it is likely that the industry will evolve. For example, it may become feasible and advantageous to first store energy in batteries or other storage mechanisms so that energy can be sold on demand or when most needed. Consider whether a compensation formula that assumes immediate sales of energy will work as anticipated in a delayed sales scenario.

## Wind Projects Located on Agricultural Land

Although the wind turbines and related improvements occupy only a small portion of the project area, control of the balance of the project is required in order to assure that other uses do not interfere with the wind resource. Typically, a wind farm is not incompatible with agricultural uses, including grazing livestock, planting and harvesting crops, logging and mineral, oil, gas or other resource extraction, and hunting. However, a landowner needs to address the details of interaction between the continuing uses and the wind project to assure that the landowner can comply with applicable restrictions and that its own interests are adequately addressed.

For those unfamiliar with the details of farming operations, a publication of the New York State Energy Research and Development Authority<sup>30</sup> provides some suggestions on farming-specific issues to incorporate into the contract, including:

- Require that large cables be buried at least three feet below the surface.
- Include a crop damage formula (such as amount of lost product times market price in season

30 New York State Energy Research and Development Authority, *Harvesting the Wind: A Legal Guidebook for Landowners* (October 2005). This article can be found at [www.powernaturally.org](http://www.powernaturally.org) (follow the Wind Energy Toolkit: Community Resources for Wind Development hyperlink, and then select Harvesting the Wind: A Legal Guidebook for Landowners).

in which crops were damaged or destroyed) to cover damages to crops (for example, if a rotor blade must be replaced, the crane and layout area are likely to damage any crops in the relevant areas).

- Locate wind structures along field edges and in non-agricultural areas to minimize impact.
- Locate access roads that cross agricultural fields along ridge tops where possible (to minimize cut and fill and reduce the risk of drainage problems).
- Avoid dividing larger fields into smaller fields (since they are more difficult to farm).
- Avoid existing drainage and erosion control structures (such as diversions, ditches, and tile lines), and if that is not possible, require appropriate measures to maintain the design and effectiveness of the existing system.
- Strip and separately stockpile topsoil from agricultural areas used for traffic and parking. Remove all excess subsoil and rock from the site. Remove all excess concrete from the site. Require that all pieces of wire, bolts and other unused metal objects be picked up and properly disposed of.
- Following construction, require that all disturbed agricultural areas be decompacted to a depth of 18 inches and all rocks 4 inches or larger be removed from the surface of the subsoil prior to topsoil replacement.
- Generally avoid decompaction and topsoil replacement after October 1 (since areas restored after October may not obtain sufficient growth to prevent erosion over the winter months).
- Regrade all access roads to permit farm equipment crossing and to restore surface drainage patterns.
- Specify seed mix to be used for restored agricultural areas (in order to maintain consistency with the surrounding areas).

Another issue of concern to Michigan farmers is the impact of a wind project on any P.A. 116 contracts. The

Farmland and Open Space Preservation Act<sup>31</sup> allows a farmer to enter into an agreement with the State (typically known as a P.A. 116 contract) that dedicates development rights in the land to the public during the term of the agreement in order to preserve agricultural use. In return, the farmer receives certain tax benefits, including tax credits and special assessments.

Farmers were concerned that a wind project would not be a permitted use under their P.A. 116 contracts. Fortunately, the Michigan Department of Agriculture issued a statement clarifying its position on the issue.<sup>32</sup> In particular, wind turbines owned by parties other than the landowner are permissible if four conditions are met:

- The wind turbine must be placed by a public utility or the turbine owner must have a valid interconnect agreement with a public utility to connect to the public utility system.
- The Michigan Department of Agriculture must find that the location of the facility, and ground-changing features associated with the wind generator, do not substantially hinder the farming operation.
- The facility and placement of the turbine must be approved by the unit of government having zoning authority.
- The landowner/PA 116 Agreement holder must agree with the placement of the facility.

## The Future of Wind Energy in Michigan

Increasing concerns about climate change combined with continuing concerns about energy security mean that renewable energy is going to be a key part of any energy policy. Michigan has viable wind resources. It also has manufacturing capabilities and technical resources that can easily be applied to the wind industry. Hopefully, recent efforts to spur growth in this area will be successful so that Michigan can make progress in developing its energy resources as well as rebuilding its manufacturing base.

<sup>31</sup> MCL 324.36101 *et seq.*

<sup>32</sup> Windmills OK on P.A. 116 Property, Michigan Farm News (October 30, 2008). A copy of the article can be found at [www.michiganfarmbureau.com/farmnews](http://www.michiganfarmbureau.com/farmnews)



STATE OF MICHIGAN  
DEPARTMENT OF TREASURY  
LANSING

JENNIFER M. GRANHOLM  
GOVERNOR

ROBERT J. KLEINE  
STATE TREASURER

**DATE:** May 13, 2008  
**TO:** Assessors and Equalization Directors  
**FROM:** State Tax Commission  
**SUBJECT:** Classification of Wind Energy Systems

MCL 211.8 provides that wind energy systems are to be classified as personal property. However, the statute does not address which personal property classification they should be given. At their meeting on May 12, 2008, the State Tax Commission determined that these systems should be classified Industrial Personal.

Wind turbines are electrical generation systems. The definition contained in 211.34c for utility personal property does not refer to electrical generation sites. The definition in 211.34c for industrial real property includes electric generation sites as industrial parcels. Since the legislature apparently believed that an electrical generation site was an industrial activity and since the legislature has also determined that the wind turbines should be deemed to be personal property, we conclude that the most reasonable determination is that the classification the legislature would have intended is Industrial Personal Property.

The Commission also reviewed the issues of the proper treatment of the land on which the turbine is located. The Commission believes that land on which the turbine is located should be classified without regard to fact that the turbines are on the property, unless the land is owned by the owner of the wind turbine and is not being used for any purpose other than as a wind turbine site.



STATE OF MICHIGAN  
DEPARTMENT OF TREASURY  
LANSING

JENNIFER M. GRANHOLM  
GOVERNOR

ROBERT J. KLEINE  
STATE TREASURER

**DATE:** April 15, 2009  
**TO:** Assessors and Equalization Directors  
**FROM:** State Tax Commission  
**SUBJECT:** Wind Energy

The State Tax Commission at their meeting on April 14, 2009 approved the following regarding wind energy systems.

1. The classification of land on which the wind energy system(s) are located, as provided for under MCL 211.34c, should be made without regard to the existence of the wind energy system(s), and that the classification should, instead, be based on the use or uses made by, or under the authority of, the fee title holder, or the fee title holder's tenant.
2. Assessors are advised that the existence of wind energy systems does not affect the determination of whether there has been a Transfer of Ownership, as defined in MCL 211.27a, and that the determination of whether to uncap the Taxable Value of the land and improvements located thereon should be made based on the conveyance of the fee title owner's interest, or lack thereof.
3. Wind energy systems located on one legally described parcel of real property should be combined into one personal property assessment but that, as additional wind energy towers are, from time to time, established, the additional value added by the construction of that tower, including value added pursuant to the procedure recommended, should be deemed an "Addition" in the Capped Value Formula.
4. Assessors are advised that, given the method used to value easement and right of way interests, the possibility exists that the assessment for a wind energy system may be subject to the calculation of a Capped Value, and a determination that the Taxable Value is less than the State Equalized Value, as described in State Tax Commission Bulletin 18 of 1995, State Tax Commission Bulletin 2 of 1996, and State Tax Commission Bulletin 1 of 2000. For purposes of making such calculations, the assessor shall calculate Capped Value for the personal property parcel as a whole, not for the individual wind turbines.
5. None of the value added by the erection and/or development of wind energy systems on a parcel should be considered in determining the True Cash Value of that real property parcel, or considered to be an "Addition" in the Capped Value Formula, when determining the Taxable Value of that real property parcel.

6. Development of wind energy systems on a real property parcel should not be considered to be a disqualifying or limiting use for purposes of determining the Principle Residence Exemption, the Qualified Forest Exemption, and/or the Qualified Agricultural Exemption. In other words, it is recommended that the percentage of the exemption for Principle Residence and Qualified Agricultural Exemption purposes should not be reduced, and that the eligibility of the real property parcel for the Qualified Forest Exemption should not be affected by, the installation of wind energy systems on the parcel. The extent and/or qualification of the parcel should take into account any building or other non-wind turbine structure which is erected.
7. Assessors are advised that they were mistaken if they uncapped the Taxable Value of a real property parcel based on a determination that an agreement has been executed for use of a parcel to install wind energy systems and should take the appropriate action at the July or December meeting of the Board of Review to recap the Taxable Value, pursuant to the procedure provided in MCL 211.27a(4) and Bulletin 12 of 2005.
8. Assessors are advised that determination of the amount of a real property parcel's True Cash Value may, or may not, be affected by the existence of an easement or other agreement to place wind energy systems on the parcel, but that if there is an effect, it will not occur until the erection of a wind turbine occurs, and it is unlikely that the effect will be equal to the amount of increase in the developer's personal property assessment that results from application of the procedure. Further, assessors are advised that any determined reduction in value is a market adjustment, and is not either a Headlee or Capped Value Loss.

## Green for Green: Financial Incentives Available for Renewable Energy Development

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On January 8, 2010, President Obama announced the award of \$2.3 billion in tax credits for clean energy manufacturing operations in 43 states, from funds allocated under the 2009 stimulus package.<sup>1</sup> The previous month, the U.S. House of Representatives included a provision in the Jobs Bill it passed on December 16, 2009 that provides \$2 billion in funding to restore money to the Department of Energy's loan guarantee program for renewable energy that was diverted to pay for the "cash for clunkers" initiative last summer.<sup>2</sup> The Senate will take up the bill early in 2010, and some clean-energy advocates in Congress and elsewhere are urging that more funds be appropriated for renewable energy incentives.

Make no mistake: the U.S. Government is working hard to promote renewable energy development and doing so in the most meaningful way possible – with loan guarantee programs, grants, and tax breaks. Many states have adopted additional economic measures that incentivize in-state renewable energy projects. But the hodgepodge nature of these programs – authorized by different pieces of legislation, administered under an array of regulatory regimes, subject to varying requirements and deadlines – presents a serious challenge to interested parties seeking financial assistance for renewables projects.

This article summarizes the main categories of economic incentives available for renewable energy development, along with key information about eligibility and availability.<sup>3</sup> The four types of programs are: (1) U.S. Department of Energy (DOE) loan guarantees, (2) federal tax incentives, (3) other federal government economic incentive programs; and (4) state programs.

NAVIGATING THE COMPLEX WEB OF ECONOMIC INCENTIVE PROGRAMS FOR RENEWABLE ENERGY DEVELOPMENT PRESENTS DAUNTING CHALLENGES. THESE SOURCES OF FUNDING CAN MEAN THE DIFFERENCE IN WHETHER A DEAL HAPPENS OR NOT.

### *1. DOE Loan Guarantees*

DOE administers two large-scale loan guarantee programs for clean energy generation and manufacture, which fall under Sections 1703 and 1705 of the Energy Policy Act of 2005 (EPAAct), as amended by the American Recovery and Reinvestment Act of 2009 (ARRA).<sup>4</sup> Major aspects of these programs are presented in the following table<sup>5</sup>:

This publication may contain attorney advertising.

Program	Key Elements	Eligibility	Other
<p><b>1703</b></p> <p>Loan guarantees for early commercial use of innovative clean energy technologies.</p> <p>Aggregate funding for 1703 and 1705 of \$100 billion.</p>	<p>Permanent program under Energy Policy Act of 2005</p>	<p>Biomass, geothermal, hydropower, solar, wave/tidal, wind (also carbon capture and sequestration, coal gasification, nuclear, fuel, vehicles, and energy transmission systems).</p> <p>Projects must avoid, reduce, or sequester air pollutants or greenhouse gases, using significantly improved technologies compared to commercially available methods.</p>	<p>Funding depends on annual Congressional appropriations.</p> <p>Priority given to loans of \$25 million or more.</p> <p>Borrower must pay cost of loan guarantee.</p>
<p><b>1705</b></p> <p>Loan guarantees for renewable energy systems and facilities that manufacture components for renewable energy.</p> <p>Aggregate funding for 1703 and 1705 of \$100 billion; target for 1705 program is \$4 billion to cover credit subsidy costs (\$6 billion if cash-for-clunkers funding is restored).</p>	<p>Temporary program added to EPCRA by ARRA.</p> <p>Application must conform to Financial Institution Partnership Program (FIPP).</p>	<p>Biomass, geothermal, hydropower, solar, wave/tidal, wind (also energy transmission systems). Focus is on commercially available technologies.</p> <p>Applicants must be commercial, non-profit, or public financial institutions, partnering with project developers.</p> <p>First solicitation released Oct. 2009 for energy generation projects; manufacturing solicitation expected in early 2010.</p> <p>Applications considered on rolling basis, with a cutoff for Part I application of Aug. 24, 2010.</p> <p>Projects must comply with Davis-Bacon and NEPA. NEPA considerations disfavor more complex sites that would require an environmental impact statement (EIS) as opposed to a simpler environmental assessment (EA), given the September 30, 2011 construction start deadline.</p>	<p>Authority for program expires Sept. 30, 2011. All approved projects must begin construction by Sept. 30, 2011.</p> <p>Minimum 20 percent equity requirement (may include funds from grants and tax credits, but caution is advised in relying on these in an application). Up to 80 percent of senior loan amount (64 percent of total project costs) may be guaranteed by DOE.</p> <p>Bank must retain 20 percent of the loan amount ("skin in the game").</p> <p>Application fees are \$50,000 (\$12,500 for Part I) and non-refundable.</p>

**2. Federal Tax Incentives**

As with the DOE loan guarantee programs, the 2009 stimulus package expanded existing renewable energy tax incentives and added new ones. The three principal programs are Sections 45 and 48 of the Internal Revenue Code of 1986<sup>6</sup> and Section 1603 of ARRA.

Section 45 provides a production tax credit (PTC) for the production and sale of renewable energy to an unrelated taxpayer. With changes made under ARRA, the credit extends over a

ten-year period and currently ranges from 1 cent to 2.1 cents per kilowatt (KW), depending on the type of power (these rates are adjusted annually for inflation). Facilities must be qualified (as defined in the statute). The modifications added under ARRA have expanded the range of structuring and tax allocation arrangements that are permissible.<sup>7</sup> For example, taxpayers with qualifying facilities under Section 45 may temporarily receive an investment tax credit under Section 48 in lieu of the Section 45 credit. In certain circumstances the immediacy of the investment

tax credit may be more beneficial than receiving the variable credit over ten years under the Section 45 provisions.

Section 48 makes available an investment tax credit (ITC) for equipment that uses certain renewable energy sources to generate electricity or heating or cooling. Eligible sources include solar, small wind (less than 100 KW), fuel cells, geothermal, microturbines, and heat pumps, with tax credits ranging from 10 to 30 percent. The tax credit is designed with some flexibility permitted; for example, it may be allocated within sale-leaseback arrangements, but there are limitations and considerations that require careful planning to maximize tax savings. Most applications of the Section 48 credit expire at the end of 2016.

In addition to the regular provisions of Section 48, ARRA added a new section 48C, allowing an ITC of 30 percent for qualified tangible personal property placed in service at manufacturing facilities for “qualified advanced energy projects.” Qualifying projects are those that re-equip, expand, or establish a manufacturing facility for the production of renewable energy; fuel cells and related capabilities for electric or hybrid-electric vehicles; renewable energy electrical grids; carbon capture and sequestration; energy conservation, including renewable fuels and lighting technologies; and “other advanced energy property designed to reduce greenhouse gas as designated by the Secretary of Treasury.” In August, the Treasury Department released guidance for this program, including useful definitions, in Notice 2009-72.<sup>8</sup> Importantly, to qualify for the initial round of this tax credit, taxpayers must have submitted an application to DOE and the Internal Revenue Service (IRS) by Oct. 16, 2009. As noted at the beginning of this article, awards were announced Jan. 8, 2010, totaling the entire \$2.3 billion originally allocated under the program. Future award rounds may be established if Congress appropriates additional funds.

Section 1603 of ARRA authorizes the Treasury Department to pay grants in lieu of tax credits for specified renewable energy property. The payments are available for solar, wind, geothermal, and other renewable energy investments placed in service in 2009 or 2010 that would qualify for a tax credit under Sections 45 or 48, discussed above. On July 9, 2009, Treasury and DOE announced guidance for the program, which sets forth application procedures and clarifies eligibility requirements.<sup>9</sup> To date, the Treasury has disbursed almost \$2 billion under this program.

### *3. Other Federal Government Programs*

Additional federal programs tend to be specialized, and often are focused on assistance to university and other scientific researchers. For example, DOE has a grant program administered by its Advanced Research and Projects Agency (ARPA) that has been active in the areas of biofuels, wind, and solar technologies, as well as hybrid vehicles and their power sources. One of these initiatives targeted transformational energy technologies ready for commercialization. Other ARRA-funded grants totaling \$32.7 billion have been awarded for state and private-sector projects across a spectrum of technologies and applications.<sup>10</sup> However, these programs are not currently in a position to accept applications unless new funding is made available or the application process is reopened, because money remains undistributed after the first round of announced grants.<sup>11</sup>

Other federal programs include the U.S. Department of Agriculture’s Rural Energy for America Program (REAP), which provides grants to agricultural producers and rural small businesses for renewable energy systems and energy efficiency improvements. Eligible projects include those that produce energy from wind, solar, biomass, geothermal, hydropower, and hydrogen-based sources. Funding is available through 2012.<sup>12</sup>

### *4. State Programs*

State incentives for renewable energy vary considerably. New Jersey and California have been in the vanguard of efforts to promote renewable energy, using grants, tax breaks, and credible measures that encourage utilities to buy renewable energy generated by others. Typically states motivate the utilities by specifying a percentage of their energy output that must come from renewable sources, either produced by the utility or purchased from others (a renewable energy portfolio standard).<sup>13</sup> Currently 29 states have mandatory programs, which can generate marketable credits. Up to 30 percent of the funding for some renewables projects, particularly in the area of solar cells, comes from the sale of these credits to utilities. As the number of states with renewables portfolio programs continues to change, this is an area that warrants careful attention.<sup>14</sup>

While many states offer incentives for residences, schools, and public hospitals, and in the area of hybrid vehicles and alternative fuel, the table below gives a quick sample of the status of programs available to industry and commercial operations in a representative collection of states.<sup>15</sup> The richness of the programs available and the renewable technologies to which they apply

differ significantly across states, making it important to look closely at individual state incentives programs.

State <sup>16</sup>	Tax Credit	Grant/Rebate	Loan	Utilities Portfolio Standard <i>(amounts and criteria vary widely)</i>
CA	Yes (solar only)	Yes	No	Yes, 20 percent by 2010, 33 percent by 2020, no credit trading (under discussion)
IL	Yes	Yes	No	Yes, 25 percent by 2025, credit trading allowed
MI	Yes	Some grants available, plus rebates	No	Yes, 10 percent by 2015, credit trading allowed
NV	Yes	Yes	No	Yes, 25 percent by 2025, credit trading allowed
NJ	Yes	Yes, including rebates in the form of tradeable solar renewable energy certificates	Yes	Yes, 22.5 percent by 2021, credit trading allowed
NY	Yes (green buildings only)	Yes	No, closed	Yes, 29 percent by 2015, no credit trading
PA	Yes (wind only)	Yes	Yes	Yes, 18 percent by 2021, credit trading allowed

**FINANCING STRATEGIES**

As a practical matter, given the continued lethargy in capital markets, project developers may need to combine public and private financing, in increasingly creative ways. Thus, project designers should consider the following approaches.

First, interested parties should systematically evaluate available funding opportunities and how they may fit into project planning. Programs differ significantly in criteria, scope, and timing. If the project has site flexibility, there may be clear advantages in selecting one state over another, particularly in light of varying renewable energy portfolio requirements and differing incentives for particular types of renewable energy.

Second, applications for funding need to meld a clear, technically solid description of the technology with an explanation of how it satisfies the policy preferences embedded in the incentive program, as well as the requirements that apply to the specific grant or loan solicitation. For example, U.S. ownership is not a prerequisite, as long as the operation is in the United States. Funding opportunities under ARRA give priority to proposals that maximize job creation, and benefits to local communities should always be stressed.

Third, funding applicants need to identify key obstacles to acceptance of the proposal. For instance, DOE’s 1705 loan guarantee program requires projects to be “shovel-ready” by September 30, 2011. As a practical matter, this may eliminate proposals that would require a full Environmental Impact Statement (EIS) under the National Environmental Policy Act (NEPA), which normally takes at least a year to complete, in favor of those that can proceed more quickly with a simpler NEPA Environmental Assessment (EA), such as reusing a previously contaminated brownfield, mining site, or industrial facility rather than a pristine “greenfield” location. Funding for numerous federal grant programs was provided by ARRA and has now been allocated. Parties interested in additional funding may want to consider the advisability of a legislative strategy.

Fourth, the support of local and federal political leaders can be critical. DOE has been in touch with states and communities to educate them about the bank-backed funding requirements in its loan guarantee program, with the thought that local assistance in facilitating partnerships between financial institutions and project developers can enhance the success of the application.

Fifth, close coordination among the developer, design and environmental engineers, private-sector financing sources, and lawyers is essential to avoid costly missteps and delays. Most deals

involve a combination of private and public funding sources, and good planning results in cost-effective structuring of the project.

Sixth, continuing communications are valuable with the agency administering the grant, rebate, or loan guarantee, or approving the tax credit, to make sure all submissions are complete and to address any issues that arise.

#### CONCLUSION

There is no question that navigating the complex web of economic incentive programs for renewable energy development presents daunting challenges. The process may not be intuitively obvious, particularly to private-sector business interests that are more accustomed to direct deal making and decisions driven by economics. However, the government incentive regime has its rules, rhymes, and reasons, even if they are not immediately apparent. These sources of funding can mean the difference in whether a deal happens or not. With a clear understanding of how the programs work and a creative strategy that weaves together technical aspects, policy savvy, and practicality, obtaining some degree of government funding is a realistic goal and can help make the project a reality.

#### ENDNOTES

- 1 American Recovery and Reinvestment Act of 2009, Pub.L. 111-5. See A. Bull, "Obama Awards \$2.3 Billion Clean Energy Tax Credits," Reuters, Jan. 8, 2010, available at [http://news.yahoo.com/s/nm/20100108/ts\\_nm/us\\_obama\\_tax-credit](http://news.yahoo.com/s/nm/20100108/ts_nm/us_obama_tax-credit).
- 2 H.R. 2847.
- 3 Should Congress enact federal climate change legislation with cap and trade provisions, the funding picture for renewable energy projects would change radically. Such a program's requirements for the purchase of greenhouse gas emission allowances and the sale of carbon offsets attributable to renewable energy would create major new funding sources. This issue is not within the scope of this article, but for more information, see Jane C. Luxton and William J. Walsh, "Climate Change Legislation: It's Time for Businesses to Take It Seriously," Pepper Hamilton *Sustainability, Clean Tech, and Climate Change Alert*, July 20, 2009, available at [www.pepperlaw.com/publications\\_update.aspx?ArticleKey=1549](http://www.pepperlaw.com/publications_update.aspx?ArticleKey=1549).
- 4 Energy Policy Act of 2005, Pub.L. 109-58.
- 5 These programs have numerous other conditions and "fine print." Additional information is available at DOE's Web site, see <http://www.energy.gov/recovery/renewablefunding.htm>.
- 6 Unless otherwise stated, all tax-related references to "Section" are to the Internal Revenue Code of 1986, as amended.
- 7 For more information, see Todd B. Reinstein, "American Recover and Reinvestment Act of 2009 Enhances Renewable Energy Tax Provisions," Pepper Hamilton *Energy Tax Alert*, Feb. 18, 2009, available at [www.pepperlaw.com/publications\\_update.aspx?ArticleKey=1397](http://www.pepperlaw.com/publications_update.aspx?ArticleKey=1397).
- 8 See Todd B. Reinstein, "Treasury Notice 2009-72 with Application Rules for Section 48C," Pepper Hamilton *Energy Tax Alert*, Aug. 14, 2009, available at [www.pepperlaw.com/publications\\_update.aspx?ArticleKey=1575](http://www.pepperlaw.com/publications_update.aspx?ArticleKey=1575).
- 9 See <http://www.treas.gov/recovery/1603.shtml>.
- 10 See <http://www.energy.gov/recovery/breakdown.htm>.
- 11 See <http://www07.grants.gov/search/search.do;jsessionid=CIRGLTjMtgG9ymhPy7mKftHTTD7Kpy2GZRTbhZwQrNC52RTKlhJQ!-1179711943?mode=VIEWREVISIONS&revNum=8>.
- 12 More information is available at the USDA website: <http://www.rurdev.usda.gov/ga/tenergy.htm>.
- 13 See <http://www.dsireusa.org/incentives/index.cfm?EE=1&RE=1&SPV=0&ST=0&searchtype=RPS&sh=1>. Passage of a comprehensive energy bill, either as part of climate change legislation or independently, may result in such standards becoming mandatory nationwide.
- 14 States that have not traditionally had robust programs are looking to adopt major incentive programs, such as Maryland. See "O'Malley Proposed New Energy Policies," *Washington Business Journal* (Jan. 15, 2010) <http://washington.bizjournals.com/washington/stories/2010/01/11/daily84.html>.
- 15 See generally <http://www.dsireusa.org/>.
- 16 Many counties and municipalities offer additional programs.

## **WIND FARMS: PROPERTY TAX TREATMENT**

### *RPLS Winter Conference*

March 12, 2010

Vicki R. Harding

#### ➤ **Property classification**

- By statute, a “wind energy system,” which is defined as “an integrated unit consisting of a wind turbine composed of a rotor, an electrical generator, a control system, an inverter or other power conditioning unit, and a tower, which uses moving air to produce power,” is personal property. MCL 211.8(l)
- The State Tax Commission has determined that wind energy systems should be classified as industrial personal property. *Classification of Wind Energy Systems*, STC memo dated May 13, 2008.
- The State Tax Commission also determined that:
  - classification of the land on which the wind energy system is located should be made without regard to the wind energy system,
  - a wind energy system does not affect whether there has been a transfer for purposes of uncapping the taxable value of the land, and
  - generally development of a wind energy system is not disqualifying or limiting for purposes of a principle residence exemption, qualified forest exemption or qualified agricultural exemption.

*Wind Energy*, STC memo dated April 15, 2009.

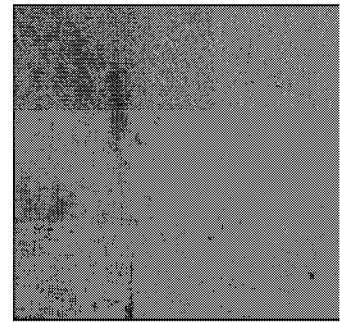
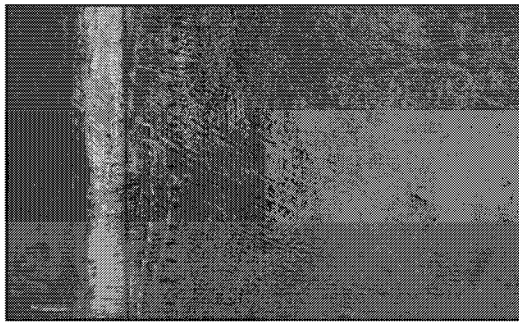
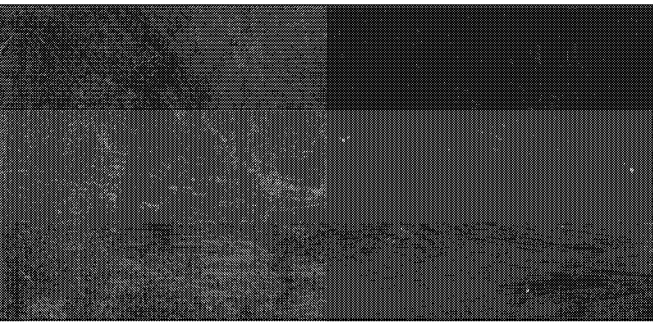
#### ➤ **Potential Incentives** include:

- Alternative energy personal property exemption (based on NextEnergy certification) MCL 211.9i.
- General industrial personal property exemption from 6 mill state education tax and up to 28 mills for school operating purposes MCL 211.9k
- Industrial property tax abatement (1974 PA 198)
- Personal property tax relief in distressed communities (1998 PA 328)

Attachments:

*Classification of Wind Energy Systems*, STC memo dated May 13, 2008

*Wind Energy*, STC memo dated April 15, 2009



# **TURNING REDD CREDITS INTO GREEN CARBON**

2010 WINTER CONFERENCE  
March 12, 2010

A Varnum Presentation by:

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## TURNING REDD CREDITS INTO GREEN CARBON

### **A. Forestry Offset Projects: What Project Types Are There & Who Wants the Offsets?**

#### 1. Primary Types of Forestry Carbon Offset Projects

- Afforestation – establishing forest on land that has been previously unforested for some extended period of time (at least 10 years under CCX protocol)
- Reforestation – restoring forest to previously forested area that was destroyed/damaged and is not regenerating naturally
- Conservation; Avoided Deforestation (REDD Projects) – preserving existing forests that would otherwise be subject to clearing and harvesting
- Sustainable Management – use and stewardship of forests in a way that maintains their biodiversity, health and longevity, regenerative capacity and sequestration rates, and that does not harm other ecosystems

#### 2. What Are REDDs?

- Reduced Emissions from Deforestation and Degradation is a methodology for reducing CO<sub>2</sub> emissions from deforestation and degradation that has historically occurred
- Deforestation accounts for a significant proportion of GHG emissions (20% by some estimates), which prompted inquiry into incentives that could be used to control and decelerate it
- REDD projects were designed initially to promote protection of rainforests in developing countries that had historical and continual rates of deforestation, by encouraging nations or companies who were subject to a mandatory GHG reduction program to meet their reduction goals, in part, through investment in international offset projects that would create marketable carbon offset credits by sequestering CO<sub>2</sub> through avoidance or halting the rate of deforestation
- One hurdle in REDD projects was establishing a baseline determination of how much deforestation was occurring annually, because neither UN surveys nor satellite images were complete or reliable; without a baseline to determine the historical rate of deforestation, it would not be possible to know how to compensate countries for avoiding that deforestation. New remote sensing satellites may improve this.

- According to the Kyoto Protocol, REDD projects cannot qualify for offset credits to be used by signatory countries if the project occurs in a signatory country; this means a project in the U.S. would be ok, but one in Australia would not qualify
- Although originally conceived of as a way to arrest clearing of forests in developing countries, it could be feasible in developed countries too (such as the Pacific northwest of the U.S.) if the price of CO<sub>2</sub> overtakes (or competes with) the price of pulp and timber sufficiently to motivate the landowner to discontinue logging
- Project in Tasmania, Australia is one example, wherein landowner is being paid not to log some 2,000 acres of old growth forest for 25 years; project is Australia's first REDD project to meet CCBS standards

3. Where Can You Certify a Forestry Project and Register Forestry Offsets in the Compliance and Voluntary Markets?

- CERs (Certified Emissions Reductions) are offsets created in the Kyoto compliance market, which cannot use certification standards other than CDM; VERs (Verified Emissions Reductions) are offsets created in the voluntary market, in which anything goes
- CDM (Clean Development Mechanism) – does not accept REDD projects, but accepts other forestry projects; most-used in Kyoto market, but also in the voluntary market (\$-\$-\$)
- VCS (Voluntary Carbon Standard) – accepts most forestry projects; may be the most widely used standard for forestry projects in voluntary market, links with CDM standards (\$-\$)
- VER+ – accepts most forestry projects; not heavily used to-date, links with CDM baseline and monitoring standards (\$-\$)
- CCX – accepts most forestry projects, including REDD; significant prior use in voluntary market; low current volume, in part, because CCX compliance period expires this year (\$)
- CCBS (Climate, Community and Biodiversity Standard) – heavy use by land use, land use change and forestry projects; was certification standard used for Tasmania REDD project; adopts CDM or IPCC baseline and monitoring methodologies and does not have its own registry (\$-\$)
- Plan Vivo – heavily used for land use and forestry projects in rural communities (developing countries); sells ex-ante credits (before sequestration has occurred); no commercial forestry (\$)

## **B. Steps for Designing, Financing & Marketing Forestry Offset Projects**

1. Project Concept, Design and Basic Eligibility. For forestry projects, the role of project developers and consultants (e.g., Viability, ClearSky Climate Solutions) is to assist the landowner in determining the viability and marketability of any type of project on their lands and, assuming some viability, structuring the best type of project to meet the landowner's legal obligations, project objectives and target market, budget and desired co-benefits (if any).

2. Select a Registry and Protocol for Project. Consideration of market pricing will invariably play some role in the initial design of the project, especially to the extent that more than one option is viable, and pronounced demand for one over the other exists in the accessible marketplaces. Selection of a registry and protocol will be guided by the capability to the project to satisfy the relevant certification and monitoring standards, and the inclusion or exclusion of certain projects from certain registries and markets. If a project qualifies for multiple protocols, registries, and markets, a consultant or retailer will assist the owner in determining whether the private OTC market might be better (where a private sale will be arranged directly with a purchaser or will be pooled by an aggregator with other similar projects and sold privately) or whether CCX or another commoditized trading platform would be ideal.

3. Negotiate and Execute Contract. If a project's offsets will be registered and sold on CCX, the application to enroll and contract might resemble the sample attached in the Appendix. If a project will be registered elsewhere and sold on the private market, a contract may be with an aggregator, with the direct purchaser, or with a broker or retailer who will endeavor to sell the project's credits. In all cases, ensure that the contracts address the following issues:

- Ensure that all persons with interest in land or project are signatories to contract (obtain title work to be sure)
- Define role and duties of broker/aggregator/purchaser (to sell or pool credits, to register and retire them, to pay fees)
- Ensure that ownership of the carbon credits that will be generated is clearly vested in seller
- Consider whether you need any contingencies for obtaining permits or project approvals required to comply with zoning, securities, forestry, and other applicable laws
- Specify length of project during which credits will be generated and whether credits will be sold prospectively or retrospectively in relation to time sequestration occurs, and timing for sale and delivery to buyer, and payment of proceeds to project owner (prospective credits are riskier for a buyer because they have not

yet occurred and project could be derailed or not operate as projected; all credits registered on CCX relate to sequestration that has already occurred)

- Specify initial and subsequent monitoring and verification requirements to verify tree stock and model additional sequestration – this will indicate how stringent and independent verification will be
- Address any reserve or replacement requirements in the event of unexpected events that cause loss of stock (fire, disease, infestation, etc.) – this assists a buyer in evaluating safeguards against loss and informs the seller of the buffer he will need to maintain and of the procedure for replacing lost credits that exceed the reserve
- Define penalties and/or remedies for default and dispute resolution

4. Prepare Plan, Baseline, Modeling. To establish a baseline, a carbon inventory is undertaken during the dormant season, similar to a standard forest inventory. The baseline will enable the computation of carbon stocks pursuant to the methodology associated with the protocol chosen for the project. If the project is a sustainable management project, a qualifying plan must be prepared and submitted, and certified by a qualified third party.

5. Verify, Register, and Sell Offset Credits (VERs). The project will be registered on the relevant registry and verified by an independent third-party to validate the annual rate of carbon sequestration. Depending upon the protocol and registry selected, validation and verification may be a one or two step process, and different third parties will be approved as qualified to perform the validation or verification. Once verified, credits will be issued and available for sale on the OTC market or CCX or other trading platform. Revenues to project owner are paid after sale.

**C. A Forestry Offset Project Case Study: To Be Supplied at Conference**

**D. Legislative Updates Relevant to the Market for Forestry Offset Projects**

1. EPA Final Mandatory Reporting of GHG Rule (effective 12-29-2009)
  - Nationwide mandatory GHG reporting for CO<sub>2</sub>, CH<sub>4</sub> (methane), N<sub>2</sub>O, HFC, PFC, SF<sub>6</sub>, and other fluorinated gases
  - Reporting required for nearly 85% of GHG emissions, and an estimated 10,000 facilities

- Those who must report include suppliers of fossil fuels and industrial GHGs, manufacturers of vehicles and engines (heavy duty), and facilities emitting more than 25,000 mt CO<sub>2</sub>e per year from stationary fuel combustion sources (like boilers, engines, incinerators, combustion turbines and process heaters)
- 25,000 mt CO<sub>2</sub> emissions per year is equivalent to average annual energy use of 2,300 homes or annual average emissions from 4,600 passenger vehicles
- Stationary fuel combustion sources with less than 30 mmBtu/hr maximum rated heat input capacity can assume that they are below the 25,000 mt CO<sub>2</sub> threshold for reporting purposes
- Will not affect most small businesses and homeowners
- Facilities currently exempt from reporting include food processors, coal suppliers, wastewater treatment, and R&D activities
- Monitoring was to commence January 1, 2010, although "best available methods" may be used to estimate emissions through March 31, 2010, at which time EPA-required monitoring systems and plans must be in place
- First report due March 31, 2011, and annually afterward
- Reporting is generally facility-based (not company-wide), except for importers of fossil fuels and GHG, and manufacturers of vehicles (excluding light duty), who will report at the corporate level
- Reporting requirement may be avoided after 5 consecutive years of reporting at less than 25,000 mt CO<sub>2</sub> or 3 consecutive years below 15,000 mt CO<sub>2</sub>

2. H.R. 2454: American Clean Energy and Security Act of 2009 (Waxman-Markey) – Cap and trade, GHG reduction, independent clean energy economy

- Economy-wide caps on GHG that would commence in 2012, applying initially to all electric power generators, liquid natural gas, petroleum and coal fuel producers/importers if emissions from combustion exceed 25,000 mt annually, fluorinated gas importers/producer (except HFCs), and geologic storage sites, with other entities phased in later
- Cap for 2012 GHG emissions would be 97% of the 2005 emissions, assuming that 2005 emissions equaled 7,206,000,000 mt CO<sub>2</sub>

- Cap for 2020 would be 17% below 2005 levels, cap for 2030 would be 42% below 2005 levels, and cap for 2050 would be 83% below 2005 levels
- Allowances to be auctioned quarterly, with initial minimum price of \$10/mt
- Covered entities may comply with cap by using up to 2 billion tonnes worth of offsets per year (to be available to covered entities on a pro rata basis)
- Offsets Program included – eligible projects to be determined within 1 year; generally, the offsets must occur after January 1, 2009, to be eligible (except for early action exceptions); 1 domestic tonne = 1.25 international tonnes offsets; with some exceptions, maximum of 50/50 ratio of domestic to international offsets will apply
- Initial list of forestry offset projects to be considered for inclusion include afforestation, reforestation, forest management to increase CO<sub>2</sub> stores, wetland management, conservation of forestlands and grasslands, reduced deforestation or avoided conversion, urban tree planting, agroforestry, and new technologies that increase forest sequestration of CO<sub>2</sub>; Secretary of Agriculture would oversee
- Penalty for exceeding cap includes payment of twice the last auction price for allowances multiplied by the shortfall in number of allowances
- House approved during 2009; currently stalled in Senate and imperiled due to Democratic loss of supermajority

3. S. 2729: Clean Energy and Partnerships Act of 2009 (Stabenow) – Reduction of GHG from uncapped domestic sources

Legislation sponsored by Michigan's Senator, Debbie Stabenow, with specific proposals for crediting domestic offset projects (including forestry offsets) and creating other government financial incentive programs to motivate those in the unregulated market to take voluntary action to the extent that they may not otherwise have the means to participate in the offset market. This would ideally be an adjunct to Waxman-Markey

4. Midwest Greenhouse Gas Reduction Accord – Pending Regional Cap and Trade

- Region-wide cap, including Michigan, that would commence January 2012, covering most sources that emit over 25,000 mt

CO<sub>2</sub>e annually (electricity generators and importers, fuel suppliers, stationary fuel combustion and other processes that create emissions at industrial facilities) – once in, always in

- Mandatory reporting for all covered entities with emissions of 20,000 mt CO<sub>2</sub>e, starting January 2011 (more demanding than EPA reporting rule); collection of data to commence Jan. 2010
- Combustion of 100% biofuels exempt
- Cap of 20% below 2005 levels by 2020 and 80% below 2005 levels by 2050, with recommended 3 year compliance periods
- Linkage of Accord to RGGI, WCI, EETS, and other mandatory GHG reduction programs contemplated
- Distribution of allowances to be determined by each jurisdiction, with recommendation of hybrid approach during first 9 years (part auction, part allocation at a modest fee), and transition to full auction after that
- 2% of each jurisdiction's allowances to be allocated annually to a regional reserve pool, to be available to prevent excessively high or low allowance pricing, and 2-5% of 2012 allowances to be awarded as early reduction allowances
- Offset program and protocols to be included, offset projects to be determined (based on guidelines for reliability and verifiability included in Accord Rule), with initial 10 year period for project generated offset allowances
- Regulated entities may use up to 20% offsets to meet their compliance obligations; during first 3 year compliance period, offsets may only be generated by Accord signatory jurisdictions or those with an MOU with the signatory jurisdictions; thereafter, other states and international offsets (including CDM and JI) to be considered

## **E. Appendix**

1. Sample Contract with Delta Institute for Forestry Offsets to be Registered on CCX
2. Excerpts from CCX 2009 Offset Project Protocol (Certification Standard and Methodology) for Forestry Carbon Sequestration
3. Project Developer/Consultant, Retailer/Aggregator Overviews (Viability, Holland, MI; ClearSky Climate Solutions, Missoula, MT; DeltaOffsets, Chicago, IL and Lansing, MI)

Delta P2/E2 Center

Delta P2/E2 Center, LLC  
53 W. Jackson Blvd. Suite 230  
Chicago, Illinois 60604

Contract No. \_\_\_\_\_

**APPLICATION FOR PARTICIPATION IN CHICAGO CLIMATE EXCHANGE FORESTRY  
OFFSET POOL  
and  
CREDIT SALE CONTRACT for EXCHANGE FORESTRY OFFSETS (XFOs)  
from SUSTAINABLY MANAGED FORESTLANDS**

I, \_\_\_\_\_, Project Owner, hereby apply for participation in a forestry carbon pool managed by the Delta Pollution Prevention and Energy Efficiency Center ("Delta P2/E2 Center") and registration of Exchange Forestry Offsets ("XFOs") with the Chicago Climate Exchange ("CCX") for the years 2008 through 2012 (with proper documentation) on the \_\_\_\_\_ acres of property that I/we own or control. I/We hereby attest to all of the following statements:

- I hold full legal title to the Greenhouse Gas mitigation rights registered as CCX Offsets that are associated with the facilities and sites included in the registered project;
- The forest project lands that I own are certified from agencies or schemes endorsed by the Programme for the Endorsement of Forest Certification (PEFC) Council, the Forest Stewardship Council (FSC), the American Tree Farm System Group Certification, or other certification programs approved by the CCX Committee on Forestry;
- I intend to maintain the enrolled project lands in an approved sustainable certification program, as listed above, for at least 15 years from the enrollment date;
- I intend to manage the forest project lands according to the principles and practices of sustainable forest management<sup>1</sup> and in accordance with the CCX terms of participation for the long-term goal of maintaining forest stock and thereby contributing to the long-term storage of atmospheric carbon. If applicable, I will provide documentary evidence of the legal protection status of forest parcels included in a CCX-registered project;
- This forestry project is located in the United States and involves forestation (which includes afforestation or reforestation), forest enrichment (via plantings and/or natural regeneration), and/or selective timber harvesting in accordance with a CCX-approved sustainable management planning program;
- The quantity of XFOs to be issued to a CCX-registered, managed forest project shall be based on the annual net changes in carbon stocks, expressed in metric tons of carbon dioxide, on eligible sites with proper documentation, included in the project during each of the years 2008 through 2012, subject to the disclaimer below;
- I understand that if the enrolled project lands do not conform to the managed forest offset performance requirements, then the CCX will cancel all Carbon Financial Instruments (CFIs) in an amount equal to the quantity of forest offsets previously issued to the project and I/We and the lands that I own or control will be prohibited from further participation in the CCX;
- I will abide by the rules of the CCX as they pertain to XFOs and to the conditions for Pool participation as set forth in this Agreement.

<sup>1</sup> See the Terms and Conditions for a definition of sustainable forest management.

## Delta P2/E2 Center

The Delta P2/E2 Center, LLC ("Delta", "Purchaser" or "Aggregator") agrees to buy and the Project Owner ("Seller") agrees to sell and deliver to the Delta P2/E2 Center, LLC free from liens and encumbrances at 53 W. Jackson Blvd., Suite 230, Chicago, Illinois the rights to the Exchange Forestry Offsets (XFOs) created during the years 2008 through 2012 on the land at the location described in the Forestry Enrollment Worksheet, subject to the disclaimer stated below.

The Project Owner warrants that the XFOs covered by this contract comply with all rules of the Chicago Climate Exchange. In the event that the project fails to meet these requirements, all XFOs from such land shall be null and void and any payments for XFOs delivered prior to January 1, 2013 shall be repaid subject to interest and penalties as provided in this agreement. Further Terms and Conditions of this Agreement are attached hereto and made a part hereof, as if fully set forth, provided that if there is any conflict between any provision of the Terms and Conditions and any provision of this first page, the terms of this first page shall govern.

The transfer price of the XFOs covered by the contract shall be the sales price as determined by sale through the Chicago Climate Exchange less a ten percent (10%) service ("aggregation") fee retained by the Delta P2/E2 Center, LLC. Delta will deduct the aggregation fee from the annual sale of XFO's. In addition, the Project Owner agrees to the following fees and allows Delta to annually deduct these fees from the sale of XFOs covered by this contract:

- CCX Offset Registration and Trading Fee - \$0.20 per gross ton of XFOs. This is the rate as of January 7, 2008. The CCX Offset Registration and Trading Fee is subject to change by the Chicago Climate Exchange. Delta will notify the Project Owner in writing of any changes to the Offset Registration and Trading Fee and deduct the new rate, beginning with the CCX-specified implementation date, from the sale of XFOs.
- Verification Fee - The Project Owner pays verification costs in an amount proportional to the tons of XFO credits that the enrolled land contributes to the overall enrollment pool. The exact cost is determined during the verification process and is influenced by the total number of acres and species composition of all the lands in the enrollment pool. Pursuant to CCX protocols, verification occurs in the first and final years of the contract and potentially mid-contract, at the CCX's request. Thus, actual verification costs may fluctuate over the contract period.
- Technical Assistance Debt (only applicable if the Project Owner requests Technical Assistance Funds) - The Project Owner must repay all Technical Assistance Debt before receiving any revenue from XFO sales. Technical Assistance funds are limited and available on a first-come, first-served basis, until all funds are exhausted.

Sale of XFOs covered by this contract shall be at the sole discretion of Delta. While Delta attempts to sell all credits within a twelve (12) month period after successful verification and approval of credits by CCX, Delta reserves the right to hold credits until the credits can be sold during favorable market conditions. Furthermore, Delta makes no warranty as to the marketability or market value of these credits. If possible, all XFOs shall be priced no later than June 30, 2011 (or June 30, 2013, if the CCX accepts XFOs for registration beyond 2010). Payment for XFOs covered by this contract shall occur no later than 30 days after pricing of the XFOs through the Chicago Climate Exchange. The parties to this Agreement hereby agree that the title to the XFOs, calculated on a yearly basis, shall be automatically delivered to Delta. By signature hereto, the Project Owner irrevocably conveys title to the XFOs exclusively to the Delta P2/E2 Center, LLC each year. The Project Owner further warrants compliance with the Terms and Conditions contained in the Agreement for the period from the date of signing through June 30, 2013 (or June 30, 2013, if the CCX accepts XFOs for registration beyond 2010) and agrees to provide, upon request of Delta, information reasonably necessary to verify continued compliance with this Agreement.

By checking this  box, the Project Owner agrees that all payments from Delta, minus the fees listed above, will be made to an Escrow Account maintained by the accredited Consulting Forester (listed on the enrollment worksheet) that they have hired to facilitate their enrollment. The Project Owner and the Consulting Forester should execute a separate work agreement to formalize the working relationship for this project. The Project Owner or the Consulting Forester must submit a copy of this contract to the Delta P2/E2 Center. The Project Owner is responsible for any and all fees associated with items in the work agreement and must pay those fees pursuant to the terms and conditions of the

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work agreement. Delta has no control over and assumes no responsibility for the fees, terms and conditions of the separate work agreement.

**For Michigan Landowners Only**

By checking this  box, the Parties to this Agreement have further agreed that Technical Assistance, if available, will be a part of this Agreement as set forth in the Technical Assistance Repayment Agreement (see attached).

\_\_\_\_\_  
Project Owner's Signature

Date

\_\_\_\_\_  
Delta P2/E2 Center, LLC

Date

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Printed Name

**Disclaimer: The Chicago Climate Exchange (CCX) is not currently scheduled to accept XF0s for registration beyond the calendar year 2010. In the event that 2011 and 2012 XF0s cannot be registered with the CCX, the parties duties under this Contract shall be altered as provided for under the Terms and Conditions Section herein.**

### Terms and Conditions

**CCX Offset Project Terms and Conditions:** By registering a project with CCX, each project owner agrees to and acknowledges the following Terms and Conditions in relation to the project and the Exchange Offsets issued by CCX:

1. The enrolled project meets all applicable eligibility rules of the Chicago Climate Exchange.
2. CCX will issue to the CCX Registry account of the project owner or its designated Aggregator a quantity of Exchange Offsets that conforms to the applicable CCX Rules.
3. Each sale of Exchange Offsets executed through the Chicago Climate Exchange shall represent a complete transfer of all legal rights associated with the mitigation of greenhouse gases that relate to the quantity and time periods associated with the Exchange Offsets that are established through fulfillment of the Terms of this contract.
4. Delta P2/E2 Center, as the CCX-registered Aggregator may immediately sell the Exchange Offsets earned under the provisions of this agreement or retain the Exchange Offsets for up to 12 months after initial registration with CCX.
5. The Project Owner shall retain full legal ownership of all greenhouse gas mitigation rights that may accrue: (a) on lands or via activities not included in the CCX-registered project; (b) in excess of the quantity of Exchange Offsets issued by CCX to CCX-registered projects; (c) before or after the years 2003 through 2011 for the CCX-registered project.
6. CCX makes no warranty as to the marketability or market value of CCX Exchange Offsets.
7. Each Project Owner, and, when applicable, its Aggregator, is required to periodically submit a signed project report that confirms conformance with the terms herein. Representatives of CCX may conduct on-site inspection of registered projects and related documents. Each project owner agrees to provide access in such cases in a prompt and cooperative manner. All CCX offsets projects and project reports and verification reports are subject to inspection and audit by the provider of regulatory services designated by CCX and by other independent experts as may be engaged by CCX.
8. CCX may request additional information and/or access to registered projects for the purpose of advancing understanding of greenhouse gas mitigation projects ["Research Activities"]. Project Owners may decline such access without penalty. In no cases shall findings from Research Activities cause a reduction in the quantity of Exchange Offsets to be issued to a registered project.
9. Failure to conform to the rules provided herein may result in termination of enrollment in CCX and prohibition from all further participation in CCX.

**Managed Forest Offset Project Terms and Conditions:** By registering a forest offset project with CCX, each project owner agrees to and acknowledges the following Terms and Conditions in relation to the project and the CCX Protocols for Sustainably Managed Forests

1. Project Owners must provide evidence of sustainable forest management of all their managed forest land through certification from agencies or schemes endorsed by the Programme for the Endorsement of Forest Certification (PEFC) Council, the Forest Stewardship Council (FSC), the American Tree Farm System Group Certification or other certification programs approved by the CCX Committee on Forestry. Exchange Forest Offsets may be issued retroactively prior to obtaining certification for sustainable management provided that sustainable certification exists when the project enrolls in CCX.
2. Project Owners may earn Exchange Forestry Offsets issued for managed forest projects on the basis of verified documentation for the net changes in carbon stocks [expressed in metric tons of carbon dioxide] on eligible sites included in the project during each of the years 2008 through 2012. The net change in carbon stocks is defined as the increases in carbon stocks due to growth minus the quantity by which carbon stocks decreased due to harvest, pest, fire and adverse weather events.
3. Quantification of net changes in forest carbon stock must involve a Model-Based Accounting Approach. The CCX issues or debits CFIs on the basis of net annual change in forest carbon stocks through the CCX market period

(2003-2012). Growth and yield model estimates of net annual changes in carbon from forestry projects will be discounted to account for variance in model estimates by the minimum of 20% of two times the reported statistical error of the baseline inventory data. Forest inventories, which provide the forest stand data to estimate annual carbon sequestration, must have a 90% confidence interval at a minimum for the estimated mean wood volume. No discount will be applied for instances when in-field inventories are conducted annually. Annual inventories must also have a minimum confidence interval of 90%. All managed forest projects are subject to approval of the CCX Committee on Forestry.

4. All issuance of Exchange Forestry Offsets (XFOs) to CCX-eligible forest projects, including managed forest projects, shall require the placement of 20% of XFOs in a Forest Carbon Reserve Pool. A Forest Carbon Reserve Pool is established for the entire pool of projects represented by each Aggregator. XFOs held in the Reserve Pool shall remain the property of the Project Owner or pool participants (in the case of aggregated projects). All XFOs not terminated by the CCX, in the event of a catastrophic loss, shall be released to the Project Owner or pool participants during 2010 (or 2012, if the CCX accepts XFOs for registration beyond 2010). Should the CCX extend beyond 2012, the Forest Carbon Reserve Pool will be maintained for projects that elect to remain enrolled in CCX.
5. Upon enrollment, Project Owners must present to the Aggregator an attestation that the carbon stocks in the managed forest project will be subject to long-term maintenance in a manner deemed acceptable by the CCX Forestry Committee. This includes a signed Application for Participation in Chicago Climate Exchange Forestry Offset Pool and Credit Sale Contract for Exchange Forestry Offsets (XFOs) and a signed letter of intent from each project owner.
6. The quantification of changes in carbon stocks will be adjusted to reflect acquisition or disposition of forest land on an annual basis as outlined below:
  - a. When forest land is acquired, the project owner may include eligible forest carbon accumulation provided that it meets all of the criteria set forth in this document. When forest parcels are purchased, the carbon stocks on the purchased forest are not counted as growth during the purchase year, but are added into the baseline so that the net growth may be calculated in the subsequent years.
  - b. If enrolled forest land is disposed by the project owner during the contract period, the project owner shall either 1) return a quantity of XFOs that is equal to the total quantity of XFOs issued by the CCX for sequestered carbon from those acres for the entire length of time that the disposed land has been enrolled in the program or 2) present payment to the Aggregator in an amount equal to the cost of acquiring such replacement offsets or allowances. XFOs which are being held as part of the Forest Carbon Reserve Pool shall not be used for this replacement amount. The total amount to be replaced shall also not be reduced by the service fees, or other charges made to effectuate the recognition and sale of the XFOs on the CCX. This penalty does not apply if the disposed land is passed from one pooled participant to another pool participant.
7. If the enrolled land does not conform to the managed forest offset performance requirements, the CCX will cancel all CCX CFI's in an amount equal to the quantity of forest offsets previously issued to the project. The owner of the non-conforming forest project shall be prohibited from further participation in CCX.

**CCX Forest Offset Aggregator:** An Aggregator is a CCX-registered entity that serves as an administrative representative, on behalf of Project Owners, of multiple CCX-qualifying forestry offset projects. All CCX-eligible forestry offset projects that produce less than 12,500 metric tons CO<sub>2</sub> equivalent of Exchange Offsets per year must be registered through a CCX-registered Aggregator. Projects that are represented in CCX by an Aggregator are referred to as "pooled projects". The "pool" refers to the multiple projects represented by the Aggregator. Each Aggregator is assigned a CCX registry account which will hold all offsets issued to projects it represents. Aggregators shall also be Authorized Traders in the CCX Trading Platform for such offsets. Aggregators shall be responsible for receiving from individual projects the CCX-required project reports, and for submitting to CCX summary reports of projects they represent.

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**CCX Offset Verifier:** A verifier is a technical expert approved by CCX to conduct verification of CCX Exchange Forest Offset projects. CCX Forestry Pool participants agree that a CCX-approved verifier may have access to the land and facilities covered by this contract and to conduct activities to verify CCX Exchange Offsets.

**Verification:** Desk and field verification of CCX Managed Forest Offset Projects on registered projects in the CCX Offset Program must be conducted by a CCX-approved verifier. Verification is intended to confirm the reported species mix and characteristics, verify enrolled acreage, confirm that forest management practices on enrolled land are in conformance with the program criteria, and identify any acres not in compliance with eligibility criteria.

All land enrolled by the project owner is subject to an annual desk audit. Project Owners that are unable to provide sufficient documentation will be ineligible. The desk audit verifies that the baseline and annual reports are in conformance with the Managed Forest Offset Protocol.

Field verification consists of inspecting at least 10% of both project owners and acreage enrolled in the program. The field inspection occurs when the project is approved, at the end of the CCX commitment period, and any additional periods recommended by the CCX Committee on Forestry. The projects selected for field verification are chosen at the discretion of the verifier with priority given to lands with timber harvesting activity. The verifier will inspect the land to confirm the appropriate use of the approved quantification method, species mix and age class, ownership, and number of eligible acres. The field verification provides an opinion that the Project Owner has implemented practices and requirements provided in the CCX project proposal as intended.

The Project Owner will bear the verification costs in an amount proportional to the tons of XFO credits that the enrolled land contributes to the overall pool.

**Offset Issuance:** So long as the Project Owner provide proper documentation, CCX-eligible greenhouse gas mitigation projects can be recorded in the CCX Registry and will be issued Exchange Forestry Offsets ("XFOs") on the basis of mitigation tonnage realized during the years 2008 through 2012. All offset project mitigation effectiveness will be quantified on the basis of metric tons of CO<sub>2</sub> equivalence. Each Exchange Forest Offset (XFO) is identified by annual vintage and sold by the Aggregator on the CCX in one hundred (100) ton increments, known as Carbon Financial Instruments.

**Vintage:** The vintage of an instrument is defined as the first year the designated instrument may be used for compliance with the CCX emission reduction schedule, or, as applicable, the CCX electricity purchase reduction schedule.

**Carbon Financial Instruments ("CFIs"):** The unit of carbon offset credits as recognized on the Chicago Climate Exchange and reflecting recognition of 100 metric tons of reductions equivalent of carbon dioxide.

**Trading Authority:** The Delta P2/E2 Center, LLC, shall have sole authority to access the CCX Trading Platform and Registry account[s] holding the offsets issued to projects it represents and to execute sales on the CCX electronic trading platform on behalf of Project Owners and distribute sales proceeds to Project Owners in accordance with the terms stated in this contract. In addition, the Delta P2/E2 Center, LLC shall be the sole agent for the Project Owner for the purpose of brokering or selling any qualified offset credits which arise under this Agreement to a party who wishes to acquire those CFIs but not retain them in a CCX-registered account.

**Land ownership:** All forested lands within one U.S. state under the same ownership must be included in the project area to be eligible under the CCX forestry offset program.

**Baseline:** Project Owners must establish a baseline of forest carbon stocks for purposes of calculating annual net changes in forest carbon stocks and subsequent issuance of XFOs. Once established, this baseline serves as the reference year for all purposes in the managed forest project pool during the CCX market period. The baseline is established as the biomass level in the enrolled parcels on December 31 of the year preceding their enrollment.

Project Owners earn XFOs based on verified documentation of net changes in forest carbon stocks from the baseline year, which are automatically transferred each year to the Delta P2/E2 Center, LLC. Project Owners must present sufficient

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data on forest inventories and management activities on enrolled forest land to the Delta P2/E2 Center, LLC, who will establish the baseline. Baselines are subject to audit by a CCX-approved verifier.

To obtain a property level forest inventory, Project Owners must hire a "qualified" forester. For purposes of this agreement, a "qualified" forester is one who is 1) a Certified Forester through the Society of American Foresters, 2) a State Registered/Certified Forester, 3) a member of the Association of Consulting Foresters, or 4) a Certified Forest Stewardship Plan Writer with at least a Bachelors Degree in Forestry. The Project Owner bears the costs of the baseline forest inventory.

The Delta P2/E2 Center, LLC, uses U.S. Forest Service Forest Vegetation Simulator (FVS) to calculate the carbon baseline and subsequent carbon sequestration. The FVS model approved by the CCX for the model-based accounting approach and supported by the U.S. Forest Service, is available in multiple regional variants.

**Annual Reports:** Annually the Project Owner must report to the Delta P2/E2 Center, LLC any changes to the carbon stocks of the enrolled project land. Delta will provide the annual reporting form, which requests information on the following areas: timber harvests, including locations, species and product compositions and volumes; Occurrences of catastrophic events, including an estimate of damage to existing carbon stocks; Changes in property and stand boundaries; Reforestation information, including trees per acre and species; Land acquisition and disposition.

**Carbon Pools:** Net changes in carbon stocks shall be quantified only on the basis of increases in above-ground and below-ground living biomass occurring on enrolled project lands. The above-ground living biomass carbon pool includes stem wood, stem bark, and branches. The below-ground living biomass carbon pool includes coarse roots. In addition to the terms and conditions established in this Agreement, in all cases, Project Owners (or, as applicable, the ultimate owner of carbon sequestration rights associated with forest land included in a CCX project) shall retain ownership rights for all sequestration occurring in any excluded carbon pools.

The Chicago Climate Exchange also issues XFOs carbon sequestered in long-lived wood products. The protocols governing offset issuance for long-lived wood products are covered in a separate agreement.

**Treatment of Catastrophic Losses and Forest Carbon Reserve Pool:** Each CCX managed forest project must place 20% of the offsets it earns into a CCX Forest Carbon Reserve Pool. Such offsets remain the property of the Project Owner (pool participants in the case of aggregated projects) until released to the Project Owner by the CCX near the end of the market period. Accumulated offsets in the Forest Carbon Reserve Pool are used to compensate for any catastrophic losses. In cases of adverse weather events or outbreaks of fire, disease, and pest damage which reduce the quantity of carbon stocks on the enrolled project land (but do not impact the baseline level), the Project Owner shall document the quantity of timber destroyed by fire, pest, disease or adverse weather event and surrender an equivalent amount of XFOs from the Forest Carbon Reserve Pool.

In cases of adverse weather events or outbreaks of fire, disease, and pest damage which reduce the quantity of carbon stocks on the enrolled project land below the documented baseline level, the Project Owner shall document the quantity of timber destroyed by fire, disease, pest or adverse weather event and surrender an amount of XFOs in the Forest Carbon Reserve Pool equal to the amount destroyed by the catastrophic event. However, the XFOs in the Forest Carbon Reserve Pool represent the maximum amount that the Project Owner can lose in a catastrophic event. These stands are excluded from future projections of annual changes in carbon stocks until the quantity of carbon stocks in these stands reaches the reported quantities of the initial baseline.

All reports of significant damage caused by pest, disease, fire and adverse weather events are subject to audit by a CCX-approved verifier.

**Treatment of Losses due to Timber Harvesting:** Projects Owners earn CCX XFOs for managed forest projects on the basis of net changes in carbon stocks on eligible sites included in the project during each of the years 2008 through 2012. The net change in carbon stocks is defined as the increases in carbon stocks due to growth (as determined by a CCX-approved model) minus the quantity by which carbon stocks decreased due to harvest, pest, disease, fire and adverse weather events. If a timber harvest removes more carbon from the enrolled project lands than is sequestered through annual

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growth on the enrolled project lands, i.e. the net change in carbon stocks is negative, the Project Owner has a carbon deficit.

If a carbon deficit occurs prior to the sale of CCX XFOs and only impacts the initial baseline of the enrolled project lands, then those lands are excluded from future projections of annual changes in carbon stocks until the quantity of carbon stocks in these stands reaches the reported quantities of the initial baseline.

If a carbon deficit occurs after the first year of enrollment for Project Owners that are part of an aggregated pool of projects and the Delta P2E2 Center, LLC has sold CCX XFOs, the Project Owner's carbon deficit will be shared equally among the other Project Owners in the enrollment pool. The Delta P2/E2 Center, LLC, will automatically deduct the carbon deficit from each Project Owner's pool of XFOs. Additionally, the stands showing the carbon deficit are excluded from future projections of annual changes in carbon stocks until the quantity of carbon stocks in these stands reaches the reported quantities of the initial baseline.

**Non-compliance:** In the case of noncompliance with the Terms and Conditions contained in this CCX Exchange Forestry Offsets contract, the owner of the noncompliant project shall return a quantity of CCX Exchange Offsets and/or Exchange Allowances that is equal to the total quantity of XFOs that are found to be in non-compliance, or present payment in an amount equal to the cost of acquiring such replacement offsets or allowance. XFOs which are being held as part of the Forest Carbon Reserve Pool shall not be used for this replacement amount. The total amount to be replaced shall also not be reduced by the service fees, or other charges made to effectuate the recognition and sale of the XFOs on the CCX. The owner of the noncompliant project shall be prohibited from further participation in CCX.

**Letters of Intent:** Each project owner must sign a statement of intent declaring that they intend to respect and abide by the protocol developed by the CCX on all land enrolled in the Managed Forest Offset Program and preserve the forest stocks beyond December 31, 2010.

**Forestation:** Projects lands in the U.S., Canada, Brazil and Mexico involving forestation (which includes afforestation or reforestation) and forest enrichment, via plantings and/or natural regeneration initiated on or after January 1, 1990, on land not forested, or on forest land that had been degraded or unforested on December 31, 1989, may earn XFOs. When properly documented, the quantity of XFOs to be issued to a CCX-registered forestry project shall be based on the annual increase in stored carbon (expressed in metric tons of carbon dioxide equivalence) on eligible sites included in the project during years the 2003 through 2012.

**Restriction of Management Activities:** This agreement does not restrict, in any way, current or future activities, including, but not limited to: hunting, fishing, golfing, camping, use of shooting ranges, reasonable deforestation, oil or natural gas exploration, lake and wetland restoration, road construction, and construction and use of cabins and mobile homes. However, by signing this agreement, the Project Owner understands that future management activities could have detrimental impact on the land's ability to sequester carbon dioxide. Management activities, which result in the release of more carbon dioxide than is sequestered through annual growth, will be subject to the penalties listed in the section titled "Treatment of Losses due to Timber Harvesting or Other Management Activities."

**Sustainable Forest Management:** "A definition of the present day understanding of the term sustainable forest management was developed by the Ministerial Conference on the Protection of Forests in Europe (MCPFE), and has since been adopted by the Food and Agriculture Organization (FAO). It defines sustainable forest management as:

the stewardship and use of forests and forest lands in a way, and at a rate, that maintains their biodiversity, productivity, regeneration capacity, vitality and their potential to fulfill, now and in the future, relevant ecological, economic and social functions, at local, national, and global levels, and that does not cause damage to other ecosystems.

In simpler terms, the concept can be described as the attainment of balance - balance between society's increasing demands for forest products and benefits, and the preservation of forest health and diversity. This balance is critical to the survival of forests, and to the prosperity of forest-dependent communities.

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For forest managers, sustainably managing a particular forest tract means determining, in a tangible way, how to use it today to ensure similar benefits, health and productivity in the future. Forest managers must assess and integrate a wide array of sometimes conflicting factors - commercial and non-commercial values, environmental considerations, community needs, even global impact - to produce sound forest plans. In most cases, forest managers develop their forest plans in consultation with citizens, businesses, organizations and other interested parties in and around the forest tract being managed.

Because forests and societies are in constant flux, the desired outcome of sustainable forest management is not a fixed one. What constitutes a sustainably managed forest will change over time as values held by the public change."

**Conservation Lands:** Projects lands in the U.S. and Canada involving forested land that has documentary evidence perpetual protection from a conservation easement or other eligible protective status. The quantity of XFOs to be issued to a CCX-registered forestry project shall be based on the net annual increase in stored carbon (expressed in metric tons of carbon dioxide equivalence) based on the results of the carbon inventory and application of the US Forest Service Forest Vegetation Simulator or other CCX-approved method that calculates stored carbon.

Upon registration of conservation land projects with CCX, the Project Owner must present to the Delta P2/E2 Center, LLC documentary evidence that the forested site has been placed in a conservation easement (or other eligible protective status as provided below). Projects in the U.S. and Canada can qualify if undertaken on privately owned land and placed in protective status via the following actions: (a) establishing a conservation easement, for a term of no less than eighty years, providing that the project land is to be maintained as forest for the duration of the easement; (b) transfer of ownership of land parcels to a land trust, qualifying non-governmental organization or governmental body, provided such transfer establishes legal protection that the project land is to be maintained as forest for no less than eighty years; or (c) or other methods approved by the CCX.

**Amendments to this Agreement:** Amendments or revisions to this agreement must be approved, in writing, by the Delta P2E2 Center and the Project Owner, with the following exceptions:

- As stated on page 8, the CCX Offset Registration and Trading Fee is subject to change by the Chicago Climate Exchange. Delta will notify the Project Owner in writing of any changes to the Offset Registration and Trading Fee and deduct the new rate, beginning with the CCX-specified implementation date, from the sale of XFOs. The current CCX Fee Schedule, *CCX Advisory 2008-14a*, can be accessed at: <http://www.chicagoclimatex.com/content.jsf?id=265>.
- Delta reserves the right to add new reporting forms or make changes to existing reporting forms, such as the *Report of Annual Changes* on page 21, as necessary to meet CCX reporting requirements.

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Quantification of Baselines and Carbon Accumulation for Small, Medium and Large CCX Forestry Projects:

Project size	Small	Medium	Large
Definition	Projects that are less than 2,000 mT CO <sub>2</sub> /yr	More than 2,000 mT CO <sub>2</sub> /yr, less than 12,500 mT CO <sub>2</sub> /yr	More than 12,500 mT CO <sub>2</sub> /yr
Baseline quantification	Property level forest inventory.	Property level forest inventory.	Property level forest inventory.
Periodic quantification of carbon increments	Annual information updates. Update of carbon stocks via US Forest Service Forest Vegetation Simulator or other CCX-approved model. For working forests, evidence of continued adherence to management plan.	Annual information updates. Update of carbon stocks via US Forest Service Forest Vegetation Simulator or other CCX-approved model. For working forests, evidence of continued adherence to management plan.	Annual information updates. Update of carbon stocks via US Forest Service Forest Vegetation Simulator or other CCX-approved model. For working forests, evidence of continued adherence to management plan.
Verification	Project and reports subject to inspection by entities engaged by CCX.	Independent verification of registration filing, annual project reports and direct carbon measurements.	Independent verification of registration filing, annual project reports and direct carbon measurements.

**Small projects:** Defined as projects that are owned by entities for which the minimum annual gross accumulation (during years 2003 through 2010) of stored carbon on all sites enrolled in CCX by the project owner, as defined and quantified under CCX rules, is expected to be less than 2,000 (two thousand) metric tons CO<sub>2</sub> per year.

**Medium-sized projects:** Defined as projects that are owned by entities for which the minimum annual gross accumulation of stored carbon (during years 2003 through 2010), on all sites enrolled in CCX by the project owner, as defined and quantified under CCX rules, is expected to be more than 2,000 (two thousand) but less than 12,500 (twelve thousand five hundred) metric tons CO<sub>2</sub> per year.

**Large projects:** Defined as projects that are owned by entities for which the minimum annual gross accumulation of stored carbon (during years 2003 through 2010), on all sites enrolled in CCX by the project owner, as defined and quantified under CCX rules, is expected to be more than 12,500 (twelve thousand five hundred) metric tons CO<sub>2</sub> per year.

**Fulfillment of Obligations:** All commitments and obligations of the seller that are created by this contract, including the provisions to maintain the enrolled project lands in a sustainable certification program for fifteen (15) years, shall terminate on January 1, 2011, unless the Chicago Climate Exchange accepts XFOs for registration beyond 2010. In that case, the Project Owner's obligations shall terminate on January 1, 2013. Termination of this contract releases the Delta P2E2 Center, LLC from any liability associated with or enforcement of the provisions included herein.

# CHICAGO CLIMATE EXCHANGE OFFSET PROJECT PROTOCOL

## Forestry Carbon Sequestration Projects

*Updated as of 8/20/2009*

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### **5.3.2 Prevention of Double-Counting**

Project Proponents that have enrolled Forest Carbon Stocks are not permitted to either register or sell Forest Carbon Stocks from the corresponding land and time period either over-the-counter, through other GHG registries, programs, or standards, or within CCX through a different Aggregator. To ensure this for aggregated projects, contracts between Aggregators and Pooled Participants must explicitly state that the Forest Carbon Stocks from the enrolled land and time period are being exclusively registered and sold on CCX through that Aggregator.

### **5.3.3 Required Contract Conditions for Aggregated Projects**

Contracts signed between Aggregators and Pooled Participants must stipulate the following conditions that the Pooled Participant will adhere to. These are described in more detail later in the Protocol:

- A 15 year commitment to maintain the land as a forest (if the forest is sustainably managed, then this must be a 15 year commitment to maintain the forest as sustainably certified by a CCX-approved standard) from the date of enrollment.
- A declaration that they own the land under which the forest carbon stocks are enrolled. If the land is leased, then either appropriate documentation of the ownership carbon rights must be provided to the Pooled Participant (outlined below) or the lessee can sign a statement the Aggregator stipulating the ownership of the carbon rights.
- A declaration that the GHG mitigation rights are exclusively being sold through that Aggregator on CCX (i.e., they are not being sold through another registry or program, over-the-counter, or through another Aggregator on CCX).
- For Sustainably Managed Forests Projects, a declaration that they are enrolling all entity-owned land except for exemptions explicitly granted by the CCX Forestry Committee.
- A declaration by the Pooled Participant that they have read and understand the CCX Project Guidelines for Forestry and will accurately report harvest information, land acquisition and disposition, and forest land impacted by a catastrophic loss.
- A declaration that the Pooled Participant's entity-owned emissions are less than 10,000 Mt CO<sub>2e</sub> per year.
- A declaration concerning any increase in GHG emissions due to project activity that may have occurred as a result of the project.
- A declaration that the project is not required by law or other legally-binding, enforceable agreement.
- The letter-of-intent to maintain the land in a forest beyond the CCX Market Period.

#### **5.4 Project Start Date**

Projects must start on or after January 1, 2003, which corresponds with the beginning of the CCX cap and trade program.

#### **5.5 Project Location**

Forestry projects shall be located either in the United States or in a country designated as a non-Annex I country under the Kyoto Protocol.

#### **5.6 Eligible Carbon Pools**

CCX Exchange Offsets are issued on the basis of increases in Carbon Stocks of enrolled project lands in:

- Above-ground biomass.
- Below-ground biomass.
- Soil organic carbon.
- Standing dead trees.
- Down dead wood.
- Forest floor portions.
- LLWPs are an eligible carbon pool for Sustainably Managed Forest Projects.
- Acceptable methods for the inclusion of coarse roots in the United States are defined in Jenkins JC, Chojnacky DC, Heath LS, Birdsey RA (2003) National-Scale Biomass Estimators for United States Tree Species. *Forest Science* 49(1):12-35.
- Acceptable methods for the inclusion of below-ground biomass for regions outside of the United States are defined in Cairns M, Brown S, Helmer E, Baumgartner G (1997) Root Biomass Allocation in the World's Upland Forests. *Oecologia* 111: 1-11.

The CCX Forestry Committee may consider and approve additional methods for quantification of carbon pools.

#### **5.7 Performance Benchmark**

Forestry Carbon Sequestration projects are not eligible to generate Exchange Offsets in instances where the forestry project can be considered a standard business practice (i.e. business as usual) or is required by law or other legally binding framework. CCX has identified two performance criteria that projects must meet to be considered for Exchange Offset issuance.

### **5.7.1 Additionality**

CCX has adopted a “base year” procedure to ensure forestry project additionality. Natural ecosystem dynamics and unpredictable future management make projections of what may happen in the future highly speculative. Project Owners make land-use management decisions, such as planting, harvesting, and other silvicultural practices, to manage the health of forest land continuously on a daily basis. These actions can also be easily reversed and the discontinuation of the practices can result in loss of carbon stored in forests.

To comply with CCX forestry guidelines, Project Owners must make voluntary, legally binding commitments to sequester additional carbon in their forests. The basis for measurement of additional carbon is based on the baseline inventory established at the beginning of the project. The Project Owner is credited when the forest generates positive amounts of carbon above their baseline inventory and debited if the forest is managed in a manner that leads a reduction in stored carbon.

CCX has identified the following additionality tests that projects must pass to be considered for Exchange Offset issuance.

#### **5.7.1.1 Regulatory Criteria**

In order to be eligible to generate Exchange Offsets under these guidelines, forestry carbon projects must be voluntary. The project shall not be required by law under any federal, state or local regulations or other legally binding framework or enforceable agreement. For projects located outside the United States, the project shall not be required under any enforceable regulation or agreement.

Pooled Participants of Aggregated Projects are required to declare that the project is not required by law or other legally-binding, enforceable agreement in the contract with the Aggregator. For non-Aggregated Projects, the Project Proponent shall sign an attestation stating that the project is not required under any federal, state, or local regulation or other legally binding framework.

#### **5.7.1.2 Common Practice Criteria**

According to the GHG Protocol for Project Accounting, “*Common practice refers to the predominant technologies or practices in a given market, as determined by the degree to which*

*those technologies or practices have penetrated the market (defined by a specified geographic area)."*<sup>16</sup>

Plantings for Afforestation and Widely-Spaced Tree projects must have occurred on or after January 1, 2003 on land that had been in a non-forest use for ten years or longer prior to the land being afforested. Methods by which to verify the length of time that the land has been out of forest cover include satellite or photo imagery, federal crop records, or other evidence deemed acceptable by the Verifier. Plantings for Reforestation projects must have occurred on or after January 1, 2003 on land where forest cover has been lost, usually through a severe disturbance that is not the result of intentional management activity or gross negligence, and where the desired forest is not regenerating naturally. These planting dates correspond to the beginning of the CCX cap-and-trade program.

Sustainably Managed Forest projects may be eligible irrespective of the planting date. Evidence of sustainable forest management through certification from a CCX approved standard (see [Appendix E](#)) for each year of enrollment is required. Non compliance to this requirement may result in the cancellation of issued carbon from the Members account. This additionality requirement ensures that the health and ecological function of the forest is maintained, that the management supports socioeconomic and biodiversity principles, and that the lands have been certified beyond business-as-usual management practices.

## **6. PROJECT BOUNDARY**

The Project Boundary includes all entity-owned forest lands of the Project Proponent or entity being represented by the Project Proponent. Exceptions to this requirement are contained in [Section 6.1.3](#) Affected GHG Sources and Sinks, otherwise known as Project Leakage.

### **6.1 Identification of GHG Sources, Sinks and Reservoirs**

ISO 14064-2 requires that the project's GHG Sources and Sinks be categorized as controlled by the Project Proponent, related to the project, or affected by the project. These are discussed below.

#### **6.1.1 Controlled GHG Sources and Sinks**

Controlled GHG Sources and Sinks for Forestry Carbon Sequestration Offset Projects are those that occur within the Project Boundary. Therefore, controlled GHG Sources and Sinks

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<sup>16</sup> World Resources Institute and World Business Council for Sustainable Development. 2005. *The Greenhouse Gas Protocol for Project Accounting*. WRI/WBCSD, Washington, D.C.

for forestry projects refer to those that are part of the forest planting, management, measurement and monitoring practices.

### ***6.1.2 Related GHG Sources and Sinks***

Related GHG Sources and Sinks for Forestry Carbon Sequestration Offset Projects refer to those that have material or energy flows into or out of the project.

### ***6.1.3 Affected GHG Sources and Sinks***

Affected GHG Sources and Sinks are those that are influenced by the forestry project and result in new or changed activities outside the boundary of the project that actually increase GHG emissions. This concept is commonly referred to as Leakage. Project Leakage is defined as new or changed activities that result in a decrease or increase in GHG emissions outside of the project's accounting boundary. CCX does not expect forestry projects to result in new or changed activities that change GHG emissions outside of the project boundary, and therefore, no project-specific leakage assessment is required.

The sections 10.6 and 11.6 outline rules governing the definition of project boundaries for Afforestation / Reforestation and Sustainably Managed Forests Project Owners, respectively.

## **6.2 Determining the Baseline Scenario**

In accordance with the process outlined in ISO 14064-2, a baseline scenario assessment is required for each forestry carbon project. The baseline is established as the Forest Carbon Stock in the enrolled parcels on December 31 of the year preceding their registration. Members are eligible to earn Offsets based on verified documentation of net changes in Forest Carbon Stocks from the baseline year. Project documentation must present sufficient data on forest inventories and management activities on enrolled forest land while establishing the baseline for the approved quantification methodology.

Acceptable methodologies for establishing the baseline include direct measurement and approved remote sensing technology. In order to encourage high-quality inventories, smaller discounts are applied to projects with a higher degree of accuracy for a given level of precision. This is elaborated in [Section 11.5.3](#). All methodologies for establishing the baseline are subject to approval by the CCX Forestry Committee.

## 6.3 Project Emissions

CCX considers direct project emissions as resulting from the use of the combustion of fossil fuel and mobile source emissions resulting from the use of equipment to implement Afforestation / Reforestation and sustainable forest management projects.

## 7. QUANTIFYING EMISSION REDUCTIONS

CCX approaches for quantifying GHG emission reductions from Forestry Carbon Sequestration Projects are provided in project type-specific subsequent sections,

- Section 10.5 for Afforestation, Reforestation and Widely Spaced Tree Plantings.
- Section 11.5 for Sustainably Managed Forestry Projects.
- Section 12.2 for Long-Lived Wood Products.

## 8. PROJECT PERMANENCE

To address uncertainty in the permanence of carbon sequestration in forestry projects, Project Proponents shall be required to:

- Hold Exchange Offsets as escrow in a Forest Carbon Reserve Pool.
- Include in the contract from each Pooled Participant a fifteen-year commitment to maintain their land as a forest.
- Sign or obtain from each Pooled Participant a signed statement of intent recognizing the long-term objective of recognizing carbon stored in forest stocks.

### 8.1 Carbon Reserve Pool

Each CCX Afforestation / Reforestation and Sustainably Managed Forest project shall be required to place 20 percent of the Exchange Offsets it earns into a CCX Forest Carbon Reserve Pool. Such Exchange Offsets shall remain the property of the Member and Exchange Offsets that remain in the Forest Carbon Reserve Pool shall be released to the Member near the end of the CCX Market period.

Exchange Offsets in the Forest Carbon Reserve Pool will be used to compensate for any catastrophic losses that arise from non-management activity. Examples of catastrophic events may include hurricanes, fires, pests, or floods. In the event of a loss of Forest Carbon,

the amount of Exchange Offsets in the Forest Carbon Reserve Pool equal to the amount of the carbon released by the catastrophic event will be cancelled. The maximum amount of such carbon loss to be recognized by CCX for catastrophic losses shall be no more than the total quantity of Offsets available in the Forest Carbon Reserve Pool. This provision applies to project Aggregators at the aggregated pool level.

Aggregated projects may represent Pooled Participants from geographically diverse regions, where a catastrophic event that impacts one Pooled Participant may not impact the other Pooled Participants in the pool. Due to geographic diversification, a catastrophic loss impacting one Pooled Participant of an aggregated project will not imply that other Pooled Participant in the pool will be systematically impacted. Therefore, a Carbon Reserve Pool of 20% for the aggregated project provides assurance that there will be a sufficient reserve of Exchange Offsets to compensate for any individual catastrophic loss that a particular Pooled Participant may experience.

In cases of catastrophic weather events or outbreaks of fire and pest damage that reduce the quantity of Carbon Stocks on a parcel of forested land to levels below those documented for baseline, the Member shall document the quantity of timber destroyed by the fire, pest or adverse weather event. Those stands shall be excluded from future projections of annual changes in Carbon Stocks until the quantity of Carbon Stocks in those stands reaches the reported quantities for baseline. All reports of significant damage caused by pest, fire and adverse weather events shall be subject to audit by a CCX-Approved Verifier.

The registered CFI's attributed to Long-Lived Wood Products are not required to maintain an escrow in the Forest Carbon Reserve Pool.

## **8.2 Commitment to Maintaining Enrolled Land as a Forest**

Upon registration, Members must document that the registered Forest Carbon Stocks in the project will be subject to long-term maintenance. For Pooled Projects, this includes a commitment by each Pooled Participant that the enrolled land will be maintained as a forest for at least 15 years from the date that the Pooled Participant enrolled with the Program to be included in the contract with the Offset Aggregator. For Pooled Participants in the Sustainably Managed Forest program, this commitment must explicitly state that the enrolled land will be maintained in a CCX-eligible sustainably certified forest management program.

The duration of the contract between the Offset Aggregator and Pooled Participant must be for at least the length of the CCX Market Period at a minimum and requires Pooled Participants to maintain enrolled in CCX for that length of time. This contract must be included in the project filing.

### **8.3 Letter of Intent to Maintain Forest Stocks beyond the CCX Market Period**

Each Pooled Participant must sign a statement of intent declaring that the applicant intends to respect and abide by this Protocol for all land enrolled in the Program and, that the applicant intends to preserve the forest beyond December 31, 2010. This letter will be included in the project filing. A sample letter of intent is included as Appendix C.

## **9. AFFORESTATION / REFORESTATION AND WIDELY-SPACED TREE PLANTING OFFSET PROJECT GUIDELINES**

### **9.1 Project Summary/Definition**

- Eligible forestry projects involving Afforestation and Widely-Spaced Trees via plantings initiated on or after January 1, 2003 on land that had been in a non-forest use for ten years or longer prior to the Afforestation, may earn CCX Exchange Offsets. Reforestation projects must have been initiated on or after January 1, 2003.
- Eligible Afforestation / Reforestation and Widely-Spaced Tree projects must not involve any harvesting, including thinning, during the contract period. If projects enrolled under the Afforestation / Reforestation Protocol are subsequently harvested, they must meet the Protocol requirements for Sustainably Managed Forests in order to remain enrolled in CCX. Projects that do not remain enrolled in CCX under the Sustainably Managed Forest Protocol must surrender all accrued Exchange Offsets.
- CCX Aggregators representing individual Pooled Participants must maintain a detailed database documenting the necessary information relevant for verification outlined in section 13.
- CCX Exchange Offsets will be issued to owners of CCX-eligible Afforestation / Reforestation and Widely-Spaced Tree Planting projects on the basis of verified documentation reporting the annual increase in Carbon Stocks on eligible sites included in the project during the years 2003 through 2010. Verification guidelines are contained as section 13.

### **9.2 Record-Keeping Requirements**

Forest Offset Aggregators are responsible for maintaining a database of Pooled Participant records and maintaining accurate records of enrolled project forest inventories. The database

records, model inputs and enrolled lands as outlined in section 13 are subject to third party verification by CCX-Approved Verifiers.

### **9.3 Sustainable Forest Management Certification Requirements**

Sustainable forest management certification is not required since harvesting or thinning is not permitted for Afforestation / Reforestation and Widely-Spaced Tree Planting Offset Projects. In the event that a harvest does occur on Afforestation / Reforestation and Widely-Spaced Tree Planting Offset Projects, the Project is therefore required to either:

- Surrender all accrued Exchange Offsets, or,
- Enroll the Project as a Sustainably Managed Forestry Project, thereby meeting the eligibility requirements of section 10, including sustainable forest management certification.

Project Proponents are required to notify CCX of any harvests and subsequent Project enrollment decisions.

### **9.4 Project Registration, Verification and Crediting Procedure for Afforestation / Reforestation Offset Projects**

Afforestation / Reforestation projects are required to submit a CCX Project Implementation Document. Afforestation / Reforestation projects are eligible for direct registration provided that they are quantified using CCX Carbon Accumulation Tables and strictly satisfy the standardized requirements of the project category with no material deviations. Any material deviations from the standardized requirements of the project category should be described and will be subject to approval by the CCX Forestry Committee.

### **9.5 Forest Carbon Quantification Methodology**

Afforestation / Reforestation projects in the continental United States may quantify carbon sequestered in eligible forests either through either the use of the CCX Carbon Accumulation Tables for Afforestation / Reforestation Projects found in Appendix B or by combining direct measurement with a growth-and-yield modeling approach. See Section 10.5 for guidance on CCX growth-and-yield modeling approach.

### **9.5.1 CCX Carbon Accumulation Tables**

The CCX Carbon Accumulation Tables for Afforestation / Reforestation Projects reflect the live tree and soil organic carbon portion of the carbon pool forest (expressed in Mt CO<sub>2</sub>e). The CCX Carbon Accumulation Tables for Afforestation / Reforestation Projects are derived from the Department of Energy Technical Guidelines, Voluntary Reporting of Greenhouse Gases (1605(b)) Program<sup>17</sup>. To be conservative, these values are discounted by 30 percent from the reported values to reflect potential uncertainty with regard to using accumulation tables<sup>18</sup>. In addition, discounts will be applied in aggregated pooled projects based on verification outcomes as described in section 13 Verification Requirements.

Widely Spaced Tree planting projects in the United States may quantify carbon sequestered through use of the parameters and associated growth rates in Appendix G.

### **9.5.2 Baseline Year Establishment**

Afforestation / Reforestation and Widely-Spaced Tree Plantings baselines are established as the year in which the plantings occur.

## **9.6 Project Boundary Rule**

Project Proponents that own less than 250 forested acres may enroll eligible acres under the Afforestation / Reforestation Protocol without being required to enroll all owned lands in CCX either under the Afforestation / Reforestation Protocol or Sustainably Managed Forest Protocol. These Proponents are required to report any harvests from non-enrolled stands and deduct the carbon loss from any harvest. In the case of aggregated projects this must be included in the contract between the Aggregator and Project Owner.

Project Proponents that own greater than 250 forested acres must enroll all owned land in CCX either under the Afforestation / Reforestation Protocol or Sustainably Managed Forest Protocol in order to enroll any eligible acres under the Afforestation / Reforestation Protocol. Exceptions to this may be granted on a case-by-case by the CCX Forestry Committee under the exceptions outlined under the Sustainably Managed Forest section below.

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<sup>17</sup> <http://www.eia.doe.gov/oiaf/1605/gdlines.html> (January 2007)

<sup>18</sup> 30% represents the range of accuracy predicted for using accumulation tables. See Department of Energy Technical Guidelines for Voluntary Reporting of Greenhouse Gas Program, Part I Appendix: Forestry, page 3. <http://www.eia.doe.gov/oiaf/1605/gdlines.html> (January 2007)

## **10. SUSTAINABLY MANAGED FORESTRY OFFSET PROJECT GUIDELINES**

### **10.1 Project Summary/Definition**

- Eligible forestry projects involving sustainable management of forests that lead to an increase in Carbon Stocks may earn CCX Exchange Offsets.
- CCX members in the commercial forestry sector are categorized as owners of Sustainably Managed Forests and are issued Exchange Offsets on the basis of increases in Forest Carbon Stocks.
- Long-Lived Wood Products are considered an eligible carbon pool for Sustainably Managed Forests.
- All Sustainably Managed Forest project proposals are subject to review for approval by the CCX Forestry Committee.
- If an enrolled project land does not conform to the Sustainably Managed Forest Protocol requirements, such event shall be promptly reported to CCX. Such reporting shall occur through a project's Aggregator if the project is registered through an Aggregator. CCX will then cancel CCX Exchange Offsets in an amount equal to the quantity of Exchange Offsets previously issued to the project. CCX has the discretion to prohibit the owner of the non-conforming forest project from further participation in CCX.

### **10.2 Record-Keeping Requirements**

Forest Offset Aggregators are responsible for maintaining a database of Pooled Participant records, for maintaining accurate records of enrolled project forest inventories, and for keeping track of management activities in enrolled forest lands. The database records, model inputs and enrolled lands are subject to third party verification by CCX-Approved Verifiers.

### **10.3 Sustainable Forest Management Certification Requirements**

Project Proponents must provide evidence of sustainable forest management of all Sustainably Managed Forest land through certification from agencies or schemes that have been endorsed by the PEFC Council (Programme for the Endorsement of Forest Certification schemes) or the Forest Stewardship Council. A complete list of CCX-approved certification schemes is available in [Appendix E](#).

Provided all other requirements are satisfied, Exchange Offsets may be issued retroactively for CCX program years prior to obtaining certification for sustainable management provided that sustainable certification exists when the project enrolls in CCX for projects that enroll up until 2010. Exchange Offsets may only be issued for years in which certification for sustainable management exists for projects that enroll after 2010.

In addition, acceptable certification schemes include state sustainably programs that have been recognized by the American Tree Farm System (ATFS) as satisfying ATFS requirements. Examples of this include Wisconsin's Managed Forest Law and Indiana's Classified Forest and Wildlands Program.

#### **10.4 Project Registration, Verification and Crediting Procedure for Sustainably Managed Forestry Offset Projects**

Sustainably Managed Forestry projects seeking CCX approval are required to submit a CCX Project Implementation Document, describing project eligibility criteria including quantification methodology, sustainable certification (if required), start dates, monitoring plan, and other pertinent information for review by the CCX Forestry Committee. Appendix I provides information required in the CCX Project Implementation Document. The CCX Forestry Committee is responsible for providing expert guidance, Protocol development and interpretation, and recommending approvals for reviewed forestry projects. If approved, CCX staff will issue the Project Proponent an Official CCX Project Approval Letter with an explicit description of the conditions under which the project was approved.

#### **10.5 Forest Carbon Quantification Methodology**

##### **Equation 1: Calculating the Net Annual Change in Carbon Stocks**

$$\text{Net Annual Change in Carbon Stocks} = \text{(Net Annual Growth of Carbon Stocks) minus (Annual Removals of Carbon Stocks)}$$

In addition, Project Owners and Aggregators with entity-owned emissions less than 10,000 Mt CO<sub>2</sub>e per year must subtract any increase in GHG emissions that have occurred due to project activity.

Quantification of annual net changes in Forest Carbon Stock must involve a combination of direct measurement through either an in-field timber inventory and/or remote sensing techniques. These measurements may be combined with a growth-and-yield models to project growth. Sustainably Managed Forest projects will be issued or debited CFI's on the basis of net annual change in Forest Carbon Stocks through the CCX Market Period. Members are

eligible to earn CFIs based on verification of net changes in Forest Carbon Stocks from the baseline year. Procedures for establishing the baseline year is outlined in Section 6.2.

All methods and procedures approved by CCX for quantifying and reporting changes in Carbon Stocks shall conform to the following standards:

- Relevant mathematical and statistical formulae and models shall be publicly accessible (excluding exemptions granted under provisions stated below).
- Protocols for measuring and monitoring inventories and calculating variances of the estimates shall be publicly accessible (excluding exemptions granted under provisions stated below).
- All aspects of the quantification of changes in the Member's Carbon Stocks shall be subject to verification by independent CCX-approved entities at the Member's expense; and, the verified data and quantification methods are subject to audit by CCX.
- Post-harvest cruises must be conducted for a particular Pooled Participant subsequent to a significant harvest or thinning.
- The quantification of changes in Carbon Stocks will be adjusted to reflect acquisition or disposition of forest land on an annual basis as outlined in Section 5.3.1.

#### ***10.5.1 Quantifying Change in Carbon Stocks***

Quantification of net changes in Forest Carbon Stocks must involve a measurement-based accounting approach. The timber inventory techniques and growth-and-yield model used to estimate these changes must be approved by the CCX Forestry Committee. A list of approved growth-and-yield models is contained as Appendix H. Members using models that have previously been approved by the CCX Forestry Committee must still obtain project approval from the CCX Forestry Committee for other aspects of their project. In-field timber inventory or remote sensing techniques shall include a plan for direct measurement of tree growth and a method for calculating the variance of estimates of increases in Carbon Stocks due to tree growth in a transparent and statistically valid manner.

Project Proponents that propose to use proprietary quantification models must disclose all aspects of the model to the CCX Forestry Committee for approval. A necessary requirement for the approval of proprietary models is evidence of third-party peer review, validation, and/or client references from entities that have used the model in practice, and the qualifications of the evaluator of the proprietary model.

### ***10.5.2 Baseline Year Establishment***

Sustainably Managed Forest projects are eligible for crediting for the CCX program year of the initial baseline inventory and for subsequent years that the project remains enrolled in CCX. Exchange Offsets cannot be issued retroactively based on regressive modeling, or other quantification methodologies, for CCX program years prior to the year of the initial baseline inventory.

Baseline inventories are required to use measurement procedures and a sufficiently large sample size such that there is 90% confidence that the resulting reported value is within 10% of the true mean.

### ***10.5.3 Discounting Net Annual Change***

Growth and yield model estimates of net annual changes in carbon from forestry project will be discounted to account for variance in model estimates by two times the reported statistical error associated with a 90% confidence interval of the baseline inventory data.

No discount will be applied for instances when in-field inventories are conducted on an annual basis or for years in which the inventory occurred. Discounts for projects using remote sensing quantification methodologies will be determined by the CCX Forestry Committee on a case-by-case basis. In addition, discounts will be applied in aggregated pooled projects based on verification outcomes as described in Verification Requirements section 13.

## **10.6 Project Boundary Rule**

All Forest Carbon Stocks from Sustainably Managed Forest Projects must be included in CCX accounting for all entity-owned forest lands. This requirement prevents proponents from shifting harvesting activity, and corresponding decrease in forest carbon stocks, from stands that they have enrolled in CCX to other stands that they own.

Forest Carbon Stocks from lands of different species and/or geographic regions may be excluded at the discretion of the CCX Forestry Committee on a case-by-case basis under the following circumstances:

- If the forest land is sustainably certified by a CCX-approved sustainable certification standard.
- If lands are not managed for biomass removal and have long-term protection (such as a land easement).
- If a case can be made that there is no causal relationship in the management activity between the enrolled and non-enrolled lands.
- Immature stands that have not yet undergone an inventory.

**Equation 4: Synthetic Direct Emission Baseline**

$$\text{Synthetic Direct Emission Baseline} = \text{Total heat content of all fuels combusted on-site (in gigajoules)} \times 0.0273$$

Where:

<b>Total heat content of all fuels combusted on-site (in gigajoules)</b>	The heat content associated with total fuel consumption (to include fossil fuels and biomass-based fuels) during a year that is representative of the CCX Direct Emissions baseline period.
<b>0.0273</b>	The average emissions factor for U.S. paper and pulp companies. <sup>20</sup>

The quantity of total heat content of all fuels combusted on-site that is reported to CCX must be supported by documented evidence provided by a third party entity that has experience in developing GHG emission inventories. A hypothetical example is included as [Appendix I](#).

## 13. VALIDATION AND VERIFICATION REQUIREMENTS

### 13.1 Validation

CCX Projects utilizing these guidelines are validated using one of two methods. Afforestation / Reforestation and Widely-Spaced Tree Planting Projects that adhere strictly to the requirements of this Protocol are considered to be validated and do not require a separate validation by the CCX Forestry Committee. The Project Proponent is required to submit the CCX Project Implementation Document with the project described in detail for all Sustainably Managed Forestry Projects or any Afforestation / Reforestation and Widely-Spaced Tree Planting Projects not using the standard carbon accumulation tables. Upon receipt and review of the CCX Project Implementation Document, the CCX Forestry Committee will review the proposal and, as needed, seek guidance appropriate technical experts. Project Proponents will be notified of the CCX Forestry Committee decision and shall proceed accordingly.

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<sup>20</sup> Energy sources for the U.S. pulp and paper industry are contained in *Profile of Pulp and Paper Industry 2<sup>nd</sup> Edition*, EPA Office of Compliance Sector Notebook Project.

## 13.2 Verification

Verification of CCX Afforestation / Reforestation and Sustainably Managed Forest projects must be conducted by a CCX-Approved Verifier on an annual basis. Verification is intended to confirm the reported species mix and characteristics, verify acreage enrolled in the CCX, confirm that forest management practices on enrolled land are in compliance with the CCX criteria, and to identify any acres not in compliance with eligibility criteria. Verification costs are borne by the Member. Pool Participants that are unable to provide sufficient documentation will be ineligible. A checklist list of verification requirements is contained in Appendix A. Further information about the roles and responsibilities of Verifiers and the roles and responsibility of Members during verification are discussed in detail in *Chicago Climate Exchange Offset Program Verification Guidance Document* available on the CCX webpage: [www.theccx.com](http://www.theccx.com).

### 13.2.1 In-Field Inspection Requirements

In-field inspections must occur with the first verification after the project is initially approved and at the end of the CCX commitment period for all projects irrespective of size. The stands selected for field verification are chosen at the discretion of the Verifier. The frequency and size of the in-field verification will be conducted corresponding to the size of the project according to the following requirement:

- For pooled projects with pools greater than 25,000 acres, in-field verification must occur every other year of at least 20% of both Pool Participants (in the case of aggregated projects) and acreage enrolled in CCX every other year.
- For pooled projects with pools less than 25,000 acres but greater than 10,000 acres, in-field verification must occur every third year of at least 15% of both Pooled Participants (in the case of aggregated projects) and acreage enrolled in CCX every other year.
- For pooled projects with pools less than 10,000 acres, in-field verification must occur every fourth year of at least 10% of both Pooled Participants (in the case of aggregated projects) and acreage enrolled in CCX every other year.

The CCX Forestry Committee will review state forest programs that involve monitoring on a case-by-case basis to determine if the verification process associated with state programs could act as a substitute for CCX field verification.

What is it?

## Carbon Credits

The term 'carbon credit' or 'offset' describes the financial instrument generated when a technology or project results in reduced carbon dioxide or other greenhouse gas emissions. This is achieved through the implementation of renewable energy, energy efficiency, waste to energy and land use projects. Visit our [Carbon Credits](#) page to see our most current projects.

### What are Carbon Credits?

Buyers of carbon credits want to know what they are getting. Carbon offsets have different values in the marketplace depending on the standard by which they were created. Viability is committed to producing the highest quality carbon credits through its trusted brokers and proven methodologies. View our [Carbon Credits](#) page or visit our [Carbon Credits](#) section to learn more.

Want to know if your project could qualify for carbon credit financing? Call us at 616-396-6101 or email [info@viability.com](mailto:info@viability.com) or Viability's Carbon Sales Manager [info@viability.com](mailto:info@viability.com) to receive some assistance.

### What are the main categories of financing carbon credits include:

- Renewable energy projects
- Demand side energy efficiency projects
- Biological sequestration activities

Any company entity is able to create carbon credits, ranging from cement manufacturers and other industrial facilities to farmers, greenhouses and other agricultural producers.

### What are the main categories of financing carbon credits? And why?

Though carbon dioxide and other greenhouse gases are not currently regulated in the US, there is still a robust market for buying and selling these commodities.

#### **\*Image**

Companies buy them to offset the emissions generated by their facilities or to make 'green statements' for marketing purposes.

#### **\*Personal Choice**

Individuals buy carbon credits to offset personal emissions from travel and lifestyle.

#### **\*Regulatory**

More common lately, many companies are starting to purchase carbon offsets in order to make positive gains prior to an anticipated regulatory cap and trade system in the United States.

[The Basics](#)
[About Delta Offsets](#)
[Our Process](#)
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## About Delta Offsets

The Delta Carbon Program enrolls conservation practices that not only reduce overall greenhouse gas emissions but protect and improve environmental quality. All projects follow the protocols established by the Chicago Climate Exchange. Current contracts extend through 2010 and include credits from 2003 through 2010.

[Project Types](#)
[Current Projects](#)

## Project Types

## Current Projects

Delta has a standardized process for enrolling offset projects. We pool together similar projects during six-month application periods, verify the projects, and register them with the Chicago Climate Exchange. Carbon credits are awarded on an annual basis, with rates depending on the type of project. [more...](#)

Currently, we are enrolling our sixth set of soil and afforestation projects and our third set of managed forest projects. The following information provides a snapshot of offset projects that have been enrolled to date. You can view a summary map of Delta Offset projects [here](#).

<p>Pool/Type: XFO Pool 5 Afforestation/Reforestation  Pool Closing Date: September 15, 2008  Number of Contracts: 28  Acreage Enrolled: 1,729  Geography: Illinois, Michigan, Arkansas  2003: 1,100 metric tons, verified and currently selling  2004: 1,800 metric tons, sold on CCX  2005: 1,900 metric tons, sold on CCX  2006: 1,900 metric tons, verified and currently selling  2007: 2,000 metric tons, verified and currently selling  2008: 2,100 metric tons, verified and currently selling  2009-2010: to be registered  Amount of money returned to farmers and landowners: to be determined</p>
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<p>Pool/Type: XFO-MF Pool 2/MFL Sustainably Managed Forests  Pool Closing Date: Fall 2008  Number of Contracts: 50  Acreage Enrolled: 48,841  Geography: Michigan, Wisconsin, Indiana, Pennsylvania, Arkansas  2005: 100 metric tons, sold on CCX  2006: 8,600 metric tons, verified and currently selling  2007: 11,300 metric tons, verified and currently selling  2008: 172,100 metric tons, verified and currently selling  2009-2010: to be registered  Amount of money returned to farmers and landowners: to be determined</p>
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What We Do

- [ClearSky Projects](#)
- [Offsets For Individuals](#)
- [Corporate Consulting](#)
- [Event Planning](#)
- [Project Design](#)
- [Credit Brokering](#)

**ClearSky Projects**

From start to finish, we design our projects with the goal of moving toward a positive climate future. ClearSky projects offer everyone a chance to benefit: local communities, native ecosystems, our partner organizations, and concerned individuals. Purchasing offsets through ClearSky allows you to balance your greenhouse gas emissions, contribute to community and economic development in our project areas, improve native ecosystems, and promote sustainable, progressive solutions to the problem of global climate change.

**Panama Sustainable Forestry and Re-forestation Project**

With our partner Futuro Forestal, we are sequestering greenhouse gases by re-foresting degraded cattle pastures and practicing sustainable forestry on approximately 1,000 hectares of land in Panama. We plant over 50 native rainforest species to create diverse habitat and protect the soils and water at the project areas.



**Gordondale Dairy Methane Capture Project**

This project involves carbon and nutrient management, methane collection, and renewable energy generation at the Gordondale Dairy near Amherst Junction, WI. ClearSky will use CCX methane offsets from this project to mitigate emissions for our clients. Methane is a greenhouse gas 21 times more potent than carbon dioxide.



**Pinehurst Acres Swine Methane Capture Project**

This project involves carbon and nutrient management, methane collection, and renewable energy generation at the Pine Hurst Acres hog farm near Danville, PA. ClearSky will use CCX methane offsets from this project to mitigate emissions for our clients. Methane is a greenhouse gas 21 times more potent than carbon dioxide.



**Texas Re-forestation Project Pool**

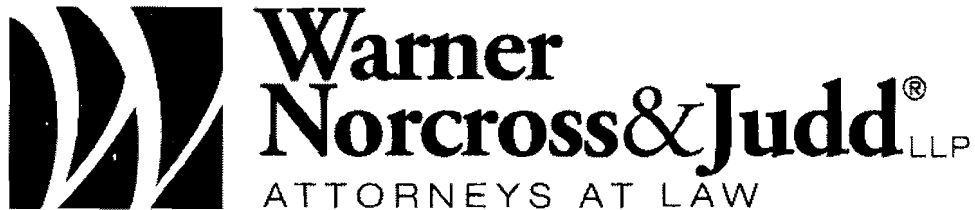
Landowners in this project pool have been actively re-planting cropland and rangeland with native trees in order to sequester CO<sub>2</sub> from the atmosphere. This pool consists of 129 individual landowners and 5,420 hectares (13,400 acres) from Texas, and is primarily focused on loblolly pine forests. The Chicago Climate Exchange has certified these emissions reductions.



**Montana Rangeland Carbon Sequestration Project Pool**

Ranchers in this project pool are committed to responsible grazing practices that help the soil sequester carbon, maintain native grassland species, and provide habitat for native wildlife. This project takes place on 28,570 hectares (70,600 acres) in southeastern Montana (Carter, Custer, and Powder River counties). The Chicago Climate Exchange has certified these emissions reductions.





## 2010 WINTER CONFERENCE GREEN CONSTRUCTION LEGISLATION

MARCH 12, 2010

Presented by:

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## LEED Legislation

- A. Expected to be introduced soon
- B. Will provide financial incentives to construction and rehabilitation projects that achieve LEED certification
- C. Designed to make Michigan a leader in “green” design of new and rehabilitated buildings.
- D. The impact of buildings on energy consumption is significant -- buildings account for:
  - 1. 65% of total U.S. electricity consumption,
  - 2. 36% of total U.S. primary energy use, and
  - 3. 30% of total U.S. greenhouse gas emissions.
- E. Green design significantly reduces or eliminates the negative impact of buildings on the environment and occupants.
  - 1. The proposed legislation will encourage developers, builders, and manufacturers to achieve the highest possible levels of LEED certification.
  - 2. As a result, Michigan can expect to see more buildings with:
    - a. Green roofs,
    - b. Geothermal systems,
    - c. Solar panels,
    - d. Wind turbines, and
    - e. Other features that minimize:
      - (i) Water usage,
      - (ii) Manage storm water, and
      - (iii) Limit energy consumption.

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**Notes:**



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- F. Developers have been reluctant to achieve LEED certification due to increased costs.
1. Up front costs for design and construction features are increased.
  2. These costs are difficult to finance despite long-term benefits.
- G. NBA Stakeholders Group
1. A stakeholders group was formed by the Michigan chapter of the National Brownfield Association (NBA):
    - a. Organized in the spring of 2008,
    - b. Organized to develop legislation that would promote green construction through financial incentives.
  2. Stakeholders included:
    - a. Banks,
    - b. Builders,
    - c. Department of Energy, Labor and Economic Growth,
    - d. U.S. Green Building Council,
    - e. Developers,
    - f. Michigan Economic Development Corporation,
    - g. Michigan Department of Environmental Quality,
    - h. Michigan Municipal League,
    - i. Staff from the Michigan legislature.
  3. The Group met six times over eight months and developed recommendations for legislation.
- H. Financial Incentives
1. The proposed legislation will create two financial incentives based on achieving LEED certification.
    - a. The first incentive is a tax abatement. The proposed legislation will:

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**Notes:**

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- (i) Amend the Commercial Redevelopment Act, P.A. 255 of 1978, which provides property tax abatements under certain circumstances.
  - (ii) Allow a person proposing to build a new building or rehabilitate an existing building to apply for a property tax abatement for up to 12 years. The abatement would be:
    - (a) 20% for basic LEED certification,
    - (b) 30% for silver,
    - (c) 40% for gold, and
    - (d) 50% for platinum.
- b. Municipalities eligible to grant the property tax abatement include:
    - (i) Cities.
    - (ii) Villages, and
    - (iii) Townships with a population of at least 20,000.
  - c. Municipalities would have discretion to award the property tax abatement.
  - d. Abatement would apply only to the increase in taxable value and would apply to all real property tax millages except for debt millage.
  - c. No opt out for any of the taxing jurisdictions.
2. The second incentive is amendment of the Brownfield Redevelopment Financing Act, Act 381 of 1996, as amended.
- a. Act 381 allows for the capture of tax increment revenue (TIF) from a new project to reimburse certain eligible activities on eligible properties.
  - b. Only the increased property tax revenue that results from a proposed project (i.e., taxes that are not currently paid) are captured.

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**Notes:**

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- c. Only “brownfield” sites are eligible for the TIF program.
    - (i) Sites that are contaminated,
    - (ii) Sites with functionally obsolete buildings, or
    - (iii) Sites with blighted conditions.
  - d. Under the proposed legislation, Act 381 would allow TIF reimbursement for the following sustainable design features under certain circumstances:
    - (i) Renewable energy systems (e.g., wind turbines, solar systems, geothermal energy systems),
    - (ii) Storm water management systems, and
    - (iii) Underground parking.

*Note:* These items would only be eligible for TIF reimbursement if the project is an eligible brownfield, the proposed project achieves LEED certification at any level, and the developer received credit in the LEED certification process for the item for which reimbursement is sought.

- (iv) The process for TIF reimbursement under Act 381 includes:
  - (a) Preparation of a brownfield plan.
  - (b) Review of the brownfield plan by a local Brownfield Redevelopment Authority,
  - (c) Approval of the brownfield plan by the governing body of the local municipality, and
- (v) Also required if the person seeking TIF reimbursement desires to capture state/school millage:
  - (a) Approval by the Michigan Economic Growth Authority (MEGA).

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**Notes:**

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I. Financial Incentives Proposed

Both tools provide powerful incentives for developers to achieve LEED certification. We can expect to see a significant increase in sustainable design and construction in the state if this legislation is passed.

J. Legislation Status

Two representatives of the stakeholders, John Byl of Warner Norcross & Judd, and Guy Bazzani of Bazzani Associates, testified before the Senate Commerce and Tourism Committee in March. That committee is chaired by Senator Jason Allen (Traverse City).

1. This is expected to be a bipartisan effort, and several legislators have expressed an interest in sponsoring the legislation.
2. Look for bills shortly.

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**Notes:**



**Proposed amendment to Act 381 adding green activities as “eligible activities”**

Amend Section 2(m) of Act 381 by adding the following subsection:

(xii) The following improvements if those improvements are utilized to achieve a credit for a certification level under the Leadership in Energy & Environmental Design Green Building Rating System developed by the U.S. Green Building Council and if that certification level is actually achieved:

(A) The following renewable-energy systems:

- a) The following electrical systems: Photovoltaic (solar electric), fuel cell, wind, hydro, wave, and bio-fuel based electrical production and storage systems deployed onsite.
- b) Geothermal energy systems that produce electric power or provide thermal energy for use onsite.
- c) The following solar thermal systems: Active solar thermal systems that employ collection panels; heat transfer mechanical components, such as pumps or fans; a defined heat storage system, such as a hot water tank; and thermo-siphon solar and storage tank “batch heaters.”

(B) The following building systems:

- a) Geothermal exchange systems for heating, air conditioning, and hot water.
- b) Stormwater-management systems implemented according to low-impact-design strategies that do not otherwise qualify as eligible activities under this section.

(C) Underground parking.

# COMMERCIAL REDEVELOPMENT ACT

## Act 255 of 1978

AN ACT to provide for the establishment of commercial redevelopment districts in local governmental units; to provide for the exemption from certain taxes; to levy and collect a specific tax upon the owners of certain facilities; to provide for the disposition of the tax; to provide for the obtaining and transferring of an exemption certificate and to prescribe the contents of those certificates; to prescribe the powers and duties of the state tax commission and certain officers of local governmental units; and to provide remedies and penalties.

**History:** 1978, Act 255, Imd. Eff. June 21, 1978

**Compiler's Notes:** For transfer of powers and duties under the commercial redevelopment act from the department of commerce to the chief executive officer of the Michigan jobs commission, see E.R.O. No. 1996-2, compiled at MCL 445.2001 of the Michigan Compiled Laws.

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*The People of the State of Michigan enact:*

### **207.651 Short title.**

#### Sec. 1.

This act shall be known and may be cited as the “commercial redevelopment act”.

**History:** 1978, Act 255, Imd. Eff. June 21, 1978

**Compiler's Notes:** For transfer of powers and duties under the commercial redevelopment act from the department of commerce to the chief executive officer of the Michigan jobs commission, see E.R.O. No. 1996-2, compiled at MCL 445.2001 of the Michigan Compiled Laws.

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### **207.652 Meanings of words and phrases.**

#### Sec. 2.

For the purposes of this act, the words and phrases defined in sections 3 and 4 have the meanings ascribed to them in those sections.

**History:** 1978, Act 255, Imd. Eff. June 21, 1978

**207.653 Definitions; C to F.**

Sec. 3.

(1) "Commercial facilities tax" means the specific tax levied under this act.

(2) "Commercial facilities exemption certificate" means a certificate issued pursuant to section 8.

(3) "Commercial property" means land improvements classified by law for general ad valorem tax purposes as real property including real property assessable as personal property pursuant to sections 8(d) and 14(6) of the general property tax act, 1893 PA 206, MCL 211.8 and 211.14, whether completed or in the process of construction, the primary purpose and use of which is the operation of a commercial business enterprise and shall include office, engineering, research and development, warehousing parts distribution, retail sales, hotel or motel development, and other commercial facilities but shall not include any of the following:

(a) Land.

(b) Property of a public utility.

(c) Housing, except that portion of a building containing nonhousing commercial activity.

(d) Financial organization. As used in this subdivision, "financial organization" means a bank, industrial bank, trust company, building and loan or savings and loan association, bank holding company as defined in 12 USC 1841, credit union, safety and collateral deposit company, regulated investment company as defined in the internal revenue code, and any other association, joint stock company, or corporation at least 90% of whose assets consist of intangible personal property and at least 90% of whose gross receipts income consists of dividends or interest or other charges resulting from the use of money or credit. The exclusion of financial institutions shall not apply to the otherwise included property of financial institutions which is located in the designated area of a city that is either the largest city in population within the county, as determined by the latest federal census; or is a city that had more than the median percentage for all cities in this state of its residents below the poverty line as determined by the latest federal census. Each city qualified to not be excluded under this subdivision shall designate only 1 commercial area for purposes of this provision, which area may be conterminous with, or included within, a commercial redevelopment district and in which area a majority of the land must be zoned commercially.

Commercial property may be owned or leased. If, in the case of leased property, the lessee is liable for payment of ad valorem property taxes, and furnishes proof of that liability, the lessee is eligible for the exemption. If the lessor is liable for payment of ad valorem property taxes and furnishes proof of that liability, the lessor is eligible for the exemption.

(4) "Commercial redevelopment district" means an area of a local governmental unit established as provided in section 5.

(5) "Commission" means the state tax commission created by 1927 PA 360, MCL 209.101 to 209.107.

(6) "Facility" means a restored facility, a replacement facility, a new facility, or a new LEED certified facility.

**History:** 1978, Act 255, Imd. Eff. June 21, 1978 ;-- Am. 1980, Act 407, Imd. Eff. Jan. 8, 1981 ;-- Am. 2008, Act 227, Imd. Eff. July 17, 2008

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## **207.654 Definitions; L to S.**

### **Sec. 4.**

(1) "LEED construction activities" means one or more of the following:

(a) Construction of a LEED certified facility.

(b) Renovating or upgrading a LEED certified facility for the purpose of achieving LEED certification or maintaining or increasing the level of an existing LEED certification.

(2) "LEED certification" means a certification issued under the Leadership in Energy and Environmental Design Green Building Rating System developed by the U.S. Green Building Council.

(3) "LEED certified facility" means land improvements classified by law for general ad valorem tax purposes as real property including real property assessable as personal property pursuant to sections 8(d) and 14(6) of the general property tax act, 1893 PA 206, MCL 211.8 and 211.14, and which have either received LEED certification or for which LEED certification will be sought, but shall not include land. A LEED certified facility is not required to be dedicated to any primary purpose or use, and may include, but is not limited to, commercial, industrial, or residential uses, or multiple uses.

(4) "Local governmental unit" means, except as otherwise provided in this subsection, a city, village, or township. For local governmental units designating a commercial redevelopment district after June 30, 2008, local governmental unit means a city or village. For purposes of LEED certified facilities, local governmental unit includes a city or village, and also includes a charter township that has a population of 20,000 or more.

(25) "New facility" means 1 of the following:

(a) Through June 30, 2008, new commercial property other than a replacement facility to be built in a redevelopment district.

(b) Beginning July 1, 2008, new commercial property other than a replacement facility to be built in a redevelopment district that meets all of the following:

(i) Is located on property that is zoned to allow for mixed use that includes high-density residential use.

(ii) Is located in a qualified downtown revitalization district as defined in section 2 of the neighborhood enterprise zone act, 1992 PA 147, MCL 207.772.

(iii) The local governmental unit in which the new facility is to be located does all of the following:

(A) Establishes and implements an expedited local permitting and inspection process in the commercial redevelopment district.

(B) By resolution provides for walkable nonmotorized interconnections, including sidewalks and streetscapes throughout the commercial redevelopment district.

(36) "Obsolete commercial property" means commercial property the condition of which is impaired due to changes in design, construction, technology, or improved production processes, or damage due to fire, natural disaster, or general neglect.

(47) "Replacement" means the complete or partial demolition of obsolete commercial property and the complete or partial reconstruction or installation of new property of similar utility.

(58) "Replacement facility" means 1 of the following:

(a) Through June 30, 2008, commercial property on the same or contiguous land within the district which land is or is to be acquired, constructed, altered, or installed for the purpose of being substituted for obsolete commercial property together with any part of the old altered property that remains for use as commercial property after the replacement.

(b) Beginning July 1, 2008, commercial property on the same or contiguous land within the district which land is or is to be acquired, constructed, altered, or installed for the purpose of being substituted for obsolete commercial property and any part of the old altered property that remains for use as commercial property after the replacement, that meets all of the following:

(i) Is located on property that is zoned to allow for mixed use that includes high-density residential use.

(ii) Is located in a qualified downtown revitalization district as defined in section 2 of the neighborhood enterprise zone act, 1992 PA 147, MCL 207.772.

(iii) The local governmental unit in which the replacement facility is to be located does all of the following:

(A) Establishes and implements an expedited local permitting and inspection process in the commercial redevelopment district.

(B) By resolution provides for walkable nonmotorized interconnections, including sidewalks and streetscapes throughout the commercial redevelopment district.

(69) "Restoration" means changes to obsolete commercial property other than replacement as may be required to restore the property, together with all appurtenances thereto, to an economically efficient condition. Restoration includes major renovation including but not limited to the improvement of floor loads, correction of deficient or excessive height, new or improved fixed building equipment, including heating, ventilation, and lighting, reducing multistory facilities to 1 or 2 stories, improved structural support including foundations, improved roof structure and cover, floor replacement, improved wall placement, improved exterior and interior appearance of buildings, and other physical changes required to restore the commercial property to an economically efficient condition. Restoration does not include improvements aggregating less than 10% of the true cash value of the property at commencement of the restoration of the commercial property.

(710) "Restored facility" means a facility that has undergone restoration.

(811) "State equalized valuation" means the valuation determined under 1911 PA 44, MCL 209.1 to 209.8.

**History:** 1978, Act 255, Imd. Eff. June 21, 1978 ;-- Am. 2008, Act 227, Imd. Eff. July 17, 2008

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**207.655 Commercial redevelopment district; establishment; resolution; notice; hearing; finding and determination; applicability of district established by township; exemption of restored facility; commercial property included as part of commercial redevelopment district also part of tax increment district.**

Sec. 5.

(1) A local governmental unit, by resolution of its legislative body, may establish a commercial redevelopment district, which may consist of 1 or more parcels or tracts of land or a portion thereof, if at the time of adoption of the resolution the property within the district is any of the following:

(a) Obsolete commercial property or cleared or vacant land which is part of an existing, developed commercial or industrial zone which has been zoned commercial or industrial for 3

years before June 21, 1978, and the area is or was characterized by obsolete commercial property and a decline in commercial activity.

(b) Land which has been cleared or is to be cleared as a result of major fire damage, or cleared or to be cleared as a blighted area under Act No. 344 of the Public Acts of 1945, as amended, being sections 125.71 to 125.84 of the Michigan Compiled Laws.

(c) Cleared or vacant land included within a redevelopment plan adopted by a downtown development authority pursuant to Act No. 197 of the Public Acts of 1975, as amended, being sections 125.1651 to 125.1680 of the Michigan Compiled Laws, or adopted by an urban redevelopment corporation pursuant to Act No. 250 of the Public Acts of 1941, as amended, being sections 125.901 to 125.922 of the Michigan Compiled Laws, or Act No. 120 of the Public Acts of 1961, being sections 125.981 to 125.986 of the Michigan Compiled Laws.

(d) Property which was owned by a local governmental unit on June 21, 1978, and subsequently conveyed to a private owner and zoned commercial.

(2) The legislative body of a local governmental unit may establish a commercial redevelopment district on its own initiative or upon a request filed by the owner or owners of 75% of the state equalized value of the commercial property located within a proposed district.

(3) Before adopting a resolution establishing a commercial redevelopment district, the legislative body shall give written notice by certified mail to the owners of all real property within the proposed commercial redevelopment district and shall afford an opportunity for a hearing on the establishment of the commercial redevelopment district at which any of those owners and any other resident or taxpayer of the local governmental unit may appear and be heard. The legislative body shall give public notice of the hearing not less than 10 nor more than 30 days before the date of the hearing.

(4) The legislative body of the local governmental unit, in its resolution establishing a commercial redevelopment district, shall set forth a finding and determination that the district meets the requirements set forth in subsection (1).

(5) A commercial redevelopment district established by a township shall be applicable only within the unincorporated territory of the township and shall not be applicable within a village located in that township.

(6) A restored facility included in an area covered by a tax increment financing plan adopted by a downtown development authority created under Act No. 197 of the Public Acts of 1975, as amended, shall be exempt from this act in a city with a population of 1,000,000 or more.

(7) Commercial property included as part of a commercial redevelopment district may also be part of a tax increment district established under the tax increment finance authority act.

**History:** 1978, Act 255, Imd. Eff. June 21, 1978 ;-- Am. 1979, Act 27, Imd. Eff. June 6, 1979 ;-- Am. 1980, Act 407, Imd. Eff. Jan. 8, 1981 ;-- Am. 1980, Act 448, Imd. Eff. Jan. 15, 1981

**207.656 Application for commercial facilities exemption certificate; filing; contents; notice; hearing; determination of state equalized valuation of property owned by local governmental unit on June 21, 1978, and subsequently conveyed to private owner and zoned commercial.**

Sec. 6.

(1) The owner or lessee of a facility may file an application for a commercial facilities exemption certificate with the clerk of the local governmental unit that established the commercial redevelopment district. The application shall be filed in the manner and form prescribed by the commission. The application shall contain or be accompanied by a general description of the facility and a general description of the proposed use of the facility, the general nature and extent of the restoration, replacement, or construction to be undertaken, a descriptive list of the fixed building equipment which will be a part of the facility, a time schedule for undertaking and completing the restoration, replacement, or construction of the facility, a statement of the economic advantages expected from the exemption, including the number of jobs retained or created because of the exemption, including expected construction employment, and information relating to the requirements in section 10.

(2) Upon receipt of an application for a commercial facilities exemption certificate, the clerk of the local governmental unit shall notify in writing the assessor of the assessing unit in which the facility is located or to be located, and to the legislative body of each taxing unit which levies ad valorem property taxes in the local governmental unit in which the facility is located or to be located. Before acting upon the application, the legislative body of the local governmental unit shall hold a public hearing on the application and give public notice to the applicant, the assessor, a representative of the affected taxing jurisdictions, and the general public. The hearing on the application shall be held separately from the hearing on the establishment of the commercial redevelopment district.

(3) Upon receipt of an application for a commercial facility exemption certificate for a facility located on property which was owned by a local governmental unit on June 21, 1978, and subsequently conveyed to a private owner and zoned commercial, the clerk of the local governmental unit, in addition to the other requirements of this section, shall request the assessor of the assessing unit in which the facility is located or is to be located to determine the state equalized valuation of the property. This determination shall be made prior to the hearing on the application for a commercial facilities exemption certificate held pursuant to subsection (2).

(4) Notwithstanding any other provision of this act, an owner or lessee of a LEED certified facility, or another person with the written approval of an owner or lessee, may file an application for a commercial facilities exemption certificate with the clerk of the local governmental unit within which the LEED certified facility is located. If an exclusion of the state education tax is requested under section 12a(2), a copy of the application shall be submitted to the commission. The application may be for all or a portion, or multiple portions, of a LEED

certified facility. The application shall be filed in the manner and form prescribed by the commission. Until the commission prescribes the manner and form of application, the owner or lessee of a LEED certified facility may apply under this subsection by submitting information specified in this subsection. The application shall contain or be accompanied by a general description of the facility and a general description of the use of the facility, the general nature and extent of the LEED construction activities, including the activities that were or will be conducted for the purpose of achieving LEED certification, and, if the application is filed after LEED certification is obtained, evidence of LEED certification. The local governmental unit shall hold a public hearing on the application as provided in subsection (2).

**History:** 1978, Act 255, Imd. Eff. June 21, 1978 ;-- Am. 1980, Act 407, Imd. Eff. Jan. 8, 1981

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**207.657 Application for commercial facilities exemption certificate; approval or disapproval.**

Sec. 7.

The legislative body of the local governmental unit, not more than 60 days after receipt of the application by the clerk, shall by resolution either approve or disapprove the application for a commercial facilities exemption certificate in accordance with section 10 and the other provisions of this act. The clerk shall retain the original of the application and resolution. If disapproved, the reasons shall be set forth in writing in the resolution, and the clerk shall send a copy of the resolution to the applicant.

**History:** 1978, Act 255, Imd. Eff. June 21, 1978

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**207.658 Commercial facilities exemption certificate; issuance; contents; effective date; filing; record.**

Sec. 8.

(1) Following approval of the application by the legislative body of the local governmental unit, the clerk of the local governmental unit shall issue to the applicant a commercial facilities exemption certificate in the form the commission determines which shall contain:

(a) A legal description of the real property on which the facility is or is to be located.

(b) A statement that unless revoked as provided in this act the certificate shall remain in force for the period stated in the certificate.

(c) In the case of a restored facility a statement of the state equalized valuation of the obsolete commercial property, separately stated for real and personal property, for the tax year immediately preceding the effective date of the certificate after deducting the state equalized valuation of the land and personal property other than personal property assessed pursuant to section 14(6) of Act No. 206 of the Public Acts of 1893, as amended.

(2d) In the case of a LEED certified facility, the percentage of property tax applicable to the facility pursuant to section 12.

(2) A certificate shall not be issued under subsection (1) for a LEED certified facility until the applicant has submitted evidence of LEED certification to the local governmental unit, along with information sufficient to determine the starting date of LEED construction activities for purposes of calculating the commercial facilities tax under section 12(4). The information required under this subsection shall be submitted to the local governmental unit no later than 5 years after the date the certificate application is approved by the local governmental unit, or a greater time as authorized by the local governmental unit.

(3) The effective date of the certificate shall be the December 31 next following the date of issuance of the certificate.

(34) The clerk of the local governmental unit shall file with the commission a copy of the commercial facilities exemption certificate and the commission shall maintain a record of all certificates filed.

**History:** 1978, Act 255, Imd. Eff. June 21, 1978

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**207.659 Exemption from ad valorem property taxes; duration of certificate; review and extension of certificate; limitation; date of issuance of certificate of occupancy; basis of review.**

**Sec. 9.**

(1) A facility for which a commercial facilities exemption certificate is in effect, but not the land on which the facility is located or to be located, or personal property other than personal property assessed pursuant to section 14(6) of the general property tax act, Act No. 206 of the Public Acts of 1893, as amended, being section 211.14 of the Michigan Compiled Laws, for the period on and after the effective date of the certificate and continuing so long as the commercial facilities exemption certificate is in force, is exempt from ad valorem property taxes. A lessee, occupant, user, or person in possession of the facility for the same period is exempt from ad valorem taxes

imposed under Act No. 189 of the Public Acts of 1953, as amended, being sections 211.181 to 211.182 of the Michigan Compiled Laws.

(2) Unless earlier revoked as provided in section 15, a commercial facilities exemption certificate shall remain in force and effect for a period to be determined by the legislative body of the local governmental unit. The certificate may be issued for a period of at least 1 year, but not to exceed 12 years. If the number of years determined is less than 12, the certificate may be subject to review by the legislative body of the local governmental unit and the certificate may be extended. The total amount of time determined for the certificate including any extensions shall not exceed 12 years after the completion of the facility. The certificate shall commence with its effective date and end on the December 31 next following the last day of the number of years determined. The date of issuance of a certificate of occupancy, if required by appropriate authority, shall be the date of completion of the facility. For a LEED certified facility, the date of issuance of LEED certification shall be the date of completion of the facility.

(3) If the number of years determined by the legislative body of the local governmental unit for the period a certificate remains in force is less than 12 years, the review of the certificate for the purpose of determining an extension shall be based upon factors, criteria and objectives that shall be placed in writing, approved at the time the certificate is approved by the legislative body of the local governmental unit and sent to the applicant and commission.

**History:** 1978, Act 255, Imd. Eff. June 21, 1978 ;-- Am. 1984, Act 342, Imd. Eff. Dec. 27, 1984 ;-- Am. 1993, Act 340, Eff. Mar. 15, 1994

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### **207.660 Finding and statement as to state equalized valuation of property proposed to be exempt; requirements for exemption certificate.**

#### **Sec. 10.**

(1) If the state equalized valuation of property proposed to be exempt pursuant to an application under consideration, considered together with the aggregate state equalized valuation of property exempt under certificates previously granted and currently in force under this act or Act No. 198 of the Public Acts of 1974, as amended, being sections 207.551 to 207.571 of the Michigan Compiled Laws, exceeds 5% of the state equalized valuation of the local governmental unit, the legislative body of the local governmental unit shall make a separate finding and shall include a statement in its resolution approving the application that exceeding that amount shall not have the effect of substantially impeding the operation of the local government unit or impairing the financial soundness of any affected taxing unit.

(2) The legislative body of the local governmental unit shall not approve an application for an exemption certificate unless the applicant complies with all of the following requirements:

(a) The commencement of the restoration, replacement, or construction of the facility does not occur before the establishment of the commercial redevelopment district. An application for an exemption certificate shall be valid if filed within 45 days after commencement of the restoration, replacement, or construction.

(b) The application relates to a construction, restoration, or replacement program which when completed constitutes a new, replacement, or restored facility within the meaning of this act and which shall be situated within a commercial redevelopment district established in a local governmental unit eligible under this act to establish such a district.

(c) Completion of the facility is calculated to, and will at the time of issuance of the certificate have the reasonable likelihood to, increase commercial activity, create employment, retain employment, or prevent a loss of employment in the community in which the facility is situated.

(3) The requirements of subsection (2) do not apply to a LEED certified facility.

**History:** 1978, Act 255, Imd. Eff. June 21, 1978

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### **207.661 Valuation of facilities and property by assessor.**

Sec. 11.

The assessor of each city or township in which there is a ~~restored facility, a new facility or a replacement~~ facility with respect to which 1 or more commercial facilities exemption certificates are issued and in force shall determine annually as of December 31 the value of each facility separately, having the benefit of the certificates and upon receipt of notice of the filing of an application for the issuance of a certificate, shall determine and furnish to the local legislative body the value of the property to which the application pertains and other information as may be necessary to permit the local legislative body to make the determinations required by section 10(1).

**History:** 1978, Act 255, Imd. Eff. June 21, 1978

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**207.662 Commercial facilities tax; levy; amount; collection, disbursement, and assessment of tax; allocation; payment to state treasury and credit to state school aid fund; copy of amount of disbursement; facility located in renaissance zone; “casino” defined.**

Sec. 12.

(1) Except as provided in subsection (9), there is levied upon every owner of a ~~new, replacement, or restored~~ facility to which a commercial facilities exemption certificate is issued a specific tax to be known as the commercial facilities tax.

(2) The amount of the commercial facilities tax, in each year, for a restored facility shall be determined by multiplying the total mills levied as ad valorem taxes for that year by all taxing units within which the facility is situated by the taxable value of the real property of the obsolete commercial property for the tax year immediately preceding the effective date of the commercial facilities exemption certificate after deducting the taxable value of the land and of personal property other than personal property assessed pursuant to section 14(6) of the general property tax act, 1893 PA 206, MCL 211.14.

(3) The amount of the commercial facilities tax, in each year, for a new or replacement facility shall be determined by multiplying the taxable value of the facility excluding the land and personal property other than personal property assessed pursuant to section 14(6) of the general property tax act, 1893 PA 206, MCL 211.14, by the sum of 1/2 of the total mills levied as ad valorem taxes for that year by all taxing units within which the facility is located other than mills levied under the state education tax act, 1993 PA 331, MCL 211.901 to 211.906, plus, subject to section 12a, the number of mills levied under the state education tax act, 1993 PA 331, MCL 211.901 to 211.906.

(4) The amount of the commercial facilities tax, in each year, for a LEED certified facility shall be determined by adding the results of both of the following calculations:

(a) Multiplying the taxable value of the LEED certified facility for the tax year immediately preceding the commencement of LEED construction activities, or, if requested by the owner, the taxable value of the LEED certified facility for the tax year during which LEED construction activities were commenced, by the total mills levied as ad valorem taxes for the current year by all taxing units within which the LEED certified facility is located.

(b) Multiplying the amount of the taxable value of the LEED certified facility for the current year that exceeds the taxable value used to calculate the tax under subdivision (a) by the following percentage of the total mills levied as ad valorem taxes for the current year by all taxing units within which the LEED certified facility is located other than mills levied under the state education tax act, 1993 PA 331, MCL 211.901 to 211.906, plus, subject to section 12a, the number of mills levied under the state education tax act, 1993 PA 331, MCL 211.901 to 211.906:

(i) For a facility with basic LEED certification, 80 percent.

(ii) For a facility with silver LEED certification, 70 percent.

(iii) For a facility with gold LEED certification, 60 percent.

(iv) For a facility with platinum LEED certification, 50 percent.

(5) The commercial facilities tax shall be collected, disbursed, and assessed in accordance with this act.

(56) The commercial facilities tax is an annual tax, payable at the same times, in the same installments, and to the same officer or officers as taxes imposed under the general property tax act, 1893 PA 206, MCL 211.1 to 211.155, are payable. Except as otherwise provided in this section, the officer or officers shall disburse the commercial facilities tax payments received each year to and among the state, cities, townships, villages, school districts, counties, and authorities, at the same times and in the same proportions as required by law for the disbursement of taxes collected under the general property tax act, 1893 PA 206, MCL 211.1 to 211.155.

(67) Except as provided in subsection (78), for intermediate school districts receiving state aid under sections 56, 62, and 81 of the state school aid act of 1979, 1979 PA 94, MCL 388.1656, 388.1662, and 388.1681, of the amount that would otherwise be disbursed to or retained by the intermediate school district, all or a portion, to be determined on the basis of the tax rates being utilized to compute the amount of state school aid, shall be paid instead to the state treasury to the credit of the state school aid fund established by section 11 of article IX of the state constitution of 1963. If the sum of any industrial facility taxes prescribed by 1974 PA 198, 207.551 to 207.572, and the commercial facilities taxes paid to the state treasury to the credit of the state school aid fund that would otherwise be disbursed to the local or intermediate school district, under section 11 of 1974 PA 198, MCL 207.561, and this section, exceeds the amount received by the local or intermediate school district under sections 56, 62, and 81 of the state school aid act of 1979, 1979 PA 94, MCL 388.1656, 388.1662, and 388.1681, the department of treasury shall allocate to each eligible local or intermediate school district an amount equal to the difference between the sum of the industrial facility taxes and the commercial facilities taxes paid to the state treasury to the credit of the state school aid fund and the amount the local or intermediate school district received under sections 56, 62, and 81 of the state school aid act of 1979, 1979 PA 94, MCL 388.1656, 388.1662, and 388.1681. This subsection does not apply to taxes levied for either of the following:

(a) Mills allocated to an intermediate school district for operating purposes as provided for under the property tax limitation act, 1933 PA 62, MCL 211.201 to 211.217a.

(b) An intermediate school district that is not receiving state aid under section 56 or 62 of the state school aid act of 1979, 1979 PA 94, MCL 388.1656 and 388.1662.

(78) For commercial facilities taxes levied after 1993 for school operating purposes, the amount that would otherwise be disbursed to a local school district shall be paid instead to the state treasury and credited to the state school aid fund established by section 11 of article IX of the state constitution of 1963.

(89) The officer or officers shall send a copy of the amount of disbursement made to each unit under this section to the commission on a form provided by the commission.

~~(9) A new, replacement, or restored~~10) A facility located in a renaissance zone under the Michigan renaissance zone act, 1996 PA 376, MCL 125.2681 to 125.2696, is exempt from the

commercial facilities tax levied under this act to the extent and for the duration provided pursuant to the Michigan renaissance zone act, 1996 PA 376, MCL 125.2681 to 125.2696, except for that portion of the commercial facilities tax attributable to a special assessment or a tax described in section 7ff(2) of the general property tax act, 1893 PA 206, MCL 211.7ff. The commercial facilities tax calculated under this subsection shall be disbursed proportionately to the local taxing unit or units that levied the special assessment or the tax described in section 7ff(2) of the general property tax act, 1893 PA 206, MCL 211.7ff.

(4011) As used in this act, facility does not include a casino. As used in this subsection, "casino" means a casino or a parking lot, hotel, motel, or retail store owned or operated by a casino, an affiliate, or an affiliated company, regulated by this state pursuant to the Michigan gaming control and revenue act, 1996 IL 1, MCL 432.201 to 432.226.

**History:** 1978, Act 255, Imd. Eff. June 21, 1978 ;-- Am. 1984, Act 135, Imd. Eff. June 1, 1984 ;-- Am. 1993, Act 340, Eff. Mar. 15, 1994 ;-- Am. 1994, Act 368, Imd. Eff. Dec. 27, 1994 ;-- Am. 1996, Act 450, Imd. Eff. Dec. 19, 1996 ;-- Am. 1998, Act 243, Imd. Eff. July 3, 1998 ;-- Am. 2008, Act 227, Imd. Eff. July 17, 2008

**Compiler's Notes:** Act 163 of 1989, purporting to amend MCL 207.622, could not take effect "unless amendment 2 of House Joint Resolution 1 of the 85th Legislature becomes a part of the state constitution of 1963 as provided in section 1 of article XII of the state constitution of 1963." House Joint Resolution 1 was submitted to, and disapproved by, the people at the special election held on November 7, 1989.

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## **207.662a Reduction in number of mills levied under state education tax act; limitation on number of exclusions.**

### Sec. 12a.

(1) Within 60 days after the granting of a new commercial facilities exemption certificate under section 8 for a new or a replacement facility, the state treasurer may, for a period not to exceed 6 years, exclude up to 1/2 of the number of mills levied under the state education tax act, 1993 PA 331, MCL 211.901 to 211.906, from the specific tax calculation on the facility under section 12(3) if the state treasurer determines that reducing the number of mills used to calculate the specific tax under section 12(3) is necessary to reduce unemployment, promote economic growth, and increase capital investment in qualified local governmental units.

~~(2) The state treasurer shall not grant more than 25 exclusions under this section each year.~~

(2) Within 60 days after the commission's receipt of a commercial facilities exemption certificate application for a LEED certified facility, the state treasurer may, for a period not to exceed 6 years, exclude the number of mills levied under the state education tax act, 1993 PA 331, MCL 211.901 to 211.906, from the specific tax calculation on the facility under section 12(4)(b). The state treasurer shall submit written notice of its decision on the application to the applicant and the assessor of the local governmental unit within which the LEED certified

facility is located. The state treasurer's approval of an exclusion under this subsection shall only become effective if a commercial facilities exemption certificate is issued under section 8.

(3) The state treasurer shall not grant more than 25 exclusions under subsection (1) each year.

**History:** Add. 2008, Act 227, Imd. Eff. July 17, 2008

**Compiler's Notes:** Former MCL 207.662a, which pertained to commercial redevelopment district for property classified as commercial property, was repealed by Act 368 of 1994, Imd. Eff. Dec. 27, 1994.

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### **207.663 Tax as lien upon real property; certificate of nonpayment and affidavit required for proceedings upon lien.**

Sec. 13.

The amount of the tax applicable to real property, until paid, shall be a lien upon the real property to which the certificate is applicable; but only upon the filing by the officer of a certificate of nonpayment of the commercial facilities tax applicable to real property, together with an affidavit of proof of service of the certificate of nonpayment upon the owner of the facility by certified mail with the register of deeds of the county in which the property is situated, may proceedings then be had upon the lien in the same manner as provided by law for the foreclosure in the circuit court of mortgage liens upon real property.

**History:** 1978, Act 255, Imd. Eff. June 21, 1978

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### **207.664 Grounds for revocation of exemption.**

Sec. 14.

The legislative body of the local governmental unit may revoke the exemption if it finds that the completion of the facility has not occurred within 2 years after the effective date of the exemption certificate or a greater time as authorized by the legislative body for good cause, or that the holder of the exemption has not proceeded in good faith with the replacement, restoration, or construction and operation of the facility in good faith in a manner consistent with the purposes of this act and in absence of circumstances that are beyond the control of the holder of the exemption certificate. Notwithstanding the foregoing, the legislative body of the local governmental unit may not revoke the exemption for a LEED certified facility unless it finds that the applicant submitted fraudulent evidence of LEED certification.

**History:** 1978, Act 255, Imd. Eff. June 21, 1978

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### **207.665 Transfer or assignment of certificate; approval; notice and hearing.**

Sec. 15.

A(1) Except as otherwise provided in this section, a commercial facilities exemption certificate may be transferred and assigned by the holder of the certificate to a new owner or lessee of the facility but only with the approval of the local governmental unit after application by the new owner or lessee, and notice and hearing in the manner provided in section 6 for the application for a certificate.

(2) A commercial facilities exemption certificate that has been issued for a LEED certified facility shall remain in force for all of the property as legally described in the certificate notwithstanding any lease or transfer of ownership of all, any portion, or multiple portions of the LEED certified facility. A transfer or assignment of the certificate is not required to maintain the effectiveness of the certificate in the event of any such lease or transfer of ownership.

**History:** 1978, Act 255, Imd. Eff. June 21, 1978

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### **207.666 Report on status of exemption.**

Sec. 16.

Each governmental unit granting a commercial redevelopment exemption not later than October 15 each year shall report to the commission on the status of each exemption, including the current value of the property to which the exemption pertains, the value on which the commercial facilities tax is based, and a current estimate of the number of jobs retained or created by the exemption.

**History:** 1978, Act 255, Imd. Eff. June 21, 1978

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**207.667 Report on utilization of commercial redevelopment districts; economic analysis of costs and benefits.**

Sec. 17.

(1) The department of commerce annually shall prepare and submit to the taxation and economic development and energy committees of the house of representatives and the finance and corporations and economic development committees of the senate a report on the utilization of commercial redevelopment districts, based on the information filed with the commission.

(2) After this act has been in effect for 3 years, the department of commerce shall prepare and submit to the taxation and economic development committees of the house of representatives and the finance and corporations and economic development committees of the senate an indepth economic analysis of the costs and benefits of this act in the 3 communities where it has been most heavily utilized as determined by dollars of state equalized valuation foregone.

**History:** 1978, Act 255, Imd. Eff. June 21, 1978

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**207.668 Limitation on new exemptions; continuation of exemption.**

Sec. 18.

A new exemption shall not be granted under this act after December 31, 2020, but an exemption then in effect shall continue until the expiration of the exemption certificate.

**History:** 1978, Act 255, Imd. Eff. June 21, 1978 ;-- Am. 1983, Act 252, Imd. Eff. Dec. 29, 1983 ;-- Am. 1984, Act 342, Imd. Eff. Dec. 27, 1984 ;-- Am. 2008, Act 227, Imd. Eff. July 17, 2008

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