

2009 Greenhouse Gas Assessment for Montana Audubon

Montana Audubon is at the forefront of a shift toward more ecological and sustainable business practices. The world's eye is focused on meeting challenges posed by global warming, and organizations like Montana Audubon are playing an important role in this effort. Montana Audubon has already begun to take the first big steps in the global community, through their Global Warming & Energy - Actions and Solutions department. This effort is coupled with the mission and goals of their Conservation Education Center, already demonstrating how to lead by example. The 2009 Greenhouse Gas Assessment, performed by ClearSky Climate Solutions (ClearSky), is an enthusiastic affirmation of Montana Audubon's messages to its members and the community at large. This assessment directly backs up all the actions and efforts surrounding the group's concerns for the climate and will serve as an excellent point of reference for future sustainable practices and choices.

By making firm commitments to measure, reduce, and balance GHG emissions over time, Montana Audubon stands to enhance its own understanding of its operations as well as be a leader for other Audubon chapters and members. ClearSky applauds this effort, and looks forward to being a valuable strategic partner in helping Montana Audubon reach its climate program goals. Most climate programs involve a goal to have zero net impact on the atmosphere. This concept has been termed "climate-neutral" or "carbon-neutral" and involves three basic steps:

- 1) **Assessing** the amount of greenhouse gas (GHG) an organization's operations are emitting and what kind of activities are contributing to the overall "carbon footprint,"
- 2) **Reducing** GHG emissions by making systematic changes to business practices, and
- 3) **Balancing** remaining or unavoidable emissions with certified carbon offsets.

In the pages that follow, we present the results of our Greenhouse Gas Assessment for Montana Audubon and offer suggestions for next steps. We're excited to continue our work with you, and we look forward to continuing to be a vital partner for the organization to implement and grow its climate program.

On Behalf of the ClearSky Team,



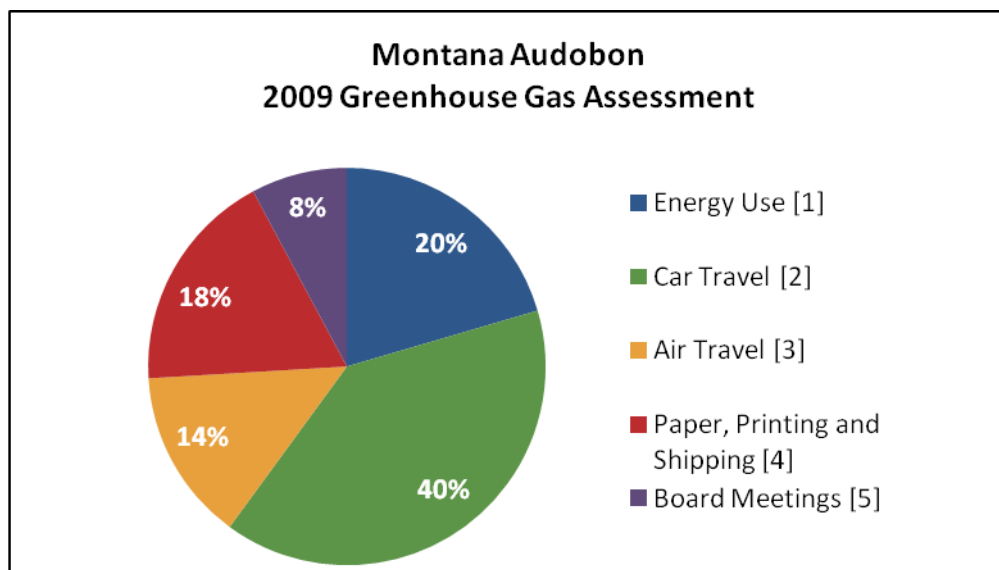
Keegan Eisenstadt, CEO

2009 Greenhouse Gas Assessment – Summary Results

The full results of ClearSky's GHG Assessment for Montana Audubon are included in **Annex 1** at the end of this document. The following summarizes the contribution of individual elements of the company's operations to the overall carbon footprint. (Numbers in brackets refer to the cited references contained in Annex 1.)

Operation	Emission Total (t CO ₂)
Energy Use [1]	13.59
Car Travel [2]	26.30
Air Travel [3]	9.31
Paper, Printing and Shipping [4]	12.04
Board Meetings [5]	5.20
Total	66.45

This chart also represents the above data as relative percentages of the various activities to the overall Montana Audubon carbon footprint:



Further explanation of the boundary of this GHG Assessment and the calculation methods used to address each activity can be found in **Annexes 2 and 3** at the end of this document.

Moving Forward

ClearSky would like to assist Montana Audubon with the following activities to move toward being a more sustainable, environmentally responsible organization:

- 1) Announce what you've done: Make your carbon footprint assessment public and share the story with your other chapters, funders, and supporters. ClearSky encourages all organizations to post their GHG Assessments on the web, for the sake of transparency. We can also assist Montana Audubon in preparing any press releases or statements explaining the assessment and our certification should Montana Audubon decide to become a climate-neutral organization.
- 2) Set a goal: ClearSky can help Montana Audubon establish a climate action plan, with targets for absolute emissions or goals closer to neutrality in certain operations. This will give you a goal to shoot for over time, and a structure for taking future steps. Educating your staff and working with them to make these goals is an important part of the process, and ClearSky is willing to deliver educational webinars or workshops to your staff and clients, as necessary.
- 3) Pick the low-hanging fruit: There are simple, everyday steps that can lower emissions and cut costs. ClearSky can help Montana Audubon identify which of these tactics are best suited for your operations, and recommend partners for more in-depth analysis. This can include the development of an opt-in/opt-out carbon offset membership plan and a prioritization plan for emission reduction investments (solar, hydro, commuting incentive, vehicle fuel economy reductions, etc.).
- 4) Keep monitoring and improving your performance: Repeating GHG Assessments each year is an important component of tracking your progress as an organization.

Initial Recommendations and Next Steps

More thorough assessment

The most important improvement for next year would be to expand the physical boundary to include the Billings building. Additionally, while this GHG Assessment represents a notable first step for your group, there are still Scope 3 elements missing that would be very informative to include. For example, recording office water and waste could all contribute to a more thorough assessment. Teacher and student travel to and from the Conservation Education Center is certainly a large Scope 3 activity as well. Even if the Montana Audubon chooses to leave these activities outside the boundary of your carbon footprint, monitoring these emissions would still be a valuable piece of information. ClearSky can work with the Montana Audubon to explore the extension of Scope 3 activities if it chooses.

Data-tracking Systems

This initial GHG Assessment is based on information gathered from employees. Employees gathered information based on 2009 bills and reasonable best estimates of activity. With data tracking systems in place to record actual employee car travel and energy use, we would be able to produce a GHG Assessment with much greater accuracy. Data-tracking systems can be simple and easy add-ins to the already-existing bookkeeping system, and would make the process of repeating future assessments much easier and more streamlined. ClearSky can work with Montana Audubon to design a system that works for your particular situation.

Verified Carbon Offsets

Montana Audubon can also offset any remaining or unavoidable GHG emissions with high-quality carbon offsets. ClearSky can help Montana Audubon make its 2009 annual operations climate neutral through the purchase of 67 carbon offsets from our inventory, costing \$804 (\$12/offset). Montana Audubon could also choose to make a portion of its operation climate neutral. Certified carbon offsets from our Panama Native Reforestation Projects, described in **Annex 4**, may be of particular interest to Montana Audubon given the organization's focus on expanding and protecting valuable bird habitats.

We can also offer suggestions of incorporating this cost into future program activities (ie: earmarked in sustainability grants, registration costs for courses, ticket sales for special events, packaged as employee commuting benefits, etc.).

Carbon Project Development

If Audubon was able to purchase agricultural or forested lands that have potential for improved native species bird habitats, ClearSky could help it increase the return on the land investment through the creation of a carbon offset project. A Reduced Emissions from Deforestation or Degradation (REDD), Logged-To-Protected Forest (LtPF), or Reforestation project could be an ideal fit for Audubon. A project like this could also be doubly certified under the Climate, Community, and Biodiversity Standard (CCB) to ensure that native bird species populations are being monitored and improved. If this is of interest, ClearSky can provide more information about the project development process. We would be honored and excited to partner with Montana Audubon to complete this type of project development.

ClearSky as a Partner

The experience and scientific background of our all-management team, dedication to consulting and client- service, and superior quality carbon offsets distinguish us from other carbon offset companies. We bring significant experience in climate change consulting and rigorous scientific analysis to our greenhouse gas assessments and footprint reduction strategies. When you partner with ClearSky for GHG consulting and mitigation, you also get:

- Consulting and expertise. We can help you define boundaries and timelines that will maximize the impact of your actions and help achieve success as you harness the power of your *human* resources to reduce costs, increase efficiency, and emerge as environmental leaders in your industry and community.
- Tools and resources to measure and track your GHG emissions. ClearSky has worked with a wide array of GHG assessment tools, and we can continue annual assessments for Montana Audubon. As you expand and refine the scope of your assessment, ClearSky will be there to assist with every step along the way.
- Ongoing service and advice. ClearSky is in the business of helping companies reduce their GHG footprints, save money, and reform their business practices. As advocates for the atmosphere, we want to help businesses make significant reductions in energy waste and wasted energy.

We hope that this GHG assessment is useful and insightful for Montana Audubon, and we look forward to continuing the discussion. We have provided this assessment free of charge in order to invigorate and inform your efforts at Montana Audubon. Engaging fully in this commitment to corporate social responsibility and environmental sustainability can yield numerous positive benefits to your organization, and ClearSky is eager to be your partner in this process. Standard fees for ClearSky consulting services are included in **Annex 5**. The final section of this assessment, **Annex 6**, offers quick guides to carbon offsets, the benefits of green business practices, and other common areas of interest. If you end up using these materials for in-house educational purposes, we request you maintain the ClearSky logo and contact information intact.

2009 Greenhouse Gas Assessment for Montana Audubon
Annex 1: Complete Greenhouse Gas Assessment

Energy Use [1]	Electricity (kWh)	Standard Line Loss (%)	Electric Emissions Factor (kg CO2e/kWh)	Natural Gas (Dth)	Gas Emissions Factor (kg CO2e/therm)	Emissions (mt CO2e)
Helena Office	10,000	1.072	0.407	100	5.914	10.28
Amy	666	1.072	0.407	-	-	0.29
Paul	5,333	1.072	0.407	-	-	2.33
Derek	1,600	1.072	0.407	-	-	0.70
Total						13.59

Car Travel [2]	Distance Traveled (miles)	Fuel Economy (MPG average)	Gasoline (gallons)	Gasoline Emission Factor (lb CO2e/gal)	Emissions (t CO2e)
Enterprise Rental	28,273	26	1,087.42	24.692	12.18
Amy	538	25	21.52	24.692	0.24
Steve	12,710	35	363.14	24.692	4.07
Janet	515	27	19.07	24.692	0.21
Kathy	-	-	-	24.692	-
Loreene	8,190	26	315.00	24.692	3.53
Paul	6,545	20	327.25	24.692	3.66
Heather (car)	1,965	20	98.25	24.692	1.10
Heather (scooter)	660	90	7.33	24.692	0.08
Carol	1,920	23	83.48	24.692	0.93
Derek	741	28	26.46	24.692	0.30
Total					26.30

Air Travel [3]	Mileage (Short Haul <281 mi)	Mileage (Medium Haul 281-994 mi)	Mileage (Long Haul >994 mi)	Radiative Forcing Index	Emissions (mt CO2e)
Flight Emissions Factor (kg CO2e/passenger mile)	0.2897	0.2028	0.177	-	-
Amy	0	4074	5808	2.7	5.01
Steve	0	4132	0	2.7	2.26
Janet	0	1188	2904	2.7	2.04
Total					9.31

	Units	Cost or Quantity	Emissions Factor (kg CO2e/\$ or ream)	Emissions (mt CO2e)
Shipping [4]	2009 USD	6,928.47	0.257	1.78
Paper Use (In-Office) [4]	Reams	64.00	2.5	0.16
Printing [4]	2009 USD	28,164.14	0.477	10.10
Board Meetings [5]	CO2e	-	-	5.20
Total				17.24

[1] Montana average kWh emission factor is 0.407 kg/kWh (EPA E-Grid 2004/2005) and standard line loss for electricity transmission is 7.2% (<http://climatetechnology.gov/library/2003/tech-options/tech-options-1-3-2.pdf>). Electricity data reported through Audubon employees. Where dollar amounts were given, ClearSky assumed \$0.09/kWh. Natural gas emits 5.914 kg CO2/therm (<http://eia.doe.gov/oiaf/1605/coefficients.html>).

[2] Audubon employees reported mileage and fuel efficiencies (MPG) for their car travel, we calculated actual emissions from 24.692 lbs CO2e per gallon of gasoline (including upstream and downstream emissions). These factors are reported in the (Argonne GREET Fleet Footprint Calculator 1.0) and (US EPA Climate Leaders by way of WRI GHG Protocol Spreadsheet for Mobile Sources (April 2003)). 2205 lbs equals 1 metric ton.

[3] Emissions factors for short, medium, and long (0.2897, 0.2028, 0.177 kg CO2/mile, respectively) are taken from the World Resources Institute GHG Protocol for Mobile Sources (<http://www.ghgprotocol.org/>). Short flights are up to 281 miles, medium flights are 281 to 994 miles, long flights are greater than 994 miles (single-leg distances). We also include a Radiative Forcing Index of 2.7 (IPCC 2007). 1000 kg equals 1 metric ton. Flights were reported by Audubon employees. ClearSky assumed flight itineraries by using www.kayak.com for instances where employees did not report detailed itinerary information. The distance of flights was determined using www.milecalc.com.

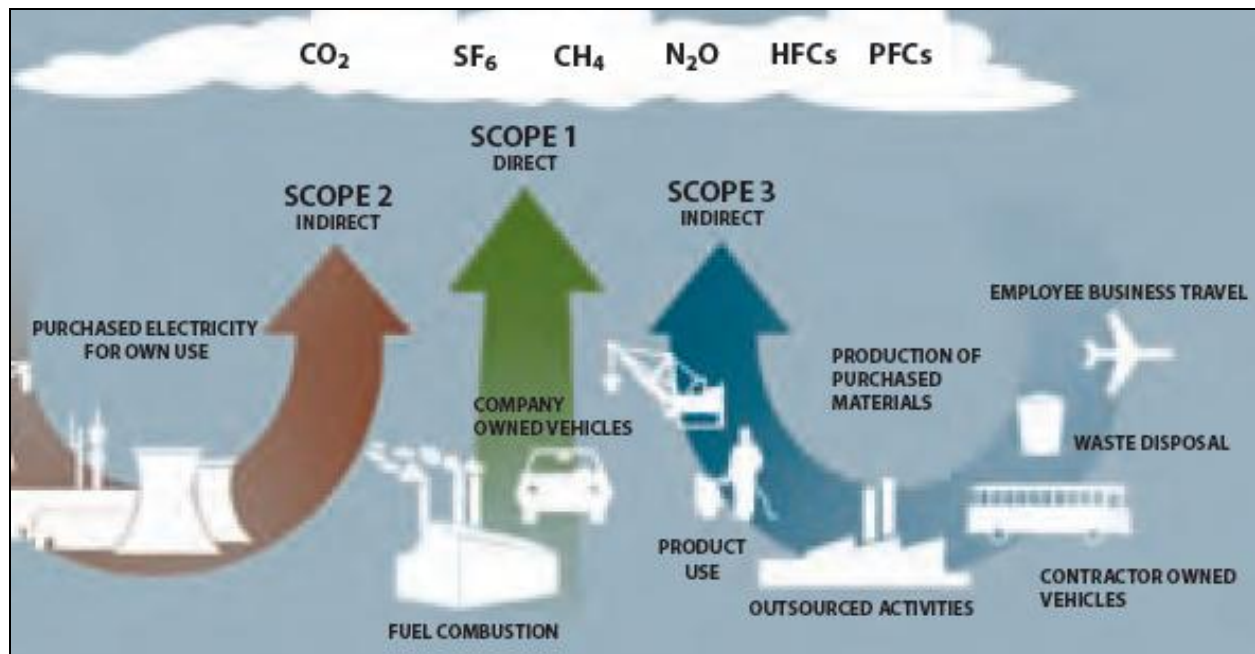
[4] The emission factor for virgin paper is 2.5 kg CO2/ream (Cascadia Seattle climate partnership CO2 Tool). The emission factor for shipping is 0.257 kg CO2/\$ (Cascadia Seattle climate partnership CO2 Tool). The emission factor for commercial printing is 0.477 kg CO2/1997 \$ (Carnegie Mellon University Green Design Institute. (2008) Economic Input-Output Life Cycle Assessment (EIO-LCA), US 1997 Industry Benchmark model [Internet], available from: www.eiolca.net Accessed 1 January, 2008.) ClearSky uses the inflation calculator at www.dollartimes.com to convert from 2009 to 1997 dollars. The carbon footprint for board meetings was already calculated and reported by Audubon employees.

Please note: GHG Assessment reports combine a variety of data from numerous sources. This data is often actual, assumed, submitted, comparable and/or calculated. This variety of data type, source and interpretation can create opportunities for assessment error to arise. Therefore, all actions and interpretations of this report should keep this in mind. Should an assessment error be discovered by ClearSky, we will take immediate action to correct and clarify the error. ClearSky also requests, that should you discover an error, have a question or feel uncertain about something, that you report it to ClearSky so we have the opportunity to either clarify and/or correct the situation. Above all, assessing your carbon footprint is an iterative process that will continue to gain accuracy as data are refined and subsequent assessments are conducted. The utility of this report is to serve as a basis for ClearSky clients to understand, educate, and take action.

2009 Greenhouse Gas Assessment for Montana Audubon

Annex 2: Greenhouse Gas Assessment Boundary

Montana Audubon carries out many activities, some of which are not directly controlled by the organization itself. Thus, there is some grey area in terms of what should be included in an environmental assessment of Montana Audubon operations. A useful way to organize an organization's functions is presented in the figure below.¹



Traditional Greenhouse Gas Assessments require only Scope 1 and Scope 2 activities to be included in the assessment, while Scope 3 (indirect) emissions can be included based on the desires of the organization. To assess the GHG emissions from Montana Audubon, ClearSky focused on the following scope 1, 2, & 3 activities and operations: Electricity use, natural gas use, employee commuting, air and car travel, paper use, printing, shipping, and board meetings.

¹ Modified from the World Resources Institute Greenhouse Gas Protocol – www.ghgprotocol.org.

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Annex 3: Calculation of greenhouse gas emissions

Producing an estimate of GHG emissions from a particular activity can proceed in 3 ways, listed from most to least precise:

- Given a known quantity of fuel, energy, or raw material, we multiplied this by an emissions factor, which is a rate of tons or lbs of CO₂e emitted per quantity of the material consumed (for example, 24.69 lbs CO₂e/ gallon of gasoline). ClearSky uses emissions factors from the most up-to-date government sources, as well as scientifically vetted publications.
- When the quantity of raw material is not known, or Montana Audubon's share of the total cannot be known, we used emissions factors based on secondary units of consumption, such as passenger air-miles flown (0.2897 kg CO₂/passenger air-mile flown). Again, ClearSky makes use of accepted, publically available protocols and the most current data. Our calculation protocols are designed to be transparent and conservative wherever possible.
- When consumption figures are not available and purchasing records for dollars spent are the only data at hand, ClearSky makes use of Economic Input-Output Life Cycle Assessments to generate estimates of greenhouse gas emissions. EIO-LCAs are broad-scale tools that deliver information based on an assemblage of data from the entire US economy. These tools can be refined to particular sectors of the economy, such as Telecommunications Services, Paper Production, or Postal Services. For example, an EIO-LCA tool can estimate the quantity of greenhouse gas emissions produced from \$15,000 spent on Commercial Printing.

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Annex 4: Carbon Offset Projects



ClearSky
Climate Solutions
for our shared future



ClearSky Carbon Offset Project Description

Sustainable Forestry and Reforestation in Panama

Project Activity:

ClearSky Climate Solutions is re-foresting degraded and abandoned cattle pastures and practicing sustainable forestry in the pacific low-lands of Panama. Our strategy, with our partner Futuro Forestal, has been to purchase lands and employ local people in the forest restoration work.



These lowland rainforest areas have been logged, farmed, and grazed extensively over the past 200 years. We plant over 50 native rainforest species and one commercial timber species (teak), which makes for an exceptionally diverse forest cover. A portion of the timber is sustainably harvested over the 20-30 year management period, and the project's emissions reductions are generated by the remaining forest.

Carbon Sequestration:

As of May 2008, this project has sequestered **110,170 metric tons of CO₂** from the atmosphere, and projections confirm an additional 20,000 metric tons are stored every year as the trees continue to grow. This project currently operates on approximately 1,000 hectares, and is expected to expand to 12,000 hectares by 2017.



Additional Benefits:

We're very proud of the environmental and social benefits delivered by this project.

Beyond sequestering CO₂, this project helps to:

- Stabilize soils, reduce erosion, and increase soil fertility;
- Provide habitat and migratory corridors for native flora and fauna, as evidenced by the return of ocelots and spider monkeys to the project area; and
- Protect downstream regions of the watershed, including vital and threatened coastal mangrove forests.

This project also addresses several social concerns in the project area, by:

- Reversing the trend of rural-to-urban migration;
- Providing higher wages and benefits to workers;
- Employing a high proportion of indigenous people and women; and
- Training employees in nursery operation, forestry, and fire prevention, as well as literacy and family health.



Certification:

This project has been an excellent model of environmental and social responsibility, receiving the following recognition:

- **Forest Stewardship Council (FSC)** certification for sustainable forestry (1998), re-certified with no corrective actions (2003)
- **The first project to receive the Climate, Community, and Biodiversity Alliance (CCBA)** certification at the Gold (highest) level for environmental and social criteria (2007)

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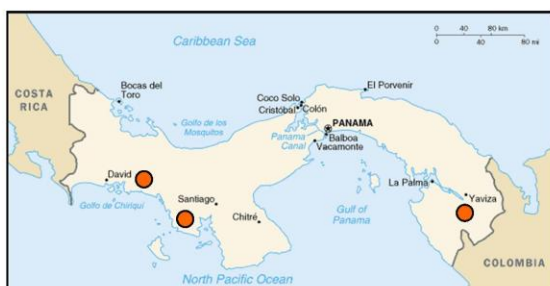


ClearSky Carbon Offset Project Description

Sustainable Forestry and Reforestation in Panama

Location:

The project is located in three rural lowland areas on the Pacific side of the country: at Las Lajas in the Municipio of San Felix, Province of Chiriquí; and at El Pito in the Municipio of Sona, Province of Veraguas. Additionally, the project has just purchased lands for reforestation in the Darién Province. Lands being actively re-forested are marked in the map below:



Timeline:

Initiated in 1995 on only 10 hectares of land, we have now reforested over 1,000 hectares of lowland Pacific rainforest in Panama. This project aims to expand to over 10,000 hectares by 2012. Our project sponsors have invested in the project for the first forest rotation of 20-30 years, at which point they will have the option to re-invest for additional rotations.



How to Purchase Offsets:

Organizations:

We will work closely with you to design a customized greenhouse gas mitigation plan. This will include an emissions assessment, strategies to reduce emissions, and a personalized selection of offsets from our project portfolio to mitigate remaining, unavoidable emissions.



Individuals:

Please visit our web page (www.clearskyclimatesolutions.com) to purchase carbon offsets from this project. You can use our custom Carbon Footprint Calculator to determine your yearly personal greenhouse gas emissions, or work with us to design a carbon footprint assessment for your special event!

The emissions reductions credits we're selling **have already been certified and verified by an external, 3rd-party auditor**. This means the emissions reductions have already happened, and you can have confidence that your offsets are legitimate, rather than promises of future action.



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Annex 5: Standard Fees for ClearSky Consulting Services

Activity	Standard Fees (1/1/2010) (Subject to Change)
Initial consultation and data-gathering	Free
Limited Education and Training for Employees	Free
Greenhouse Gas Assessment	For companies/offices with: SBC Membership = \$100 0-5 people = \$150 6-15 people = \$250 >16 people = \$350
Price of ClearSky Carbon Offsets	\$15/offset
Drafting initial Climate Action Plan	\$90/ hr flat rate
Developing marketing materials	\$90/ hr flat rate
On-going basic advice and support	Free
Advanced follow-up consulting	\$90/ hr flat rate
Carbon Offset Project Pre-Feasibility Assessment	\$90/ hr flat rate
Carbon Offset Project Development	\$90/hr flat rate for time and materials as outlined in bid. May or may not include percent equity stake in project offset production.

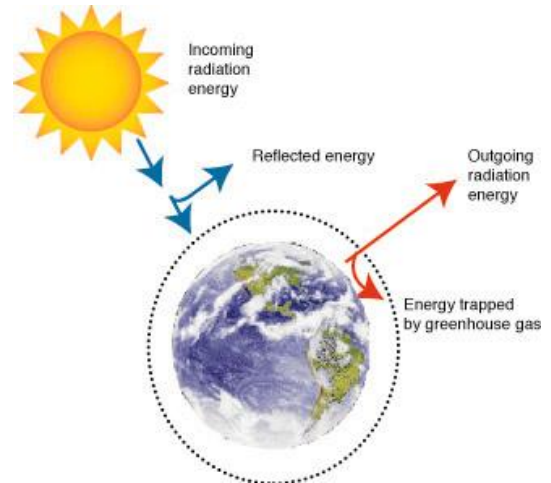
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Annex 6: General Information About Carbon Offsets and Going Climate-Neutral

The Basics About Carbon Offsets:

A quick review on global warming:

Global climate change has been undeniably linked to an increase in greenhouse gases (GHGs) in the atmosphere, caused primarily by human activities over the past 200 years. GHGs act to trap solar heat energy, and the excess heat is changing the earth's climate patterns and natural ecosystems. The atmospheric concentration of CO₂ has risen from 315 parts per million (ppm) in 1958 to 389 ppm in 2010. Leading scientists now believe that we must quickly reduce atmospheric concentrations of CO₂ to around 350 ppm to avoid catastrophic changes to our climate in the future



What are carbon offsets?

A carbon offset is equivalent to one metric ton (2,205 lbs) of CO₂ equivalent that has been removed from the atmosphere or prevented from being released. Offsets are “created” by specific projects, whether they are based on removing GHGs or preventing the release of GHGs. Every offset represents the same amount of CO₂ equivalent, which allows offsets to be traded like any other product. Offsets must pass several key tests to ensure they are legitimate, which are discussed in our information sheet titled “Quality Standards for Carbon Offsets.”

Note: We say “CO₂ equivalent” because there are several classes of GHGs, like methane, CFCs, and so on, and each type of GHG has a different severity of impact on the climate. CO₂ is by far the most common GHG in the atmosphere, so other gases are converted to equivalent amounts of CO₂ by using multiplication factors.

How do carbon offsets work?

When you make a decision to purchase a ClearSky carbon offset, you're saying that there are unavoidable GHG emissions from your company, your lifestyle, or your event that you would like to “balance” by paying for an equivalent reduction in GHG emissions from somewhere else. According to the nonprofit group Clear Air-Cool Planet, carbon offsets work because:

Unlike most conventional pollutants, GHGs mix well in the atmosphere and can travel around the planet quickly. As a result, it doesn't matter from the standpoint of global warming mitigation where a reduction takes place. Carbon offsets are intended to take advantage of the radically different costs and practicalities of achieving GHG emissions reductions by sector and geography.

The main criticism of carbon offsets is that they're a way for the rich to pay for their pollution rather than changing their ways. This is a valid point, because carbon offsets should only be used as a tool **after** you've assessed your overall emissions and made a sincere effort to reduce your climate footprint. Ultimately, the future of our planet depends on everyone reducing their impact, not paying to remain at the status quo. This is why ClearSky will work with you to calculate and lower your emissions, whether you're a company or an individual.

Individual Action

What does it mean to be “climate-neutral?”

ClearSky is fully behind the idea of climate-neutral lifestyles and business practices. This term means that you’ve taken action to have **zero net impact** on the atmosphere, by following these three general steps:

1. Fully assess your greenhouse gas (GHG) emissions, including all components of your lifestyle or your group’s operations. The total quantity of emissions is commonly referred to as a “carbon footprint.”
2. Develop and implement changes that reduce these impacts. This is the most important step in the process, because it’s where you make long-lasting commitments that help the environment.
3. Balance your remaining, unavoidable emissions with high-quality carbon offsets.



What difference can one person, one family, one neighborhood, or even one community group make in the effort to reduce global warming?

In the face of an issue that is literally as large as our entire planet, the impact that an individual can have might seem too small to matter. Not only the physical scale of climate change is hard to comprehend, but the time scale of the problem is also difficult to address. Past, present and future actions must all be taken into account when trying to understand the issues. These obstacles can lead individuals and small groups to feel powerless to make any meaningful changes.

ClearSky wants to be sure that all people are knowledgeable about climate change and know what they can do to help solve the problem. In many ways, if the cumulative total of individual actions created this situation, it makes sense to harness the cumulative total of individual actions to solve it as well. Your efforts do make a difference. The problem is large, but small actions by individuals will play a critical role in facing the challenges that lie ahead.

As momentum builds for climate-neutral lifestyles and business practices, the positive effects of many small commitments will be multiplied. Once climate change action is truly accepted in the mainstream and called for by the public, our national, state, and local governments will not be able to ignore the call to find real solutions.



Individual Action - Continued

Why should I be interested in going climate-neutral?

ClearSky can help you assess, reduce, and offset your GHG emissions with high-quality carbon offsets. When you follow the three steps from Page 1 to go climate-neutral, you're actually making positive impacts that reach far beyond your benefit to the atmosphere. By going climate-neutral with ClearSky, you're also working to:

- **Help the environment.** Along with reducing GHGs in our atmosphere that contribute to global warming, every ClearSky project is carefully designed to include important environmental benefits. Some of these include: habitat enhancement for local wildlife, improved water quality, and restoration of native plant communities.
- **Leave a positive legacy for future generations.** Taking action against climate change is a special commitment, because it requires you to think into the future about the lives of our children and grandchildren, our collective future.
- **Encourage positive lifestyle changes.** Examining your carbon footprint carefully and taking steps to reduce your emissions can lead to biking and walking more, eating healthier food, and leading a less wasteful lifestyle.
- **Provide local social benefits.** ClearSky projects are also developed with social well-being in mind. Our projects contribute to creating local green-collar jobs, supporting rural livelihoods, and stimulating green technology and a new, sustainable economy.
- **Build awareness of global warming.** When you take the steps to become climate-neutral, you'll not only be educating yourself about the GHG impacts of your lifestyle, but you'll also likely be educating your family, your friends, and other groups along the way! The more you educate your personal network, the more you'll multiply your efforts against climate change.



To learn about the benefits for any ClearSky project, please see our project description sheets!

Also, please visit www.clearskyclimatesolutions.com/work/projects/index.html for more individual project information.

Climate-Neutral Business

Why should my company or group be interested in going climate-neutral?

At ClearSky, we regularly hear this question. Businesses are quickly adjusting to the reality of greenhouse gas (GHG) regulation in the United States. The US EPA is moving quickly to regulate large emitters of CO₂, and climate change risk must be disclosed by publicly-traded companies. Facing this new playing field, companies are working hard to adopt green business practices. Conducting a GHG assessment, thinking strategically about your climate change risks, and going “climate-neutral” with carbon offsets can offer the following benefits to nearly any organization:



- Helping the environment and contributing to meaningful work.** Your company’s energy use, water consumption, and GHG emissions all take a toll on the environment, and reducing these impacts should be a goal for all businesses. With ClearSky, you can reduce your impact and contribute to projects that benefit the climate, local communities, and native biodiversity.
- A powerful green image and marketing story.** Adopting green business practices and going “climate neutral” will send a clear message of environmental commitment to your clients and your staff. Concerned customers are increasingly seeking this kind of social responsibility, and will discriminate between companies that are taking action and those that aren’t.
- Improved efficiency and reduced operating costs.** Identifying sources of GHG emissions will lead to strategic reduction of these liabilities, which will ultimately lead to lower energy consumption and expenses. The proven financial benefits from eco-efficiency activities are a valuable benefit from the ClearSky GHG audit.
- First-mover advantage when regulation comes into place.** If your company has already begun tracking GHG emissions and adopting programs to reduce emissions, you’ll have a significant head-start and fewer headaches adapting to mandatory regulation. Even if your business isn’t explicitly targeted by GHG regulation or SEC disclosure rules, our nation’s climate policy will affect nearly every sector of the economy. Companies that have taken the initiative to lower CO₂ emissions voluntarily may also receive preferential treatment in the transition to a regulatory scheme.
- Increased employee participation and morale.** Employees want to work for progressive, socially responsible employers, and green business programs are a great way to encourage worker involvement and boost morale. Increased employee satisfaction is directly related to increased productivity.



Climate-Neutral Business - Continued

The ClearSky Solution

ClearSky can offer the following services to help your company go climate-neutral:



- **Auditing** the GHG emissions related to direct operations, building energy use, company transportation, employee commuting, and other activities. This will yield a total carbon footprint figure, in metric tons of CO₂ equivalent. We can make this assessment for a typical year or a period of years in order to develop an emissions baseline, and develop a system to track emissions from year to year. This will allow your company to track changes as green programs are put into place.
- **Consulting** for best practices and strategies to reduce emissions for these activities. We can help your company identify policies and programs to shrink your carbon footprint in a cost-effective manner.
- **Providing** high-quality carbon credits from our portfolio of projects to offset the remainder of the climate footprint. Each offset, or carbon credit, is equal to 1 metric ton of CO₂ that has been removed from the atmosphere or avoided through the projects that we work on. These reductions have already occurred and passed certification, so they represent actual offsets and not promises of future action.

In February of 2010, the US Securities and Exchange Commission (S.E.C.) modified its reporting protocols, so that publicly traded companies are required to assess climate change risks. This includes the risk of anticipated changes in climate change legislation, as well as the risk of physical and operational impacts that climate change could bring. In this new era of business, companies are required to evaluate their potential carbon liability, which involves measuring operational GHG emissions and developing an appropriate strategic response.



Transitioning to a green economy that rewards environmental sustainability and home-grown solutions will be a key focus for our entire nation in the coming years. We would like to help your company be at the forefront of this evolution. That's our aim at ClearSky – helping an environmentally responsible economy become a reality.

Quality Standards for Carbon Offsets

What should I look for in carbon offset? Are there good offsets and bad ones?

It's absolutely true that some carbon offsets are more legitimate than others, depending on how carefully the project is designed and evaluated. It may be difficult at first to discriminate between one project and another, but there are a few key criteria that you should look for before purchasing offsets:

- **Real emissions reductions** – carbon offset projects should use tested and transparent methods for establishing a baseline and calculating the greenhouse gas (GHG) reductions due to the project activity. Also, offsets should be sold based on documented emissions reductions – that is, **emissions reductions should have already happened**, and you should not be paying for promises of future action.
- **Additionality** – a carbon offset project should generate emissions reductions that are above and beyond business as usual, meaning they should be “additional.” Finance from carbon credits needs to catalyze action that wouldn't have happened otherwise in order to meet this test.



- **Permanence** – if there is the potential for a reversal, in which emission reductions are returned to the atmosphere in the future, insurance must be held to protect against those scenarios. For example, a forestry project can insure against the risk of a forest fire by maintaining extra forested acreage not included in emissions reduction calculations. This reserve can then be allocated in the event of a problem.
- **Leakage** – the project activity should not simply shift GHG emissions from one location to another, i.e. halting logging in one area but spreading logging to other areas.
- **Certification** – certification standards exist for both the voluntary and regulatory carbon markets, so all offset projects should be certified to a high-quality standard. The certifying body is an **outside perspective** that will critically evaluate a project's merits. Never purchase un-certified offsets, or offsets certified by the same agency that developed the project.
- **Verification** – as a part of the certification process, a 3rd party verifier is required to examine the project and perform an audit of the stated emissions reductions. Verifiers are trained to work in particular sectors and they provide another layer of scrutiny for offset reliability.
- **Environmental and social benefits** – offset projects should have a demonstrated positive impact on the local environment and on human communities in the project area. These ancillary benefits could include protecting habitat for endangered species, creating green-collar jobs, or providing a clean water source.

ClearSky Carbon Offsets

Why should I buy ClearSky offsets?

With 13 years of experience developing climate change mitigation projects internationally and in the United States, ClearSky is skilled at designing carbon offset projects that meet certification criteria in both voluntary and regulatory markets. We're well aware of the need for transparency and quality in this market, which is why we represent only projects that meet our standards. Also, all of our project information is publicly available to interested partners on our website (www.clearskyclimatesolutions.com), where certification and verification information can be reviewed.



The ClearSky philosophy is that purchasing offsets is only the final step in going climate-neutral. The two previous steps are equally important: assessing your GHG footprint and reducing your emissions where possible. That's why our services also include assessment of GHG footprints for companies, organizations, individuals, and special events, as well as consulting to reduce GHG emissions.

By offering our clients high-quality offsets and the total package of services to go climate-neutral, we're confident that ClearSky Climate Solutions is a superior partner in the effort to halt global climate change. We think you'll feel the same way.

Where does the money go when I purchase ClearSky offsets?



ClearSky offsets typically retail for \$15 per metric ton of CO₂ equivalent. Of the retail price, approximately 30% goes toward project development, certification, and transaction costs. The remaining 70% goes back to the project to pay for materials and labor, and to distribute revenue to project participants. The percentages will vary slightly from project to project depending on the complexity of the certification process – forestry projects are generally more complex than energy efficiency projects, for example.

In some cases, ClearSky purchases certified offsets through project aggregators, and the details of the agreements between project owners and aggregators are usually not available.

Additional Carbon Offset Questions

If I buy offsets, how long can I claim to be climate-neutral?

This depends on the goals of your greenhouse gas (GHG) assessment and how you've chosen to purchase offsets. Our corporate clients and private individuals will usually calculate their annual carbon footprint and purchase offsets to mitigate this quantity of CO₂ equivalent. In this case, you're balancing your yearly carbon footprint, so you can claim to be climate-neutral for the year covered by your calculation. GHG assessments can run backward or forward in time – that is, you can estimate your emissions for the upcoming year and purchase offsets to cover yourself into the future, or complete the assessment based on actual energy use for the past year.

In the case of hosting a climate-neutral event, the GHG assessment will only cover the activities associated with the event in question.

I like forestry projects, but what if something happens to the trees?

Permanence is a required test for any certified carbon offset project. If there is the potential for a reversal, in which emission reductions are returned to the atmosphere, insurance must be held to protect against those scenarios. ClearSky forestry projects include appropriate reserve buffers to insure against insect attack, wildfire, or other unplanned reversals of the GHG emissions reductions.

What is the difference between carbon credits and renewable energy certificates (RECs)?

The Environmental Defense Fund offers the following comments on this difference:

Carbon offsets are verified tools to achieve GHG emission reductions. Buying a carbon offset allows you or your company to claim a reduction of your carbon footprint.

A renewable energy certificate, or REC, is proof that a megawatt hour (MWh) of renewable energy has been supplied to the market. Purchasing RECs helps develop the renewable energy supply by subsidizing the higher cost of renewable energy.

While RECs provide proof that renewable energy has been supplied, they do not offer verified proof that GHG emissions are reduced.

Purchase offsets when you want to buy an emission reduction to reduce your net carbon footprint. Purchase RECs when you want to buy "green power."

While both products are ways to stimulate change toward a green economy, only certified carbon offsets can result in fully accountable benefits in the effort against global warming. This is why ClearSky develops carbon offset projects, and offers these offsets to our partners who desire to be climate neutral.

