

American Carbon Registry Initiates Approval of World's First Carbon Offset Methodology for Deltaic Wetlands

American Carbon Registry (ACR), a nonprofit enterprise of Winrock International, announces an open public comment period for a first-of-its-kind carbon offset methodology that will both quantify how wetland restoration work can combat climate change and provide a way to help pay for rebuilding the Gulf of Mexico's disappearing coastal wetland. The methodology,

Restoration of Degraded Deltaic Wetlands of the Mississippi Delta

, was funded by Entergy Corporation and developed by Dr. Sarah K. Mack of New Orleans-based Tierra Resources LLC, with contributions from Dr. Robert R. Lane, Dr. John W. Day and Tiffany M. Potter.

The new wetland offset methodology is unique not only because it is the first carbon offset methodology to target deltaic wetland restoration, but also because it uses a modular format, which provides flexibility for numerous types of wetland restoration techniques and facilitates methodology expansion. Another key innovation of the methodology is the incorporation of hydrologic management of nutrient-rich waters as a restoration technique, including options for diversion of river water into wetland, introduction of nonpoint source runoff into wetlands and discharge of treated municipal effluent into wetlands. Avoided loss and afforestation are also included wetland restoration techniques.

The primary hurdle to implement Mississippi Delta restoration is the price tag, estimated between \$10 billion for near-term restoration to \$150 billion for broader restoration and protection measures. Louisiana's Comprehensive Master Plan for a Sustainable Coast recently estimated that between \$20 billion and \$50 billion will realistically be available for funding over the next 50 years, but acknowledged a budget up to five times that size could be needed. Under the new methodology, carbon credits created by restoring wetlands can be registered and sold to help finance additional wetland restoration, Dr. Mack said.

"This methodology offers the first route-to-market for wetland restoration carbon offsets, providing critical funding for restoring coastal Louisiana, which suffers one of the fastest rates of wetland loss in the world," said Mack. "Tierra Resources is dedicated to restoring coastal ecosystems and is thrilled to be blazing the trail in the blue carbon space by developing the methodology and wetland restoration projects that will follow."

Entergy Corporation, based in New Orleans with operations in areas of Louisiana, Mississippi and Texas that have coastal wetlands, funded the methodology development.

"Entergy recognizes the value of coastal wetlands as a first line of defense against storm surge and flooding," said Gary Serio, vice president, safety & environment for Entergy. "Wetland restoration affects more than just our service area, but the rest of the country as well. There is obvious economic impact to infrastructure due to coastal erosion and flooding. In addition, loss of wetlands result in a reduction in the ability to absorb carbon emissions, which has both environmental and economic impact. Not only will wetland restoration reduce greenhouse gas emissions and preserve ecosystems, but there is positive economic impact from preserving infrastructure as well as by creating local jobs to rebuild and maintain the wetland projects."

A landmark study recently published by Restore America's Estuaries, "Jobs & Dollars: Big Returns from Coastal Habitat Restoration

," confirms that investments in coastal habitat restoration produce jobs at a higher rate than many other sectors -- including oil & gas, road infrastructure and green building retrofit projects. This study coincides with further efforts by Entergy to explore solutions to the environmental and economic impacts facing coastal wetland. In an open dialog to address mitigation of coastal stressors such as hurricanes, coastal erosion and rising sea levels, Entergy's 2010 study "Building a Resilient Energy Gulf Coast

," produced in cooperation with America's Energy Coast and America's Wetland Foundation, presents a picture of what the Gulf coast will look like environmentally as well as economically by the year 2030 if no mitigation or remediation activity is undertaken.

Louisiana boasts 40 percent of the country's coastal wetland - more than 4 million acres. Of total U.S. coastal wetland loss, 80 percent has occurred in the Mississippi Delta. An estimated 90 percent of current loss occurs in Louisiana -- the equivalent of losing one football field of wetlands every hour. The loss of Louisiana's coastal wetlands has major national environmental and economic implications. Not only is the Mississippi Delta one of the world's most unique and diverse ecosystems, but its wetlands and waterways contribute tens of billions of dollars to the national economy every year and support millions of jobs. Much of the U.S. depends on sustaining the navigation, flood control, energy production, and seafood production functions of the Mississippi Delta and river system. Each of those functions is currently at severe risk due to coastal wetland loss.

As a first step toward achieving the massive global GHG mitigation potential from wetland restoration, the methodology is expected to be expanded in the future for wetland restoration in other regions and other wetland restoration practices. The ACR approval process for the methodology, which includes public comment and scientific peer review, is targeted to be complete this spring.

About the American Carbon Registry

The nonprofit American Carbon Registry (ACR), an enterprise of Winrock International, is a leading carbon offset program recognized for its strong standards for environmental integrity. Founded in 1996 as the first private voluntary registry in the world, ACR has 15 years of experience in the development of rigorous, science-based carbon offset standards and methodologies as well as in carbon offset issuance, serialization and transparent online transaction and retirement reporting. ACR has set the bar for transparency and integrity that is the market standard today and continues to lead carbon market innovation.

About Entergy Corporation

Entergy Corporation is an integrated energy company engaged primarily in electric power production and retail distribution operations. Entergy owns and operates power plants with approximately 30,000 megawatts of electric generating capacity, and is the second-largest nuclear generator in the United States. Entergy delivers electricity to 2.7 million utility customers in Arkansas, Louisiana, Mississippi and Texas. Entergy has annual revenues of more than \$11 billion and approximately 15,000 employees.

About Tierra Resources

Based in New Orleans, La., Tierra Resources was founded in 2007 with a mission to conserve, protect, and restore coastal wetland ecosystems by creating innovative solutions that support investment into blue carbon. Tierra Resources is nationally recognized innovator in the research, development, and monetization of blue carbon contained in coastal wetland ecosystems, such as estuaries, mangroves, and salt marshes. Tierra Resources' services enable landowners, corporations, nonprofits, and government clients to understand the regulatory, financial, and scientific landscape to preserve and restore wetlands and monetize wetland offsets.