Voluntary Carbon Market Disclosures for CA Bill AB 1305

CNaught · April 17, 2023 - September 12, 2026

Liling Landfill Gas Project

Activity types	Landfill Gas Capture
Impact type	Avoided Emissions
Oxford category	Type 1 — Technology-based Reductions
Developer	Zhuzhou Xinzhongshui Environmental Protection Technology Co., Ltd.
Methodology	ACM0001
Crediting period	2020 - 2030
Purchased from	CNaught Inc.
Registry	Verra (VCS 2503)
Verifying body	China Classification Society Certification Company

Location

Liling, Hunan Province, China

About this project

This project supports collection of landfill gas and generation of 3.2MW of electricity at a landfill in Liling City of Hunan Province, China. The project is expected to reduce nearly 1,000,000 tonnes of CO2e emissions during the project's lifetime. Credits are generated from two pieces of the project: (1) avoiding the emissions of methane (a potent greenhouse gas) into the atmosphere and (2) using the power generated from the methane (natural gas) to displace dirtier coal-fired power coming from the electric grid. The project clearly required carbon revenues to achieve these two goals and therefore generates high-quality carbon offsets.

Credits by vintage

2020		**19,258 tonnes**
2021		**81,864 tonnes**
2022		**104,233 tonnes**

Risk of reversal

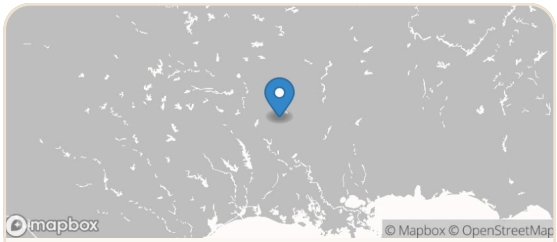
This project has no risk of reversal because its avoided emissions are not subject to being undone.

Accountability measures

A registry-managed buffer pool exists to safeguard against project reversals. If a carbon storage project is reversed, credits from the buffer pool compensate for the shortfall, preserving environmental integrity.

Louisiana Methane Abatement

Activity types	Orphaned Well Plugging
Impact type	Avoided Emissions
Oxford category	Type 1 — Technology-based Reductions
Developer	PermCAP-GHG
Methodology	ACR - Plugging Orphan Oil and Gas Wells in the U.S. and Canada (1.0)
Crediting period	2024 - 2044
Purchased from	CNaught Inc.
Registry	ACR (ACR 934)
Verifying body	Agri-Waste Technology



Location
United States

About this project

This project plugs four orphaned oil wells located in Caddo Parish, Louisiana. The wells were emitting methane upon discovery, had no designated operator, and there was no regulatory requirement or other legal requirement for plugging them. Louisiana lacks the financial resources to properly address this problem, and there are no Louisiana laws or regulations that require the plugging of orphaned wells, making carbon finance the sole revenue stream enabling their closure. The plugging of the wells was overseen by state-approved contractors, and state regulators assigned field agents to monitor the plugging of the orphaned wells. The project provides permanent methane abatement as well as land restoration and native habitat recovery. By permanently sealing these wells, the project also improved local air quality and contributed to reducing global greenhouse gas emissions.

Risk of reversal

There is low risk of reversal should the material used to plug the well malfunction.

Accountability measures

A registry-managed buffer pool exists to safeguard against project reversals. If a carbon storage project is reversed, credits from the buffer pool compensate for the shortfall, preserving environmental integrity.

Credits by vintage

2024		**119,034 tonnes**

Katingan Mentaya Conservation

Activity types	Avoided Deforestation, Wetland Restoration and Conservation
Impact type	Avoided Emissions
Oxford category	Type 2 — Nature-based Reductions
Developer	PT. Rimba Makmur Utama (PT. RMU)
Methodology	VM0007
Crediting period	2010 - 2070
Purchased from	CNaught Inc.
Registry	Verra (VCS 1477)
Verifying body	SCS Global Services

Location

Central Kalimantan, Indonesia

About this project

The Katingan Mentaya Conservation project protects and restores 149,800 hectares of peatland ecosystems in Indonesia. The surrounding land was drained and converted to palm and other plantations, and the project prevents the protected area from the same fate. The are is a vitally important and dense carbon sink. While peatlands represent only 0.3% of the earth's surface, their destruction contributes between 2-5% of annual anthropogenic greenhouse gas emissions. Katingan is one of the highest-regarded, large-scale avoided deforestation projects in the world.

Risk of reversal

Nature-based projects like this one face some risk of reversal. Carbon storage may be affected by natural hazards such as wildfires, flooding, and escalating climate change impacts. Additionally, human-driven factors such as changes in land use or local governance structures can also impact carbon storage.

Accountability measures

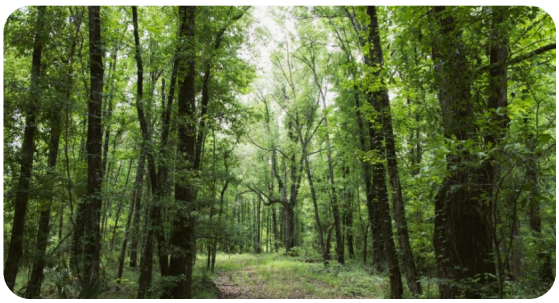
A registry-managed buffer pool exists to safeguard against project reversals. If a carbon storage project is reversed, credits from the buffer pool compensate for the shortfall, preserving environmental integrity.

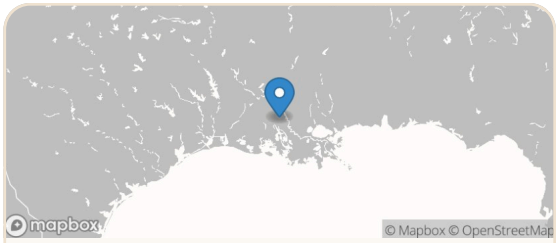
Credits by vintage

2010	12,836,555 tonnes
2015	4,995,323 tonnes
2017	5,764,369 tonnes
2018	5,405,089 tonnes
2019	7,312,477 tonnes
2020	8,236,422 tonnes
2021	2,237,000 tonnes
2023	1,118,000 tonnes

Bottomland Forests of the Louisiana Plains

Activity types	Improved Forest Management
Impact type	Mix of Removals and Avoidance / Reduction
Oxford category	Type 2 — Nature-based Reductions, Type 4 — Nature-based Removals
Developer	Nativstate
Methodology	ACR - Improved Forest Management (IFM) on Non-Federal U.S. Forestlands (Version 2.0)
Crediting period	2022 - 2042
Purchased from	CNaught Inc.
Registry	ACR (ACR 848)
Verifying body	TUV SUD





Location

Louisiana, United States

About this project

The NativState - Bottomland Forests of the Louisiana Plains (PDA) is a programmatic development approach (PDA) to aggregated Improved Forest Management. PDA aggregates forestlands that have committed to maintaining forest CO2e stocks through sustainable management. The project will provide significant climate benefits through carbon sequestration from native forests that otherwise might not have been able to participate in the market individually due to smaller ownership size.

Risk of reversal

Nature-based projects like this one face some risk of reversal. Carbon storage may be affected by natural hazards such as wildfires, flooding, and escalating climate change impacts. Additionally, human-driven factors such as changes in land use or local governance structures can also impact carbon storage.

Accountability measures

A registry-managed buffer pool exists to safeguard against project reversals. If a carbon storage project is reversed, credits from the buffer pool compensate for the shortfall, preserving environmental integrity.

Credits by vintage

2022	**388,864 tonnes**
2023	**626,450 tonnes**
2024	**630,800 tonnes**

X-Hazil

Activity types	Improved Forest Management
Impact type	Removal
Oxford category	Type 4 — Nature-based Removals
Developer	THEEARTHLAB SA de CV
Methodology	CAR Mexico Forest Protocol V3.0
Crediting period	2021 - 2121
Purchased from	CNaught Inc.
Registry	Climate Action Reserve (CAR 1863)
Verifying body	ANCE

Location

Yucatan Peninsula, Mexico

About this project

This project focuses on Improved Forest Management through strategic interventions in forest ecosystems. It aims to enhance sustainability by implementing regeneration practices that improve tree mass structure and maintain forest coverage. The project emphasizes maintaining the functional integrity of ecosystems while implementing silvicultural treatments and Forest Stewardship Council (FSC) monitoring protocols to ensure proper forest management.

Risk of reversal

Nature-based projects like this one face some risk of reversal. Carbon storage may be affected by natural hazards such as wildfires, flooding, and escalating climate change impacts. Additionally, human-driven factors such as changes in land use or local governance structures can also impact carbon storage.

Accountability measures

A registry-managed buffer pool exists to safeguard against project reversals. If a carbon storage project is reversed, credits from the buffer pool compensate for the shortfall, preserving environmental integrity.

Credits by vintage

2021	**214,665 tonnes**
2022	**275,967 tonnes**
2023	**210,561 tonnes**
2024	**204,479 tonnes**
2025	**42,006 tonnes**

Fuzhou Hongmiaoling Landfill Gas to Electricity

Activity types	Landfill Gas Capture
Impact type	Avoided Emissions
Oxford category	Type 1 — Technology-based Reductions
Developer	Fujian Tianyi Renewable Energy Technology & Utilization Co., Ltd.
Methodology	ACM0001
Crediting period	2007 - 2017
Purchased from	CNaught Inc.
Registry	Verra (VCS 253)
Verifying body	Germanischer Lloyd Certification

Location

Fujian Province, China

About this project

This project supports collection of landfill gas and generation of 2.5MW of electricity at a landfill in Fuzhou City in Fujian Province in southeastern China. The landfill received waste from 1995 until 2008, and—like most landfills—throws off methane as some of that waste decomposes. Credits are generated from two pieces of the project: (1) avoiding the emissions of methane (a potent greenhouse gas) into the atmosphere and (2) using the power generated from the methane (natural gas) to displace dirtier coal-fired power coming from the electric grid. The project clearly required carbon revenues to achieve these two goals and therefore generates high-quality carbon offsets.

Risk of reversal

This project has no risk of reversal because its avoided emissions are not subject to being undone.

Accountability measures

A registry-managed buffer pool exists to safeguard against project reversals. If a carbon storage project is reversed, credits from the buffer pool compensate for the shortfall, preserving environmental integrity.

Credits by vintage

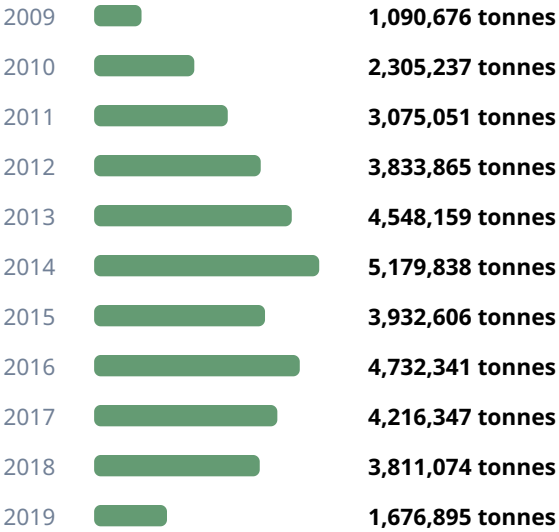
2007	3,877 tonnes
2008	45,740 tonnes
2011	22,842 tonnes
2012	21,522 tonnes
2014	23,493 tonnes
2015	43,917 tonnes
2016	124,677 tonnes
2017	72,299 tonnes

Rimba Raya Biodiversity Reserve

Activity types	Avoided Deforestation, Wetland Restoration and Conservation
Impact type	Avoided Emissions
Oxford category	Type 2 — Nature-based Reductions
Developer	Infinite Earth
Methodology	VM0004
Crediting period	2009 - 2039
Purchased from	CNaught Inc.
Registry	Verra (VCS 674)
Verifying body	SCS Global Services

Location
Central Kalimantan, Indonesia

Credits by vintage



About this project

The Rimba Raya project grew out of an increasing recognition at the local, national and international levels of the urgency of halting and reversing degradation of the peatswamp forests of Central Kalimantan, Indonesia. Drainage, illegal logging and fire have devastated the area's peatswamps in recent decades, and the impacts on local livelihoods, the broader economy and critical wildlife habitats have been staggering. Moreover, the annual contribution to global greenhouse gas emissions has been massive, as the decomposing peat releases stored CO2 at an alarming rate. Rimba Raya was developed as a large-scale restoration program aimed at rehabilitating these vital ecosystems and safeguarding the region's rich biodiversity. Implemented by a local five-member consortium, the project focused on damming drainage canals to restore natural hydrologic conditions, revegetating denuded areas with commercially-important native tree species, and improving local socio-economic conditions while introducing sustainable agricultural techniques. The pilot phase completed in late 2008 provides a strong foundation for future conservation and restoration activities in Central Kalimantan and serves as a basis for other, similar activities in the rest of Indonesia and elsewhere in the tropics of Asia.

Risk of reversal

Nature-based projects like this one face some risk of reversal. Carbon storage may be affected by natural hazards such as wildfires,

flooding, and escalating climate change impacts. Additionally, human-driven factors such as changes in land use or local governance structures can also impact carbon storage.

Accountability measures

A registry-managed buffer pool exists to safeguard against project reversals. If a carbon storage project is reversed, credits from the buffer pool compensate for the shortfall, preserving environmental integrity.

TIST Program in Uganda

Activity types	Agroforestry
Impact type	Removal
Oxford category	Type 4 — Nature-based Removals
Developer	Clean Air Action Corporation
Methodology	AR-AMS0001
Crediting period	2002 - 2031
Purchased from	CNaught Inc.
Registry	Verra (VCS 824)
Verifying body	Aster Global Environmental Solutions

Location
Uganda

About this project

TIST, which is a flagship program of Clean Air Action, partners with subsistence farmers across Africa and India to plant trees in areas that have been deforested. It is one of the oldest and most successful reforestation projects ever undertaken. The program in Uganda brings together thousands of small landowners in Uganda to plant a mixture of native trees, food bearing trees, and commercial trees. As Renoster puts it, "The nation of Uganda is nearly completely denuded of trees, and many times the trees of this project are the only ones visible in large portions of the country. The success in terms of carbon, biodiversity, and cobenefits cannot be overstated."

Risk of reversal

Nature-based projects like this one face some risk of reversal. Carbon storage may be affected by natural hazards such as wildfires, flooding, and escalating climate change impacts. Additionally, human-driven factors such as changes in land use or local governance structures can also impact carbon storage.

Accountability measures

A registry-managed buffer pool exists to safeguard against project reversals. If a carbon storage project is reversed, credits from the buffer pool compensate for the shortfall, preserving environmental integrity.

Credits by vintage

2003		**56,064 tonnes**
2011		**50,715 tonnes**
2014		**138,235 tonnes**

Charm Industrial Bio Oil

Activity types	Bio-Oil Sequestration, Long-Lived Removals
Impact type	Removal
Oxford category	Type 5 — Technology-based Removals
Developer	Charm Industrial
Methodology	Charm
Crediting period	2020 - 2025
Purchased from	CNaught Inc.
Registry	Isometric (ISO 7BDE)
Verifying body	350 Solutions

Location

San Francisco, California, United States

Credits by vintage

2024	**347 tonnes**
2025	**1,752 tonnes**
2026	**2,814 tonnes**

About this project

Living plants, whether trees or agricultural crops, capture carbon dioxide from the atmosphere. However, after the plants die or the crops are harvested, the plants decompose and re-release that carbon. Charm collects plant waste, applies a heating process called pyrolysis that converts the plant waste into bio-oil, and injects that bio oil into deep wells or caverns where it hardens and will be stored permanently. Charm thereby makes the plants' temporary removal of carbon dioxide permanent. While its technology is promising, Charm currently charges $600 per metric tonne of CO2e sequestered and is delivering only a small amount of carbon removal per year. CNaught supports companies like Charm to help send a market signal that will help innovative technologies like that developed by Charm can reach scale.

Risk of reversal

These projects face low risk of reversal because they are designed to store captured carbon for hundreds or even thousands of years. The primary risk of reversal comes from failure of the storage mechanism over the promised timeframe.

Accountability measures

A registry-managed buffer pool exists to safeguard against project reversals. If a carbon storage project is reversed, credits from the buffer pool compensate for the shortfall, preserving environmental integrity.