

Novel Methodology for Carbon Removal From Ocean Microalgal Blooms Announced

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DES MOINES, Iowa--(BUSINESS WIRE)-- **EcoEngineers**, a clean energy consulting, auditing, and advisory firm, has developed a rigorous crediting **methodology** to quantify and verify carbon dioxide removals (CDR) for **Brilliant Planet**, a leader in high-integrity, permanent carbon removal. The methodology provides a robust framework for developing greenhouse gas (GHG) removal projects using Brilliant Planet's award-winning specialized system, which cultivates and sequesters carbon from marine microalgal blooms.

The essence of this methodology lies in transforming marine microalgae into a vehicle to remove atmospheric carbon dioxide. Microalgae are tiny, unicellular plants that live in fresh water or marine ecosystems. Microalgae are capable of photosynthesis and convert atmospheric carbon dioxide into biomass.

Brilliant Planet's novel approach employs the microalgal capacity to efficiently generate biomass to capture atmospheric carbon that is subsequently sequestered. In recognition of its Supervisory Control and Data Acquisition (SCADA) automation and control philosophy for its coastal, microalgal cultivation system, Brilliant Planet received the Robotics & Automation Award 2023 for "Innovation in Sustainability."

Per the methodology, carbon credits will be generated for each metric ton of CO₂ removed from the atmosphere by controlled algal blooms in land-based ponds, which are dried and subsequently sequestered in permanent, purpose-built landfills. All credits issued will be net of any identified project emissions and must meet durability requirements for more than 1,000 years of storage.

"Brilliant Planet's approach to CDR has the potential to be a notable tool in the fight against climate change," said David LaGreca, EcoEngineers' director of voluntary carbon markets. "There is a lack of standardization in measuring

the impact of CDR projects. For that reason, we crafted the methodology in accordance with ISO 14064-2:2019."

"The methodology brings us one step closer to third-party verification of our process, which is good news for climate change," said Dr. Raffael Jovine, co-founder and chief scientist, Brilliant Planet. "With our technology, we can store biomass in a sustainable and cost-effective manner, while minimizing environmental impacts, fugitive gas leaks, and the remineralization of CO₂. This new method incorporates measures to anticipate future environmental changes, ensuring its long-term effectiveness."

GHG benefits are credited exclusively for the CO₂ content sequestered within the algal biomass. At the time of harvest, the rapidly growing microalgal cells are meticulously separated from seawater, promptly processed, and dried to prevent any potential bacterial remineralization, predation, or ecosystem recycling. The resulting extra-dry (>92% dry) and hypersaline (>40% salt) salt-biomass composite is then consolidated and buried in a shallow landfill located on or near the project site. The landfill is designed to prevent groundwater intrusion, and is lined and capped with a geomembrane, creating a permanent biomass-storage structure. The site is continuously monitored to ensure a minimum stability period of 1,000 years with no resulting decomposition.

"This methodology is highly adaptable, focused initially on describing requirements for projects in coastal desert regions," added LaGreca. "Notably, it draws inspiration from existing industry methodologies and unregistered pilot CDR approaches, blending the best practices and cutting edge science to create a comprehensive framework."

About EcoEngineers

EcoEngineers is a consulting, auditing, and advisory firm with an exclusive focus on the energy transition. From innovation to impact, Eco helps its clients navigate the disruption caused by carbon emissions and climate change. Eco helps organizations stay informed, measure emissions, make investment decisions, maintain compliance, and manage data through the lens of carbon accounting. Its team of engineers, scientists, auditors, consultants, and researchers live and work at the intersection of low-carbon fuel policy, innovative technologies, and the carbon marketplace. Eco was established in 2009 to steer low-carbon fuel producers through the complexities of emerging energy regulations in the United States. Today, Eco's global team is shaping the response to climate change by advising businesses across the energy transition. For more information, visit www.ecoengineers.us.

About Brilliant Planet

Brilliant Planet Limited stands at the forefront of sustainable climate initiatives with a distinctive focus on algae-driven carbon capture and sequestration. Based in London and making substantial strides with our pilot project in southern Morocco, our ethos revolves around combining scientific rigor, unwavering commitment to the environment, and a deep sense of social accountability. The cornerstone of our enterprise is our ground-breaking

algae-based technology, conceptualized to significantly reduce the global carbon footprint. Since our inception, we've been fueled by a mission to not only lead in innovative climate solutions but also to act as a beacon of environmental stewardship and community upliftment. As we chart our course into the future, our eyes are set on a monumental target: to extract one million metric tons of carbon dioxide annually by the decade's end. Join us on this journey of reimagining a greener future: <https://www.brilliantplanet.com/>.

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