

Newsletter September 2024

Rapid Commercial and Investor Engagement in INNOVO Algae Bio-Farms Worldwide

INNOVO Algae Bio-Farms, which have proven their effectiveness at an industrial scale, are now advancing to the next phase. Ten sites in the Bundaberg region of Queensland, Australia, and ten sites in Texas, USA have been identified, with negotiations nearing completion.

Formal announcements regarding the investment and acquisition for the first site in Bundaberg are expected soon, to be followed swiftly by the other nine sites.

Regional councils, along with local and state governments, are increasingly recognizing the potential of this profitable technology. It promises sustainability, commercial, and financial benefits, including boosting local employment both directly on the projects and throughout the community.

The development of these bio-farms will enhance global awareness of this powerful, proven technology and facilitate its rapid deployment to help halve CO2 emissions by 2030.

Heavy industry emitters, such as those in the chemical, steel, cement, power, and oil & gas sectors, stand to gain significantly from this technology, which can absorb their CO2 emissions. INNOVO Net Zero is currently in discussions to finance, build, and operate bio-farms in direct partnership with these major global organizations.

INNOVO Net Zero Pyrolysis Plants to be Deployed Globally

INNOVO, in collaboration with its technology partner, is set to announce the deployment of Waste to Energy and Waste to Products plants at multiple locations worldwide.

This revolutionary technology can profitably recycle nearly any type of waste.

Each pyrolysis plant is expected to save 2.8 million tons of CO2 annually for every 1.1 million tons of CO2 emitted. This technology not only facilitates Waste to Energy conversion but also supports the production of Biochar, Activated Carbon, and Carbon Black from waste materials.

To learn more about INNOVO's ground breaking technologies and how we are shaping the future visit us at innovo-net-zero.com

Empowering the Future: The Role of Off-Take Agreements

In the quest for sustainable energy solutions, algae bio farms and waste-to-energy projects have emerged as innovative and environmentally friendly options.

These projects not only help in reducing waste and greenhouse gas emissions but also contribute to the production of renewable energy and valuable bioproducts.

Off-Take Agreements for Algae Bio Farms and Waste-to-Energy

Off-take agreements play a crucial role in the bioenergy sector, particularly for algae bio farms and waste-to-energy using pyrolysis. These agreements ensure a stable revenue stream for producers by securing long-term buyers for their energy or bio-products.

1. Biofuel Production

Algae can be converted into several types of biofuels, including biodiesel, bioethanol, and biogas. Off-take agreements for biofuels ensure that there is a guaranteed buyer for the produced fuel, providing financial stability to the algae bio farm.

2. Bioproducts

In addition to biofuels, algae can be used to produce a range of bioproducts such as:

- **Nutritional Supplements:** Algae are rich in proteins, vitamins, and omega-3 fatty acids, making them ideal for nutritional supplements. Off-take agreements with health and wellness companies can secure a market for these products.
- **Cosmetics:** Algae extracts are used in skincare and cosmetic products for their moisturizing and anti-aging properties. Agreements with cosmetic companies can ensure a steady demand.
- **Animal Feed:** Algae can be processed into high-protein animal feed.

Waste-to-Energy Projects

Off-Take Agreements for Pyrolysis Projects

Off-take agreements are essential for ensuring the financial stability and success of pyrolysis projects by securing long-term buyers for these products. Here's how off-take agreements work in the context of pyrolysis:

1. Bio-Oil

Bio-oil, also known as pyrolytic oil, is a liquid product derived from the pyrolysis of biomass. It can be used as a renewable fuel or as a feedstock for producing chemicals.

2. Syngas

Syngas, or synthesis gas, is a mixture of hydrogen, carbon monoxide, and other gases produced during pyrolysis. It can be used for electricity generation, as a feedstock for producing synthetic natural gas, or in the production of chemicals.

3. Biochar

Biochar is a carbon-rich solid residue produced from the pyrolysis of biomass. It has various applications, including soil amendment, carbon sequestration, and as a filtration medium.

4. Carbon Black

Carbon Black is a fine black powder composed of elemental carbon. It is produced through the incomplete combustion of heavy petroleum products and is primarily used as a reinforcing agent in rubber products, especially tires.

Benefits of Off-Take Agreements for Bio Farms and Waste-to-Energy

- **Financial Stability:** Long-term contracts provide predictable revenue, making it easier to secure financing and investment.
- **Risk Mitigation:** Off-take agreements reduce market risks by guaranteeing a buyer for the produced energy or bio-products.
- **Environmental Impact:** These agreements support the development of renewable energy projects, contributing to reduced greenhouse gas emissions and sustainable waste management.