

Maryland's Clean Energy Future

To effectively address environmental challenges now, Maryland's Renewable Energy Portfolio Standard needs to include diverse solutions and resources that can start working together today and affect measurable change quickly.

CleanBay Renewables' proprietary anaerobic digestion technology is one such solution. Using anaerobic digestion to recycle poultry litter presents Maryland with the opportunity to divert an abundant byproduct of local farms, create the sustainable clean energy the state needs and improve the health of local air, soil and water.

Why Poultry Litter?



The 605 million broiler chickens raised in the Delmarva alone produce 14 million tons of litter.



Uncontrolled poultry litter releases nitrous oxide, a greenhouse gas with 300 times the impact of CO₂.



Uncontrolled poultry litter produces nitrogen and phosphorus runoff, which lead to algae blooms that pollute our waterways.



Today, over 15,000 bodies of water in the U.S. are affected, including the Chesapeake Bay.

Why CleanBay Renewables?

CleanBay's process is unique, and its benefits are quite complex. Each full capacity facility can recycle more than 150,000 tons of chicken litter annually. By repurposing a potential source of excess nutrients, CleanBay can:

- Generate more than **750,000 MMBTu of sustainable renewable natural gas** – the amount of energy used by approximately 11,000 homes each year.
- Produce more than **100,000 tons of natural, controlled-release fertilizer** with humic acid – providing farmers with an alternative use for their byproducts while diverting pollutants like phosphorous and nitrogen as well as harmful pathogens from the soil and local waterways.
- Reduce greenhouse gas emissions by up to **1,000,000 tons of CO₂e** annually – equivalent to taking 217,480 passenger vehicles off the road each year.

CleanBay's proprietary process has also solved the issues that plague other forms of biomass anaerobic digestion (AD) solutions. All of the water used throughout CleanBay's process is fully recycled into the plant, and the materials that remain from the energy creation process, called digestate, are converted to a natural fertilizer product that stabilizes key nutrients. And, unlike other waste-to-energy, incineration or gasification climate solutions, CleanBay has created a biological, thermal process that essentially replicates a cow's digestive system.