Most Advanced Sustainable Wastewater Treatment System for Food & Beverage Industry Now Commercially Available

Cambrian Innovation launches EcoVolt, the first and only industrial-scale bioelectrically enhanced wastewater treatment system for sustainable water management

Addressing the serious wastewater treatment issues in the food and beverage industry, Cambrian Innovation Inc., a leader in bioelectric environmental solutions for industrial, agricultural, and government organizations, announced the commercial availability of EcoVolt™. The first and only industrial-scale bioelectrically enhanced system ever created, EcoVolt empowers food and beverage companies, including wineries, breweries, and dairy operations, to cut operating costs and monetize their process and wastewater streams while significantly increasing plant sustainability.

Traditional wastewater treatment processes are energy-intensive and susceptible to disruptions. EcoVolt leverages electrically active microbes to stabilize the wastewater treatment process while generating clean energy. This energy can save money, decrease grid reliance, and form a core part of a sustainable water management and re-use plan.

“EcoVolt has the potential to revolutionize how wineries and breweries manage water,” said Matthew Silver, CEO of Cambrian Innovation. “Today, most companies looking to expand production must quickly think through access to water and treatment of wastewater, and current solutions leave much wanting. The Cambrian EcoVolt system is designed to turn water management from a hassle into an opportunity. We expect many customers will be able to significantly cut electricity usage and even go ‘off grid’ when using EcoVolt to treat wastewater and generate power.”

Robust Operation, Remote Monitoring, and Simple Capacity Expansion

Developed with assistance from the National Science Foundation, EcoVolt’s bioelectric innovation uses electrogenic organisms to generate clean energy from wastewater. These recently-discovered electricity-generating organisms convert wastewater pollutants into electricity. This electricity is funneled to a circuit, and back into an electrode, where a different set of micro-organisms convert electricity and carbon dioxide into methane fuel – forming a complete treatment process. The methane can be used on-site for clean power and heat production.

EcoVolt is a robust, end-to-end, anaerobic wastewater treatment solution that can operate across a range of biological oxygen demand (BOD) loadings and wastewater volumes. Its modular design and bioelectric capability allow for rapid commissioning and continuous, remote monitoring and control. These attributes minimize installation and operation hassles. Because EcoVolt is prefabricated and provides for turnkey installation, the system can easily accommodate facility expansion, as well as new system installations.

Historically, anaerobic wastewater treatment systems have not responded well to changing BOD loadings and wastewater flows. Accordingly, many food and beverage companies pre-treat wastewater using costly, on-site aeration. EcoVolt’s bioelectric capabilities enable it to accommodate fluctuations common in beer, wine, and other food and beverage production cycles.

“Industrial food and beverage producers typically use large amounts of electrical energy to treat their wastewater. Ironically, the wastewater itself contains energy,” continued Silver. “EcoVolt uses naturally occurring organisms with unique properties to extract this energy, which can offset overall operation costs. We view this as the future of water management, globally.”

Compared to using traditional aeration technologies, a winery or brewery can save from $100,000 to more than $1 million a year using EcoVolt, which eliminates aeration energy requirements and sludge hauling, minimizes sewer fees, and generates clean heat and power. An average EcoVolt system can also cut a facility’s carbon footprint substantially, facilitating its certification as a green producer.

EcoVolt’s Demonstrated Success

Well-known for its focus on sustainability, Clos du Bois Winery, located in California’s Wine Country, field tested Cambrian’s new wastewater treatment system at an industrial scale. For the last 15 months, EcoVolt treated up to 10 percent of Clos du Bois’ total wastewater flow. The EcoVolt system treated 80 to 90 percent of the wastewater’s BOD while simultaneously generating high-quality methane fuel. The winery experienced a reduction in aeration pump electricity costs and a surplus of reusable energy.

“The EcoVolt was commissioned quickly, and it came up to speed and operated better in some areas than competing technology,” said Brian Hemphill, operations manager at Clos du Bois. “With this EcoVolt unit, it can be managed remotely by Cambrian without requiring our time, which makes more sense for us, because we’re in the business of making wine, we’re not in the wastewater business.”

EcoVolt is available immediately and is competitively priced according to a site’s specific wastewater needs. More information on commissioning an EcoVolt wastewater treatment system may be found at www.cambrianinnovation.com/solutions/ecovolt. To contact Cambrian regarding EcoVolt, please email: EcoVolt@cambrianinnovation.com

HB Agency

Cambrian@hbagency.com

781.893.0053

Cambrian Innovation is a leader in the development of environmental solutions using biotechnology. Spun out of MIT in 2006, Cambrian has scaled and validated solutions to recover resources from wastewater, eliminate energy required for wastewater treatment, radically reduce the cost of nitrate-nitrogen treatment, and help agricultural operations monitor their inputs more easily and efficiently. Its flagship product, EcoVolt™, is the world’s first and only industrial-scale, bioelectrically enhanced wastewater treatment system, empowering food and beverage companies to cut water and energy costs while monetizing their wastewater. Headquartered in Boston, Massachusetts, Cambrian Innovation can be found online at www.cambrianinnovation.com.