

### **TECHNOLOGY**

Drylet's award-winning technology draws from material science and microbiology. Its BioReact AD biocatalyst is comprised of carefully selected beneficial microbes embedded in particles made of a non-toxic engineered porous media substrate. The particles protect the microbes, allowing them to thrive and replicate fast so they can be effectively integrated into microbial ecosystems.

#### THE BREAKTHROUGH

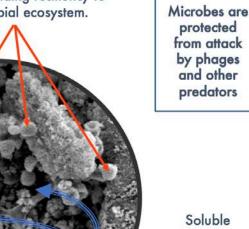
Hydrolysis is the limiting step of most anaerobic digestion processes.

Harnessing the power of microbes is an effective way to break down bacterial cell walls and slowly biodegradable material, with zero capital expense and no energy requirement, unlike typical alternative approaches.

# Innovative biocatalyst harnesses the power of beneficial microbes

Embedded beneficial microbes, carefully selected to perform in AD systems, attach to the media and form a biofilm, providing resiliency to the microbial ecosystem.

Media displays non uniform structures that provide attachment surfaces for the microbes.



Soluble materials are adsorbed and diffused into the particle, feeding the microbes.

Engineered, inorganic, porous particle (200-600 microns) protects its resident microbes.

1 lb provides 700,000 ft<sup>2</sup> of surface area.

Its density allows it to sink in solid layers.

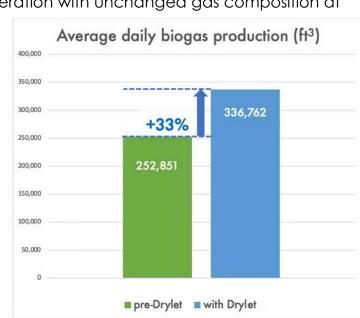


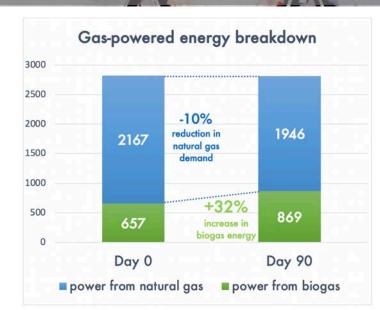


BioReact AD boosts biogas generation 32% and lowers natural gas use 10% at 55-MGD WWTP

Dallmann's East River Dairy is host to a 1.7-million gallon capacity digester designed by DVO, Inc. that generates enough electricity to power 500 homes. BioReact AD biocatalyst was dosed in the digester at a daily rate of 13 lb. The digester was fed with a consistent influent from the farm's 2,500 cows. The addition of Drylet's biocatalyst resulted in an over 30% average boost of biogas generation with unchanged gas composition at 60% methane.

At the site, methane from biogas is used to generate electricity which is utilized onsite. It was estimated that electricity from the additional methane generated through using Bio React AD biocatalyst represents a significant value of about \$470 per day. Additionally, significant solids reduction resulted in cleaned-up sludge lines, reducing operating and maintenance costs.





The 55-MGD wastewater treatment plant has been a leader in the use of renewable energy for wastewater treatment. It currently generates 95 percent of the energy it uses from onsite biogas, purchased natural gas, and solar energy generation. Only 5 percent of its energy requirement is imported from the local power utility.

BioReact AD was added to the digesters with a daily dosing of 50 lb. The goal was to boost biogas and enhance solids reduction. Results showed: 32% boost to biogas generation led to a 10% decrease in natural gas procurement, generating a potential annualized net savings of over \$250,000 per year. In addition, the facility enjoyed a 10% increase in biosolids reduction, lowering its sludge handling costs.



## **HOW WE WORK**

- Data collection: Data is at the foundation of all the work we do. Our detailed, system-tailored questionnaires guide our new customers through the essential first step of our process: gathering historical data about flow, loading, operations, and costs.
- 2. Process modeling: Data analysis is what allows us to establish an accurate assessment of the current operations, the outcomes our solution can deliver, and the most appropriate application protocol. We do this by developing a unique digital model of the facility.
- 3. Risk-free demonstration: If the model has indicated that our solution can deliver valuable operational and financial benefits to the site, we go ahead with a three-month risk-free demonstration. This means that the customer pays for the product only if the forecasted outcomes have been delivered. Customer support, in the form of weekly calls, onsite visits, and ad hoc engagement, is provided for free over that period.
- 4. Subscription or performance contract: After the trial concludes, we discuss the customer's needs and goals in order to determine the terms of our business relationship. At all times, the knowledge that we can win only if our customer wins remains our North Star.

"BIO REACT AD solution has been helping to enhance the operational efficiency of our process so effectively that is has simply become part of our process across all of our 3 operating co-digestion dairy digesters."

Rashi Akki, Founder and CEO, Ag Grid Energy, LLC

## **ABOUT DRYLET, INC.**

Drylet is focused on accelerating nature's biological remediation process through the use of its proprietary, benign biocatalyst.

Founded in December of 2013, Drylet has successfully demonstrated the commercial application and viability of its technology to remediate organic waste and boost biogas production at wastewater treatment facilities, industrial wastewater sites, and livestock operations.

