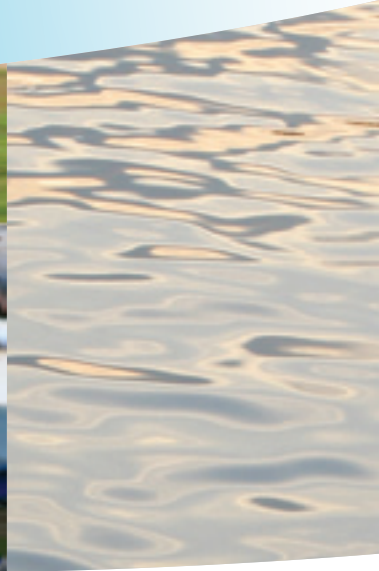




eVOQUA
WATER TECHNOLOGIES



ADI[®] CH₄ GENERATING REACTOR (CGR)

IN-GROUND ANAEROBIC DIGESTION PROCESS FOR BIOENERGY PRODUCTION

THE TECHNOLOGY

The ADI® CH₄ Generating Reactor (CGR) is an in-ground low-rate anaerobic digestion process used predominantly for bioenergy production. Biogas comprised primarily of methane, a reusable energy source, is generated as a by-product of the anaerobic digestion process.

The reactor's design facilitates efficient mixing between the anaerobic sludge and the feedstock and separates the hydraulic and solids residence times to enhance biogas production and solids breakdown. The large volume of the CGR system offers extended biomass contact and good

process stability. The settlement zone is designed to collect sludge with a built-in recycling/wasting system that enables the sludge to be recycled to the distribution zone or wasted, when required.



THE METHANE GENERATING REACTOR

The ADI® CGR offers many environmental and economic benefits:

COST SAVINGS

- Save on sludge handling and disposal costs
- Save on energy costs:
 - Low energy consumption design
 - Significantly less energy-intensive than aerobic systems
 - Energy recovery from biogas can reduce use of fossil fuels
- Eliminate wastewater surcharges
- Reduce or eliminate chemical usage

PROCESS ADVANTAGES

- Consistent performance and enhanced process stability due to extended biomass contact and long hydraulic retention time
- Resilient against shock hydraulic and organic loadings
- Built-in recycling/wasting system
- Custom-designed cover:
 - Collects valuable biogas
 - Provides insulation and odor control

ENVIRONMENTAL BENEFITS

- Consistent effluent quality
- Convert organic waste to recoverable green energy (heat and power)
- Liquid effluent can be irrigated onto farm land as a nutrient supplement
- Improve local and global water security

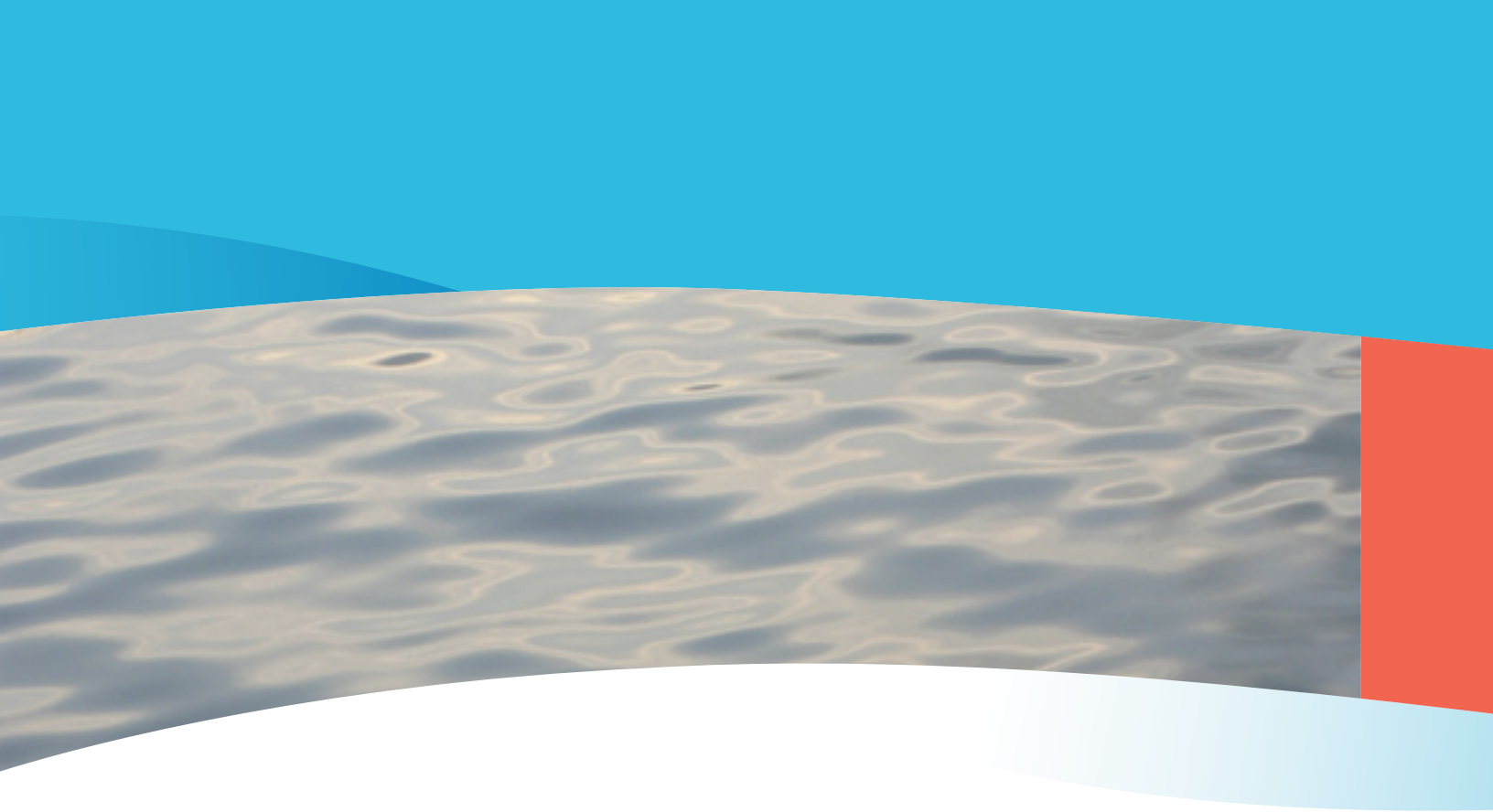
OPERATION & MAINTENANCE

- Few equipment and moving parts results in low maintenance requirements
- Minimal operator attention
- Flexible sludge wasting program
- Data trending for process control
- Cover provides easy access for sampling and maintenance



KEY INDUSTRIAL MARKETS

- Food & Beverage
- Organic Food Waste
- Animal Waste
- Palm Oil
- Distillery



PROJECT DELIVERY

ADI Systems customizes each system to meet the unique needs of the application. Design/build project delivery offers a number of benefits, including a single point of contact and responsibility, and consistency in design and construction quality throughout the entire project. Technology-only packages are also available.

ADI[®] Systems
an EVOQUA brand

+1 (800) 561-2831 (toll-free)

+1 (506) 452-7307

www.evoqua.com

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