



Modular and Scalable Technology for
Net-Zero Energy Wastewater Treatment

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Product Specification

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BioElectrochemical Treatment Technology (BETT™) makes onsite
wastewater treatment BETTer

System Specifications

Aquacycl components are integrated into full-scale solutions according to end-user specifications. Each installation provides wastewater treatment, sludge elimination, and electricity production.

Each BETT™ unit is plug-and-play and designed to operate with very little infrastructure or connected to existing collection systems. BETT™ can save end-users up to 95% on wastewater treatment operating costs due to net-zero energy operations, remote monitoring, and 80% solids reduction.

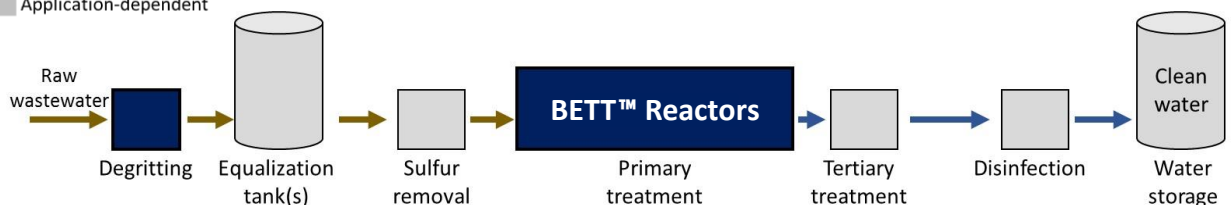
Custom systems are available within weeks or months due to a highly scalable platform technology. BETT™ Packaged Plant flow capacity, footprint and effluent quality are dependent on wastewater composition and loading.

BETT™ Packaged Plants		BETT™-10	BETT™-20	BETT™-40
Max flow capacity	m ³ /d (gpd)	38 (10,000)	76 (20,000)	152 (40,000)
Energy recovery	kWh/kg-COD	0.2-0.8	0.2-0.8	0.2-0.8
Influent characteristics				
COD (S)	mg/l	800-100,000+		
TSS	mg/l	400-5,500+		
Nitrate	mg-N/l	25-100+		
Treated effluent qualities				
		BETT™-effluent	Post-treatment effluent (optional)	
COD(S)	mg/l	50-1,000	<2	
TSS	mg/l	<10	<2	
Nitrate	mg-N/l	<2	<2	



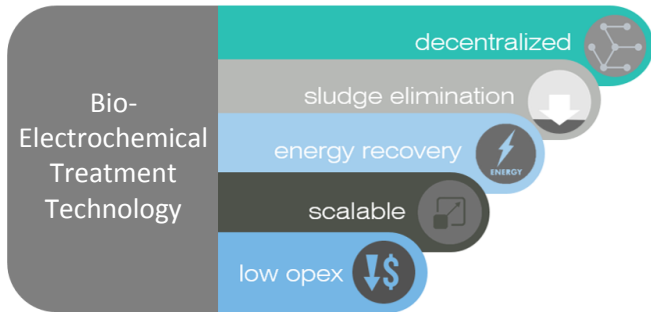
- Required components
- Application-dependent

BioElectrochemical Treatment Technology (BETT™) Installation



Aquacycl Advantage

Aquacycl's BioElectrochemical Treatment Technology (BETT™) is the only cost-effective and scalable technology for onsite wastewater treatment that can address high strength waste water streams, eliminate sludge, recover energy as direct electricity (no methane), and demonstrate 4-hour treatment times.



Distributed wastewater treatment for industry, residential, agriculture and military

- Food & Beverage
- Military
- Confined-animal production
- Biodiesel production
- Pulp & Paper
- Events
- Hotels/commercial
- Construction sites
- Disaster response

Technology Overview

Aquacycl's BioElectrochemical Treatment Technology (BETT™) uses naturally existing bacteria to convert organic waste and sludge into direct electricity without any methane production.

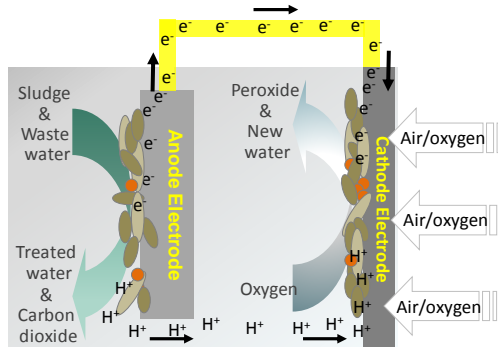
Electricity harvested can power essential process controls with any excess power stored in batteries onsite.

Each BETT™ reactor is the size of a standard car battery and systems are stacked together like Legos™ to increase treatment volume and/or effluent quality.

Technology pilots have been field-tested under continuous operation since 2016 with swine waste and residential sewage. The swine waste pilot has continuously demonstrated:

- 80% elimination of primary sludge
- Negligible secondary biomass production
- Energy recovery as direct electricity (0.2 – 0.8 kWh/kg-COD)
- 65% removal of COD in a 4-hour hydraulic residence time

How BETT™ works



BETT™ Reactors for treatment and energy recovery

