



The quickQUBE is the rapid deployment version of the bioQUBE designed to transform organics to create biogas for uses such as heat, hot water, electricity, or transportation fuel - quick, efficient, and easy to operate.

It is designed in varying dimensions to allow for the required digestion capacity (5m³ to 300m³) and is never more than 2 metres in height, making it flexible to site while being visually acceptable. Multiple quickQUBE's can be configured, including linking with the bioQUBE system configurations.

The digestion process and biogas storage occur in a flexible, fabric-like structure which is lightweight, multi-layered, and strengthened by an exo-skeleton style metal frame making it portable and quick to deploy.

Internal digester heating and the patented mixing design are controlled in the digester to retain the optimum conditions for biogas production and to achieve the necessary retention time required for the feedstock input profile.

Who Can Use It ?

Anyone that generates 1.5 to 5.0 tonnes daily (500-2,000 tonnes annually). Examples are:

- ✓ An innovative food processor or wholesaler that wants to produce renewable energy for internal operating needs.
- ✓ Dense populations like universities and offices where diverting post-consumer food scraps leads to achieving sustainability objectives.
- ✓ A generator such as a grocer or hospitality provider in search of ways to reduce carbon and other emissions in the supply chain.
- ✓ A healthcare provider (ex. Hospital, Nursing Care) motivated to divert food preparation trim and post-consumer food scraps.

Business Case Parameters

Parameter	Multiple Input Capacity Options			
	Input Tonnes Per Day	1.5	2.0	2.5
Input Tonnes Per Year	500	725	950	
Biogas Production Per Year (m³)	104,025	138,700	173,375	
CHP Cogen Option (For All The Biogas)				
Electrical Output - Internal Or To Grid	171,470 kwh	228,630 kwh	285,780 kwh	
Thermal Output - For Hot Water	236,515 kwh	315,350 kwh	394,190 kwh	
Self Sufficiency - System Operations	10%	8%	8%	
CRNG Fuel Option (After Self-Sufficiency)				
Litres Equivalent	80,770	107,685	134,605	
Van Travel - KM's	895,000	1,195,000	1,495,000	
1. Annual Biogas Revenue Opportunities	\$60 - \$80,000	\$80 - \$110,000	\$105-\$135,000	
2. Cost Displacement Opportunities				
Current Disposal System	Highly Valuable Due To Individual Practices & Costs			
Internal Energy Consumption Off-Sets				
3. Up-Side Revenue Opportunities				
Voluntary Carbon Credit Sales	Driven by Climate Change Programs & Local Nutrient Needs			
Liquid Bio-Fertilizer Value				

Valuable Biogas Production & Use

The recovered organic stream is diverted and transformed on-site into economic value by utilizing the biogas that is created in a compact, modular, and flexible system configuration.

The quickQUBE is energy self-sufficient. The options for utilizing the remaining biogas include:

- ✓ Create energy in the form of electricity and hot water when combusted in a Combined Heat & Power (CHP) cogeneration system.
- ✓ Upgrade and create a compressed renewable natural gas (CRNG) that can be used as an alternative transportation fuel.
- ✓ Create biomethane for pipeline injection or to off-set internal natural gas consumption.



How Does It Work?

