Summary

- zerowaste food recycling
- conversion to renewable energy
- energy storage
- probiotic plant food and soil booster
- local food production
- jobs and education
Technology Spectrum

- Our four commercial digesters are described below.
- They are all Anaerobic Digestion Systems that generate and store onsite renewable energy.
About Impact Bioenergy

- is the leading firm in North America (the world) for commercial, onsite, pre-engineered anaerobic digesters, aka microdigesters in an urban commercial environment.
- is based in Seattle and manufactures the equipment in the Seattle area.
- has partnered with an industrial accelerator, strategic distributors, and advisors that specialize in engineering innovative waste recycling solutions, local solutions, clean technology, and agriculture.
- is an industry leader in scaling bioenergy systems and converting and marketing commercially valuable by-products from organic waste materials (960 – 35,500 lbs. per week waste diversion range)
- has novel, unique, and protected intellectual property on its apparatus and method.
Reference Facilities

Delivered

- Seattle WA: Partners: Fremont Brewing Company, Seattle Urban Farm Co, City of Seattle
- Auburn WA: Partners: Seattle Tilth, Auburn Food Bank, King County
- British Columbia: Captain Recycling
- Sri Lanka: Future Electric
- Philippines: Samuel Do Enterprises

Under Construction

- Redmond WA: Corporate Campus - under construction (June delivery)
- Carnation WA: Crooked Shed Farm - under construction (June delivery)
PARTNERS
The Circular Economy of AD

- AD touches on various aspects of zero waste, jobs, food, circular economy, etc. Our design provides access to healthy, affordable organic food by engaging farmers, businesses, individuals, communities and governments to build a resilient food ecosystem. We build circular economies for:

CRAFT BEVERAGES PRODUCTION -
   BEER, SPIRITS, WINE, CIDER, SOFT-DRINKS, DAIRY

FOOD SERVICES (E.G. CAPITOL HILL TOD) -
   COMMUNITY BASED SYSTEMS INCLUDING CAMPUSES AND ISLANDS

FARM TO TABLE GROWERS -
   COMMUNITY SUPPORTED AGRICULTURE

RESILIENCY MANAGERS -
   EMERGENCY PREPAREDNESS & DISASTER RESPONSE
The Circular Economy of AD
Design Example - Corporate Campus

- Food waste input capacity: 1,480 lbs. per week
- Designed for maximum: 0.56 MMBTU/day renewable energy output
- Energy Storage: 750 cu feet (0.45 MMBTU)
- Probiotic Plant Food & Soil Booster: 164 gallons per week output
- Capital Equipment Budget $230,000
Summary - 40’ Bioenergy System

- Access on three sides: 8’ x 40’ machinery footprint
- Requires 208 V - 3 phase, potable water, sewer
Design Example - Mixed Use Urban Project

- Housing: 1,000 people @ 0.5 lbs./person/day
- Retail: 300 lbs./day

- Average organics rate = (500 + 300) x 7 = 5,600 lbs./week
- Designed for maximum: 2.10 MMBTU/day renewable energy output
- Energy Storage: 2,800 cu feet (1.70 MMBTU)
- Probiotic Plant Food & Soil Booster: 620 gallons per week output
- Capital Equipment Budget $400,000
Design Example - Mixed Use Urban Project

- 1 each 40’ x 8’ Bioenergy System - $275K
- 2 each 40’ x 8’ Energy Storage Modules (20-30 hours run time) - $75K
- 1 each 10 kW Generator (26.8 kW CHP) - $50K
Education, Visibility & Access

We manufacture portable bioenergy systems that convert organic waste materials into energy and biofertilizer with zero waste.
Education, Visibility & Access

We convert waste to value ... in the form of job creation, zero waste, renewable energy production, carbon sequestration, and urban agriculture.
Education, Visibility & Access

Our technology delivers lower environmental impact and cost savings. Our systems can process 960 to 35,600 lbs. per week of waste materials.

Our design helps farmers, businesses, communities and governments build a resilient food ecosystem.
British Columbia - Aeron Jensan
SEATTLE - FREMONT BREWING CO
Run, Horse. Run!

“Small acts, when multiplied by millions of people, can transform the world.”

The Rockefeller Family, quoting Howard Zinn
“Bainbridge Biodigester will eat like a HORSE”

“Hooking the crane chains to the self-contained biodigester called HORSE before it is lifted and set into place at the Harbour Public House on Bainbridge Island.”

MEEGAN M. REID / KITSAP SUN
“BAINBRIDGE ISLAND — Like many digestive systems that find themselves at the Harbour Public House in Winslow, one that made its way there Tuesday was about ready to eat. .......

The digester has a receiving system that chops up and purées food waste "into a smoothie" that is fed into a bioreactor, where microbes digest the food into the two end products...

The system, which could consume about 1,000 pounds of food waste in a week, outputs about 90 percent fertilizer and 10 percent gas...

The gas can either be burned by a generator to make electricity or used to boil water, but the Bainbridge restaurant will use the HORSE for electricity...

The fertilizer will be used near the restaurant and also could end up going to an island farmer.”

MEEGAN M. REID / KITSAP SUN
AUBURN
TILTH, FOOD BANK, SCHILLING CIDER
This is a Living Machine
That converts foodwaste into
Renewable Energy and Fertilizer
With Zero Waste

Thank You

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