



Our anaerobic digesters, microbiological recipe, facility design and implementation are optimized based on the specific goals and objectives of the stakeholders.

What is anaerobic digestion?

Anaerobic digestion (“AD”) is a well proven process in which organic materials are broken down naturally by microorganisms in the absence of oxygen. The process produces two environmentally rich products: renewable natural gas, and digestate, an organic soil amendment equivalent to compost without the odor which can be land applied or mixed to create nutrient rich topsoils.

What can I bring to a digester?

- » Source-separated organics
- » Produce processing culls
- » Protein waste
- » Packaged foods
- » Food processing residuals
- » DAF waste (Dissolved Air Flotation)
- » Fats, oils & greases

What’s in it for me?

Ineffective disposal of excess organics has an enormous impact on the environment and your community. Most often, these materials end up in an incinerator, where they are combusted and emitted as an environmental pollutant, or in a landfill, where they decompose and release methane, a harmful greenhouse gas. Adopting and integrating AD within your community will lower fossil fuel and chemical fertilizer use, decrease greenhouse gas emissions, reduce our reliance on unhealthy disposal facilities such as incinerators, and preserve scarce space and capacity in our landfills.

Municipalities

Turn organics recycling challenges into profitable economic development solutions, divert excess organics from landfills and incinerators, reduce greenhouse gas emissions, and more. Our facilities help generate quality jobs and stimulate your local economy by building a sustainable future for your community.

Companies & Institutions

Decrease your cost of organics disposal, create your own source of renewable energy, improve your operating expenses, streamline your organics management processes, and more. Add value to your brand by meeting corporate responsibility and sustainability goals - all while reducing your carbon footprint.

Utilities

Incorporate clean energy from reliable sources into your product mix, partner with cities and companies seeking to achieve zero waste goals, eliminate the reliance on fossil fuels, and more. Use our unique supply of renewable natural gas for peak energy needs and drive sustainable, clean energy solutions within your service area.



SCAN ME

BIOENERGYDEVCO.COM

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Accelerating zero waste. Tackling climate change.

What’s good for our environment is good for your business.

Bioenergy Devco (BDC), is a pioneer in bringing the development of commercial-scale anaerobic digestion to the US.

We have built **250+ plants** worldwide on **4 continents**, operate **150**, obtained **29 international patents** and perform **170,000 + microbial tests** yearly carried out through our proprietary lab.

At BDC, our DNA is green. We are dedicated to bringing benefits to the environment and facilitating the circular economy as we transform organic waste materials into clean energy and organic fertilizer.

BY THE NUMBERS

We are excited to be in the forefront of renewable energy as America takes the pledge to **reduce 40% of our carbon emissions by 2030**.

If food waste were a country, it would be the 3rd largest GHG emitting country in the world: **1.3 billion tons of global food waste** are generated each year and **167 million tons of food waste** are generated in the USA every year.

BENEFITS OF PARTNERING WITH BIOENERGY DEVCO

-  Proximity to our digesters reduces transportation costs
-  Stabilize disposal costs with fees held constant through the lifetime of your contract
-  State-of-the-art depackaging equipment
-  Compliance with waste legislation
-  ESG reporting to help meet your sustainability goals
-  Meet consumer demand for sustainability
-  Lab testing, monitoring and nutrient management support from a dedicated microbiology lab
-  24 years experience with 250 Anaerobic Digester installations around the globe

Our commercial-scale AD facility generates 340,000 MMBtu of renewable energy and prevents the release of Carbon Dioxide (CO2-eq) equivalent of:

7,697

US households' annual electricity

12,574

Gasoline powered cars taken off the road for a year

82

A forest area 82x times of Central Park (Decarbonization impact)

606

Times to the distance from Earth to the Moon by car



The Anaerobic Digestion Process

“Think of what we do as creating an industrially sized cow stomach.”

- CEO, SHAWN KRELOFF



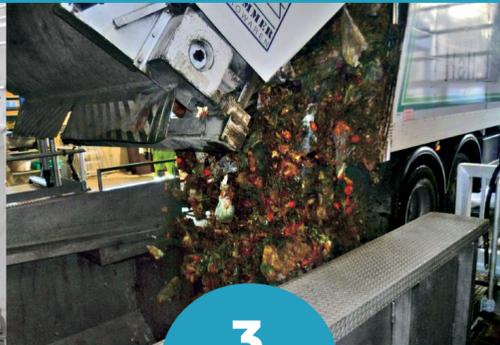
1

FEEDSTOCK ARRIVES AT FACILITY



2

TRUCKS AND MATERIALS ARE WEIGHED



3

THEN SORTED



4

PAPER & PLASTICS ARE SEPARATED FROM ORGANICS



5

SENT TO PRE-TANKS TO MIX WITH MICROBES



6

NATURAL GAS IS CREATED FROM THE PROCESS



7

AND DIGESTATE, A COMPOST-LIKE PRODUCT



8

OUTPUT CONTRIBUTES TO SUSTAINABLE AGRICULTURE & RENEWABLE ENERGY SOURCES

We source and collect different types of organic materials called **FEEDSTOCKS***. Upon entering our facility, each feedstock-filled truck runs over a scale, then heads to the receiving building.

**Feedstocks are defined as any renewable biological material that can be converted into another form of energy product.*

If the load is liquid (such as fats, oils and greases), it is pumped directly into one of our pre-tanks. If the load is solid (like chopped fruit), the load is dumped on the tipping floor for visual inspection. The driver exits the building and runs over another scale so we

know how much feedstock he left behind.

The inspected feedstock is lifted into a hopper by front-loaders, where augers move the material to the next stage. Contamination or non-organic material is

separated out, water is added to the organics to create a slurry. The organics are then transferred to a pre-tank depending on the characteristics of each feedstock.

From our pre-tanks, we mix the organics with **MICROBES** into our

large digester tanks. Materials are continually mixed and kept at a constant temperature to keep the microbes inside happily digesting.

Natural gas is created from the process, rising to the top of the

tanks. The **NATURAL GAS** is then pumped out of the tank and sent to a gas filtration skid to be filtered. This gas helps power our operations or gets sent directly into the grid, replacing fossil fuel-derived gas.

The solids left in the tank are de-watered to produce **DIGESTATE**, a nutrient-rich compost like product enabling sustainable agriculture. Any leftover water is recycled or filtered in our on-site waste water treatment facility.



Electricity



Hydrogen



CHP