

U.S. Department of Energy

WATER RESOURCE RECOVERY PRIZE

Genifuel Corporation
Submission Summary Slides



U.S. DEPARTMENT OF ENERGY

Genifuel Hydrothermal Processing

Solves Three Problems At Once® (Waste, Energy, Water)

Solids Management is 60% of utility operating cost

Genifuel converts solids to renewable fuels and clean water.



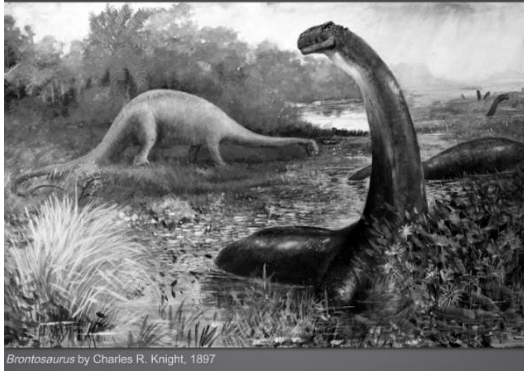
**Biocrude is refined for
diesel, gasoline, jet fuel**

**Renewable Natural Gas
feeds into pipeline**



- **Genifuel team includes two refineries and the #1 U.S. gas utility**
- **Genifuel's addressable market is app. \$250 billion**

The Technology Is Based on Temperature, Pressure, and Water



**Same process as
fossil fuels—
but in 30 minutes,
not millions of years**



Genifuel System in Operation Since 2016

Process developed over 30 years by the US Dept. of Energy at
Pacific Northwest National Laboratory—
Licensed to Genifuel and used along with Genifuel's own IP

Works With All Kinds of Wastes



Wastewater Solids



**Drink and Food
Processing**



Animal Waste



Chemical

**...But focus is on wastewater solids, because
Genifuel Hydrothermal Processing
eliminates the solids, which is 60% of utility
Opex, and destroys difficult compounds such as
pharmaceuticals, pesticides, and PFAS**

Current Wastewater Projects



**Metro Vancouver
Vancouver, BC
2-3 DMTPD* (Pilot)**



**Central Contra Costa
Martinez, CA
2 DMTPD* (Pilot)**



**Anacortes Plant
Anacortes, WA
1.5 DMTPD*
(Commercial)**

*DMTPD =Dry Metric Tons Per Day

The Genifuel Team

US Department of Energy
California Energy Commission
Pacific Northwest National Laboratory
The Water Research Foundation
Merrick & Company
Central Contra Costa Sanitary District
The Southern California Gas Company
MicroBio Engineering
Kern Oil and Refining Company
Zeton Inc.
Metro Vancouver
Brown and Caldwell
Black & Veatch
Bay Area Air Quality Management District

Competitive Landscape

Incumbent technology = Anaerobic Digestion

Metric	Genifuel Technology
Footprint	Genifuel HTP is <50% of AD size
GHG Reduction	Genifuel HTP reduces GHG 3X as much as AD
OpEx Reduction	Genifuel HTP is <60% of AD cost

HTP completely eliminates waste and is cost-competitive

Genifuel Key Advantages--Summary

- **Completely eliminates organic wastewater solids**
- **Lifetime cost app. 60% of Anaerobic Digestion**
- **Produces renewable fuels with federal and state incentives**
- **Low OpEx- Fully automated with modern controls**
- **Factory-built to precise standards**
- **Highly scalable plus modular expansion**
- **Compact systems save valuable space on site**
- **Eliminates difficult compounds, including PFAS**

Contact

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Thank You!