

Sagamihara Biogas Power Plant Introduction



<Our Activities >

Each day at the Sagamihara Biogas Power facility, we process 50 tons of liquid food waste through methane fermentation creating an electrical output of 528kW (equivalent to approximately 1000 households) from our conversion generator. We then sell the electricity by way of the feed-in tariff system.

Furthermore, the byproducts resulting from the fermentation process are used to produce nutrient rich agricultural fertilizers.

In collaboration with our neighboring facility “Japan Food Ecology Center”, which recycles food waste for the purpose of producing high quality livestock feed, we are continually extending our cascade recycling* and letting nothing go to waste!

*Cascade recycling refers to our initiative of selecting the appropriate method of reuse for varying types of waste material at each stage of the production process.



Sagamihara Biogas Power Details

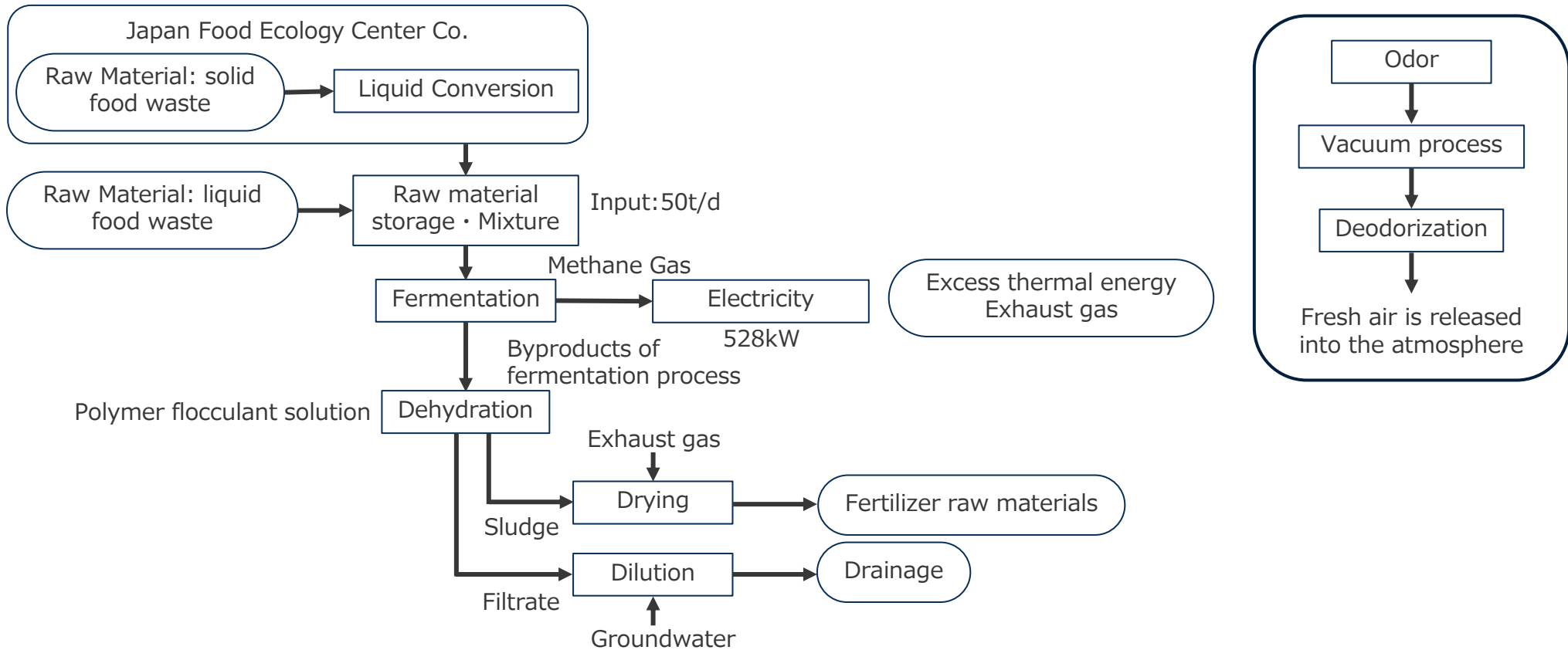
Company Details

Company Name	Sagamihara Biogas Power Co. Ltd.
Headquarters	1-16-14 Tanashioda, Chuouku, Sagamihara City TEL:042-711-8461 Fax:042-711-8462
CEO	Koichi Takahashi
Established	August 31st, 2021
Capital Value	100 million yen (JPY)
Primary Operations	Power Generation, waste treatment and reuse
Shareholders	Japan Food Ecology Center,inc. AlternaFeed,inc. Japan Investment Advisor Co., Ltd. Ishihara Techno Corp. Odakyu Electric Railway Co., Ltd. Institute for the Promotion of Green Finance

Facility Details

Facility name	Sagamihara Biogas Power – Tana Power Plant
Address	1-10215-4-1Tanashioda, Chuouku, Sagamihara City
Premesis Area	2127m ² (Industrial area only)
Certifications and permits	Renewable Energy Business Certification :528kW Industrial Waste Processing and Disposal License :fermentation facility 50t/day (acid · alkali · sludge)
Number of employees	5
Buisness days	Everyday 8 : 00 – 5 : 00 (JST)
Primary equipment	Facility building (total floor area 500m ²) Tanker truck (40t capacity) Raw material storage tank x6 (50t capacity) Methane fermentation tank x2 (1568m ³ capacity) 528 kW Generator (chemical to electric conversion) Sludge dehydrator (2700 ℓ /h) Sludge dryer x2 (250kg/h) Deodorizing machine

Process Overview



Reception of raw materials

After solid food waste and surplus is delivered to Japan Food Ecology Center, the material suitable for conversion into livestock feed is processed as such and sent to contracted pig farmers. Any unsuitable materials are used for methane fermentation at the neighboring Sagami-hara Biogas Power facility.

Generation of power

At the Sagami-hara Biogas Power facility, the materials unsuitable for feed production are pumped into digestion tanks kept at 37-40°C to maintain ideal conditions for methane-producing bacteria. After 60 days of decomposition, methane gas is extracted and piped into an electric conversion generator yielding electricity and heat. The heat is used to heat the digestion tanks and for the dehydration of sludge while the electricity generated is boosted by a transformer and sold.

Production of fertilizers

The byproduct fluids of the methane fermentation process are collected and dehydrated. Any undecomposed organic material is separated as sludge and dried for use as an agricultural fertilizer while any filtrates extracted are diluted and discharged into the sewer.

Cascade recycling

