

Biogas is a dynamic zero-waste energy source!



The generated biogas can be converted into electricity and fed into electric grids.



Biogas can also generate heat through steam.



The methane in generated biogas energy can be further upgraded to biomethane, a green alternative to fuel.



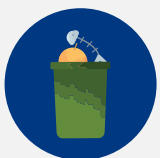
The leftover substrate can be utilized as fertilizer for crops.

Types of feedstock

Feedstock is the bio waste that is processed in digesters and converted into biogas.



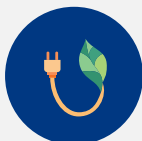
**Animal
by-products**



**Biodegradable
waste**



**Industrial
waste**



**Energy
crops**



**Vegetable
by-products**

**FOR MORE
INFORMATION
ON BIOGAS,
CONTACT US.
WE CAN GET YOU
CONNECTED.**



**BIOGAS:
WASTE TO ENERGY**

info@gpcci.org
+63 (2) 8519 8110
8F Doehle Haus Manila
30-38 Sen. Gil Puyat Avenue,
Brgy. San Isidro, Makati City



co-financed by:
KFW DEG



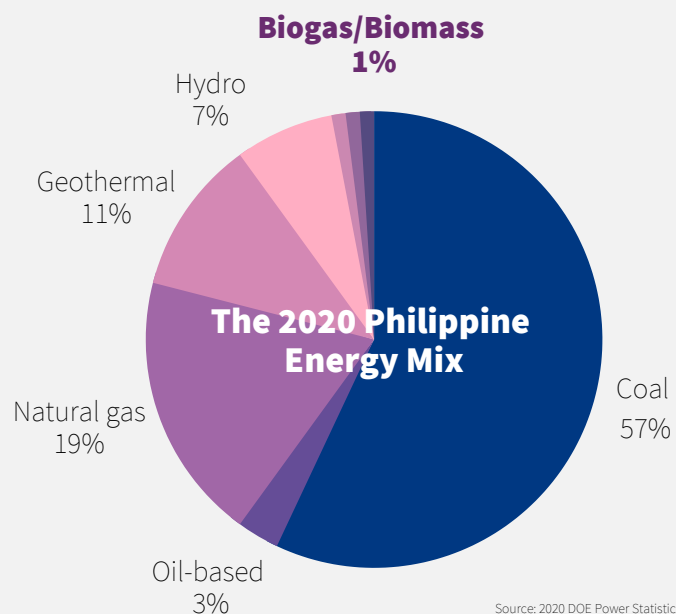
Biogas in the Philippines

Since 2016, the Department of Energy (DOE) has been committed to lessening the Philippines' dependence on fossil fuels.

In compliance with the provisions of the Biofuel Act of 2006, the DOE is working to expand biofuel's contribution to the Philippine energy mix through its Biofuels Roadmap 2020-2040.

The Department of Science and Technology (DOST) has been promoting biogas technologies throughout the Philippines for more than 20 years, mainly focusing on dome type digesters that can convert wastes from piggeries and poultry farms. DOST's Industrial Technology Development Institute (ITDI), on the other hand, has been promoting Portable Biogas Digesters to process smaller waste amounts, especially from Material Recovery Facilities in Metro Manila.

But despite the huge potential of biogas as a renewable energy source, biofuels accounted for only 1% of the Philippines' energy mix in 2020.

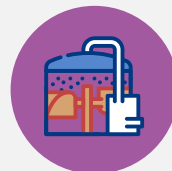


How do biogas plants work?



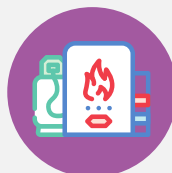
Substrates are stored in a reception area.

The substrate is fed to an airtight tank called a digester.



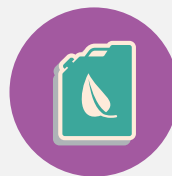
Microorganisms break down the substrate as it ferments during anaerobic digestion.

Biogas is injected into a gas pipeline or is used to generate heat or electricity.



The generated biogas can be upgraded to biomethane for fuel.

The residual organic matter, the digestate, can be used as fertilizer.



Biogas advantages



Sustainable waste management



Storable and flexible



Diversifies the country's energy mix



Good for the economy



Reduces methane emissions

Germany advances biogas

Germany is the leading biogas producer in Europe. 63% of the more than 18,000 biogas plants in Europe are located in Germany.

German biogas technology has been developed since the 1970s, making Germany a leading country for biogas research and development.



The GBA is a network of biogas technology manufacturers, companies, and researchers in Germany. The association conducts seminars and training for biogas plant operators.



The IBBK provides consultations and trainings to biogas plant operators and conducts studies on biogas technology.



Lipp is a steel tank construction specialist that provides system solutions to store solid, liquid, or gaseous materials. In the Philippines, Lipp products are made available through METpower Venture Partners, a subsidiary of the Metro Pacific Investments Corporation.



GPCCI is the official representation of German businesses in the Philippines and promotes bilateral trade and market entry activities.