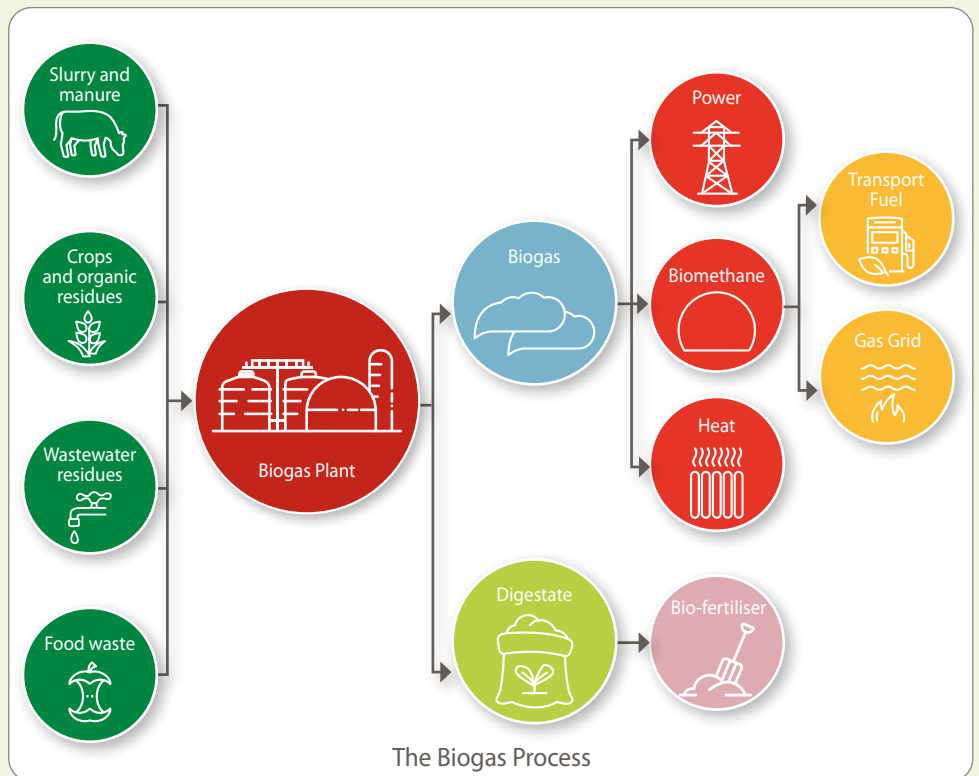


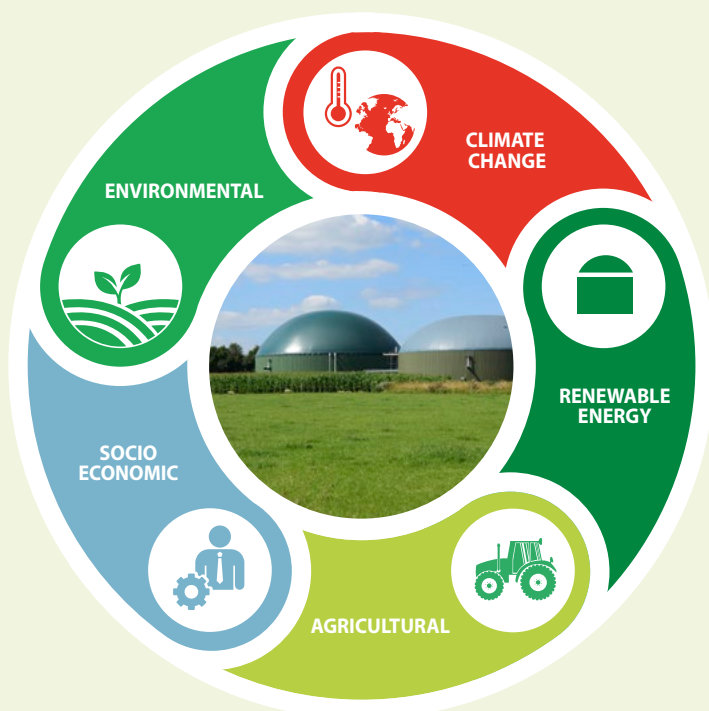
Biogas is produced from the recycling of organic material by microbes in the absence of oxygen using Anaerobic Digestion technology

Biogas Explained

Biogas is made by naturally occurring microbes called methanogens. They are found in the lower digestive tract of animals and also in humans. In a biogas plant, the feedstocks are placed inside sealed vessels where the methanogens feed on and break down organic materials in a warm sealed environment. The feedstocks are organic materials including food waste, animal manures, grass and other crops. The feedstocks are converted into renewable biogas and a bio-fertiliser called digestate. Biogas is mainly methane and carbon dioxide. The biogas produced can run an engine in a generator or vehicle, it can be used for heating, or it can be injected into the gas grid as biomethane. The bio-fertiliser recycles the nutrients and replaces artificial fertilisers for use in farming, horticulture or even in your garden.



Biogas Benefits



- Biogas is a renewable fuel produced by recycling waste biomass streams.
- The process recycles waste into renewable energy and digestate - a valuable and sustainable source of organic nutrients for agriculture and horticulture.
- The energy produced can be upgraded, compressed, injected and stored in the existing gas pipeline infrastructure.
- Biogas can be used for heating, electricity generation and transport fuel.
- Biogas production helps capture emissions that would occur if the source feedstocks are left to decay in an open air environment. It also helps with the diversion of organic material from landfill.
- The generation of biogas from local sources helps reduce reliance on imported fossil fuels and drives economic growth and development in rural areas.



IrBEA's Mission

To mobilise a biogas industry in the short term by setting out the clear policy decisions and actions required to realise the potential which exists for a Irish biogas industry.

IrBEA's Vision

Biogas produced using Anaerobic Digestion technology should be at the core of Ireland's future energy mix. A biogas support will be required for this to happen. The industry should be mobilised on a phased basis. The development of an industry will result in organic waste being converted to energy and bio-fertiliser. Moving to renewable gas will empower communities, farmers and industry and will help to create a smarter energy future.

Biogas plants deployed at different scales

Details	Farm Based Biogas Plants	Medium / Large Scale Biogas Plants
Size*	Dependent on farm size	Depending on feedstock available but generally above 500kWe
Location	On-farm: Complimenting existing farming or business enterprise.	Can be a Co-operative style plant centrally located within a catchment area or a plant developed by a private enterprise.
Farmers/ Business Role	To supply feedstock and operate the plant to compliment the existing farm enterprise.	To provide feedstock to plant operated by Co-op or private enterprise on an industrial site.
Feedstock Supply	Available on the onsite with little to no import requirements.	Sourced from many farmers and feedstock suppliers within the catchment area of the plant.
Types of Feedstock	Silage, Slurry, animal bedding, crop residues, horticultural residues etc all generated on site.	Silage, Slurry, animal bedding, crop residues, horticultural residues, municipal waste, food waste, brown bin waste, food processing residues.
Energy Output	Satisfies energy demand on farm or in the immediate vicinity.	Biogas output can be transmitted to a gas network or used to generate electricity.
Support Required	Capital grant aid required to offset construction costs or other support required for financial feasibility.	Biogas support payment required per unit of gas output.

* As defined and determined by categorisation in the Animal By Products (ABP) Regulations. A Type 9 Biogas plant is a farm based plant. There are a number of other Type plants in the Regulation at Medium to Large scale depending on the feedstocks imported and utilised in the biogas plant.