

UK's First 'Poo Bus' Goes into Service

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The 40-seat "Bio-Bus" runs on biomethane gas generated through the treatment of sewage and food waste.

The UK's first bus powered entirely by human and food waste has gone into service between Bristol and Bath.

The 40-seat "Bio-Bus" runs on biomethane gas generated through the treatment of sewage and food waste.

The eco-friendly vehicle can travel up to 300km (186 miles) on one tank of gas, which takes the annual waste of about five people to produce.

It is run by tour operator Bath Bus Company and will shuttle people between Bristol Airport and Bath city centre.

The biomethane gas is generated at Bristol sewage treatment works in Avonmouth, which is run by GENeco, a subsidiary of Wessex Water.

GENeco general manager Mohammed Saddiq said: "Gas-powered vehicles have an important role to play in improving air quality in UK cities but the Bio-Bus goes further than that and is actually powered by people living in the local area, including quite possibly those on the bus itself."

How do you power a bus with waste?

- A single passenger's annual food and sewage waste would fuel the Bio-Bus for 37 miles (60km)
- Its combustion engine is similar in design to diesel equivalents in conventional buses
- Compressed gas is stored in dome-like tanks on the roof of the Bio-Bus

- The gas is generated through anaerobic digestion - where oxygen starved bacteria breaks down biodegradable material to produce methane-rich biogas
- To power a vehicle, the biogas undergoes "upgrading", where carbon dioxide is removed and propane added
- Impurities are removed to produce virtually odour free emissions
- Compared to conventional diesel vehicles, up to 30% less carbon dioxide is emitted

Green capital

The service from the airport to Bath carries about 10,000 passengers each month.

Bath Bus Company's Collin Field, said: "With so much attention being directed towards improving air quality generally, the public reaction to the appearance of this bus on a service between a world heritage city and an airport will further focus on the potential for this particular fuel."

He said the bus was being launched at a very "appropriate" time, as Bristol is to become the European Green Capital next year.

Bristol sewage treatment works processes around 75 million cubic metres of sewage waste and 35,000 tonnes of food waste each year.

A total of 17 million cubic metres of biomethane, enough to power 8,300 homes, is generated annually at the plant through a process known as anaerobic digestion.
