

Using the Fatbergs

ISCC Sustainability Conference
2018



ARGENT ENERGY



2005 Start biodiesel production in Scotland
- all biodiesel made from tallow and wastes



New refinery & terminal (2015) near Liverpool.
€120 m investment (Swire)



R&D laboratories for waste to energy technologies



230 employees



150 million litres/year of biodiesel production capacity

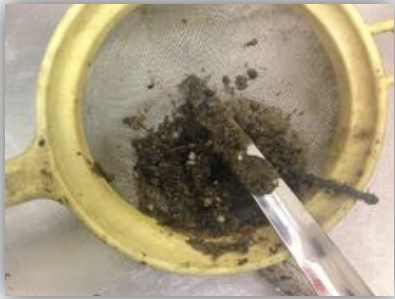
Argent Energy: Why FOG?



Golf Championship in St Andrews; Summer 2011.



Sewer pumping station choked.
Flooding in the town...



Scottish Water contacted Argent with a sample

R&D laboratory conducted tests

Discovered usable oil content
but high free fatty acid (FFA) content

“Fatbergs”



- <http://www.bbc.co.uk/programmes/p01z4n26>

Handling FOG



Incentives to continue?

“VW, BMW and Mercedes tested dirty diesels on monkeys caged in gas chambers” (Fox News)

“Petrol and diesel car BAN: You could face £130 fine for driving in these areas from March” (Express 29/1/18)

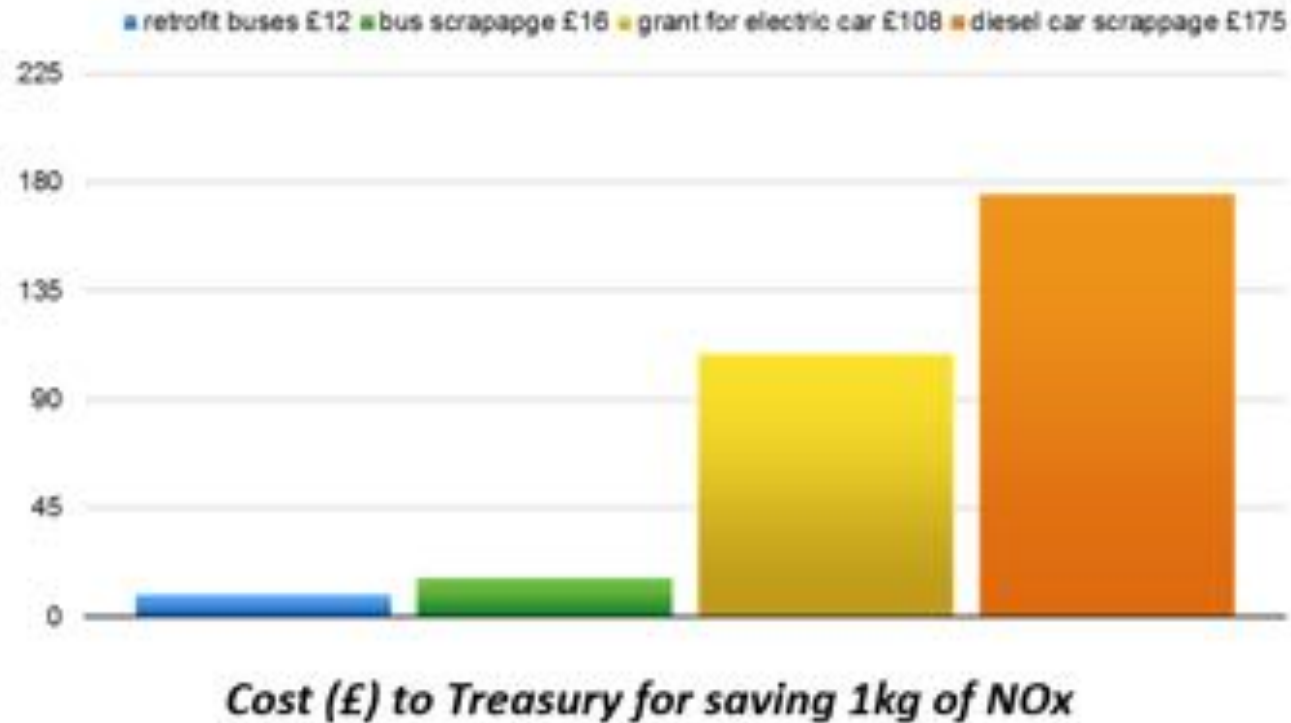
“Balearics to BAN all tourists from entering islands with diesel and petrol cars as government plans tough new stance against CO2 emissions” (Daily Mail 1/2/18)

“German carmakers on tenterhooks ahead of diesel ban ruling” (Euractiv 19/2/18)

BUT, in reality.....

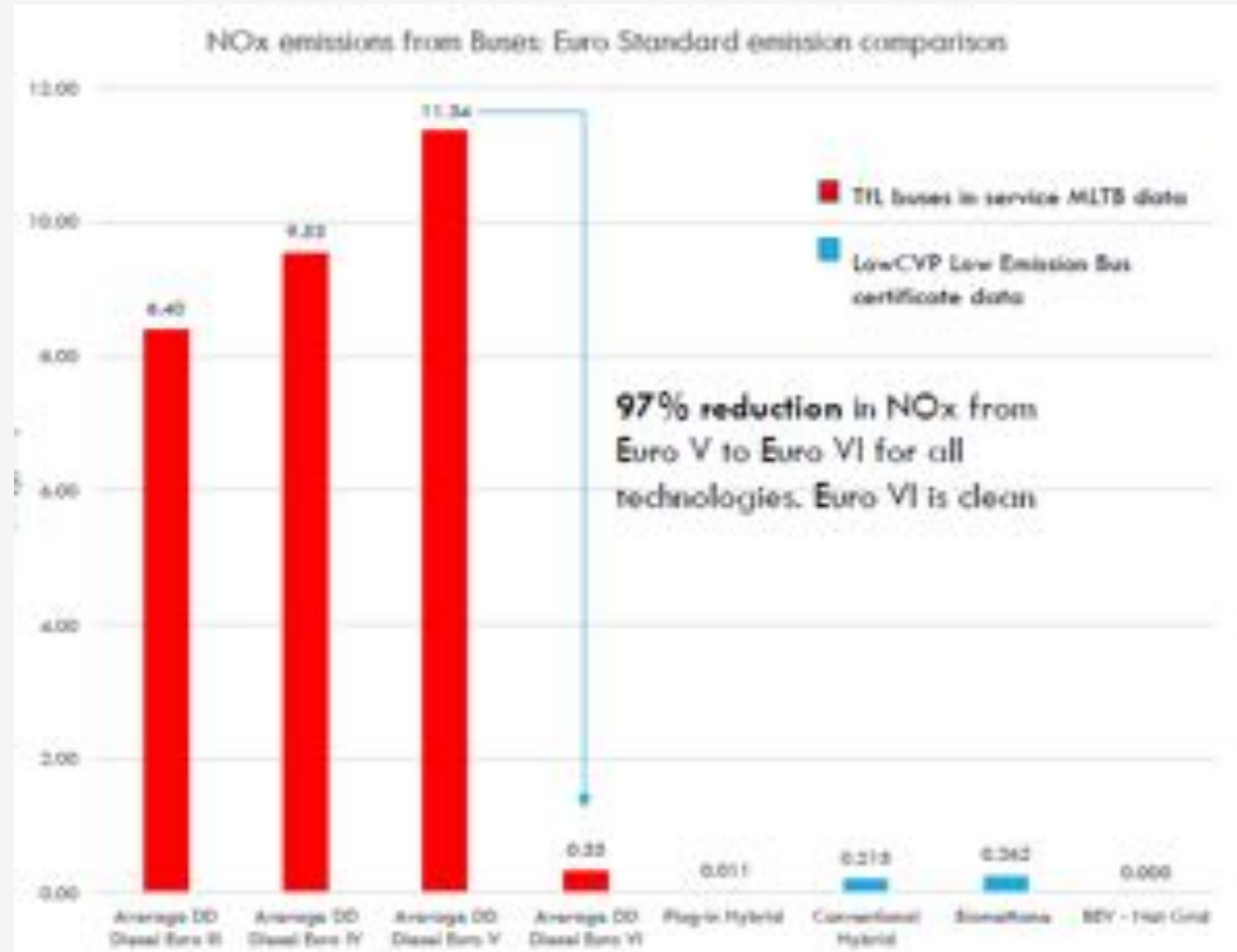
Diesel can be GOOD

Buses must be an integral part of the solution to our air quality challenge



Incentives to continue?

- Tailpipe Emissions and Euro V1 Engines
 - 95% - 98% cleaner than Euro V on **Nox**
 - Retrofits improve old buses from 32,000 (mg/km) to 64
 - VW Passat conversion from 1000 to 69 (Euro VI max is 100)



Incentives to continue?

“With effect from 1 January 2021, Member States shall require fuel suppliers to include a minimum share of energy from advanced biofuels and other biofuels and biogas produced from feedstock listed in Annex IX” (EU Commission 2016)

“...biofuels and biogas produced from feedstock included in part B of Annex IX shall be limited to 1.7%” (EU Commission 2016)

RED II should incentivise research into and growing the use of wastes for biofuels. 2 lessons from the last 10 years of RED:

- 1. Incentive required for the more expensive waste biofuels**
- 2. Must allow quick inclusion of new waste feedstocks (and corresponding robust verification under voluntary schemes)**

A green Argent Energy tanker truck is parked on the side of a road. The truck is facing right and has "Argent Energy" written on its side. The background shows a scenic view of a coastline with green fields and a blue sea under a clear sky. The sun is setting, creating a warm glow.

Thank You

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