



Presentation to UK Biomethane Day

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REA Biogas
Sector Group

Renewable Energy Assurance Limited



Tracks grid injected biomethane to provide certainty to the end user.

End-of-waste certification for outputs from Anaerobic Digestion
PAS110 & ADQP

OFT-approved Consumer Code for installers of small-scale renewable generators

Green Deal Oversight Body responsible for Code of Practice



Scheme outline

- Tracks commercial transactions of biomethane through the supply chain
- Each unit of green gas injected into the network displaces the need for a unit of conventional gas
- Ensures that there is no double-counting or double-selling of the green gas
- Producers, network operators, suppliers and consumers can all participate on a voluntary basis.



Scheme outline (con't)

- Not-for-profit scheme
- Annual membership and gas volume fees
- Does not confer any additional 'value' on the green gas included in the scheme
- Oversight Panel runs the scheme made up of participants
- Independently audited to ensure accuracy.



Participants

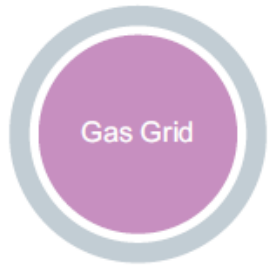
- National Grid
- British Gas
- E.ON
- Biogroup
- Milton Keynes Council
- Thames Water
- CNG Services



Process

- Gas producers register gas injected each month
- Gas producers register sales to suppliers
- Electronic Unique Identifiers for each kWh of gas
- Gas suppliers confirm gas purchases
- Gas suppliers register sales to consumers
- System generates certificates for consumers with relevant range of Unique Identifiers
- System retires Unique Identifiers for gas sold.



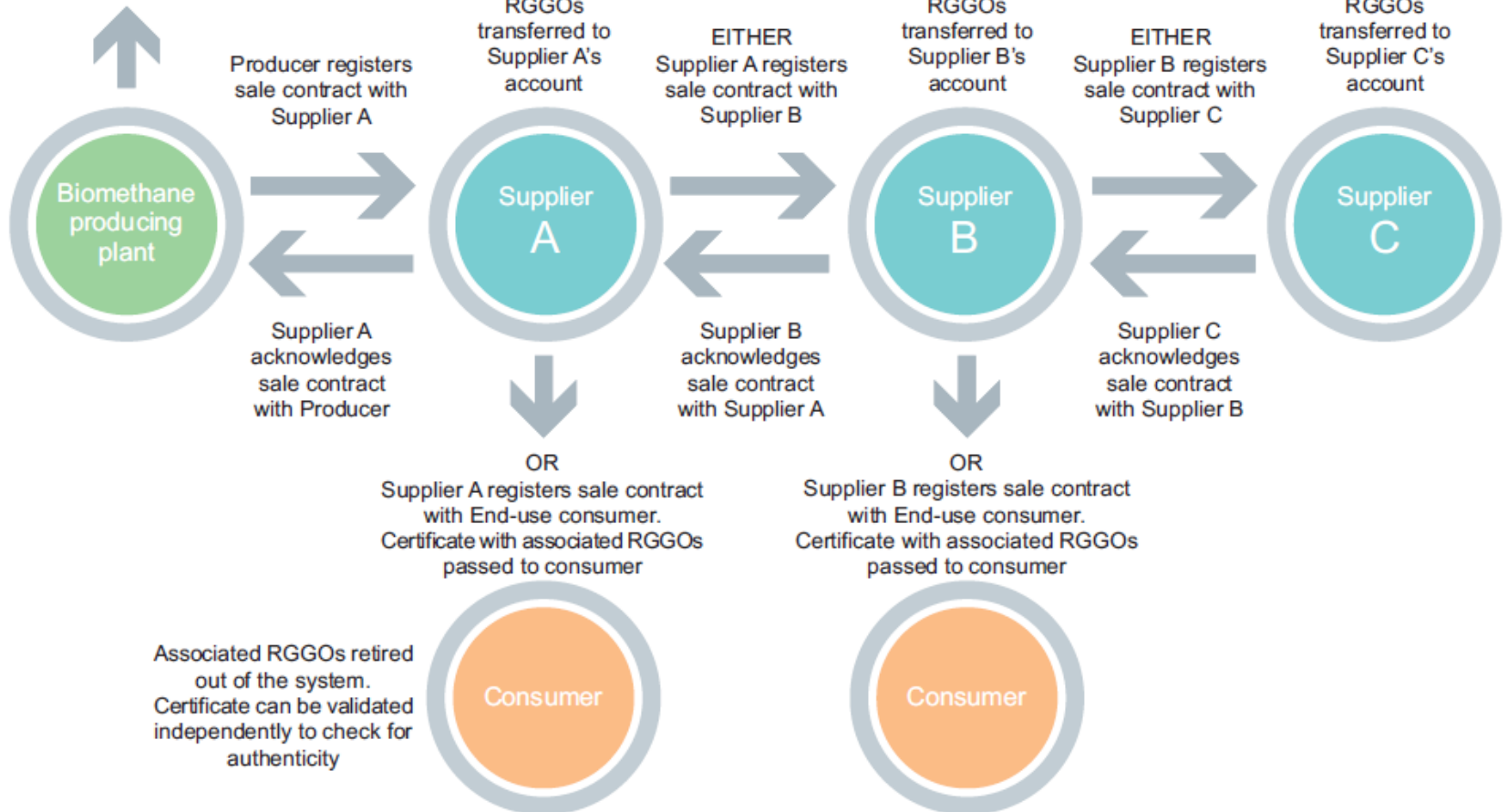


GreenGas

CERTIFICATION SCHEME

Flow Diagram

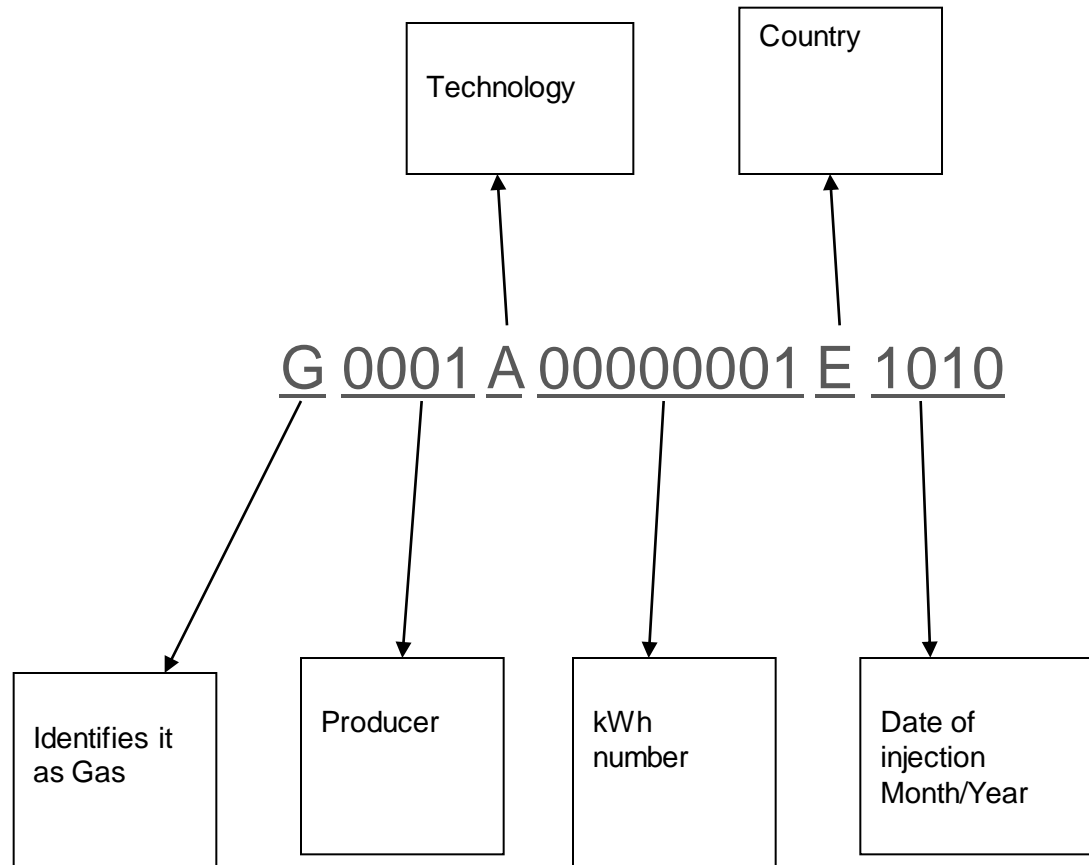
Meter registers each kWh gas injected into grid.
RGGOs created for each kWh gas injected



Unique identifiers

- Technology by which gas produced (AD, sewage, landfill, gasification)
- Month and year in which gas produced (MM/YY)
- Country in which gas was produced (England, Wales, Scotland, N. Ireland)
- Registered green gas producer
- kWh number, part of a sequence or range relating to that producer's green gas.

Format of unique identifiers



GreenGas

CERTIFICATION SCHEME

Information

Date Created: 23/02/2011 13:22:42
Date Printed: 28/02/2011 11:05:22

Certificate issued to: David

Renewable Gas Guarantees of Origin: **G0001BS00000001E0111 to G0001BS00000100E0111**

Injection Date: January 2011
Technology/Feedstock: Biogas from domestic waste water treatment
Injection Location: England
Amount: 100 kWh
Certificate Pin Number: a1ebfb
Green Gas Producer: **Test Producer Admin**
test, test, England
Green Gas Supplier: **Test Supplier Stu**
test, test, England

- Range of RGGOs
- Total amount kWh
- Country
- Technology (waste water, AD, landfill)
- Feedstock (food, crop, slurries etc.)
- Producer
- Supplier
- CO2 emissions
- Pin Code

CO² emissions

You have bought 100 kWh of green gas. This has displaced 100 kWh of natural gas, a fossil fuel, and has thereby avoided 18.4 kg of CO² emissions.

About this Certificate

This certificate guarantees that, for the gas you've bought, an equivalent amount of green gas was injected into the grid by the producer named above by the process named above. This certificate guarantees that this green gas has not been sold to any other consumer, and that it is registered as yours. You can check that the certificate is genuine and that the gas is registered in your name here: <http://www.green-gas.org.uk/certificates/validate>

The Government has provided the producer with a financial incentive to produce gas and inject it into the grid. This is to help meet its renewable energy targets. No additional green gas has been produced as a result of you buying this gas, and it's important you don't make any such claims on the strength of this certificate. If you need to provide proof that you've bought this gas, for example for regulatory or commercial purposes, you must back up your statement with the relevant RGGOs listed on the certificate.

It is an offence to provide a Green Gas Certificate on false pretences with a view to giving some-one the impression that they have bought authentic green gas when they have not.

Security

- high-grade encryption (AES-128 128 bit)
- Digital Certificates are 128 bit AES encrypted
- checksums and unique identifiers
- All data is stored in four geographic locations
- Validity of certificates confirmed online
- Servers sit behind multiple firewalls
- Snapshot data is kept at 3 hour intervals Primary servers are managed by AWS and SAV London Ltd
- IP addresses are explicitly tracked including injection, sale & certification
- All data is stored in accordance with the DP Act

Renewable Heat Incentive

The RHI came into force 30.11.2011.

Section 42 refers to biomethane injected to grid:

- pays 6.7 p/kWh additional to the value of gas
- gas injected to grid is measured net of:
 - propane, if added
 - gas used onsite in the process
- fixed for 20 years, index-linked
- designed to give broadly similar project returns to gas used for electricity generation.

Reports generated

- Total amount of gas injected by producer
- Total amount of gas by technology
- Total amount of gas by country
- Total purchased by supplier
- Total sold by supplier
- Total purchased by consumer

For more information

Please visit:

<http://www.greengas.org.uk>

or contact us on:

info@greengas.org.uk

