



APPENDIX A

Scottish Biogas Survey Questions



Scottish Biogas Survey

1 Contact Details

Name	Telephone
Email	Title
Company Name	Company postcode
Site Name	Site postcode

2 Facility Details (circle)

Merchant site: Managing inputs from external sites (not your own). May include food waste (e.g from households and/or businesses)	YES/NO
Industrial Site: Processing food and/or drink processing material from your own site only	YES/NO
On-farm Site: Processing only agricultural materials including manures, purpose grown crops, crop residues etc.	YES/NO
Mixed site: Where there is a combination of two or more of the above categories	YES/NO

3 Site Status

When did the site become operational (mm/yy) _____

Which of the following did the site operate under during 2017? Circle:

None / PPC Permit / Waste Management Licence / ABP Registered? /
Waste Management Exemption: Paragraph number _____

4 Throughput

How much feedstock went into your AD site in 2017 (tonnes)?

How much food waste was put through in 2017 (tonnes)?

If you were running at full capacity how much could you feed in each year? (tonnes)?

Do you have a maximum permitted throughput capacity (circle) YES/NO

If yes, What was your permitted throughput capacity during 2017 (tonnes)

5 Employment

How many people do you employ on this plant? _____
(FTEs - assumed that a working week is 35 hours)

6 Pasteurisation

Was pasteurisation being used in 2017? YES/NO

If yes, Did the pasteurisation take place before or after digestion? _____

What pasteurisation process was used (circle)?

70°C 1 hour / 60°C 48 hours, other (specify) _____



What was the installed heat capacity in 2017 (in KW)? _____

How much heat was used on site (please fill in table below)?

Uses of heat	kWhours of heat use (or % if preferred)	% exported off site
Heating the biogas plant		
Space heating for commercial/ industrial use (e.g. drying wood)		
Space heating for residential use		
Other - Please specify		

Do any of the above uses involve heat storage (circle)? YES/NO

10 Electricity Generation

What was the installed electrical capacity in 2017 (kW)? _____

How much electricity was generated in 2017 (kWhours)? _____

What was the electricity used for?:

Uses of electricity	kWhours of electricity used (or % if preferred)
The biogas plant	
Commercial/industrial use	
Residential use	
Electrolysis	
Exported to grid	
Other - Please specify	

11 Type of Outputs (Digestate)

Is your digestate PAS110 certified (please circle):

Not applicable Y/N

Whole Y/N Liquor Y/N Fibre Y/N

Used under exemption rather than PAS 110 Y/N

What was the quantity of whole digestate produced in 2017? (tonnes) _____

Is the whole digestate processed further after digestion? Y/N (if No go to question 12)

If yes, please circle:

Separated into fibre and liquor fractions

Screening to remove contaminants

Composted

Pelletised

Other - specify _____



Describe the quantities of separated digestate fractions

Fibre (tonnes) _____

Liquor (tonnes) _____

How was the digestate separated into fibre and liquor (circle all of those that apply)?

Centrifuged Belt press Screen press
Screw press Other _____

12 Uses of Digestate and Market Status

How much of the digestate that you produced in 2017 went to each of the following:

	Whole digestate Tonnes (or %)	Digestate fibre Tonnes (or %)	Digestate liquor Tonnes (or %)
Agriculture / field horticulture: Own land			
Agriculture / field horticulture: 3rd party land			
Landscaping - ornamental			
Gardening products eg fertiliser			
Land restoration (e.g. brownfield sites)			
Landfill e.g. restoration			
Disposal to sea outflow			
Disposal to sewer			
Fuel - energy recovery			
Other - please list			

Do you save money each year by using your digestate rather than buying in fertiliser (circle)? YES/NO
If yes, do you know how much you save (£)? _____

Do you use all of your digestate on your own farm (circle)? YES/NO

If no, do you sell your digestate (circle)? YES/NO

If yes, how much do you receive / tonne (£) _____

Do you as the AD site provide a spreading service or does the end user do this (circle)?

13 Your AD System type (circle)

How many stages? One-stage Two-stage Other (please specify) _____

Flow: Continuous or Batch

Moisture: Wet system Dry system

What temperature range do you operate at (°C)?: _____

14 Contamination

Do you have any issues with contamination of your feedstock (circle)? YES/NO

If no please go to question 15.

How many loads did you reject because of contamination in 2017?

Number of loads _____ % of incoming loads _____



How many loads should you have rejected because of contamination in 2017? _____

What is the weight/volume of a typical load? _____

Which of the following processes did you use in 2017 to remove contamination (circle)?

Indicate whether pre or post sanitisation

Manual de-packaging

Mechanical de-packaging

Screening (trommels etc)

Handpicking

Floor picking

Magnetic separation

Windsifting

Other – specify _____

What is the cause of the contamination?

Mixed plastic bags, liners or film (circle) YES/NO

Others (please list e.g. rigid plastics etc): _____

What was the average level of contamination per tonne of feedstock in 2017 (circle)?

Less than 1%

1% to 5%

6% to 10%

Over 10%

15 General Questions

How much of a concern is physical contamination in feedstock for this site? (1 v. low, 5 v. high) _____

How much of a concern is offsite odour for this site? (1 v. low, 5 v. high) _____

Are there any threats you see to your business / the sector?

What are the key opportunities in terms of support that your business or the sector would benefit from?

Any other comments



Would you like us to email you a copy of the final report (circle)? YES / NO