

Supplementary Material

An Investigation of the Potential Adoption of Anaerobic Digestion for Energy Production in Irish Farms

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Appendix A



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Date:

A Chara,

We are examining the potential uptake of anaerobic digestion plants on farms in Ireland. The following survey should take less than 5 minutes to complete. All answers will be treated in the strictest confidence, and no individual will be identified. If you choose to participate in this project, please answer all questions and return the completed questionnaire.

If you are not satisfied with the manner in which this study is being conducted, you may report (anonymously if you so choose) any complaints to bartlett.john@mail.itsligo.ie.

Thank you for your feedback!

Is mise le meas,

Seán O'Connor

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1. What county is your farm located? _____

2. How many animals do you have on your farm?

	Answer
Dairy cattle	
Beef cattle	
Sheep	
Pigs	
Goats	
Hens	
Other – Please say	

3. What area of land do you have? Answer in hectares or acres.

	Hectares	Acres
Total area farmed		
Area owner-occupied		
Area rented		
Cereals area		
Other arable crops area		
Grassland area		
Permanent pasture area		
Rough grazing area		

4. What is your age? Please tick the appropriate box (✓).

- ☐ Less than 35 years
☐ 35-44 years
☐ 45-54 years
☐ 55-64 years
☐ 65 years and over

5. What is your educational level? Please tick the appropriate box (✓).

- ☐ Primary or below
☐ Secondary (including Group/International/Junior Certificate)
☐ Third Level College/Institution
☐ Postgraduate Degree
☐ Apprenticeships
☐ Did not undertake formal study

6. Have you any of the following renewable technologies on your farm?

	Tick all that apply (✓)	Please indicate year commis- sioned
CHP (combined heat and power) unit		
Anaerobic digestion		
Biomass boiler		
Solar panels		
Wind turbine		
Woodchip/pellet production		
Other – Please specify		

If yes, please tick why this renewable technology was chosen?

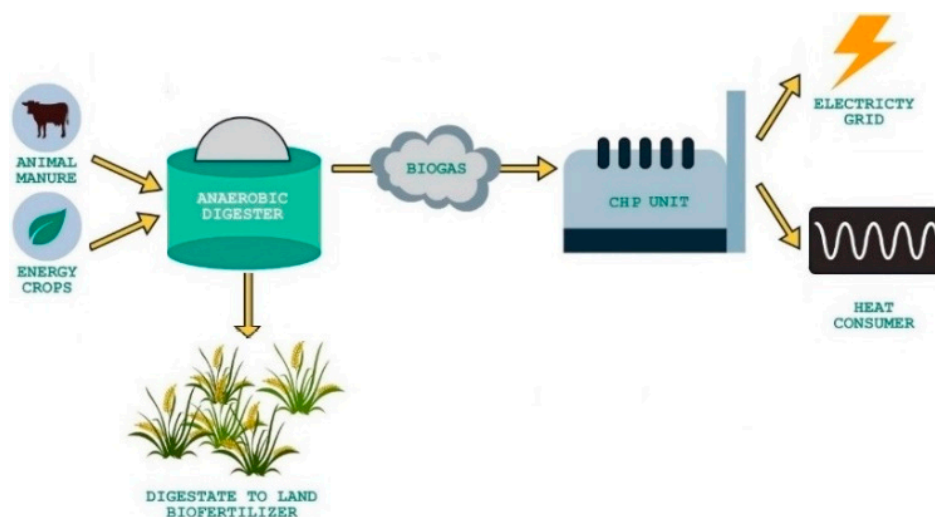
- | | |
|---|---|
| <input type="checkbox"/> To exploit government grants/subsidies | <input type="checkbox"/> To add another source of revenue |
| <input type="checkbox"/> To support government targets | <input type="checkbox"/> To reduce farm business costs |
| <input type="checkbox"/> To reduce greenhouse gas emissions | <input type="checkbox"/> To dispose of farm waste |
| <input type="checkbox"/> Other motivations – Please say | |

7. Would you consider installing an Anaerobic Digestion plant on your farm in the next five years?

- ☐ Yes
☐ No
☐ Maybe

Explanation of Anaerobic Digestion

- Anaerobic digestion is a renewable energy technology, which can be used on farms to convert manure and energy crops into biogas, which can be then used to produce electricity and heat.
- The benefits include an additional source of revenue, and lowering greenhouse gas emissions.
- An example an anaerobic digestion plant installed in Dendauw in West Flanders (Belgium) had an investment of €95,000. With subsidies the plant achieved a payback period of 7 to 10 years. This farm contained 70 productive dairy cows, 50 heifers, and roughly 100 hens.



What are the main reasons for your answer?

8. Would you consider taking part in a co-operative scheme where 2 to 5 local farmers' feed slurry into an anaerobic digestion plant?

- ☐ Yes
☐ No
☐ Maybe

9. Anaerobic digestion systems require some training to operate. If you were to install a plant, what operating structure do you ideally see?

Please tick (✓)
Self-owned and operated
Self-owned and third-party operated (third party supplies expertise to operate plant)
Third-party owned and self-operate (you will run the system)
Third-party owned and operated (farmer supplies feedstock only)

10. Tick the possible benefits of installing an anaerobic digestion plant in terms of importance to you.

	Very important	Important	No opinion	Unimportant
To improve farm profitability				
To reduce greenhouse gas emissions				
To add another revenue stream				
To reduce farm pollution				
To reduce farm business costs				
Other reasons – Please specify				

11. Tick the possible obstacles to installing an anaerobic digestion plant in terms of importance.

	Strongly agree	Agree	No Opinion	Disagree	Strongly Disagree
I do not have enough information					
Investment costs are too high					
It would be too difficult to operate					
The financial return seem uncertain					
I do not believe the technology has been proven					
My rental agreement would not allow it					
It would be difficult to gain planning permission					
Other					

Any other comments?

Thank you for your participation!