NNFCC
The Bioeconomy Consultants

Anaerobic digestion deployment in the United Kingdom

Third Annual Report

April 2016

Anaerobic Digestion deployment in the United Kingdom

There are now over 300 operational AD plants in the UK outside of the sewage treatment sector, with a further 450 projects currently under development. NNFCC monitors AD activity and has published the second annual report on AD Deployment in the UK. The report provides a comprehensive regional breakdown of sector development in Scotland, Wales, Northern Ireland and the 10 regions of England, giving detailed information on feedstock requirements, installed capacity and output type (combined heat & power or biomethane injection) for every project.

To purchase the report or for further information about this and NNFCC's related services, visit our website or e-mail: enquiries@nnfcc.co.uk.

About NNFCC

NNFCC is a specialist Bioeconomy consultancy based in York, UK. Established by the UK Government in 2003 as the National Non-Food Crops Centre, NNFCC has grown to become a leading UK consultancy focused on understanding biorenewable markets and technologies.

NNFCC offer global companies pioneering consultancy services and act as an advisor to UK Government, providing technical, market and policy expertise on the conversion of biomass and waste to bioenergy, biofuels and biobased products.

Anaerobic digestion is a key focus area for the NNFCC. Activities include contributions to development and delivery of the UK Anaerobic Digestion Strategy and Action Plan, maintenance of the Official Information Portal on Anaerobic Digestion at **www.biogas-info.co.uk** and regular provision of AD market and technical reports to Government and commercial clients.

NNFCC

NNFCC is a leading international consultancy with expertise on the conversion of biomass to bioenergy, biofuels and bio-based products.

NNFCC, Biocentre,
York Science Park,
Innovation Way,
Heslington, York,
YO10 5DG.

Phone: +44 (0)1904 435182
Fax: +44 (0)1904 435345
E: enquiries@nnfcc.co.uk
Web: www.nnfcc.co.uk

Contents

Figures

Tables

1 Introduction

This report outlines current deployment in the UK anaerobic digestion (AD) industry, giving a comprehensive regional breakdown of the sector in Scotland, Wales, Northern Ireland and 10 regions of England (the nine NUTS1 regions and the Isle of Wight).

The report provides detailed information on installed capacity, feedstock requirements and estimated cropping area for all anaerobic digestion plants contained with the NNFCC anaerobic digestion deployment database, which tracks projects from the first public announcement through to operation.

The database is updated on a monthly basis and compiled using a number of data sources including: press announcements; regular discussions with technology providers, suppliers, investors and developers; the Department of Energy and Climate Change (DECC) Renewable Energy Planning Database (REPD)[1], Planning Portals and Council planning registers; Ofgem statistics; and the Official Information Portal on AD, Biogas Map[2]. Combined, these data sources provide an accurate insight into the various types, scales and status of AD projects in the UK[3].

Transparency is a critical factor when evaluating data robustness. This is especially important when using such data to validate strategic decision-making processes. By pulling information from primary resources and providing a plant-by-plant breakdown, this report provides detailed and trustworthy data with complete transparency throughout. We expect that this report will be of great value to developers, investors and policymakers alike in understanding the current state-of-play of the UK AD industry.

The scope of this report extends to both the agricultural and non-sewage waste AD sectors and includes both combined heat & power and biomethane-to-grid projects. However, sewage waste treatment AD plants are not included. On account of the short lead times for development of AD projects, future deployment estimates in this report only extend to 2019.

Data for this report was finalised on 15th March 2016 and so any developments in the UK AD sector made after this date will not be included.

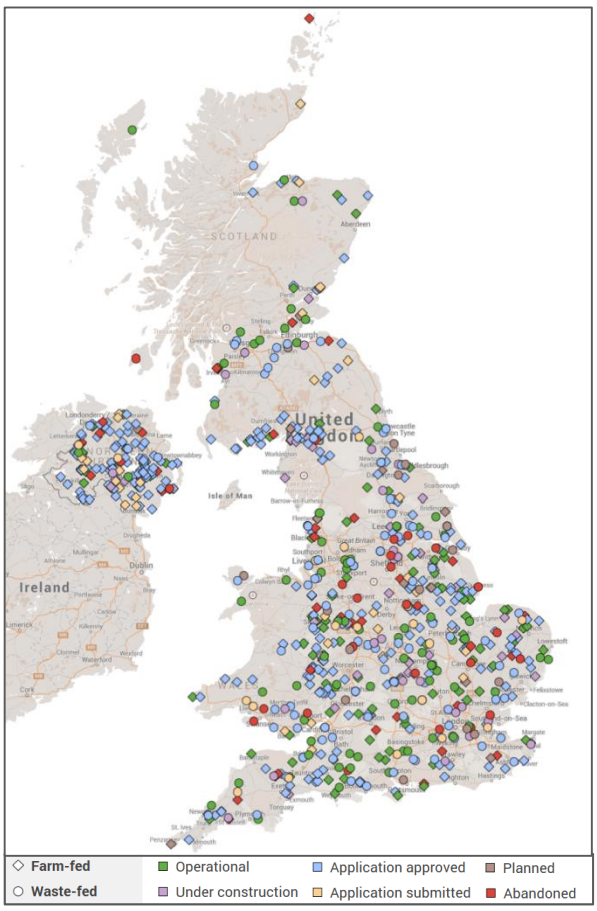
[1] DECC. Renewable energy planning database.

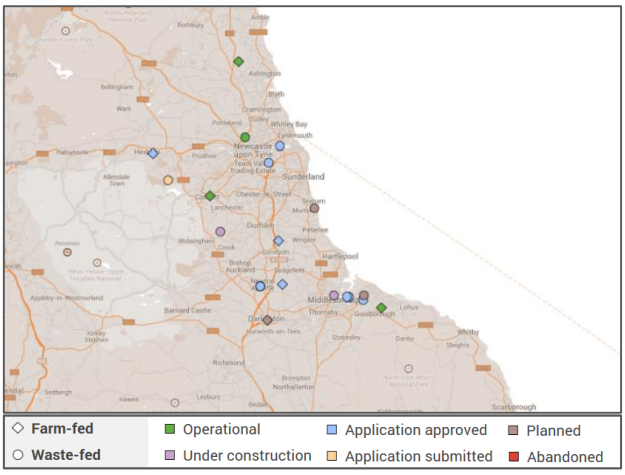
[2] http://www.biogas-info.co.uk/index.php/ad-map.html

[3] For rare instances where information is not available on feedstock requirements, and where appropriate, NNFCC estimates are instead provided ensuring careful consideration is made of the individual plant site, location, size and type.

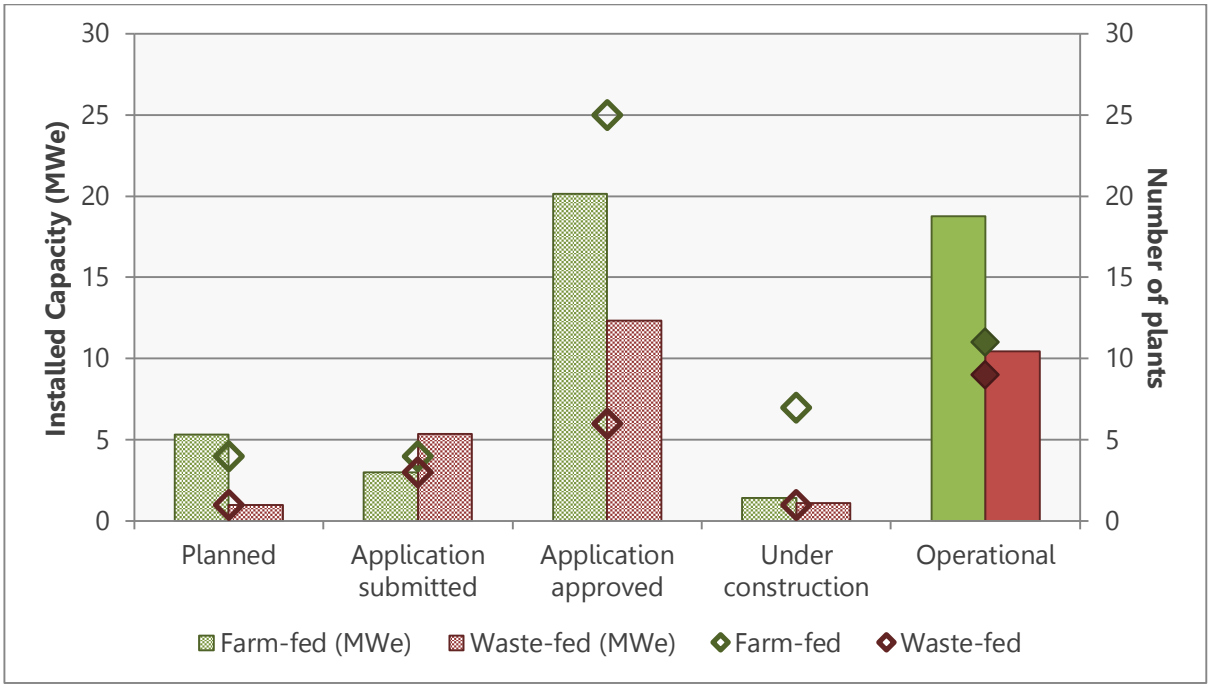
Example Content

Maps of AD projects in the United Kingdom





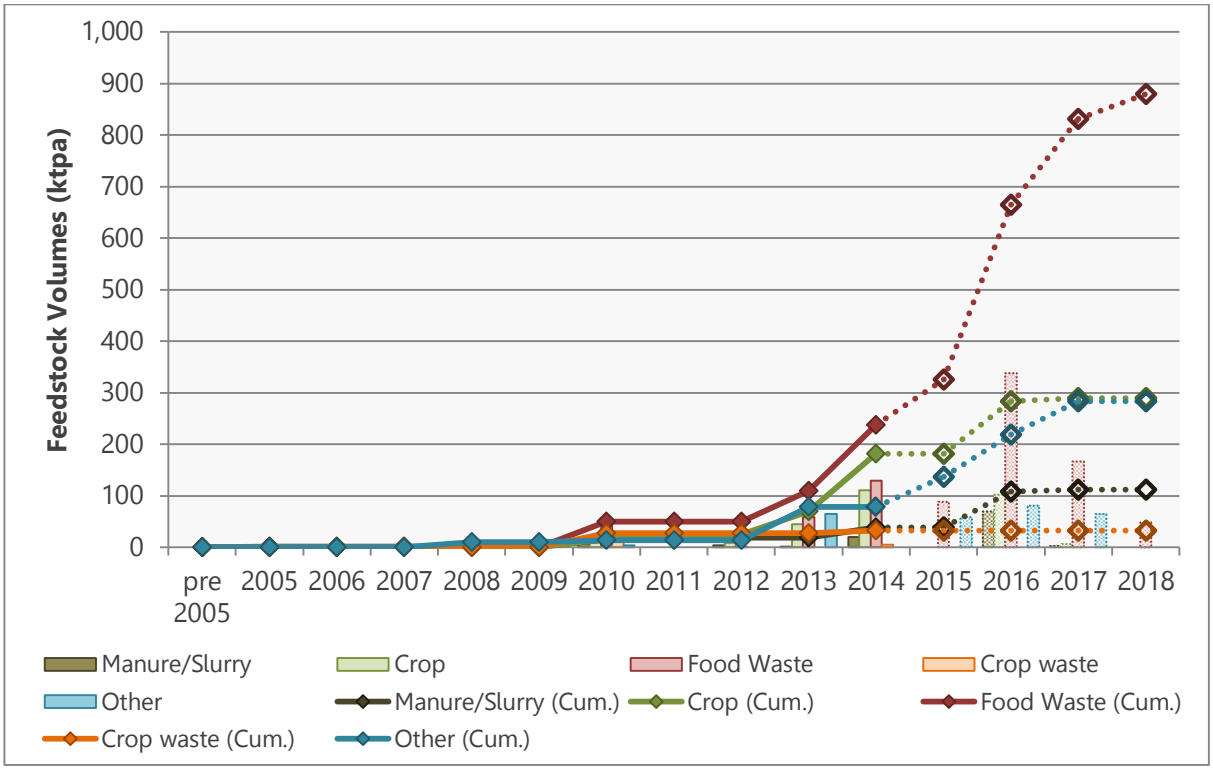
Development status of AD projects in XXXXX



Example Content

Example Content

Feedstock requirements for AD projects in XXXXX



Feedstock requirements for AD projects in XXXXX

Developer	Site name	Capacity (kWe)	Output	Status	Completion	Type	Feedstock	Feedstock demand (tpa)					
								Total	Manure/ Slurry	Crop	Food Waste	Crop Waste	Other Waste
						County							
SSE	XXXX	2200	CHP	Operational	2011	Waste-fed	Energy crops & food waste	**75,000**	-	35,000	40,000	-	-
W Parker & Son	XXXX	0	Heat only	Operational	2005	Farm-fed	cattle slurry & manure	**190**	190	-	-	-	-
D Finlay & Son	XXXX	25	CHP	Operational	2012	Farm-fed	Cattle slurry & grass silage	**2,500**	2,000	500	-	-	-
Viridor	XXXX	4000	CHP	Under construction	2015	Waste-fed	Food waste	**100,000**	-	-	100,000	-	-
Mr Wallace	XXXX	124	CHP	Application approved	2016	Farm-fed	Cattle slurry	**3,000**	3,000	-	-	-	-
Renewables Unlimited	XXXX	360	CHP	Planned	2017	Farm-fed	Cattle slurry, silage, molasses & glycerol	**5,000**	3,000	1,000	-	-	1,000
						County							
TEG Biogas	XXXX	700	CHP	Operational	2012	Waste-fed	Food waste & animal processing wastes	**16,000**	-	-	12,800	-	3,200
Alauna Renewable Energy	XXXX	1400	CHP	Under construction	2015	Waste-fed	Food waste	**30,000**	-	-	30,000	-	-
TD Forster & Son	XXXX	2222	BtG & CHP	Under construction	2015	Farm-fed	Rye & energy beet	**40,000**	-	40,000	-	-	-
Drysdale Ltd	XXXX	1000	CHP	Application approved	2016	Farm-fed	Energy beet, rye & vegetable waste	**22,000**	-	15,000	-	7,000	-
S Mitchell	XXXX	50	CHP	Application approved	2016	Farm-fed	Cattle slurry	**1,000**	1,000	-	-	-	-
Fairlie Farming Company	XXXX	500	CHP	Application submitted	2016	Farm-fed	Silage & energy crops	**8,000**	-	8,000	-	-	-
Westray Biogas	XXXX	6	CHP	Decommissioned	Abandoned	Farm-fed	Beef cattle manure, grass silage	**2,500**	1,750	750	-	-	-