The UK Biomass Directory 2012

Second Edition, December 2011

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PREFACE

In June 2010, Enagri published its first Directory of UK biomass generation plants, an in depth and unique report which was well received by the industry. It remains the first and only commercial attempt to comprehensively list all major projects to produce electricity from biomass and waste in the United Kingdom, from planned projects, all the way through to operation stations.

This summer we produced a similar work for the anaerobic digestion sector, again the first time that such an undertaking had been attempted in the UK. Now we are proud to present the second edition of our Biomass guide. This has taken the feedback we received both last year and from the UK Biogas Directory, including improved mapping, more graphs and contact details for the companies included in this volume.

As with the Biogas Directory, we have not included references in the main tables of this directory, purely on the basis of space available. When discussing the Biogas Directory we received a lot of interest in being able to access the data in real time, via an online database or similar. This is something that we hope to implement over the coming year for both Biomass Power and Anaerobic Digestion. Watch this space!

Richard Crowhurst

Managing Director
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November 2011

INTRODUCTION: OVERVIEW OF UK BIOMASS

It has been eighteen months since Enagri published its first ever Biomass Directory and, perversely it is possibly to say both that there have been a number of developments, but also very little progress in the development of UK biomass generation capacity.

A brief comparison of the project lists in this volume and the 2010 Directory will reveal that a number of new developments have been announced or proposed, and also that a number of larger project have received consent under Section 36 of the Electricity Act. However, it is also noticeable how many projects which have been proposed for several years have yet to reach financial close or to begin construction.

UK Bioenergy Policy

The reason for this lack of progress has been the political uncertainty and policy vacuum following the election. The Government's proposals under the scheduled Banding Review of the Renewables Obligation have been delayed until their eventual publication in October. Given the current fiscal environment, the headline rates of support under the RO for biomass appear to be as good as could be hoped for. However, some of the actual wording of the consultation document was less equivocal in its support for biomass generation than the actual proposed rates of support. The sudden political preference for the conversion of coal-fired plant to biomass has also raised some questions for developers and potential investors. While it is undeniably a cheaper option for the treasury, there are a number of un-resolved issues. 20-40 year old converted plant is likely to have a lower overall efficiency than new dedicated plants and, in terms of energy security, coal-fired generation may well have a long term strategic role to play in the UK, even if this is at odds with current climate change policy.

The other key source of uncertainty which has prevented projects from 'getting away' is are the proposals for Energy Market Reform (EMR), which were first published by the Government in December last year. While many of the aspirations of the policy are laudable, the proposals were weak on detail and Enagri understands that, much to the distress of the Department for Energy and Climate Change (DECC), the majority of responses, particularly those from renewable generators, expressed a preference to keep the status quo and to persist with the Renewables Obligation.

As it is, the industry will have to face a Feed-in-Tariff with a Contract for Difference element, although how this will work is still unclear. Given the number of u-turns and cuts to the domestic and small scale FIT over recent months, it is no wonder that the finance community has lost any confidence or trust it ever had in the ability of the Government to deliver a coherent policy for energy infrastructure development.

Another example of this policy uncertainty is that, despite consulting on biomass under the RO Banding Review, the industry is also still awaiting publication of the latest UK Biomass Strategy, which had originally been due at the end of the summer but now looks unlikely to appear before the New Year. All of these documents and delays do nothing but create investor uncertainty and a hiatus in plant development, as can be seen when comparing the graphs on pages 15 and 16 with those from 2 years ago.

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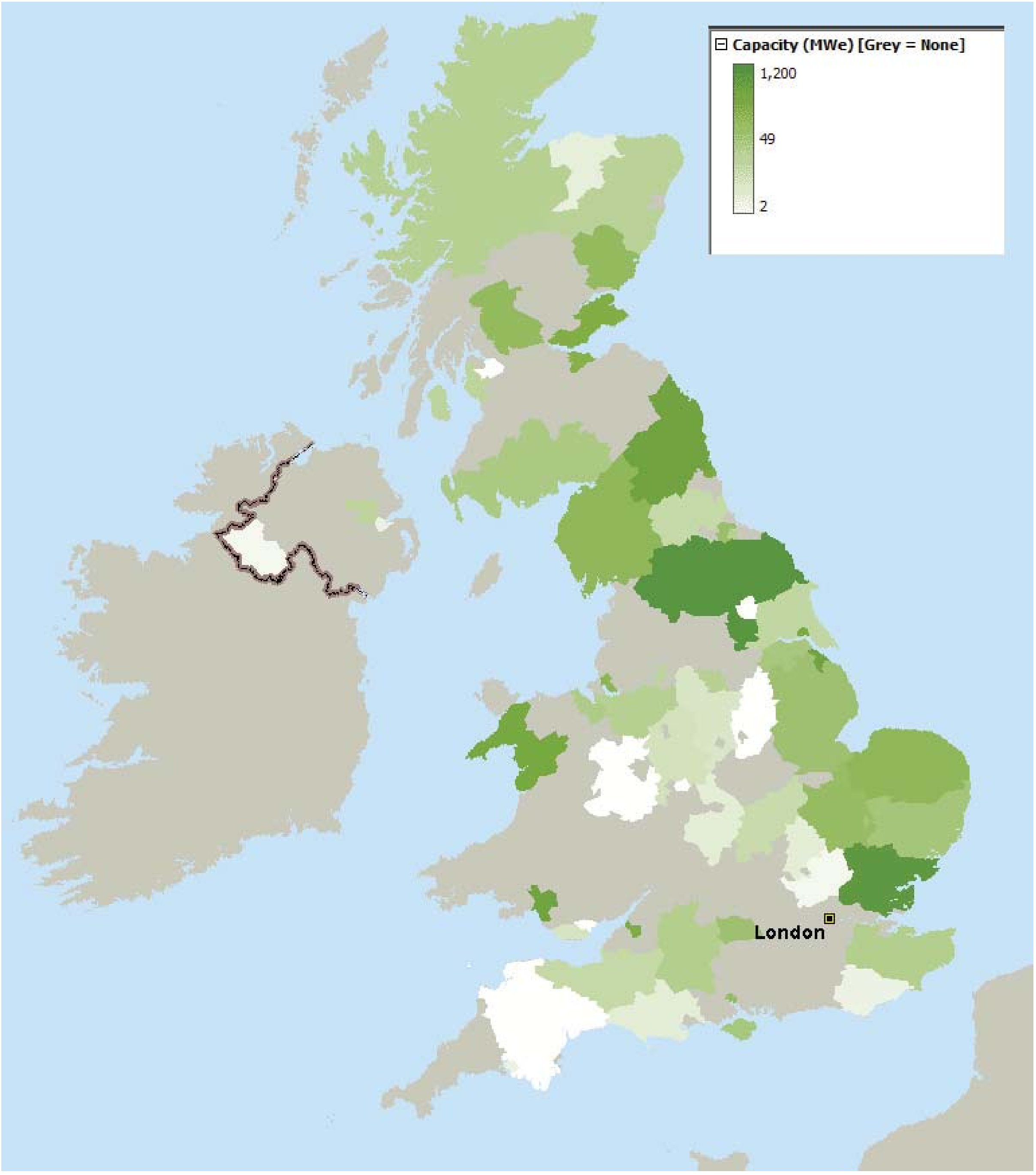
MAP 1: Distribution of Dedicated Biomass Plants by Capacity (MW)



Data is indicative only, as not all plants have published capacity figures.

Alexandra Dock Biomass Project

Status	ANNOUNCED	**Enagri Rating:**	**3**
Net Capacity	150 * MWe unless specified otherwise.		
To power	25000 houses and/or		
Operation Date	c. 2015		
Technology Type	Combustion		

Fuel Supply

Feedstock	*t/yr*	*Comments*
Wood		A mix of domestically sourced and imported wood chips, pellets or briquettes with 80% coming via the port.

Companies Involved in this Project	Developer	Renewable Energy Systems Ltd

Planning Information	Ref.: . Applicant: , Planning Authority: . Pre-Consent Comments: ; Post-Consent Comments: . Date Submitted: , Date Determined: .
Site Description	Wharf in Alexandra Dock, currently used for coal storage.
Site Owner	Peel Ports
Dev. Cost	£300,000,000 ☐ Estimated (if ticked)
Funding	
History	October 2010:- Plans announced
CHP details	☐
Accreditation	
Address	Alexandra Dock, Branch No. 3, Port of Liverpool, Southport, Liverpool, L20 1
OS Grid Ref.	SJ 33x 95x
Project Website	http://www.alexandradockproject.co.uk/

According to the initial press release, the project will be 100 to 150MW in size depending on the outcome of the initial feasibility studies.

5.2 – INCLUDED ENERGY FROM WASTE PLANTS

This table lists all the EfW plants which are detailed in this edition of the directory. Plants are listed in alphabetical order, which is also how the main directory is laid out.

Scheme Name	County	Capacity (Mwe)
Allerton	North Yorkshire	
Allington (Kent Enviropwer)	Kent	44
Ardley	Oxfordshire	24
Avonmouth (Cyclamax)	Bristol	12
Avonmouth EfW	Bristol	30
Baldovie Waste to Energy	Dundee	10
Barry	Vale of Glamorgan	
Barry (Energos)	Vale of Glamorgan	6
Belvedere	Greater London	66
Billingham	Stockton-on-Tees	30
Binn Farm	Perth and Kinross	5
Bradford	Bradford	
Bradford (Energos)	Bradford	10
Brent Cross	Greater London	17
Cardiff	Cardiff	30
Chineham (Integra North)	Hampshire	8
Coatbridge	North Lanarkshire	
Corby	Northamptonshire	8
Cornwall Energy Recovery Centre	Cornwall	18
Coventry	Coventry	5
Crymlyn Burrows	Swansea	4
Cutacre	Bolton	
Dagenham	Essex	2
Dargavel	Dumfries and Galloway	6
Devonport	Plymouth	22
Doncaster (Energos)	Doncaster	10
Doncaster Energy from Waste	Doncaster	30
Drumshangie	North Lanarkshire	24
Dudley	Dudley	7
Edmonton (London Eco Park)	Greater London	55
Elgin	Moray	4
EnviRecover	Worcestershire	16
Fawley	Southampton	9
Fleetwood	Lancashire	10
Four Ashes	Wolverhampton	23
Great Blakenham	Suffolk	20
Grimsby	North East Lincolnshire	3

APPENDIX ONE: OPERATORS & DEVELOPERS

This section provides a summary of the biomass and EfW plant developers, operators and technology providers listed in this report. **Note that some projects may have more than one developer and that the developer and operator for a particular project may be different**.

DEVELOPERS AND OPERATORS OF UK BIOMASS PLANTS	
No. of Schemes	Operator / Developer
13	Bioflame Ltd
6	Thames Water
5	Energy Power Resources Limited
4	RWE npower
4	SITA UK
4	Forth Energy
4	Purepower Engineering
4	Eco2
3	Helius Energy plc
3	Drax Power Ltd
3	E.ON UK
3	Scottish & Southern Energy
3	BioGenpower
3	UPM Caledonnian
3	Kedco plc
3	Viridor
3	Integrated Energy Systems International Limited
2	Covanta Energy
2	RWE npower Renewables
2	Heineken UK
2	Rocpower
2	Invicta New Park Limited
2	Rio Tinto Alcan
2	Renewable Energy Systems Ltd
2	O-Gen UK
2	Peterborough Renewable Energy Limited (PREL)
2	Nottinghamshire Recycling Ltd
2	Peel Energy
2	PDM Group
2	MGT Power
2	EDF Energy
2	Ecopellets
2	Dalkia Bioenergy
2	Northern Energy Developments Ltd
2	2OC
2	Shore Energy
2	Sunrise Renewables Limited