



RENEWABLES
EAST

**EAST OF ENGLAND RENEWABLE ENERGY
STATISTICS
MARCH 2006**

Renewables East

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East of England Renewable Energy Statistics – March 2006

Summary: The East of England is committed to meeting 14% of its electricity consumption from renewable sources by 2010. Last September, Renewables East reported that the East of England had achieved 3.98% against that target. This has now risen to 4.5%.

The rise is due mainly to the construction of two Cambridgeshire wind-farms, Coldham Farm, NE of March and Glassmoor, south of Whittlesey. These 8-turbine wind projects contribute 28MW of new installed capacity. Five new landfill gas generators have also contributed some 20MW across the region.

The coming 12 months are likely to see 5 more onshore windfarms constructed in the region (see Table 7), some 74MW of wind power. Others are well advanced in their Environmental Impact Assessment and pre-application public consultation stages and are expected to come forward as planning applications shortly.

Offshore wind projects are developing at varying rates, generally slower than expected, but a surge in development activity is expected in 2009 and 2010

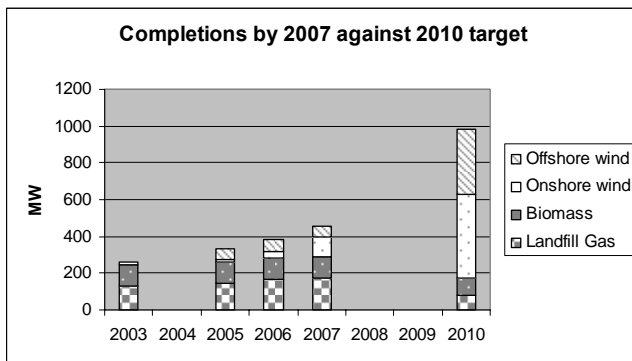


Fig 1: Showing the region's 2010 target, actual construction to date, and the amount of renewable electricity that can be expected to be in place by the end of 2007.

The East of England Renewables Target

1. The region's target for production of electricity from renewables as set out in the draft East of England Plan is as follows:

Table 1. East of England Regional target

2010 Excluding offshore wind	2010 Including offshore wind	2020 Excluding offshore wind	2020 Including offshore wind
10%	14%	17%	44%

Source: Table 9.2 East of England Plan. Reviewed renewable energy targets expressed as the percentage contribution of renewables to total electricity consumption in the East of England

2. In order to monitor progress towards achievement of this target, it is necessary for it to be expressed in terms of MW of installed capacity since data on new projects is normally available in this form from OFGEM and industry sources.
3. The study "Making Renewable Energy a Reality- Setting a Challenging Target for the East of England", produced in 2000 by ESD/ Global to Local and Tony Hams, expressed the target in GWhrs per year across each technology. This was converted to a MW target for each technology in a report to DTI and DTLR by Oxera Environmental in 2002.

Table 2. The 2010 regional target by technology

	2010 Target in GWh/yr	Equivalent in MW of installed capacity
Offshore wind	1300	371
Onshore wind	1700	647
Biomass	700	94
Landfill gas	600	76
Others	6	4
Total	4306	1192

Table 3. Installed capacity as at March 2006

	MW of installed capacity	MW target	%of technology target
Offshore wind	60	371	16%
Onshore wind	40	647	6%
Biomass	117	94	124%
Landfill gas	163	76	214%
Others	4	4	
Total	384	1192	32%

Sources: Renewables East (wind), DTI Energy Trends (biomass) and OFGEM for other technologies.

4. Progress against 14% target to date.

Taking the 1192MW in Table 2 as 14% of total consumption at 2010, total MW required to meet demand is 8514 MW. So the region has achieved 4.5%, against the 2010 target of 14%.

5. Sub-Regional Targets.

At present none of the formally adopted targets in Table 1 have been disaggregated into adopted sub-regional or county targets, (although the ESD/Hams report did include County targets expressed in GWh/yr). Data on projects generating electricity are collected by Government and by Renewables East. The latest figures enabling installed capacity by County (including their associated Unitaries) to be monitored are summarised in Table 4 and individually listed in Tables 7 and 8.

Table 4 Latest figures for installed generating capacity (MW) from renewables by County

	Cambs	Norfolk	Suffolk	Essex	Herts	Beds	Non county-specific	TOTAL
Offshore Wind							60.0	60.0
Onshore Wind	30.45	7.05	2.75	-	.225	-		40.475
Biomass	36.85	41.5	14.316	-	-	-	24.334	117
Others-Landfill gas	16.454	12.592	8.463	65.799	4.000	56.173		163.481
-sewage gas	.270	1.000	-	.270	1.480	.555		3.575
- PV	-	-	-	.003	-	-		.003
TOTAL								384.534

Sources: Renewables East for wind and OFGEM for other technologies.

6. Projects in the pipeline.

In preparing the table below an attempt has been made to identify and only include projects which are "live". Accordingly, small projects which received approval under round 1 of the Non Fossil Fuels Obligation (NOFFO) in the 1990's but which appear now to be dormant are not included. Also, projects which are undergoing their pre-planning application stages are not included. "In Planning" includes projects at appeal. "Planning" here refers only to the Town and Country Planning process. See para 7 and 8 for the alternative approval processes under s36 of the Electricity Act. The table shows that there continues to be a steady flow of projects coming forward in the East of England.

Table 5 Projects awaiting development

	Approved		In Planning	
	Projects	MW	Projects	MW
Onshore wind	8	88	5	83
Biomass	1	-	-	5.5
Landfill gas	9	32	5	4

Sources: Renewables East for wind and DTI RESTATS Planning database July 2005 for other technologies.

7. Other On-shore projects.

One project within the region is currently the subject of an application under s36 of the Electricity Act to the DTI. It is the Peterborough Renewable Energy Ltd project in Peterborough. This is for a 172MW Energy from Waste power station which will have energy crops as one of its feed stocks. A public inquiry will be held to examine the project, expected in 2007.

The 5.5Mw Banham Power Gasification Project for Attleborough, Norfolk received planning permission in October 2005.

8. Offshore Wind projects.

The following offshore projects have received either a lease or lease option from Crown Estates. They are all off the region's coast, but not all will land their power within the region and so contribute to the region's target. Issues such as grid connection and turbine availability and price are slowing the rate of progress off-shore, but recent work by the BWEA and Renewables East indicates that a surge of construction activity is expected during 2009 and 2010.

Table 6. Offshore wind projects.

Project	Location	MW	Developer	Current status.
Round One.				
Scroby Sands	Off Caister/Gt Yarmouth	60	E.ON UK	Operational
Cromer	Off Cromer	108	EDF Energy	TWA Order sought
Gunfleet Sands	Off Clacton	108	GE Wind Gunfleet Ltd	TWA Order sought. Const planned 2007
Round Two				
London Array	12m off Essex coast	1000	Shell WindEnergy/E.ON and Core	s36 application submitted June 05
Greater Gabbard	26m off Felixstowe	500	Airtricity-Fluor	Lease option agreement Dec 2003. s36/36a application made October 05
Gunfleet Sands 2	Off Clacton	64	GE Energy	Lease option agreement Dec 03
Sheringham Shoal	11m off Sheringham	315	Scira Offshore Energy Ltd	ditto
Dudgeon East	Off Cromer	300	Warwick Energy	ditto
Docking Shoal	Off Wells	500	Centrica	ditto
Race bank	Off Wells	500	Centrica	ditto

Table 7: East of England Wind Monitor

CAMBRIDGESHIRE					
Project	Capacity	Turbines	Council	Developer	Notes
BUILT					
Wood Green Animal Shelter, Kings Bush Farm, London Road, Godmanchester	.225 MW	1 Turbine Vestas	Huntingdon DC	Wood Green Enterprises Ltd	Built 1990
Abbey Produce (Ramsey) Ltd, (now G's Marketing) St Marys Road Ramsey	.225MW	1 Turbine Vestas	Huntingdon DC	Fivestone Ltd	Built 1993
Long Hill Rd, March.	2MW	1 Turbine RE Power	Fenland	Wind Prospect/ Snowmountain Ltd	Built 2004
Glassmoor Between Ponders Br & Ramsey Mereside	14MW	8 REpower Turbines @ 1.75MW	Fenland	Wind Prospect/EDF Energies Nouvelles	Built February/March 2006
Coldham Farm, NE of March	14MW	8 VestasTurbines @ 1.75MW	Fenland DC	CWS Coldham Estate, March.and Scottish Power	Built 2005
TOTAL	30.45MW	19 Turbines			
APPROVED					
French Fm, French drove, Thorney.	.45MW	2 Turbines @ .225	Peterborough	All Wind UK Ltd	Approved 1993. Renewed 1999. Technical start made on development
Stags Holt, Nr March	15.57MW	9 Turbines @ 1.75	Fenland	Eon Renewables	Approved May 02 Site works start Q3 2005. Completion expected mid 2007
Ranson Moor Fm Doddington, March, (2.5 km from Doddington)	5.25MW	3 Turbines@ 1.75 MW Vestas V66	Fenland	Fenpower Ltd (JV between local landowner and EcoGen)	Approved Dec 03 Construction start June 2006 Commissioning Spring 2007

Red Tile Farm NE of Warboys	3.5km	24MW	12 turbines @ 2MW each.	Hunts DC	Wind Prospect	Approved May 04 Commissioning mid-Summer 2006
Wryde Croft, off French Drove , Thorney		14MW	7 turbines @2MW each	Peterborough	R E S UK Ltd	Approved Nov 04 Planning conditions being addressed.
TOTAL		59.27MW	33 Turbines			
IN PLANNING						
Cambridge Services (A14) between Conington and Boxworth.		32MW	16 Turbines @ 2MW	South Cambs	Your Energy	Application August 04 Refused November 04 - Landscape effect, radar, highway safety, noise, wildlife. Public Inquiry Oct 2006.
NORFOLK						
BUILT						
Blood Hill , Collis Lane, West Somerton		2.25MW	10 Turbines @ .225MW each (Enercon E-66)	Gt Yarmouth BC	E-ON UK	Built Dec 1992
Ecotech Centre , Swaffham		1.5MW	1 Turbine @1.5 MW (Enercon)	Breckland DC	Ecotricity	Built Aug 1999
Blood Hill , West Somerton		1.5MW	1 Turbine @1.5 MW	Gt Yarmouth BC	Ecotricity	Built July 2000
Sporle Road, Swaffham		1.8MW	1 Turbine @1.8 MW (Enercon)	Breckland DC	Ecotricity	Built July 2003
Scroby Sands , 3km NE Gt Yarmouth		60MW	30 Turbines @2 MW each	Offshore	Powergen Renewables Offshore Wind Ltd (PROWL)	Built June - Aug 04
TOTAL		60 plus 7.05	30 plus 13			
APPROVED						
North Pickenham , Norfolk (just south east of Swaffham)		16MW	8 Turbines @2MW	Breckland DC	Enertrag UK	Approved July 04 Expected on site April 06 Commissioning Dec 2006
Cromer 6.5km off Foulness, Norfolk		120MW	30 Turbines	Offshore	Norfolk Offshore Wind/Enertrag	Consented Oct 03
IN PLANNING						
Wood Farm, Shipdham (south west of East Dereham)		3.6MW	2 Turbines@1.8MW	Breckland DC	Ecotricity	Refused December 04 - Aircraft safety. Inquiry held March 06
Guestwick nr Reepham		12MW	6 turbines @2MW	Broadland DC	Enertrag UK	Refused March 05 - Highway, landscape, aviation, noise. Inquiry held Jan 06. Outcome awaited.
SUFFOLK						
BUILT						
Ness Point, Lowestoft		2.75MW	1 Turbine @2.75MW	Waveney	SLP	Built December 04
APPROVED						
Ness Point , Lowestoft		.600 MW	1 Turbine @ 600KW	Waveney	Ecotricity	Approved on appeal December 02
Parham Airfield, nr Great Glemham, Marlesford & Parham		12MW	6 Turbines @2.0MW each	Suffolk Coastal	Saxon Windpower Ltd	Approved October 05. Pre- tendering March 06
ESSEX						
APPROVED						
Gunfleet Sands		108MW	30 Turbines	offshore	G E Gunfleet Ltd	Consented October 03
IN PLANNING						
Bradwell on Sea		1.5-2.5MW	10 Turbines	Maldon DC	n-power renewables	Application Feb 06 Currently being considered
HERTFORDSHIRE						
BUILT						
RES Headquarters, Kings Langley.		.225MW	1 Turbine	Three Rivers DC	Renewable Energy Systems Ltd	Built
BEDFORDSHIRE						
IN PLANNING						
Airfield Farm, Podington		20.7MW	9 Turbines	Bedford Borough Council	Nuon Renewables	Application October 05 Currently being considered.

Table 8: Non-Wind Generators accredited for the Renewables Obligation (RO) in the East of England

(Source: OFGEM: Last Update 06/04/2006)

Generating stations accredited with a DNC more than 50 kw					
	Generating Station Name	Total Installed Generating Capacity (MW)	Operator Company	Generator Address	Date Station Commissioned
Biomass > 50 kW					
	Elean Business Park*	36.85	EPR Ely Ltd	Elean Business Park, Sutton, Cambs	09/00
	Eye Power Station (Fibropower)	14.316	Fibropower Ltd	Oaksmere Business Park, Eye, Suffolk,	07/92
	Thetford Power Station	41.5	Fibrothetford Ltd, C/o Thetford Power Station	Two Mile Bottom, Thetford, Norfolk	01/98
	Total Biomass	92.666			
<p>*Estimation calculation: ROCs are only issued for the percentage of electricity generated from eligible renewable sources. This qualifying percentage changes on a monthly basis for each station. To calculate the "renewable capacity" (for the purpose of this spreadsheet only), the <u>max</u> monthly qualifying percentage for each station in the past year has been applied to the respective TIGC.</p>					
Landfill Gas >50 KW					
Cambridgeshire and Peterborough					
	Dogsthorpe	1.976	Shanks Chemical Services Ltd	Dogsthorpe Landfill Site, Welland Road, Peterborough, Cambs.	06/96
	Dogsthorpe 2 Generation	3.345	Waste Recycling Group	Welland Road, Dogsthorpe	08/05
	Godmanchester	2.166	Natural Power Ltd	Cow Lane, Godmanchester, Cambridgeshire	02/00
	Grunty Fen	.620	Waste Recycling Group	Pools Road, Witchford, Ely, Cambridgeshire	06/05
	March Landfill Gas Project	1.003	March Energy Ltd	March Landfill Site, Hundred Road, Cambridgeshire	12/00
	Milton Landfill	2.136	Waste Recycling Group	Butt Lane, Milton, Cambridge	05/93
	Milton Phase 2 Generation	2.128	Waste Recycling Group Plc	Milton Landfill Site, Butts Lane, Milton, Cambridge	07/04
	Station Farm Landfill	2.05	Natural Power Ltd	Brampton Road, Buckden, Huntingdon, Cambridge	05/89
	Warboys Power	1.030	Natural Power Ltd	Warboys Landfill Site, Puddock Hill, Station Road, Warboys, Cambridgeshire	06/96
	Total	16.454			
Norfolk					
	Attlebridge	1.2	United Utilities Green Energy Ltd	Attlebridge Landfill Site, Reepham Road, Attlebridge, Norwich	12/92
	Beetley Energy RO	1.024	Beetley Energy Limited	Beetley Landfill Site, Folly Lane, Beetley, Norfolk	10/04
	Blackborough End	1.888	Blackborough End Energy Ltd	Blackborough End Landfill Site, Mill Drove, Blackborough End, Kings Lynn, Norfolk	07/01
	Costessey Landfill Gas Project	.950	Combined Landfill Projects Ltd	Longwater Industrial Estate, Dereham Rd, Norwich	04/03
	Costessey 2 Landfill Power Generation	2.2	Costessey Energy Limited	Longwater Industrial Estate, Dereham Rd, Norwich	12/00
	Feltwell (1)	1.003	Feltwell Energy Ltd	The Oakery, Lodge Road, Feltwell, Thetford, Norfolk	08/03
	Feltwell (2)	1.050	Feltwell Energy Ltd	The Oakery, Lodge Road, Feltwell, Thetford, Norfolk	12/99
	Edgefield Hall Farm	.630	Buyinfo Ltd	Edgefield, Melton Constable, Norfolk	06/02
	Mayton Wood	1.582	Mayton Wood Energy Ltd	Mayton Wood Landfill Site, Little Hautbois, Coltishall, Norwich	03/98
	Snetterton Energy RO - A (15/4/5)	1.065	Snetterton Energy RO	Harling Road Snetterton Norfolk	04/05
	Total	12.592			
Suffolk					
	Bramford	.880	United Utilities Green Energy Ltd	Bramford Landfill Site, Somersham Road, Bramford, Ipswich	04/04
	Bramford Landfill Site	.650	Biffa Waste Services	Papermill Lane, Bramford	11/01
	Foxhall	1.2	United Utilities Green Energy Ltd	Foxhall Road, Ipswich,	11/95
	Kennett Generation	.660	Waste Recycling Group	Dane Hill Road, Kennett, Newmarket, Suffolk	12/04
	Lackford Landfill	1.333	Gengas Ltd	Bury Road, Lackford, Bury St Edmonds, Suffolk	12/98
	Masons Power Plant	2.22	Viridor Waste Management	Masons Landfill, Great Blakenham, Claydon, Ipswich	12/96
	Wangford Landfill Site	.900	United Utilities Green Energy Ltd	Wangford, Beccles, Suffolk	07/87
	Wetherden Landfill Gas Project	.620	Wetherden Energy Ltd	Warren Farm, Wetherden, Stowmarket, Suffolk	01/99
	Total	8.463			

	Essex				
	Aveley	3.952	Aveley Methane Ltd	Sandy Lane,Aveley,Essex,	12/01
	Aveley - NFFO 5	2.006	Waste Recycling Group Plc.	Aveley Landfill Site,Sandy Lane,Aveley,Essex	07/99
	Aveley Landfill	3.840	Waste Recycling Group (Central) Ltd	Sandy Lane,Aveley,Essex	06/04
	Aveley Phase 2 Generation	2.128	Waste Recycling Group Plc	Aveley Landfill Site, Sandy Lane, Aveley	08/05
	Barling - (NFFO5)	2.443	EDL Operations (Barling) Limited	Barling Hall Farm, Little Wakering Road, Great Wakering Farm, Essex	05/93
	Bellhouse Farm	2.850	Bellhouse Energy	Church Lane,Stanway,Colchester	05/04
	Bellhouse South	4.239	EDL Operations (Bellhosue) Limited	Stanway Pit, Warren Lane, Stanway, Colchester, Essex	07/03
	Crumps Farm Landfill Gas Generation Project	.480	Edwards Waste Management Ltd	Crumps Farm Landfill site, Little Canfield, Great Dunmow Road, Essex, England	09/04
	Mucking 3	4.074	EDL Operations (Mucking) Ltd	Crown Cottage,Mucking Wharf Road,Stanford le Hope,Essex	07/00
	Mucking Gas 2-NFFO	4.074	EDL Operations (Mucking) Ltd	Mucking Wharf Road,Stanford le Hope,Essex	11/91
	Mucking Landfill	3.2	EDL Operations (Mucking) Ltd	Mucking Wharf Road,Stanford le Hope,Essex	11/01
	Mucking Landfill 2	3.55	EDL Operations (Mucking) Ltd	Mucking Landfill Site,Mucking Wharf Road,Stanford-le-Hope,Essex	06/02
	Ockendon "A" Power Plant	4.016	Viridor Waste Management	Medebridge Road,Grays,Essex	08/99
	Ockendon "B" Power Plant	4.756	Viridor Waste Management	Medebridge Road,Grays,Essex	04/03
	Ongar - NFFO 4	1.920	Waste Recycling Group (Central) Ltd	Mill Lane,High Ongar,Essex	05/99
	Ongar - NFFO 5	2.033	Waste Recycling Group (Central) Ltd	Mill Lane,High Ongar,Essex	06/04
	Pitsea Methane Conversion Plant	12.139	EDL Operations Pitsea Ltd	Pitsea, Essex	10/05
	Rainham Landfill	4.074	EDL Operations (Rainham) Ltd	Ferry Lane,Rainham,Essex	04/00
	Rainham Phase II	10.864	EDL Operations (Rainham) Ltd	Wennington Marshes,Rainham,Essex	01/90
	Roxwell Landfill Gas Project	1.3	United Utilities Green Energy Ltd	Roxwell Quarry,Boyton Cross,Roxwell,Chelmsford	04/04
	Total	65.799			
	Hertfordshire				
	Brazier Methane Conversion Plant	4.00	EDL Operations (Brazier) Ltd	Westmill Road,Ware,Hertfordshire	12/03
	Total	4.00			
	Bedfordshire				
	Arlesey	1.15	Shanks Waste Services Ltd	Arlesey High Street,Arlesey, Beds	07/98
	Arlesey Phase II	1.15	Shanks Waste Services Ltd	Arlesey High Street,Arlesey, Beds	03/00
	Arlesey Phase III	2.3	Waste Recycling Group Ltd	Arlesey Landfill, Mill Lane, Arlesey	12/05
	Brogborough Phase III	6.728	Shanks Waste Services Ltd	Brogborough Landfill Site,Woburn Road,Brogborough,Bedford,Bedfordshire	02/00
	Brogborough Phase IV	2.3	Shanks Waste Services Ltd	Brogborough Landfill Site,Woburn Road,Brogborough,Bedford,Bedfordshire	09/92
	Brogborough Power Station (Phase I & II)	14.428	Shanks Waste Services Ltd	Brogborough Landfill Site,Woburn Road,Brogborough,Bedford,Bedfordshire	09/99
	Elstow	1.8	United Utilities Green Energy Ltd	Elstow Landfill Site,Elstow,Bedford,Bedfordshire	10/98
	L'Field Stewartby	12.328	Shanks Waste Services Ltd	L'Field Landfill Site,Green Lane,Stewartby	05/02
	Sundon	1.8	United Utilities Green Energy Ltd	Sundon Landfill Site,Common Lane,Upper Sundon,Luton,Bedfordshire	02/00
	Total	56.173			
	Total Landfill Gas	139.733			
	Sewage gas > 50kW				
	Dunstable STW Micro CHP Plant	.105	Anglia Water Services Ltd	Thorn Road, Dunstable, Beds	07/05
	East Hyde STW	.450	Thames Water Utilities Ltd	Lower Luton Rd, East Hyde, Luton, Beds	11/90
	Cambridge STW	.270	Anglian Water Services Limited	Cowley Road, Cambridge, Cambridgeshire, England	10/04
	Colchester STW	.270	Anglian Water Services Limited	Haven Road, Colchester Road, Essex, England	01/05
	Ryemeads STW	1.48	Thames Water Utilities Ltd	Rye Road, Stanstead Abbots, Herts	07/02
	Whitlingham STW CHP Plant	1.00	Anglian Water Services Ltd	Whitlingham STW CHP Plant, Whitlingham STW, Kirby Bedon Road, Trowse, Norwich	11/89
	Total Sewage Gas	3.575			
Generating station accredited with a DNC of 50 kw or less					
	PV ≤ 50 kW				
	Pitsea swimming pool	.003	Basildon District Council	Rectory Park Drive, Pitsea Basildon, Essex SS13 3DW	04/04
	Total PV	.003			