



**Our ref:** 13/1586

5 December 2013

Dear

**RE: Freedom of information request to DECC – Jobs in the power generation sector**

Thank you for your email on 7 November 2013 in which you requested information on our latest assessment of the number of jobs (direct and through the supply chain) associated with different forms of power generation.

We have considered your request in accordance with the Environmental Information Regulations 2004 (EIRs), rather than under the Freedom of Information Act 2000, as the information you sought disclosure of does, in our view, fall within the definition of 'environmental information' in regulation 2(1) of the EIRs.

I can confirm that DECC has information on some of the elements of your request. However, DECC is not in possession of a single piece of analysis covering all aspects.

**Breakdown of current employment in the power generation sector**

DECC uses for its latest assessment of employment in the power generation sector two sets of published statistics:

*1. UK energy in brief*

DECC publishes an annual report on key developments in the UK energy system, containing data from the UK's Office for National Statistics. This is available on our website:

<https://www.gov.uk/government/publications/uk-energy-in-brief-2013>.

Table 2 within this report provides time series data on employment in a number of energy sectors (Solid fuels production, Oil and gas extraction, Refining, Nuclear fuel processing, Electricity and Gas) from 1980-2012.

Note that these numbers only include those directly employed in these industries.

*2. Low Carbon Environmental Goods and Services (LCEGS) Report*

The Department for Business, Innovation and Skills (BIS) publishes an annual report on Low Carbon and Environmental Goods and Services (LCEGS), available here:

<https://www.gov.uk/government/publications/low-carbon-and-environmental-goods-and-services-2011-to-2012>.

This report includes estimates of employment in a number of UK LCEGS sectors and their supply chains. In the most recent report, published in 2013, it is estimated that the volume of UK LCEGS employment in 2011/12 was 939,254.

Table 8 on page 26 of the report gives a breakdown of these figures into 24 subsectors within the renewable energy, low carbon and environmental sectors. Table 9 on page 27 of the report furthermore gives a breakdown of employment within the 28 green economic activities that account for the highest employment levels in 2011/12. Both these tables are attached to this letter in an annex.

Note that this data covers both those directly employed in these industries and throughout the wider supply chain.

### **Estimates of future employment and jobs per megawatt hour of generation capacity by technology in the power sector**

DECC's latest assessment is that the Government's Electricity Market Reforms could help support up to 250,000 jobs in the low carbon electricity (including in supply chains) by 2020. This is broken down as follows:

- Between 69,000 and 81,000 jobs in nuclear energy by 2020, which is made up of 29,000- 41,000 jobs across the nuclear supply chain at the peak of construction activity, from the 16GW of new build capacity industry is planning to build by 2030 plus 40,000 currently employed in nuclear energy.<sup>1</sup>
- Up to 200,000 jobs in renewable electricity by 2020<sup>2</sup>.
- Around 8,000 jobs could be supported in the early stages of CCS deployment by 2020<sup>3</sup>.

DECC has not produced an assessment of the jobs created per megawatt of installed capacity and/or per megawatt hour of power generated in each of those sectors.

If you are dissatisfied with the handling of your request, you have the right to ask for an internal review. Under regulation 11(2) of the EIRs a request for an internal review should be submitted no later than 40 working days after the date of this letter and should be addressed to the information rights unit at [foi@decc.gsi.gov.uk](mailto:foi@decc.gsi.gov.uk).

Please quote the reference number above in any future communications.

If you are not content with the outcome of the internal review you have the right to apply directly to the Information Commissioner for a decision. The Information Commissioner can be contacted at:

Information Commissioner's Office  
Wycliffe House

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<sup>1</sup> The Economic Benefits of the UK's Nuclear Supply Chain Capabilities, Oxford Economics, A Report Commissioned for DECC - [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/168017/bis-13-633-the-economic-benefit-of-improving-the-uk-nuclear-supply-chain-capabilities.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/168017/bis-13-633-the-economic-benefit-of-improving-the-uk-nuclear-supply-chain-capabilities.pdf)

<sup>2</sup> (Based on the Renewable Energy Association's Report: Made in Britain, 2012 - <http://www.r-e-a.net/resources/rea-publications> . The REA estimate that delivering the 15% renewables target could support up to 400,000 jobs across the renewables sector (heat, electricity, transport) in 2020. Around half of the total renewable energy is likely to come from the electricity sector). For further details on renewable energy see <https://www.gov.uk/government/policies/increasing-the-use-of-low-carbon-technologies>

<sup>3</sup> DECC estimate based on AEA analysis – Assessing the domestic supply chain barriers to the commercial deployment of carbon capture and storage within the power sector (2013). <https://www.gov.uk/government/publications/assessing-the-domestic-supply-chain-barriers-to-the-commercial-deployment-of-carbon-capture-and-storage-within-the-power-sector>. For further details on CCS see <https://www.gov.uk/government/policies/increasing-the-use-of-low-carbon-technologies/supporting-pages/carbon-capture-and-storage-ccs>

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If you have any queries about this letter, please contact us at the address above.  
Yours faithfully,

Chief Economist Directorate,  
DECC

## Annex: UK LCEGS Employment

### Employment (direct and indirect) for 2009/10 to 2011/12

	Level 2	Employment 2011/ 12	Employment 2010/ 11	Employment 2009/10	Growth % 2010/ 11 to 2011/12	Growth % 2009/ 10 to 2010/11
Environmental	Air Pollution	9,459	9,466	9,186	-0.1	3.0
	Contaminated Land	8,478	8,504	8,233	-0.3	3.3
	Environmental Consultancy	7,311	7,313	7,100	0.0	3.0
	Environmental Monitoring	1,492	1,491	1,449	0.1	2.9
	Marine Pollution Control	1,055	1,055	1,025	0.0	2.9
	Noise & Vibration Control	1,992	1,994	1,933	-0.1	3.2
	Recovery and Recycling	56,242	56,309	54,629	-0.1	3.1
	Waste Management	44,875	44,827	43,571	0.1	2.9
	Water Supply and Waste Water Treatment	72,847	72,932	70,841	-0.1	3.0
Low Carbon	Additional Energy Sources	11,324	11,320	11,331	0.0	-0.1
	Alternative Fuel Vehicle	104,428	104,453	101,072	0.0	3.3
	Alternative Fuels	143,559	143,422	140,098	0.1	2.4
	Nuclear Power	35,908	35,910	35,914	0.0	0.0
	Building Technologies	112,433	112,634	109,187	-0.2	3.2
	Carbon Capture & Storage	4,672	4,685	4,695	-0.3	-0.2
	Carbon Finance	24,475	24,487	24,146	0.0	1.4
	Energy Management	23,324	23,333	22,648	0.0	3.0
Renewables	Biomass	48,884	48,994	47,485	-0.2	3.2
	Geothermal	81,544	81,417	79,012	0.2	3.0
	Hydro	5,097	5,100	4,955	-0.1	2.9
	Photovoltaic	40,377	40,398	39,152	-0.1	3.2
	Renewable Energy General Consultancy	4,840	4,856	4,865	-0.3	-0.2
	Wave & Tidal	570	570	552	0.0	3.3
	Wind	94,068	94,157	91,194	-0.1	3.2
<b>Total</b>		<b>939,254</b>	<b>939,627</b>	<b>914,273</b>	<b>0.0</b>	<b>2.8</b>

### Activities with highest employment levels (direct and indirect) for 2011/12

Level 1	Level 2	Level 3	Employment	% of Total
Low Carbon	Alternative Fuels	Other Bio Fuels	101,430	10.8
Low Carbon	Alternative Fuel Vehicle	Alternative Fuels (main Stream) for Vehicles Only	90,864	9.7
Environmental	Water Supply and Waste Water Treatment	Water Treatment and Distribution	50,546	5.4
Low Carbon	Building Technologies	Windows	41,594	4.4
Renewables	Wind	Wind Farm Systems	38,151	4.1
Low Carbon	Building Technologies	Insulation and Heat Retention Materials	34,871	3.7
Renewables	Geothermal	Whole Systems Manufacture	32,704	3.5
Renewables	Wind	Large Wind Turbine	31,077	3.3
Low Carbon	Building Technologies	Doors	24,999	2.7
Renewables	Wind	Small Wind Turbine	24,834	2.6
Environmental	Recovery and Recycling	Waste Collection	22,942	2.4
Renewables	Biomass	Biomass Energy Systems	21,911	2.3
Environmental	Water Supply and Waste Water Treatment	Engineering	20,190	2.2
Renewables	Geothermal	Suppliers of Systems	18,547	2.0
Environmental	Waste Management	Equipment For Waste Treatment	17,834	1.9
Renewables	Photovoltaic	Systems & Equipment	17,214	1.8
Low Carbon	Alternative Fuels	Main Stream Bio Fuels	17,113	1.8
Low Carbon	Alternative Fuels	Other Fuels	16,905	1.8
Renewables	Geothermal	Manufacture and Supply of Specialist Equipment	16,881	1.8
Environmental	Waste Management	Construction & Operation of Waste Treatment Facilities	16,848	1.8
Low Carbon	Carbon Finance	Carbon Credits Trading	16,417	1.8
Renewables	Biomass	Boilers and related Systems	14,058	1.5
Low Carbon	Alternative Fuel Vehicle	Other Fuels and Vehicles	13,547	1.4
Renewables	Geothermal	Consulting & Related Services	12,583	1.3
Low Carbon	Nuclear Power	Nuclear Power Plant Operations	12,453	1.3
Low Carbon	Building Technologies	Monitoring and Control Systems	10,935	1.2
Renewables	Photovoltaic	Photovoltaic Cells	10,869	1.2
Low Carbon	Nuclear Power	Nuclear Safety Engineering Services	10,031	1.1