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EU Emissions Trading Scheme Phase II National Allocation Plan

Report in the public consultation on the installation level allocations (published in August 2006) and update on subsequent changes to the National Allocation Plan

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1. BACKGROUND

1.1 On 21 August 2006, the UK Government[1] launched a consultation on a list of installation-level allocations for Phase II of the EU Emissions Trading Scheme (EU ETS). The consultation ran until 16 October 2006. The information contained in the list was provisional, but gave an indication of the number of free allowances that will be issued to individual installations in Phase II.

1.2 The purpose of the consultation was to provide operators with an opportunity to comment on any factual errors that may have been contained in the data and information used to calculate the incumbent allocations, including:

- any numerical errors in the historical baseline data;
- any calculation errors generally; and
- whether the Allocation Methodology rules have been applied in accordance with the Government's written decision to individual installations.

1.3 This document presents, at a high level, the issues highlighted by respondents and the Government's response to them. In addition to formal responses from operators to the consultation, we also received a number of queries from operators on their allocations (see section 2 below). This document covers issues raised in relation to both types of response. We have included here the issues that were raised by the greatest number of installations and, in particular, issues that had not become apparent before the 21 August consultation.

1.4 The omission of a particular response, idea or question from this paper should not be interpreted to mean that Government did not consider it. Government reviewed all correspondence received. However, as this is a summary paper and a diverse range of issues were raised, it is not considered appropriate to set out the detail of all the views expressed.

1.5 A list of those who responded to the consultation, either formally or raising queries, is enclosed at Annex B.

2 OVERVIEW AND SUMMARY OF RESPONSES RECEIVED

2.1 We received 129 written responses, of which the majority were queries regarding the numbers or clarification of our policy. Whilst the consultation only asked for comments on errors in the numbers, a number of operators chose to submit comments on the policy. Many of the queries raised one or more of the issues set out below.

2.2 The greatest number of queries related to:

- corrections to the information used in the installation-level list;

[1] Implementation of the EU ETS is a devolved matter and the Devolved Administrations of Scotland, Wales and Northern Ireland are involved throughout the decision making process. References to the UK Government in this document therefore also cover the Devolved Administrations.

- requests for clarification of, and corrections to, the way that relevant emissions (and, therefore, allocations) were calculated; and
- queries about the number of allowances allocated at an installation level.

2.3 In addition, respondents raised a number of general points about:

- Expected CHP sector growth;
- Sector-specific contributions to the Phase II New Entrant Reserve;
- Sector classification; and
- Allocation methodology, in particular the use of "relevant emissions" and the difference between this and allocations.

2.4 As noted above, a number of operators were unclear about the difference between their "relevant emissions" and their allocations. We have included a note explaining this in Annex A.

3 ISSUES RESULTING IN CHANGES TO INSTALLATION ALLOCATIONS

3.1 Introduction

3.1.1 All allocations have changed, to some extent, from those set out in the draft installation level list published for consultation in August. This is because of a change to the rate of contribution from all sectors to the CHP ring-fence of the New Entrant Reserve, and a number of changes and corrections made since August that affect at least one or more sectors. These are detailed below.

3.1.2 It should be noted that, due to the absolute cap on UK allocations, a correction to one installation's "relevant emissions" (e.g. as a result of a successful appeal against an Allocation Methodology rule decision) not only affects the free allocation to that installation, but also has a knock-on effect on the shares in the sector's total relevant emissions, and therefore the allocations, of all other installations in the same sector. However, the knock-on effect on other installations' allocations is smaller than the effect on the installation whose relevant emissions have changed. See Annex A for an illustration of this.

3.1.3 This section first discusses those changes that affect all or a number of sectors, followed by sector specific changes.

3.2 Change affecting all/several sectors

All sectors' contribution to the CHP ring-fence of the NER

3.2.1 The August 2006 NAP provided that all EU ETS sectors would make a flat rate contribution (1.1%) to the CHP ring-fence of the New Entrant Reserve (NER) (paragraph 20 of Appendix D).

3.2.2 Following further examination of the projections and CHP NER calculations, the Government has reduced the size of the CHP ring-fence from

31.6 to 27.5 million allowances[2]. The reduction in the size of the CHP ring-fence results from revised, more realistic, start dates for planned new plants; taking into account the 50% level of allocation awarded for the first 50 days of any new entrant for commissioning; and from increasing the assumed proportion of additional CHP capacity likely to be CCGT based on recent experience (requiring fewer allowances per MW than other technologies).

3.2.3 As a result of this, the additional allowances collected from all EU ETS sectors to take into account the incentives for CHP provided by the EU ETS have been reduced from 12.9m to 11.1m allowances. This reduces the flat rate contribution taken from all sectors from 1.1% to 0.98%.

3.2.4 Details of the effect of changes on the CHP sector are set out in paragraphs 3.3.6 – 3.3.10 below. In summary, the CHP sector's contribution to the CHP Business As Usual NER has been reduced from 18.7m to 16.4m allowances.

Aggregation of data streams

3.2.5 The list published in August incorrectly calculated relevant emissions based on disaggregated data for installations with: process and combustion emissions; flaring and combustion emissions; and previously disaggregated combustion emissions covering the same years for different "installation parts". This affects a number of sectors, including some with expansion activities, resulting in installations' allocations being calculated incorrectly.

3.2.6 A correction has therefore been made to aggregate each installation's emissions in these circumstances, for each year of the baseline, before calculating a single relevant emissions figure for the installation. The one lowest year of combined emissions is dropped to find relevant emissions: it is no longer possible to drop different lowest years for previously disaggregated emissions. Applying this correction and aggregating emissions data first has either left relevant emissions unchanged or has reduced them, for installations affected.

3.2.7 Exceptions occur where Allocation Methodology rules have been applied such that different years of data, within the baseline period, are used for different "installation parts" at an installation. In this case, emissions for installation parts are only aggregated where they cover the same years of data.

3.2.8 The allocations to all installations in the sectors affected have changed as a result of these changes to relevant emissions for some installations, because the total relevant emissions in the sector changes – and every installation's share of that total changes – when one installation's relevant emissions change. This affects the distribution of available allowances; it does not affect sector caps.

3.2.9 This correction brings the calculation of allocations in line with the approved methodology as set out in the National Allocation Plan and with the Commission's guidance on Phase II NAPs, which does not allow separate treatment of process and combustion emissions.

[2] There was an error in the quoted size of the CHP NER in the NAP submitted to the Commission in August. The stated 29.9 million allowances should have read 31.6 million.

Matching, partially qualified CHPs

3.2.10 The relevant emissions for some matching, partially qualified CHP plants were calculated incorrectly in the list published in August. The error involved calculating relevant emissions for the portion of the installation in the industrial or host sector using 2001 – 2003 emissions data, instead of using all available baseline data (i.e. including 2000 emissions in the calculation where available).

3.2.11 The correction of this error affects matching, partially qualified CHPs[3] in the Pulp and Paper, Chemicals, and Services sectors. Other sectors are unaffected as 2000 data is not relevant.

3.2.12 This has altered the host sector relevant emissions for some of these matching, partially qualified CHP installations. Where there have been changes, the shares of relevant emissions of (and therefore the allocations to) all installations in the sectors affected have changed.

3.2.13 This methodology is set out in the "Addendum to the Detailed Guide to Phase II Allocation Methodology – the Good Quality Combined Heat and Power (GQ CHP) Sector"[4].

3.3 Changes affecting specific sectors

Large Electricity Producers (LEP)

- **Application of the benchmark for two Phase I new entrants**

3.3.1 The LEP benchmark was incorrectly applied to calculate the relevant emissions for two Phase I new entrants in the LEP sector that were in operation by the end of June 2006. In order to be consistent with the Phase II National Allocation Plan[5] and the treatment of Phase I new entrants in other sectors, a correction has been made to use the benchmark in the Phase II NER spreadsheet to determine the relevant emissions for these installations (rather than the LEP benchmark that LEP Phase I incumbents use).

3.3.2 The result of this change is that both installations now have slightly lower relevant emissions than in the August draft installation list, and the allocations to all installations in the sector have therefore changed.

- **Emissions factors in the LEP benchmark**

3.3.3 The natural gas emissions factor used in the LEP benchmark (which provides relevant emissions for the LEP sector) was inconsistent with the equivalent factor used in the NER benchmark spreadsheet. The LEP benchmark spreadsheet has been corrected to apply the same emissions factor as used

[3] Identified as such in the Method/Comment column on the CHP Details Table of the Installation Level Allocations Tables.
[4] Available on the DTI website at http://www.dti.gov.uk/files/file28458.pdf .
[5] Paragraph 3.10

elsewhere in the NER spreadsheet, which results in the emissions factor being rounded up slightly. This impacts on the relevant emissions of LEP incumbents and has resulted in a change to the allocation for all installations in the sector.

- **Load factor in the NER benchmark spreadsheet**

3.3.4 One of the load factors for the LEP and Other Electricity Producers in the NER benchmark spreadsheet was incorrect and the spreadsheet has been updated. The load factor for LEP and small generators employing "other technologies" is now set at 66.67%[6], increased from 66.35% (this latter figure was out of date at 21 August 2006, but its replacement had been overlooked). The relevant emissions for all installations that receive this benchmark have increased slightly, resulting in a change to the allocations to all installations in the sector.

- **Contribution to the CHP NER**

3.3.5 See the CHP section below for further details.

CHP sector

3.3.6 Following consideration of consultation responses, and examination of the projections and CHP NER calculations, the size of the CHP NER has been reduced from 31.6m to 27.5m allowances[7]. The change results from more realistic start dates for planned new plants, from taking into account the 50% level of allocation awarded for the first 50 days of any new entrant for commissioning, and from a higher assumed proportion of additional CHP capacity likely to be CCGT, based on recent experience (requiring fewer allowances per MW than other technologies).

3.3.7 As set out in the Phase II NAP (paragraph 20 of Appendix D), the majority of the CHP NER is provided by the CHP sector in line with bottom up information on growth within the sector and the CHP BAU projection ("BAU NER). Similar to the Phase I approach, all EU ETS sectors contribute an additional flat rate percentage to the CHP ring-fence to provide for the projected growth of CHP to 2012, taking into account the incentives provided by the EU ETS (the "With ETS" CHP NER).

3.3.8 The reduction in the size of the CHP NER has affected both sources of allowances:

- The CHP sector's contribution to the BAU NER has been reduced from 18.7m to 16.4m allowances, resulting in 2.3m more allowances available for CHP incumbents; and

- The additional allowances collected from all sectors for the With ETS NER have been reduced from 12.9m to 11.1m allowances, resulting in a reduction in the flat rate contribution from all sectors from 1.1% (in the August NAP) to 0.98% (see section 3.2 above).

[6] See: http://www.dti.gov.uk/files/file33255.pdf Section 1.4.6.
[7] There was an error in the quoted size of the CHP NER in the NAP submitted to the Commission in August. The stated 29.9 million allowances should have read 31.6 million.

3.3.9 CHP capacity typically expands when installations in their "host" industries replace steam and power generation with new CHP, or invest in new CHP capacity rather than in stand-alone boilers or generation. This preference for CHP delivers the CO_2 savings. It has therefore been decided that the CHP sector should be exempt from the requirement to contribute to the 'With ETS' CHP NER. In order to provide the required number of allowances in the CHP NER, it has been decided that the 0.98% contribution (equal to 1m allowances) that the CHP sector would have made will be contributed by the LEP sector, in addition to the LEP sector providing its own 0.98% contribution. This results in a 0.2% reduction in the allocation to the LEP sector. An increased contribution from the LEP sector is considered reasonable given that any new CHP plant is also likely to displace electricity production from this sector.

3.3.10 This change in the methodology for the source and size of the CHP NER was notified to the Commission prior to its decision on the UK NAP in November. In its decision on the UK NAP, the Commission noted that the results of the intended changes had not yet been presented and accordingly, the Commission "at this stage cannot exclude that any aid involved in the final allocation to installations is incompatible with the common market should it be assessed in accordance with articles 87 and 88 of the Treaty". The Government will be providing the Commission with further detail on the changes shortly.

4. OTHER CHANGES

4.1 Sector classification and installation lists

4.1 A small number of installations were classified in the wrong sectors in the August list. These installations have now been correctly classified, resulting in small impacts on baselines, and therefore projections, in the sectors concerned.

4.2 Some installations and sector associations expressed concern about the treatment of sub-sectors within larger sectors. Within every sector, there will be installations and sub-sectors that grow faster than others. Such installations will find their growth added to the sector's overall growth rate, sometimes leading to a lower allocation than the installation or sector would receive if it were allocated to separately.

4.3 The Government has consulted on this issue extensively since August 2005 and considers that there are considerable benefits to having fewer and larger sectors. No evidence has been presented to suggest that it would be appropriate to amend policy or sectors at this stage. There are many factors that will affect an installations' allocation, and experience of Phase I has shown that the use of smaller sectors often leads to unintended adverse consequences. The full rationale for the Government's sector classification was set out in an earlier consultation response[8].

[8] http://www.defra.gov.uk/corporate/consult/euets-phasetwo/gov-response.pdf

4.2 Closed installations

4.4 The Phase II NAP submitted to the Commission on 21 August 2006 stated[9]: "Installations whose permits were revoked or surrendered before 7 November 2006 are not included within the Final Allocation Decision" (FAD). Therefore, operators that applied to surrender their permits by 16 October 2006 and that had received a regulator notice of surrender by 7 November 2006 do not appear in the installation level tables.

4.5 In order to ensure that the allocations shown in the FAD are as accurate as possible, and following further representations from industry, we are extending this deadline. The regulators have agreed to try to compress the two months in which they normally determine applications and issue a surrender notice in order to secure timely completion of the FAD. Both regulators and installations will only have a limited further period in which to act. Operators that wish to apply to surrender their permits and be excluded from the FAD must to so by **5 January 2007** and <u>must</u> include all necessary information and the appropriate fee in their application in order for the regulator to determine the application and issue a surrender notice as quickly as possible. Although there is no guarantee, the regulators will endeavour to process all applications quickly. Installations that receive a regulator notice of surrender by **12 January 2007** will not appear in the FAD.

4.6 Allowances shown previously as being allocated to closed installations will remain in the pool of available allowances for the relevant sectors and shared among their remaining incumbents. This (rather than cancellation of the allowances) is an appropriate treatment as the calculation of the sector cap takes into account the effect on emissions of closures (and new capacity).

4.3 Small emitters – *de minimis* and Ceramics definition

4.7 The revised installation level list still includes installations whose application for exclusion from Phase II were accepted under the new *de minimis* rule, and the revised interpretation of the Ceramics definition. The Phase II NAP states: "The allocations, which would have been allocated to any installation which does not choose to remain in the scheme, will not be allocated, and the total quantity of allowances to be allocated will be reduced accordingly."[10] This is appropriate since the sector caps are based on projections which assume that these installations remain within the EU ETS.

4.8 Therefore, allocations for these installations (which were included in the sector baselines and projections) have been calculated alongside the allocations for other installations in the affected sectors. They will be excluded from the FAD and the allowances will be cancelled. The sectors affected by the application of the new *de minimis* rule are Services, Food and Drink, Chemicals, Others B and Offshore. This will result in a provisional reduction in the total number of Phase II allowances allocated or available to installations in the UK from 246.2 million per year to 243.7 million per year. The actual figure for this reduction will be

[9] Section 3.2, paragraph 3.13
[10] Section 8.2, paragraph 8.11

determined when comments and corrections following the second consultation on the allocations have been incorporated and the final allocations are calculated.

4.4 Data and calculation corrections

4.9 A few queries were raised in consultation responses concerning errors by operators and/or verifiers in baseline emissions.

4.10 Many individual queries were raised about data, clarification of allocation methodology policy (especially calculation of relevant emissions) and new entrant policy.

4.11 There were errors relating to a number of installations: for example, operators informed us of incorrect calculation or assignment of CHPQA scheme data to EU ETS installations, particularly where one CHP scheme serves two EU ETS installations. These have now been corrected.

4.12 As a result of better information about the likely allocation to a new entrant in the OEP sector, the projection for that sector and the amount that the sector contributes to the NER have been reduced.

4.13 There was a small error in the amount deducted from the UEP estimate of electricity generators' emissions to account for the overlap of the UEP projection with plants classified in the OEP sector. This has been corrected and leaves slightly more in the sector cap for the LEP.

4.14 There has been a separate process for appeals following decisions not to apply certain Allocation Methodology rules. Appeals were received from five operators in relation to eight installations. Following the consideration of these appeals by independent Appeals Officers, Allocation Methodology rules were applied in relation to four installations. The sectors affected are: Cement; Lime; Offshore; and CHP.

4.5 Emission projections

4.15 There have been a number of small revisions to the projections figures since the publication of the Phase II NAP in August 2006, as a result of some of the changes outlined above, such as corrected baseline data; changes in sector classification; and changes to the size of the benchmark.

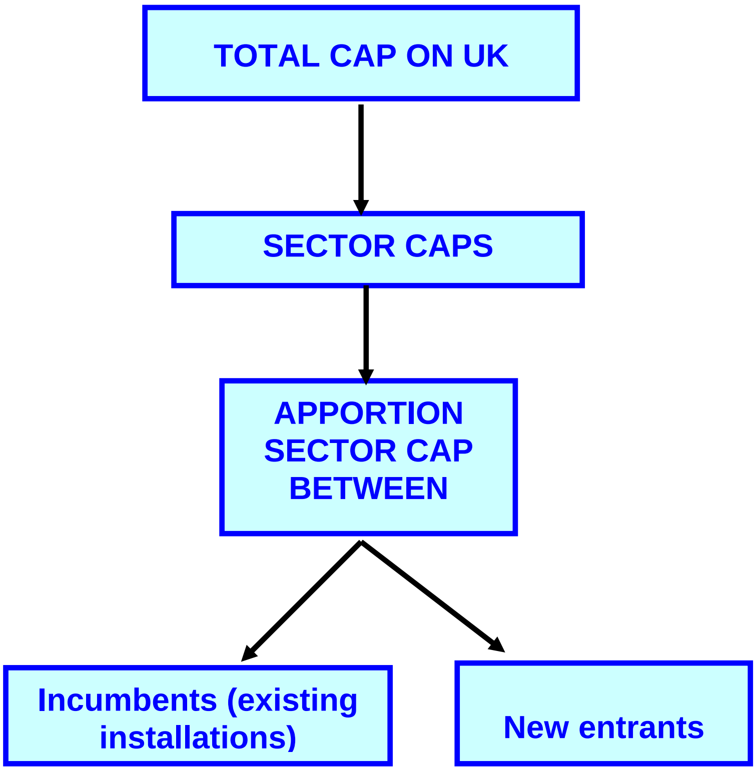
4.16 The result of these changes is that EU ETS 2010 projections rise by 0.06% (which equates to around 168,000 allowances per annum). However, there will be no change to the overall number of free allowances that will be allocated in Phase II. Accordingly, the cut in allocation to the LEP sector will increase from 30.18% to 30.30% of its projected emissions.

4.17 However, this does not mean that the overall UK projections have increased as the changes are limited to those projections produced for the purpose of EU ETS allocations and are too insignificant to feed directly through to UK projections. The Government is currently considering the overall UK projections in the context of the Energy White Paper.

ANNEX A – NOTE ON "RELEVANT EMISSIONS"

Allocation methodology process

1. The overall process for allocating allowances to installations is set out in the diagram below.



"Relevant Emissions"

2. The Phase II allocation methodology uses historic emissions as far as possible and these historic emissions are used to determine the distribution of allowances within a sector. This methodology is implemented via "relevant emissions" which is an intermediate step in the allocation process. In summary, each incumbent installation's share in the available free allowances for its sector (after NER deductions) is based on its share of the sector's relevant emissions. An exception to this is allocations to incumbent installations in the Large Electricity Producers (LEP) sector (see paragraph 4 below).

3. The "relevant emissions" for an installation is the average of its past emissions, calculated after dropping the lowest year of emissions. The baseline period used in most cases is 2000-2003. A minimum of two years' data is required, so in some cases 2003 and 2004 data are used. Where data for even these two years is not available, the Phase II new entry benchmark spreadsheet is used to provide a figure for relevant emissions. In the CHP sector, the baseline period for CHP data commences in 2001. Further detail is set out in Section 3 of the Phase II National Allocation Plan.

4. In the LEP sector, incumbents in Phase I take their relevant emissions as the output of the LEP benchmark. Phase I new entrants that are incumbents in Phase II take their relevant emissions as the output of the Phase II new entrant spreadsheet (this approach is consistent with other Phase I new entrants in other sectors that are now incumbents).

5. Relevant emissions (RE) are calculated for each installation in a sector. They are then summed to provide the total relevant emissions for the sector. Each installation's share of the available allowances in the sector is equivalent to its share of the sector's relevant emissions. The following equation shows the calculation:

$$\text{Allocation to Incumbent A} = \frac{\text{Incumbent A's relevant emissions}}{\text{Sum of relevant emissions of all incumbents in A's sector}} \times \text{Total allowances in A's sector after NER contribution}$$

6. An illustration of how this works is set out in the table below. It shows the effect of a change in relevant emissions of one installation on the relevant emissions and the allowances for all the installations in the sector. The sector cap of 1,000 allowances is shared between 10 installations with the same initial relevant emissions. One installation (A) doubles its relevant emissions; other installations' relevant emissions remain unchanged. This change also increases the relevant emissions for the sector as a whole.

	Initial RE	**Initial share of sector RE**	**Initial allocation**	**Revised RE**	**Revised share of sector RE**	**Revised allocation**
A	20	[20/200] [10%]	100 [10%]	40	[40/220] [18.1%]	181 [18.1%]
B	20	[20/200] [10%]	100	20	[20/220] [9.1%]	91 [9.1%]
C	20	[20/200] [10%]	100	20	[20/220] [9.1%]	91
D	20	[20/200] [10%]	100	20	[20/220] [9.1%]	91
E	20	[20/200] [10%]	100	20	[20/220] [9.1%]	91
F	20	[20/200] [10%]	100	20	[20/220] [9.1%]	91
G	20	[20/200] [10%]	100	20	[20/220] [9.1%]	91
H	20	[20/200] [10%]	100	20	[20/220] [9.1%]	91
I	20	[20/200] [10%]	100	20	[20/220] [9.1%]	91
J	20	[20/200] [10%]	100	20	[20/220] [9.1%]	91
Sector total	**200**	**100%**	**1,000**	**220**	**100%**	**1,000**

The relationship between "relevant emissions" and projections

7. Given that relevant emissions are an above average view of the past (as each installation drops the lowest year of emissions data), unless the growth rate in emissions in a sector is expected to be particularly high, the allocation to incumbents will generally be below relevant emissions.

8. Where projections indicate a decline in emissions from the baseline period to Phase II, by definition this means fewer free allowances will be provided than "relevant emissions" – which are above average past emissions for each installation. Rather than relevant emissions, the more significant concern for operators is their sector projection, since in all cases but the LEP, Business as Usual allocations are being made at the sector level and not to individual installations.

9. Relevant emissions are not the basis of the emissions projections and have no direct relationship to projections. The ratio of allocation to relevant emissions is not an indicator of "Business as Usual" or the meeting of need. The ratio of allocation to relevant emissions is the same for all incumbent installations in a given sector.

ANNEX B: LIST OF RESPONDENTS

EU ETS operators

Alcan (Smelting & Power) Ltd
Astrazeneca
BASF
Bayer Cropscience
BGE (UK) Ltd
Bloomsbury Heat & Power
Bovingdon Bricks
BP
British Energy
British Gypsum
BrunnerMond
Burnley General Hospital
Cabot Carbon
Castle Hill Hospital
Cemex
Centrica
Cheshire County Council
Cogenco Ltd
ConocoPhillips
Corus
Dalkia Utilities Services
Drax Power
Eclipse Energy Company Ltd
EDF Energy
Eon UK
Exxon Mobil
Gaz de France Britain
GlaxoSmithKline
Haden Building Management Ltd
Hanson Building Products
Hydro
INEOS Manufacturing Scotland Ltd
Innovia Films
Inter Gen (UK) Ltd
Interconnector UK Ltd
International Paper UK Ltd
International Power
JRP Solutions Ltd
Kerry Bioscience
Lafarge Cement UK
Leighton Hospital
Magor Brewery
Marchwood Power Ltd
Mitsui Babcock Energy
Muntons PLC
New Cross Hospital
North Middlesex University Hospital
NPower Cogen Ltd
O-I Manufacturing UK Ltd
Outokumpu
PDM Group
Perenco UK Ltd
RAF Conningsby
Rockwool
Roquette UK Ltd
RWE Power
Scottish Power
Shell UK
Syngenta Ltd
Talisman Energy (UK) Ltd
Thames Water
Thamesteel
TOTAL E&P UK PLC
Tullis Russell Papermakers
University of Surrey
William Grant & Sons Distillers
Woodend Hospital

Sector Associations

Association of Electricity Producers
British Cement Association
British Ceramic Confederation
British Glass
British Lime Association
CIA
Confederation of UK Coal Producers (CoalPro)
Confederation of Paper Industries
Dairy UK
Malsters Association of GB
SBAC
UKOOA
UK Petroleum Industry Association

Others

Atkins Global
CICS Ltd
Environmental Industries Commission
New Carbon Finance
NIFES Consulting Group
TUC