

## Appendix F

### ALLOCATION METHODOLOGY RULES<sup>1</sup>

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#### A. Extension of baseline to 2003

1. The starting point for calculating allocations for installations is to calculate each installation's 'relevant emissions' during the baseline period. Each installation receives the same share of the sector's allowances for the first phase as that installation's share<sup>2</sup> of the sector during the baseline period.
2. In the provisional NAP, a baseline period of 1998 to 2002 was used. This was because 2002 was the most recent year for which data was then readily available. However it was proposed in the NAP that the baseline be extended to 2003.
3. The majority of respondents to the consultation supported this option and responded that 2003 data is now available.

#### Decision:

4. The baseline has been extended to include 2003.

#### Rationale:

- This approach is consistent with the principle of our allocation methodology – use the widest range of available verifiable data such that most recent data (representing most likely picture for the installation in Phase I) as well as the earliest available data (rewarding early action) can be taken into account.
- 2003 data for all installations is available.
- Extending the baseline increases the number of years in the baseline period, and therefore reduces the impact of anomalous years on the average so resulting in a more representative picture

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<sup>1</sup> The final decisions on these allocation methodology rules were published in July 2004, available on the Defra website at:

<http://www.defra.gov.uk/environment/climatechange/trading/eu/nap/pdf/nap-decisions-0704.pdf>

<sup>2</sup> As explained in the NAP, this share is based on the installation's relevant emissions (average of all the years in the baseline after dropping the lowest year).

whilst still taking into account early action to reduce emissions in the baseline period.

- Consultation responses have generally supported this approach.

## **B. Installations starting operation in 2003**

5. In the provisional NAP installations that started operation in 2003 were not given an allocation, because Defra did not have any historic data from these installations on which to base an allocation. However it was proposed that in the final NAP the new entrant benchmarking methodology should be used to calculate the allocations for 2003 installations. The allowances for 2003 benchmarked incumbents in each sector would come from that sector's allowances for existing incumbents, rather than the new entrant reserve.

### **Decision:**

6. Use the same allocation methodology to allocate to incumbents that start in 2003 as is to be used for new entrants during Phase I.

### **Rationale:**

- This approach is consistent with the treatment of new entrant installations (who also have no historic data).
- Adjusting 2003 data pro-rata was not seen as appropriate as it can lead to over or under allocation due to the seasonal variation in emissions and is inconsistent with the treatment of other incumbent installations or new entrants.
- It is considered that the same allocation methodology should be applied to all incumbent installations which have sufficient data. However, it is not feasible in this case because there is insufficient data to apply the allocation methodology that is being applied to other incumbent installations. Therefore the use of a different approach is justified.
- There was general agreement across those sectors that responded that the allocation to these installations should be based on the standardised allocation methodology used for new entrants. However, respondents highlighted the fact that it was difficult to make this judgement before the allocation methodology had been finalised – in some cases, agreement was subject to suitable benchmarks being developed.

### C. Changes during the baseline period

7. This refers to additions/closure of technical units in any installation during the baseline period that has led to a significant step change in emissions from that installation. This is relevant for installations that consist of two or more distinct technical units.
8. In the provisional NAP, historic data was used at an installation level to calculate the individual allocations. This meant that for some installations, data for units that are now closed were included in the calculation, and also for new units, data was averaged over the full baseline period. However, where the operator supplied data that was disaggregated by unit, only the data for those units in operation at the end of the baseline period was used.
9. To address this issue (i.e. addition or removal of individual units), it was proposed in the provisional NAP that a unit-by-unit approach would be adopted for the affected installations. In other words, the installation-level relevant emissions figure<sup>3</sup>, on which to base that installation's share of the sector allocation, would be calculated as the sum of the relevant emissions for each unit. For example, this would mean that where an additional unit in an installation has started operation midway through the baseline period, its emissions would only be averaged for the three years after the additional unit was added, rather than over the full baseline period. Relevant emissions for the remainder of the installation that had been operational throughout the baseline would be calculated on an aggregated basis.
10. It was also proposed that where this was not technically feasible (for example, where a small installation had a large number of separate units for which separate data was not available), then an aggregated approach could be adopted (once approved by Defra, in consultation with the devolved administrations).

#### Decision:

- Where changes to an installation have occurred during the baseline period, the allocation to the unit which underwent the change will be calculated separately and then added to the allocation calculated for the rest of the installation.
- Where changes have been made but data can't be disaggregated, then all historic data **after** the change has occurred will be used as the basis for allocation.
- The operators of affected installations have to provide verified evidence to Defra (who will consult with the devolved administrations as necessary). The evidence must show that a significant addition/closure of units during the baseline has occurred

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<sup>3</sup> An installation's relevant emissions are its average emissions during the baseline (1998-2003), dropping the minimum year. An installation's share of a sector's total relevant emissions is used to calculate that installation's share of the sector total allowances.

and, provide the disaggregated data by units. Where applicable, the evidence must show that it is not possible to disaggregate or estimate the emissions from the individual units.

### Implementation:

- Use installation level allocation as default for all installations in all sectors.
- If there has been a 'significant change' during the baseline period, allocate to the installation on the basis of individual separate technical units (as defined in Defra Guidance note 1). The onus is on the operators to provide evidence and to verify that this change has happened.
- Significant change will be defined as:
  - ❖ The addition or closing of a technical unit falling within the scope of the Directive. For example, a boiler/turbine/ CHP unit commences or ceases.

This does **not** include:

- ❖ changes in output/ emissions due to changes in product mix
  - ❖ changes in output/emissions due to changes in market conditions
  - ❖ changes in output/emissions due to re-fitting, rebuilding existing units
- If there have been significant changes during the baseline but installations are not able to provide data for individual separate units, then an installation level allocation will be made. This will be based on only the years of historic data relating to the current configuration of the installation. The operator of these installations will have to provide evidence (and this evidence will need to be verified) to Defra (who will consult with the devolved administrations as necessary) that it is not possible to disaggregate or estimate the emissions from the individual units.
  - If a technical unit ceased to carry out a Schedule 1 activity during the baseline period, the operator should ensure that the data from that unit is not included in the information which it submits to Defra for the calculation of the NAP. Verifiers will check that the data supplied by operators does not include data for units which ceased to carry out a Schedule 1 activity.
  - If a technical unit has been added, the relevant emissions calculation for each unit that is disaggregated will be made on the same basis as for whole installations. Or, where a technical unit does not have at least two years historic data in the baseline period, the allocation to the technical unit will be calculated separately applying the rules on temporary closure detailed in section E below.
  - Defra will assess whether qualifying changes in the baseline have taken place. Defra will consult DTI colleagues, the devolved administrations and the Regulators as necessary.

## **Rationale:**

- This approach accounts for additions/closures of technical units during the baseline period and leads to relevant emissions that are more representative where a change has occurred.
- It also minimised the need for installations to resubmit data, as only those installations where there was a significant change during the baseline period were affected.
- Taking changes during the baseline into account increases the number of instances in which an allocation is made using the methodology for 2002 or 2003 installations. However the number of cases of this sort is limited.
- The majority of respondents welcomed accounting for changes in the baseline in principle and also supported the preferred option.

## **D. Inter-site rationalisation**

11. Inter-site rationalisation refers to where an operator closes one or more installations and moves the production to another installation(s), in order to achieve efficiency gains by increasing their use of existing capacity to account for the increased production at the remaining site(s). While the provisional NAP did not take into account rationalisation, the following approach was proposed.

12. Where it can be demonstrated that rationalisation has taken place, then only baseline data after the rationalisation event will be used. Rationalisation would be considered to take place where an operator demonstrates that the installations involved were all operated by the same operator at the time of rationalisation, that they were manufacturing 'transferable products' and that there was 100% cessation of production at the closed installation(s). We only considered rationalisation that occurred during the baseline, i.e. where closure and the transfer of production occurred before 1 January 2004.

## **Decision:**

- Where full rationalisation has taken place from an installation or installations that were carrying out a Schedule 1 activity above the threshold, to installations covered by the EU ETS, the allocation to the installations to which production is transferred to will be calculated using only the data following the transfer of production.
- Rationalisation rules do not apply to power stations.

## **Implementation**

1. As a default, all historic data will be used for installations in operation at start of Phase I.
2. Where an operator demonstrates that full rationalisation has occurred, only the years following the rationalisation will be used to calculate the relevant emissions for that installation. This implies that if the closing

installation stops emitting in year 't', the baseline data for the installation to which production is transferred to will only be used from (and including) the year 't+1' instead of 1998 (as a result, the installation's relevant emissions calculation will only use data for the years after the rationalisation has taken place). The onus is on the operators to provide evidence to support the fact that rationalisation has taken place.

3. A transfer of production will be considered to be full rationalisation if:
  - a) There is 100% cessation of production at an installation that was carrying out a Schedule 1 activity above the threshold (the "closed installation(s)").
  - b) Production was transferred to an installation(s) that is covered by EU ETS (the "remaining installation(s)").
  - c) The closed installation(s) and the remaining installation(s) must be operated by the same operator at the point of transfer.
  - d) The product whose production is being transferred must be transferable. This means that the operator must prove that the product being produced in the remaining installation(s) could have been produced with the technology available at the closed installation(s).
  - e) Total emissions from the remaining installations in the year t+1 must be at least 70% of the total emissions that would have been covered in the EU ETS from all the installations involved (closed installations (s) + remaining installations (s)) in the year t-1.
4. Defra, consulting the devolved administrations as necessary, will assess whether rationalisation has taken place. DTI and the regulators will also be consulted to verify whether cessation of production has taken place.

**Rationale:**

- This approach accounts for most significant cases of site rationalisation occurring during the baseline period.
- Most consultation respondents believed that clear and simple rules to recognise rationalisation during the baseline period are necessary. The majority of respondents agreed with our preferred option. Many respondents agreed that the two conditions of transferable product and common ownership should be applied.
- Rationalisation has not been extended to power stations because:
  - 1) electricity produced from one power station is not identical to that produced by another as it matters where and when it's generated
  - 2) there is no objective way in which it can be determined whether reduced generation from one station had been made up at another specified station or at some combination of other stations and;
  - 3) fossil fuel generating plant approaching closure is usually operated only at times of high power demand - at such times, all other generating plant is likely to be producing at close to full capacity. Consequently, it would be impractical to transfer production at peak times (the production that dominates the output of older and less

efficient plant) from one station to another. Indeed, of the consultation responses on this topic, except for three generators, all agreed that rationalisation is not applicable in the power sector.

## **E. Treatment of temporary closure**

13. The consultation process highlighted the fact that a number of installations ceased to carry out a Schedule 1 activity for a temporary period during the baseline period. This was for a range of reasons including force majeure events, the plant going into administration, market circumstances or due to refitting of the plant.

14. It was proposed that the allocation methodology should take into account such periods by excluding any years with zero emissions from the relevant emissions calculation and by dropping the minimum year. Where an installation ceased and/or recommenced carrying out a Schedule 1 activity part way through a year, the emissions from that installation will not be zero and therefore those years will not be excluded from the calculation.

### **Decision:**

- Any calendar years during the baseline period where an installation has not emitted any carbon dioxide will be excluded from the emissions calculation.
- If an installation has only one year's non-zero data during the baseline, its allocation will be based on the benchmark methodology. Subject to the bullet point below, allocations to installations that have two or more years' non-zero data during the baseline, will be based on the normal allocation methodology (i.e. relevant emissions being calculated by averaging all non-zero years after dropping the lowest year).
- If an installation reported zero emissions for 2003, to receive an allocation in the final installation level allocation, it had to provide evidence that it was expected to recommence operations before 1 January 2005. Before allowances are issued, it had to provide further evidence that it had indeed recommenced operation.
- The allocation methodology will not does not explicitly take account of temporary closure that covers a number of part years.
- However, if during the period in which the installation was not carrying out a Schedule 1 activity a significant change was made to the installation, then the methodology applied to installations that changed during the baseline might apply (see section C).

## Implementation:

- For the purposes of the baseline, temporary closure of an installation is where an installation reported zero emissions for a full calendar year.
- If an installation has been 'temporarily closed' for any years during the baseline period and:
  - a) is permitted;
  - b) has two or more years non-zero data during the baseline (including partial years data); and
  - c) reports non-zero emissions in 2003it will be treated as an incumbent i.e. its allocation will be calculated using baseline data for the years which were not zero.
- Where an installation
  - a) is permitted;
  - b) has two or more years non-zero data during the baseline (including partial years data); and
  - c) reports zero emissions in 2003it will be treated as an incumbent i.e. its allocation will be calculated using baseline data for the years which were not zero. However, to receive an allocation in the final installation level allocation, it had to inform Defra that it expected to recommence operations before 1 January 2005. The onus was on the operators to provide this information. Before allowances are issued to it, the operator should provide further verified evidence that it had indeed recommenced operation.
- Where an installation:
  - d) is permitted;
  - e) has only one years non-zero data during the baseline or is not expected to be in operation on 31 December 2004,its allocation will be calculated on the basis of the standardised allocation methodology for new entrants.
- Any other installation which has closed by 31 December 2004, is required to inform Defra of this prior to issue of allowances.

## Rationale:

- This approach takes into account installations that did not emit for a full calendar year.
- Dropping the minimum year takes into account shorter periods of temporary closure during a single calendar year.
- Application of the rules on baseline changes (see section C above) after the temporary closure, if there has been a significant change, will ensure that significant changes to the plant during the temporary closure are taken into account.
- At least two years non-zero data (including partial years data) are required to use the baseline data methodology. This is consistent with our treatment of installations that commenced operations in 2002 (who have two years' non-zero data) as compared to those that began in 2003 (who have a single year's data and so the



standard allocation methodology for new entrants will be used to calculate their allocation).

- If an installation was closed in 2003 and had not reopened by the start of Phase I, providing it with an allocation as an incumbent (as if it were operation from 1 January 2005) would result in over-allocation. Such installations had to provide evidence that they had recommenced operation before the start of Phase I.

## **F. Treatment of commissioning during the baseline period**

15. An installation's share of allowances of the total sector allowance is calculated using that installation's 'relevant emissions' figure. The general methodology for calculating an installation's relevant emissions is to take the baseline data, drop the year with the lowest emissions, and then take an average of the remaining years.
16. The purpose of dropping the lowest year acknowledges that emissions in a particular year might be unusually low, for a number of reasons, including low emissions during commissioning and only having a partial year's data (due to operations starting during a calendar year rather than at the start).
17. The consultation on the draft NAP, highlighted that there were still some situations where dropping the lowest year was not sufficient to account for commissioning. This was specifically where the commissioning period took place across more than one calendar year. This was more likely in sectors where commissioning can often be a significant and protracted event.
18. Government therefore proposed in the provisional NAP to further investigate the possibility of taking commissioning into account more specifically.

### **Decision:**

- Commissioning will be specifically accommodated for in the power station and cement sectors and the 'commissioning rule' will only therefore apply to installations in these sectors (or those installations classified in these sectors in either of the lists of installation- level allocations notified to the European Commission on 14 February 2005 and 14 June 2004). It is recognised that commissioning will have taken place in other sectors, but that it was rarely a significant and protracted event.
- The commissioning rule is that (a) data for any year prior to the year in which normal operations commenced is excluded from the calculation of relevant emissions; and (b) for the year in which normal operations commenced, the data used for calculating that installation's relevant emissions would include the commissioning data.

- For all other sectors, all data from date of first emissions will be used, including any part year or commissioning data.
- The normal baseline allocation methodology will then be applied (drop lowest year and take average).

### **Implementation:**

- The Government has, in consultation with industry, devised definitions of the date on which normal operations would generally be considered to have commenced for the power station and cement sectors. These dates of commencement of normal operations are defined as:
  - **Power stations** – the later of (a) the date when the installation/technical units started paying full business rates or (b) the date when the handover of plant from builder to operator took place.
  - **Cement** – as the date on which 90 days operation at an average load factor above 80% began.
- If any installation was ‘commissioning’ as defined above on 31 December of any of the baseline years, the calculation of its relevant emission will exclude those years. In the calendar year in which it starts normal operation, all data for that calendar year will be included in the calculation of its relevant emissions. The relevant emissions will then be calculated using the normal methodology i.e. take the average of remaining years data after dropping the lowest year. For example, an installation in the power stations sector started commissioning in March 1999 with normal operations starting in March 2000. Because normal operations does not start throughout 1999, up to and including 31 December, the data from this year is excluded. Because normal operations does start in 2000, then the commissioning data from this year is included.
- The normal baseline allocation methodology will then be applied. In the example above, this means that the lowest year of 2000, 2001, 2002 and 2003 is dropped. The average is taken of the remaining years.
- Operators of an installation affected by commissioning need to provide verified evidence to Defra. Defra will consult the devolved administrations, DTI and the regulators as necessary to verify whether commissioning has taken place.
- New entrants in the power stations and cement sectors will be treated according to the commissioning rule set out in Appendix C to the NAP.

## Rationale:

- It is considered that where sufficient historic data is available, allocations to incumbent installations should be based on historic emissions data. The original baseline allocation methodology in the draft NAP (published January 2004) was to drop the year with lowest emissions from the baseline and then take the average. The rationale behind dropping the lowest year was to take account of operator's concerns that emissions in some years were lower than "normal" due to a number of reasons, one of which could be commissioning.
- A number of responses to the consultation on the draft NAP expressed concern that this would not be enough to address some periods of significant commissioning. In particular, it was raised by the cement sector and the power station sector, for both of whom commissioning could be significant events, over a long period of time, with emissions significantly lower than normal operations.
- It was therefore proposed in the consultation document that accompanied the provisional NAP that went to the Commission that we could take these kind of major commissioning events more explicitly into account by excluding data from the commissioning period. Any such kind of new rule would require data resubmission from operators.
- We have considered this issue further and consider that an additional rule was required to deal with commissioning in sectors where commissioning takes place over an extended period (i.e. the power station and cement sectors). The rule will only be applied to installations classified in these sectors in either of the lists of installation-level allocations notified to the Commission on 14 February 2005 and 14 June 2004
- However, to ensure that installations commissioning over an extended period are not disadvantaged, data from the years where the installation was only commissioning would be excluded from the calculation of relevant emissions. The year in which the installation begins normal operations (including the commissioning data from that year) will be used in the calculation of the relevant emissions. This means that installations from the power station and cement sectors will, so far as possible, be treated in the same way as installations from other sectors.
- It was decided not to exclude the commissioning data *and* the remaining partial year's data before calculating the relevant emissions for the following reasons:

- It will increase the number of installations that have fewer years data to use, thus making them more vulnerable to any remaining emissions anomalies.
- It will increase the number of incumbent installations that have to use the new entrants benchmarking methodology. However, Government's view is that *where sufficient data could be available* then allocations to incumbents should be based on historic emissions, as with most other installations.
- Excluding the partial year will disadvantage some operators, where their partial year has higher emissions than later years.
- Even if an operator is left with a partial year that has very low emissions, then this year can nonetheless be dropped using the 'drop 1 year' provision, which had always been the intention.