Allocation in phase 3 of EU ETS

Case study: integrated pulp and paper mill

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General information about the pulp and paper mill

- Is the installation eligible for free allocation? Yes
- Is the installation an electricity generator pursuant Art. 3(u)? No
- What is the chosen baseline period? 2005-2008
- Did the installation operate at least one day in each calendar year in the baseline period? Yes
- Significant changes in capacity? No

Integrated pulp and paper mill

- Numbers used in this example are fictitious!!!

Identify relevant technical connections

Define product benchmark sub-installations

Recovered paper pulp
Attribute all (other) emissions, fuel, and measurable heat to sub-installations

- For allocation,
  - Exact data for measurable heat consumption/export is necessary for heat benchmark sub-installation
  - Exact data on energy input is necessary for fuel benchmark sub-installations
  - Exact emissions is necessary if a process emissions sub-installation would be present

Nevertheless, to be able to check completeness and consistency (Art. 7.7), operators will:
- In the data collection template: estimate the attribution of all other emissions, energy input and measurable heat
- In the methodology report: describe the attribution

Determine historical activity levels
Recovered paper pulp sub-installation

Chosen baseline: 2005 - 2008
No change in operation
No significant changes in capacity
Assuming constant production

HAL = median(2005 – 2008 annual production levels) = 12 Adt

Determine historical activity levels
Short fibre kraft sub-installation

Not considered in HAL.
For integrated mills only used in paper sub-installation

HAL = 0 Adt

Determine historical activity levels
Coated fine paper sub-installation

Chosen baseline: 2005 - 2008
No change in operation
No significant changes in capacity
Assuming constant production

HAL = median(2005 – 2008 annual production levels) = 12 Adt

Determine historical activity levels
Uncoated fine paper sub-installation

Chosen baseline: 2005 - 2008
No change in operation
No significant changes in capacity
Assuming constant activity level

HAL = median(2005 – 2008 annual production levels) = 40 TJ

Determine historical activity levels
Not-exposed heat benchmark sub-installation

Chosen baseline: 2005 - 2008
No change in operation
No significant changes in capacity
Assuming constant production

HAL = median(2005 – 2008 annual production levels) = 60 TJ
Determine preliminary total allocation

Not considering carbon leakage status

- Recovered paper pulp sub-installation:
  \[ BM\_P \times HAL \times \text{Uncoated fine paper sub-installation:} \]
- Short fibre kraft pulp sub-installation:
  \[ BM\_P \times HAL \times \text{Coated fine paper sub-installation:} \]
- Uncoupled fine paper sub-installation:
  \[ BM\_P \times HAL \times \text{Heat benchmark sub-installation not exposed:} \]
- Preliminary total allocation:
  \[ \text{Sum of the above} \]

BM: Benchmark
HAL: Historical activity level
EUA: Allowances

Determine preliminary total allocation

Considering carbon leakage status

- Recovered paper pulp sub-installation:
  \[ BM\_P \times HAL \times \text{Uncoated fine paper sub-installation:} \]
- Short fibre kraft pulp sub-installation:
  \[ BM\_P \times HAL \times \text{Coated fine paper sub-installation:} \]
- Uncoupled fine paper sub-installation:
  \[ BM\_P \times HAL \times \text{Heat benchmark sub-installation not exposed:} \]
- Preliminary total allocation:
  \[ \text{Sum of the above} \]

BM: Benchmark
HAL: Historical activity level
EUA: Allowances
CLEF: Carbon leakage exposure factor

Determine final total allocation (not in NIMs)

In this case the installation is not an "electricity generator" (pursuant to Art. 3(u)); so:

Final allocation = \( F \_{\text{prelim,instal}}(k) \times \text{CSF}(k) \)

Final allocation = \( F \_{\text{prelim,instal}}(k) \times 0.0174 \times (k - 2013) \)

CSF(k): Cross-sectoral correction factor in year k (if applicable)

In case the installation would have been an "electricity generator", then:

Final allocation = \( F \_{\text{prelim,instal}}(k) \times 0.0174 \times F \_{\text{prelim,instal}}(2013) \times (k - 2013) \)