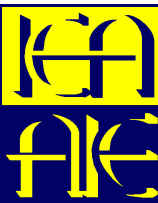


Cement, iron and steel report from Group 3

Risoe, 8 May 2001



General characteristics

- **Significant growth expected (NAI), and this may differ between countries**
- **Sectoral improvements (energy efficiency, emissions) slow**
- **Performance improvements linked to level of competition (national, global)**
- **Differences between cement, iron and steel (I&S), linked to level of competition**

Potential project types

- **Greenfield (high std. potential)**
- **Brownfield (medium std. potential)**
 - fuel switch/substitution
 - process upgrade/modification
 - upgrade controls
 - replacement of individual equipment/units
- **Input modification: raw materials (medium std. potential)**
- **Product modification (diff. to standardise)**

Geographical boundaries

- **National circumstances important**
 - Issues to consider:
 - type and size of projects
 - ownership of units
 - availability of infrastructure/resources
 - level of industrial activity
 - level and access to technology
 - capital endowment (in industry/country)

Data issues

- **Not simple: availability and quality vary among countries, project types, production routes**
- **Possibility to have different levels of standardisation according to data availability:**
 - stringency essential where reliable data is not available
- **Difference between manufacturer's specifications and operating performance data should be reflected in baseline**

Temporal boundaries

- **Suggested 5y minimum of crediting before baseline revision**
- **Possible options could include:**
 - Shorter, fixed crediting lifetime
 - longer crediting lifetime with revision(s)
- **Crediting lifetime can be a function of stringency**

Comprehensiveness

- **Both direct, indirect and process GHG emissions can be significant**
- **Include any significant emissions source in baseline**
- **Inclusion of indirect emissions crucial to baseline when significant proportion of overall GHG emissions**

Baseline methodology

- **Should start with production route (technology/process)**
- **Then fuel-specific baselines (benchmark at an average value)**
 - Different baseline may be needed at a variation $> y\%$ in input
- **Product-specific baselines may be required on project boundaries**

Baseline methodology (2)

- **When your brownfield project increases capacity:**
 - need to justify if increased capacity gets same level of credit as a greenfield project
 - answer may vary depending on how capacity is increased or utilised

Baseline units

- **Rate-based baselines for standardised baselines (X per ton product)**
- **May need possibility to use absolute units for project-specific baselines**
- **For many project types, baselines can be expressed per ton intermediate output (ton crude steel, clinker)**

Additionality

- **Does baseline = additionality check?**
 - Maybe yes, if baseline stringent enough
- **Other additionality checks (simple questions) may be needed**
 - e.g. national policies/standards and their implementation, knowledge additionality

How to deal with perverse incentives

- Are they really significant? Studies need to establish tradeoff between perverse incentives, stringencies etc.

Small project potential?

- **"fast track" opportunities should not be limited to energy projects (e.g. rural industrialisation projects using scrap)**
- **May be applicable to some production routes (e.g. EAF based on scrap), but not to others (e.g. ISP)**
- **Definition of small linked to product manufacturing capacity**
- **Use average standardised baseline (global/regional)**

Recommendations (industry)

- **Develop regional, industry-specific assessments for baseline methodologies (cement, iron & steel) for identified project types**
- **Develop a single format for:**
 - data collection and organisation (including system boundaries, units)
 - temporal boundaries
 - determination of "significant" emission sources
- **Build on existing work e.g. INEDIS, OECD/IEA reports, LBNL**

Recommendations (2)

- More work required to confirm whether further additionality checks besides baselines are needed/feasible
- Explore inclusion of "small" industrial projects (e.g. scrap-based EAF) in "fast-track" proposals
- Future workshops on industry baselines should be held after recommended studies undertaken

Cross-cutting issues

- **Energy inputs**
- **Products**
- **Additionality**
- **Greenfield projects**