

Identification and documentation of Industrial Emissions ‘Success Stories’

- Specific Terms of Reference” -

1. BACKGROUND

Industrial activities play an important role in the economic well-being of Europe, contributing to sustainable growth but also have a significant impact on the environment. The largest industrial installations account for a considerable share of total emissions of key atmospheric pollutants and also have other important environmental impacts, including through emissions to water and soil, generation of waste and the use of energy.

For this reason industrial emissions have been regulated at EU level for many decades. The EU's industrial emissions (IE) policy contributes to the protection of the environment and human health and to industrial innovation. At the same time it promotes products and processes that avoid pollution and that are energy and resource efficient.

The most important piece of industrial emissions legislation is currently the Industrial Emissions Directive (IED)¹. The IED defines the framework for the permitting of industrial activities with a major pollution potential with the aim to avoid or minimise polluting emissions to the atmosphere, water and soil, and the generation and disposal of waste in order to achieve an overall high level of environmental and health protection, in particular through better application of Best Available Techniques (BAT).

The IED builds on the foundations of its seven successor directives² and their predecessors.

The 7th EU Environmental Action Programme (EAP) "*Living well within the limits of our planet*"³ lists nine priority objectives for 2020, several of which are particularly relevant to Industrial Emissions policy, such as:

- A. to turn the EU into a resource-efficient, green, and competitive low-carbon economy;
- B. to safeguard the EU's citizens from environment-related pressures and risks to health and wellbeing; and
- C. to maximise the benefits of the Union's environment legislation by improving implementation.

Under the current Commission, industrial emissions policy is framed by the priority areas established by President Juncker⁴, particularly on jobs, growth and investment, a forward looking climate change policy and the creation of a strengthened industrial base.

¹ Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control) <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:32010L0075>

² Integrated Pollution Prevention and Control (IPPC, 2008/1/EC); Solvents Emissions (SED, 99/13/EC); Waste Incineration (WID, 2000/76/EC); Large Combustion Plants (LCPD, 2001/80/EC) and three titanium dioxide directives (78/176/EEC, 82/883/EEC and 92/112/EEC).

³ Decision No 1386/2013/EU of the European Parliament and of the Council of 20 November 2013 on a General Union Environment Action Programme to 2020 'Living well, within the limits of our planet' <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:32013D1386>

⁴ http://ec.europa.eu/priorities/docs/pg_en.pdf

2. SUBJECT OF THE SERVICE REQUEST

This service request is to support the Commission in identifying and documenting 'success stories' resulting from the application of the European IE policy i.e. the IED and its seven predecessor directives. These successes should have occurred in the last decade and are to be primarily judged in terms of environmental and health achievements and where possible, in conjunction with economic and social achievements relating to priority areas established by President Juncker.

The outputs from this study will be used to communicate on the successes of IE policy.

3. TASKS TO BE PERFORMED

The contractor should perform the following three tasks:

Task A - Success Criteria: Establish the criteria for assessing successes under IE policy.

Task B - Long List: Identify at least 30 success stories with the potential for illustrating the benefits of IE policy.

Task C – Short List: Select at least 10 exemplary success stories and, for each, provide extensive, detailed, robust and factual descriptions, which may be subsequently used for internal and external communication purposes.

These tasks are described in more detail below.

3.1. Task A - Success Criteria

The tenderer should explain a methodology for assessing possible success stories based on specified criteria. The following list of success criteria is not exhaustive and the tenderer is encouraged to come forward with additional considerations. There is particular interest in identifying success stories that score positively against several of the criteria below and also those that deliver benefits in other policy areas (including competitiveness, employment, research/development etc.):

- i. **Emissions to air:** Major reductions in the emission of key air pollutants, especially those responsible for human health impacts (directly or indirectly) as well as affecting other policy objectives (water, nature, biodiversity, etc.).
- ii. **Releases to water:** Major reductions in the release of key water pollutants, especially priority substances.
- iii. **Waste arisings and disposal:** Major reductions in waste arisings and improved waste recovery / reuse (especially of key raw materials).
- iv. **Greenhouse gas emissions:** Direct or indirect reductions in emissions of CO₂ and other greenhouse gases.
- v. **Resource efficiency:** Reduced use of key resources (water, raw materials) through increased process efficiency, substitution of input materials, recycling and reuse.
- vi. **Eco-innovation:** Development and uptake of new process or abatement technology improving the (cost-) effectiveness of pollution control.

- vii. **Conflict solving:** IE legislation includes provisions on access to information, public participation, access to justice and inspections that may be used in solving conflicts between industrial operations and neighbours.
- viii. **Enabling economic development:** the application of BAT may enable the development/ re-development of industrial activities in particular areas from which such activities were excluded.
- ix. **EU Technological leadership:** BAT implementation helps EU industry gaining shares of a rapidly growing global pollution control market.
- x. **Proportionate cost effective solutions** for reducing emissions, including from SMEs in the case of SED.

3.2. Task B - Long List

Using the 'Success Criteria' developed under Task A, establish a Long List of at least 30 case studies that have the potential to exemplify the benefits of IE legislation in specific cases. As long as they are fact-based, cases can be at the level of an installation, a sector, a country (cross-sector) or a company.

For each of the potential success stories, comprehensive factual data should be collected in order to provide information on the assessment of quantified potential benefits for that particular case.

The contractor should propose a template format for the Long List of success stories but it is envisaged that each description would include the following features:

- Outline enough background information to explain the context of the success story.
- A short general description elucidating why this could be a possible 'success story', which benefits were identified and how they have been achieved.
- Indicate what possible future successes might derive from continued action.

Success stories should cover the IPPCD, LCPD, WID and SED regimes. Where possible and information is already available there is particular interest in identifying success stories in the seven industrial sectors for which revised BREFs have been completed under the IED i.e. iron & steel; glass; pulp & paper; cement, lime and magnesium oxide; chlor-alkali; refining of mineral oil & gas and tanning of hides & skins.

Sources of information that could be used to identify the Long List may include, but does not need to be limited to:

- Member State competent authorities for permit writing and inspection
- Members of the Industrial Emissions Expert Group (IEEG)
- Information submitted during BREF information exchanges
- European Environment Agency (EEA)
- Joint Research Centre (JRC)
- Environmental technology providers
- Environmental statements / reports from companies, in particular from those that are EMAS-registered or have been otherwise recognised.

Appendix 1 gives an illustrative example of information that could be included in a success story factsheet.

3.3. Task C – Short List

From the 'Long List' developed under Task B, select at least ten most promising success stories and provide a factual description of each. The selection process will require input from the European Commission.

The contractor should propose a template format for the Short List of success stories but it is envisaged that each description would include the following features:

- Outline enough background information to explain the context of the success story.
- Identify, provide fact-based explanation and preferably quantify, what the successes have been and how they have been achieved.
- Wherever possible, present information as graphics / pictures.
- Indicate what possible future successes might derive from continued action.
- Be written in clear, easily understandable language that conveys a story to an informed audience, with a summary of the key facts for a lay audience.

The final outputs contain all necessary details and information for subsequent use in producing communication material on IE policy.

4. DELIVERABLES AND ESTIMATED TIMETABLE

An inception meeting will be organised in Brussels between the Contractor and the Commission Services within **two weeks** of signing the contract. At the inception meeting, the Contractor will present a proposed methodology to perform the contract. The working language at this and all following meetings will be English.

In addition to the inception meeting, the Contractor shall be available, upon request of the Commission, to attend at least two meetings in Brussels to discuss the progress and the various reports. One of these meetings is anticipated to be a presentation of the final report to the IEEG. The Contractor shall submit notes of any such meetings within two weeks of their having taken place.

The language of the reports and all documentation produced in the context of this contract must be English.

The final report shall be provided electronically and in three paper copies.

The estimated timetable of the deliverables is:

- Inception report, summarising the inception meeting and setting out the methodology and time schedule for the work: within **2 weeks** of the inception meeting;
- Intermediate report delivering Task A and an outline of Task B: within **3 months** of the start of the project;
- Updated intermediate report, delivering Task B and a provisional response on Task C: within **6 months** of the start of the project;

- Draft final report: within **10 months** of the start of the project;
- Final report, taking into account the comments from the Commission on the draft final report: within **12 months** of the start of the project.

APPENDIX 1 – ILLUSTRATIVE EXAMPLE OF INFORMATION THAT COULD BE INCLUDED IN A SUCCESS STORY FEATURING IN THE LONG LIST

The European Commission has looked at the potential environmental benefits of the decommissioning or conversion of mercury cell plants used in the chlor-alkali sector as a consequence of industrial emissions policy (IPPC Directive and IED). Part of the findings is quoted below in order to illustrate the kind of information that the contractor should identify and describe in the context of this study.

"...Benefits of the decommissioning or conversion of all mercury cell plants in the Chlor-Alkali sector to membrane cell plants

The main benefits of such a conversion will be reduced emissions of mercury to air and water, reduced generation of waste contaminated with mercury and reduced electricity consumption. Based on the information in the revised CAK BREF (2014)⁵, the following figures can be given:

- Based on data from AMAP/UNEP for the reference year 2010, the total annual mercury emissions to air of the chlor-alkali industry in the EU-27 amounted to about 6 t, or approximately 7 % of the total anthropogenic mercury emissions to air. These emissions would be avoided by complete decommissioning or conversion of all mercury cell plants.*
- In 2010, the total electricity consumption of the chlor-alkali sector in the EU-27 and EFTA countries amounted to 35 TWh. This was equivalent to 1 % of the total final energy consumption in the form of electricity in this region. In 2010, about one third of the total chlor-alkali production capacity in the EU-27 and EFTA countries was based on the mercury cell technique. The conversion of a mercury cell plant to the membrane cell technique typically results in a reduction of electricity consumption of approximately 30 %. From these figures it can be estimated, that a complete conversion of all mercury cell plants to the membrane cell technique would result in a reduction of 10 % of the total electricity consumption of the chlor-alkali sector, equivalent to approximately 3.5 TWh or 0.1 % of the total final energy consumption in the form of electricity in the EU-27 and EFTA.*

⁵ http://eippcb.jrc.ec.europa.eu/reference/BREF/CAK_BREF_102014.pdf