



Matching Supply and Demand in the Future

IETS perspectives

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The IETS Implementing Agreement



The IETS is an Implementing Agreement under the IEA, focusing on **energy efficient industrial technologies and systems**.

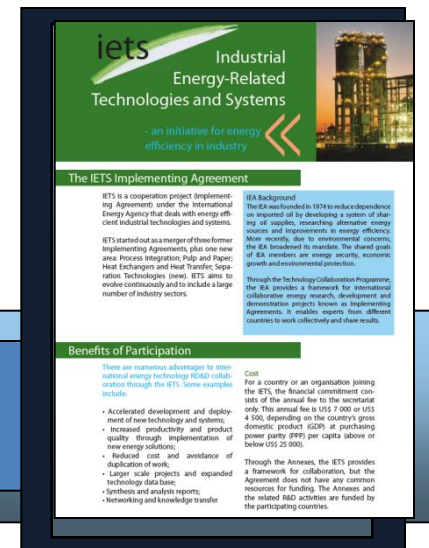
The Program was established in 2005 as the result of merging, revamping and extending activities formerly carried out by separate industrial IEA Programs.



IETS currently has 10 member countries: Belgium, Finland, US, Canada, Denmark, Sweden, the Netherlands, Norway, Portugal and Korea

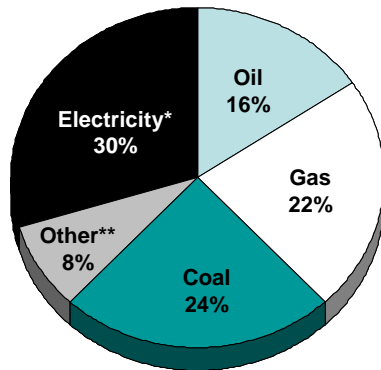
For more information about IETS:

<http://www.iea-iets.org> Information Brochure "About IETS"



Energy use in industry

Figure 1. Industry Energy Worldwide: 2059 Mtoe:
Total World Energy: 6861 Mtoe



*includes power from renewables

**combustible renewables & waste

Today, industry accounts for about **one-third of total global energy use.**

The sector is responsible for about **22% of worldwide CO2 missions**, of which 26% are from the iron and steel industry, 25% from non-metallic minerals and 18% from petrochemicals.

Energy efficiency potential



Overall, industry offers a **significant savings potential** at low or even negative cost.

As a result, there is a greater potential for reducing greenhouse gas emissions at a lower cost than could be achieved in other sectors. The potential for CO₂ emission reductions in this sector is estimated to 25-30%.

But..

Industry is shortsighted and risk sensitive

Limited incentives (tax, support etc.)

IETS Annexes



- On going
 - Drying and dewatering techniques
 - Membranes
 - Energy efficient separation systems
 - Industrial biorefineries
 - Industrial heat pumps (Joint annex)
- Starting and planned
 - Industrial excess heat utilisation
 - Process integration in the iron and steel industry
 - Energy optimisation in SME's
 - Energy efficient process control
 - Industrial CCS

IETS Energy storage perspectives



- Process integration batch processes
 - Short term thermal storage
 - Chemical industry, Food industry, pharmaceuticals etc
 - Limited practical use
 - Temperature degradation
 - Expensive storage (perception?)
 - Complex optimisation
- Industrial waste heat utilisation
 - District heating, district cooling

IETS Energy storage perspectives



- Utilisation of low electricity costs
 - Flexible production
 - Existing storage options
 - Cooling rooms, ice-water cooling system etc.
 - New options
 - Heat pumping assisted storage
 - Battery storage?
- Other storage options?

