

Industrial Energy Efficiency

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Topics

- Industrial energy use and energy efficiency
- UN Energy
- UNIDO



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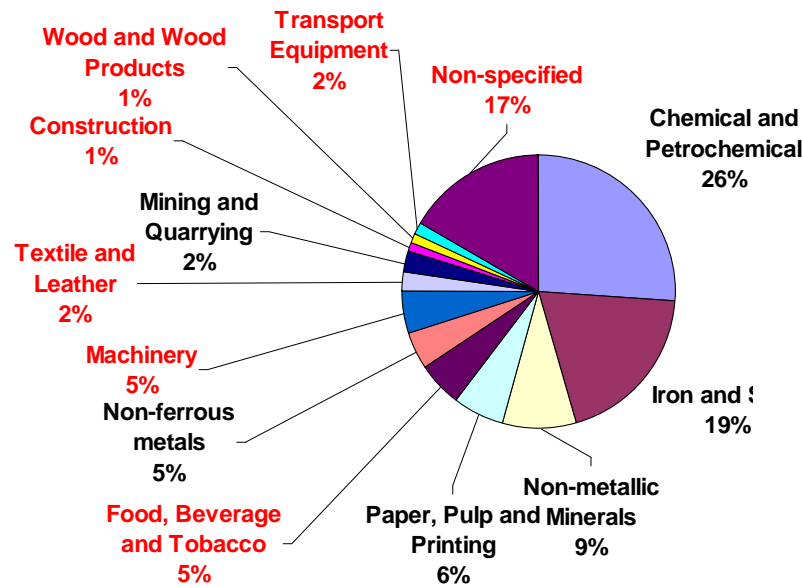
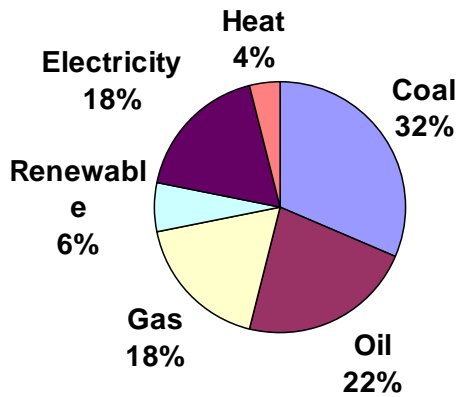
Industrial Energy Use and Energy Efficiency



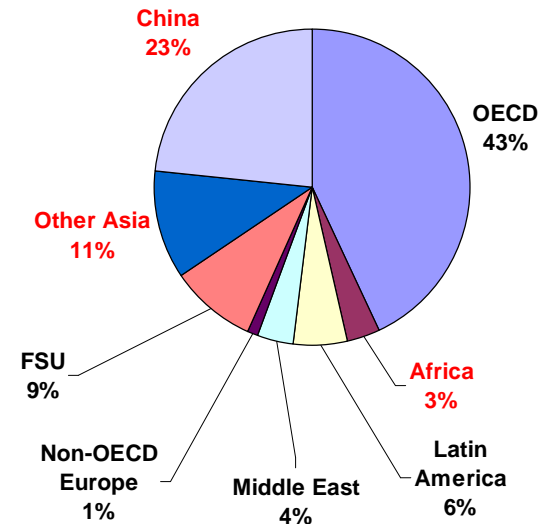
Industrial Energy Use, 2006

121 EJ final/156 EJ primary energy use – 1/3 of total global energy use

7.1 Gt CO₂
25% of total E&P CO₂
(direct emissions)



Sectoral Split



Regional Split

Energy Carrier Mix



The Situation Today

- Autonomous technical improvement in the order of 1%/yr
- BPT efficiency potential in energy intensive sectors typically 15-20%
- Greater potentials in energy extensive industries/SMEs
- Systems options potentials are significant
 - Motor systems, CHP, life cycle optimization etc.



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UN Energy



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- 20 participating organizations and the GEF
- A single entry point for all UN energy matters and a joint view
- Chaired by UNIDO DG, Dr Kandeh Yumkella
- Currently three working groups
 - Energy efficiency, renewables, financing
- <http://esa.un.org/un-energy/index.htm>



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Un Energy Energy Efficiency Working Group

- Lead IAEA and UNIDO
- *Paper* Industrial energy efficiency: policies and measures
- Proposed next steps
 - Cost curve methodology
 - Barriers workshop



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UNIDO Activities



The UNIDO Approach

- Project portfolio of about USD 100 mln
- Strong focus on motor, steam and pressurized air systems
- Support development and dissemination of Energy Management Standards
- Cleaner production programme and NCPCs in 43 countries
- Process improvements for SMEs
- Renewables for industrial applications



The Need for Better Data

- Next UNIDO Industrial Development Report will focus on energy efficiency and productivity
 - Energy expenditures analysis
- Improvement of industrial energy use data for DCs and TEs
- Indicators development for food & beverage, machinery, textiles etc
- Benchmarking for DCs
- Emission abatement curves for industry in DCs and TEs
- Extract information from UNIDO projects
 - Sampling of sectors and clusters



Technology Transfer

- UNIDO works directly with industries and equipment suppliers
- Technology adjustment to local conditions is key
- Development of supply chains and local service providers
- Definition of technology transfer is unclear
 - Industrialized countries want to sell equipment
 - DCs and TEs want to build new national equipment manufacturing industries
- Intellectual property rights, skills, capacity building, financing
- Focus on individual technologies may be more productive
- Analysis of barriers for TT based on UNIDO projects



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Thank you
for your attention

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