The Chemical Industry: Energy & Climate Change Priorities

The global chemical industry provides economic, societal and environmental contributions and solutions in the communities in which they operate around the world.

The global chemical industry provides solutions to the challenge of climate change, both through improvements in operational efficiency and in product innovations.

A global climate framework is needed to address risks posed by rising GHG emissions. Controlling GHG emissions is a global challenge that needs global efforts to be effective, efficient and real.

ICCA partners with political and other stakeholders to determine how to best address climate change issues.

The global chemical industry...

... leads by example, improving energy efficiency in its own facilities.

- Europe’s chemical industry reduced overall GHG emissions by 50% between 1990 and 2010, even as production rose by 70%.
- The Japanese chemical industry reduced unit energy consumption by 2010 to 83% of the 1990 fiscal year level.
- Since 1974, the U.S. chemical industry has reduced its fuel and power energy consumed per unit of output by nearly half. Since 1990, the U.S. chemical industry has reduced GHG emissions by 26%.
- Brazilian chemical industry association members reduced specific overall energy consumption by 37% between 2001 and 2009, while increasing overall production by more than 45%. By 2009, about 18% of the whole energy came from renewable sources.

... partners with governments and international organizations to increase resource efficiency in industrialized, emerging and developing economies.

- ICCA is partnering with the International Energy Agency (IEA) and others to develop three “chemical technology roadmaps” that identify contributions to lowering GHG emissions in the areas of catalysis, construction materials, and biofuels.
… contributes to energy efficiency by improving processes and developing sustainable technologies for energy generation, storage and recovery.

The twin goals of ICCA’s climate strategy are:
- Promoting GHG emission reductions in industry’s own operations.
- Ensuring that both current products, and new products being developed, help reduce GHG emissions throughout society.

… advocates a Life Cycle Approach that includes GHG emissions from both production and consumption of products and materials.

- ICCA’s 2009 Carbon Life Cycle Analysis (c-LCA) report, *Innovations for Greenhouse Gas Reductions*, articulates the chemical industry’s energy savings and reduced GHG emissions along the industry value chain.
- Despite rising product-related GHG emissions, the chemical industry has delivered net GHG emission reductions.
- Examples of emissions savings enabled by the chemical industry:
  - Insulation materials for the construction industry: Reduces the heat lost by buildings and thus the use of heating fuel. Insulation alone accounted for 40% of the total identified CO₂ savings.
  - Use of chemical fertilizer and crop protection in agriculture: Increases agricultural yields, avoiding emissions from land-use change.
  - Advanced lighting solutions: Compact fluorescent lamps (CFLs), with longer lifetimes and greater luminous efficacy than incandescent bulbs, save significant energy.

… promotes economically viable energy efficiency measures.

- Economically viable energy-efficiency measures are the key to effective climate protection.
- ICCA encourages demand for energy-efficiency and energy conservation, with a focus on the largest, most effective, and lowest-cost abatement opportunities.
- Government policies should promote a level playing field for a diverse energy and feedstock supply.
- Government policies should support processes, products and applications that offer greater energy and resource efficiency, through enhanced awareness, faster permits for new investment and access to finance.

Read more: www.icca-chem.org