



We create chemistry

Energy Efficiency

Background

Energy efficiency compares an output of performance, service or goods with an input of energy: e.g. less energy for heating or cooling a house, less fuel per km, less electricity per ton of Chlorine. Energy efficiency is an important lever in order to prevent energy losses. The international energy agency (IEA) estimates that more than half of the CO₂ emissions from energy consumption can be reduced by energy efficiency measures until 2030.

Energy efficiency is not an endless game but comes to an end where technical, economic and/or physical limits are reached. Thus, energy efficiency must not be confused with energy savings. A target focusing on economy-wide energy consumption instead of improved energy efficiency might lead into a wrong direction, as the EU 2020 target shows: Looking at developments in the different sectors of the EU economy, it is clear that so far the 2020 Energy Efficiency target is being partly met through reduced levels of production due to industrial recession, while efficiency measures like building renovation did not meet expectations.

In industry, other aspects may conflict with improving energy efficiency: High environmental standards, flexibility of production to better allow for integration of intermittent renewable energy but also new technologies to reduce carbon emissions may limit efficiency or even increase energy consumption.

BASF point of view

BASF is an energy intensive company. In the face of limited resources, the economical use of energy is part of our corporate philosophy. One of BASFs' core competencies is the increase of resource and energy efficiency throughout the whole value chain – starting with the supply of raw materials and intermediates coming to the production and finally to customer's use. This is reflected in the company purpose "We create chemistry – for a sustainable future". As the world's population is growing the demand for chemical products increases. BASF wants to benefit from this growth.

For efficient production, the company counts on its innovative power and its Verbund structure in which chemical processes run resource efficient. Besides that, BASF uses co-generating heat and power plants to reduce the specific energy consumption. It is the company's goal to implement certificated energy management systems according ISO 50001 at all large production sites globally until 2020. They represent 90% of the primary energy demand of BASF. Doing so we want to identify and realize further improvements in the field of energy efficiency. Thereby we do not only reduce greenhouse gas emissions and spare valuable energy resources but at the same time increase competitiveness of the BASF group.

A product's contribution to sustainability has to be assessed based on the entire life cycle, from manufacturing, to the use phase to disposal or recycling. Sustainable energy efficiency measures lower specific energy consumption and protect the climate while not stressing other sustainability aspects like cost-efficiency, social aspects or other resources. Several products facilitate energy efficiency. They help our customers to save energy and lower greenhouse gas emissions. Insulating materials for buildings, plastic components for cars, and fuel additives are just a few specific examples.

Energy Efficiency Policies should aim to make real energy efficiency improvements happen: Intelligent use of energy in a cost-efficient way. They must allow for industrial growth and enable innovation leading to lower greenhouse gas emissions (GHGs) across value chains, while avoiding double regulation and additional bureaucracy and cost burdens. Relocation of production sites in other regions threatens value chains without contributing to global climate protection.