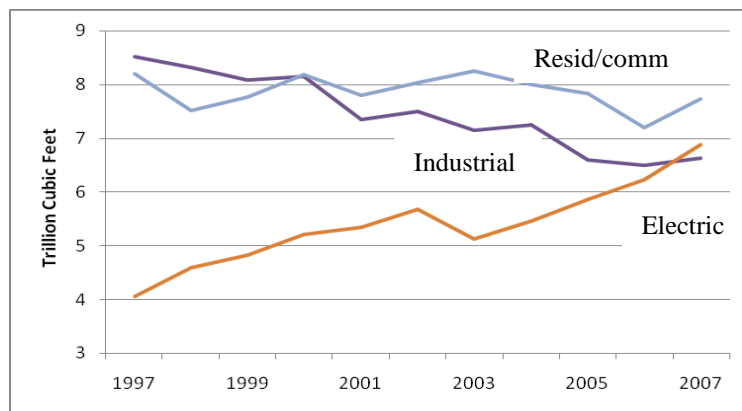


Electric Power Consumption of Natural Gas Overtakes Industrial Consumption

In 2007, for the first time, the United States used more natural gas for electric power production than for industry. Since 1997, the electric power sector has increased its use of natural gas by 69 percent, as power producers try to limit emissions as required by U.S. and state environmental regulations. Industrial use of natural gas declined by 22 percent, as manufacturers continued to improve energy efficiency. Increased use of natural gas by the electric power sector, combined with only very slight recent increases in domestic production, is a leading factor contributing to high U.S. natural gas prices. Generally, industries that rely on natural gas for fuel and/or feedstock have only a limited ability to switch to other energy sources. It is residential and commercial electric power customers who account for almost all of the increase in electric power consumption that has occurred over the past decade.

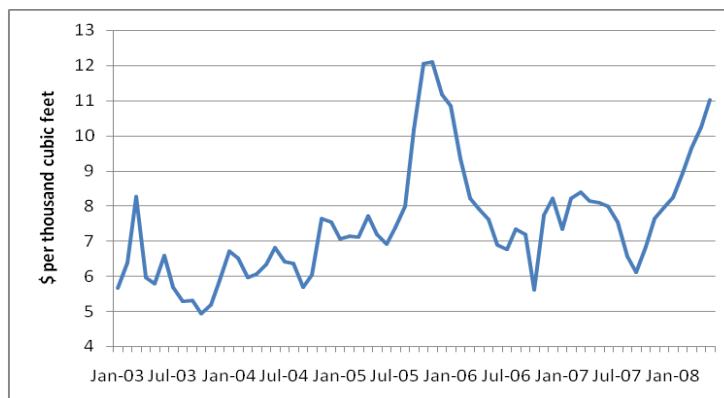
Figure 1. Natural Gas Consumption by End-Use, 1997-2007. EIA.



U.S. Natural Gas Prices at Record High – But Higher Still in Europe and Asia

U.S. industrial natural gas prices averaged \$11.23 per thousand cubic feet in May, almost at the record level they achieved in 2005-2006. The Energy Information Administration (EIA) expects that prices will average about \$10 per thousand cubic feet through 2009.

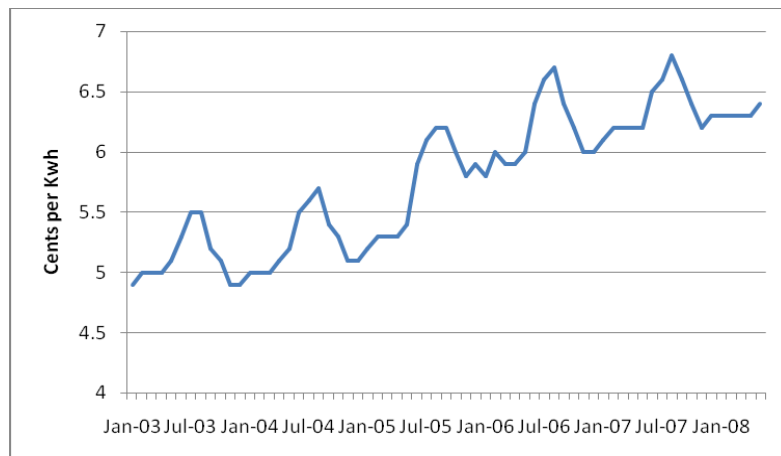
Figure 2. Natural Gas Prices for Industry, 2003-2008. EIA.



Natural gas prices in Europe and Asia have been rising as well, and for at least the past eighteen months, have generally exceeded U.S. natural gas prices. In fact, the price differential has come to mean that LNG shipments to the United States have slowed. Suppliers in the Middle East and Africa have begun increasing shipments to Europe and Asia, where this spring they were getting up to \$14-15 per thousand cubic feet. For the first three months of 2008, the United States received no LNG from regular suppliers in Algeria, Nigeria, or Qatar, and even shipments from major supplier Trinidad were down.

Electric Power Prices Also at Record Level: Over 6 Cents/Kwh for Industry

Figure 3. Industrial Electricity Prices, 2003-2008. EIA.



Impact on U.S. Industry

The chemicals industry has been profoundly affected by rising natural gas prices. Chemicals companies have responded by raising product prices. In June, chemical giant Dow raised the prices on all of its products by 20 percent, and plans another 25 percent increase this summer. Many other chemical companies have raised prices as well or have added energy surcharges. These increases in chemical prices have affected other industries as chemicals are a significant input into many production processes.

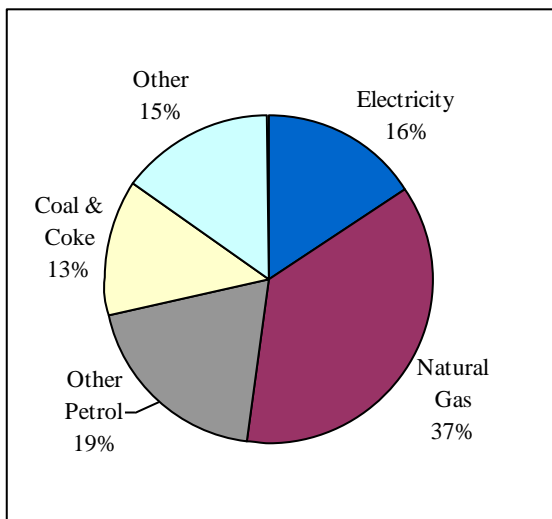
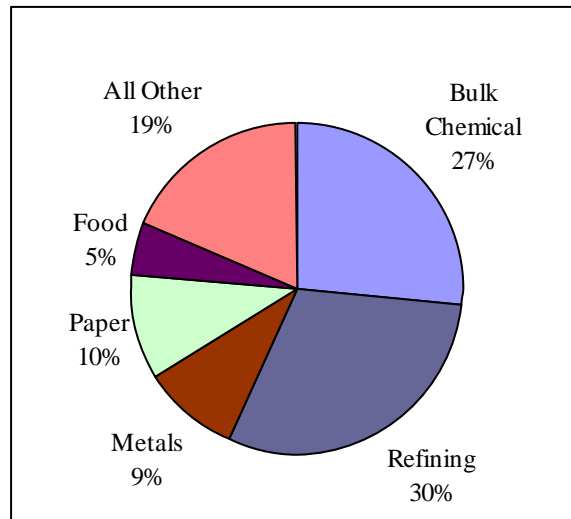
Although natural gas prices are on the rise in the United States, Europe, and Asia, they remain steady in the Middle East (the government of Saudi Arabia holds prices at \$0.75 per million Btu, and other Middle Eastern countries have similar policies). Favorable natural gas prices in the Middle East have made the region an attractive environment for chemicals production, and chemicals companies are planning many new projects and plants there – but few in the rest of the world.

High energy prices have also both increased shipping costs for U.S. manufacturers and improved their competitiveness versus imports from Asia. The cost of shipping a container from East Asia to the United States has tripled since 2000, making some imports more expensive.

BACKGROUND: HOW U.S. INDUSTRY USES ENERGY

Certain industries – chemicals, refining, metals, and paper – use much more energy than others.

Figure 4. Energy Use by Industry Sector as Portion of Total Industrial Use, 2002. Includes fuel used as feedstock. EIA, MECS 2002, Table 1.2.



Natural gas is the largest single source of energy used by U.S. manufacturers.

Figure 5. Types of Energy Used by Manufacturers, 2002. Not including feedstock. EIA, MECS 2002, Table 1.2.

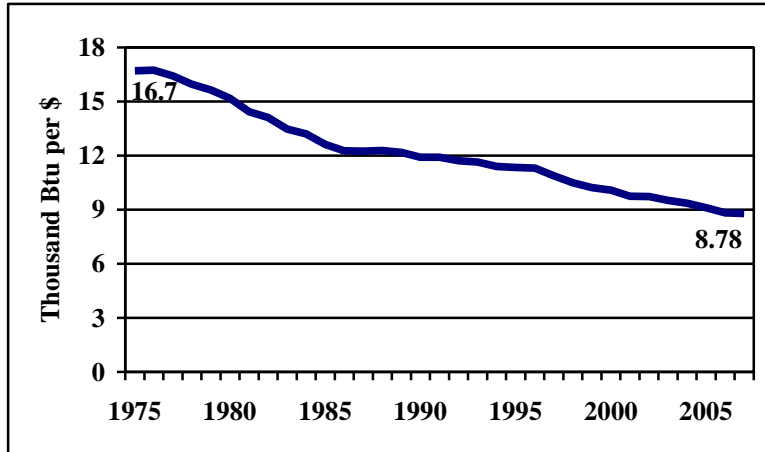
Types of Fuels Used by Manufacturers in Selected Industries.

- Chemicals & refining – petroleum, natural gas
- Paper/forest products – renewables (biomass)
- Aluminum – electricity
- Iron & steel – coal, natural gas, electricity
- Machinery, computers, transport equipment, apparel, food – natural gas, electricity

BACKGROUND: HOW U.S. INDUSTRY USES ENERGY

Energy intensity (the amount of energy used to produce one dollar of GDP) has been steadily decreasing over the past 30 years.

Figure 6. U.S. Energy Consumption per Dollar of GDP, 1975-2007. In 2000 dollars. EIA, Monthly Energy Review May 2008.



Energy intensity has declined in every manufacturing sector.

Figure 7. Energy Consumption by Selected Industries per Dollar of Shipments (thousand Btu)

Industry	1991	1994	1998	2002
Chemicals*	11.1	10.3	9.5	8.5
Paper	20.1	19.0	18.7	15.2
Metals	17.6	16.1	15.8	14.2
Transportation Equipment	1.0	0.9	0.8	0.7
Machinery	1.0	0.8	0.8	0.7

*Does not include fuel used as feedstock.

EIA, MECS 2002, 1998, 1994, 1991.

COMING THIS FALL: Updated figures from EIA's latest Manufacturing Energy Consumption (MECS) survey!