



## Energy Co2 : Co2 Reduction

### Shock Therapy: How an Energy Crisis Could Help the Planet

**With oil prices rising towards the historic benchmark of 100 dollars a barrel, fears of economic crisis are growing. Surprisingly, this might be exactly what we need to save the Earth's climate.**



#### Gasoline Price Increase

A worker changes the prices of gasoline and diesel on a board at a gas station in Chengdu, China. China unexpectedly raised domestic gasoline and diesel prices by a tenth in November 2007, the first increase in 17 months, to address a worsening supply crisis (Photo: Reuters)

The shock was massive. In 1973, Arab countries of the Organization of Petrol Exporting Countries (OPEC) caused a worldwide energy crisis by cutting oil production by five percent. Countries that supported Israel in the Yom Kippur War against its Arab neighbors faced a full-blown oil embargo. In a matter of months, oil prices quadrupled and fuel became scarce. Industrialized countries in Europe, North America, and Asia woke up to the bitter truth that they had been far too reliant on cheap oil.

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Many countries entered periods of economic stagnation and monetary inflation called "stagflation," a phenomenon previously unknown to economists. Energy intensive industries struggled, while many countries cut their oil consumption in a desperate attempt to reduce dependence.

The United States rationed gasoline and introduced lower speed limits. Germany opted for Sunday traffic bans on all but the most indispensable rides. And many European countries introduced daylight savings time as a way to make better use of daylight and save energy.

#### The efficiency revolution

While many of these urgency measures had little effect on energy consumption, the long-term impacts of the shock did. With smaller and more efficient cars, Japanese carmakers began to gain traction in the U.S. and European markets. Western European car makers responded to the challenge and launched hatchbacks like the Volkswagen Golf and Ford Fiesta, small and fuel efficient models that had been virtually

unknown in Europe before the oil crisis.

Brazil, importing about 80 percent of its crude oil in 1973, launched a new biofuel policy in the 1970s. The project called "Proálcool" involved mixing of ethanol and gasoline and the development of new motors that could burn such blends. As of today, Brazil meets around 40 percent of its gasoline demand with ethanol from domestically grown sugar cane.

### **Renewables: breaking the fossil fuel dependence**

The energy sector tried to move away from oil towards nuclear power and natural gas. Home heating from natural gas and ethanol blended gasoline further reduced global demand for oil. Renewable energies also profited from the price shock. Solar power and wind energy started to attract interest.

In 1974, the U.S. government founded the Energy Research and Development Administration and started to invest heavily in solar power cells developed at Bell Laboratories since the 1950s. Within one year, the agency's budget for solar, wind, biomass, and thermal projects rose from 35 million dollars to 167.5 million dollars.



### **Picture Gallery (click on the image to start)**

See the most important ways of using the sun's power (photo: Reuters)

Falling energy demand and efficiency gains were propelled by a second oil crisis following the Iranian Revolution in 1979. Consumption was cut so much that oil exporting countries suffered a severe backlash in the 1980s due to falling oil prices. OPEC countries and the world had realized that another energy policy was possible. Today, developed countries use half as much oil per real dollar of GDP as in the mid-1970s.

### **High oil price: Incentive for innovation**

With current oil prices nearly nine times what they were at the height of the first oil crisis, pressure to reduce oil consumption further is mounting again. Unlike the price shock 30 years ago, the gradual increase could be a blessing for the environment and business.

While the price of oil has increased by about 70 percent between January and November 2007, economic growth in the United States and elsewhere has not suffered much. Industrialized countries are still dependent in oil, but to a far lesser extent. In European countries, gasoline prices stem largely from high taxes, which governments could jettison in the midst of an energy crisis easing pressure on consumers and businesses. High prices also discourage subsidies and energy waste. For the first time in years, the Chinese government has raised its artificially low oil and petroleum prices to cut demand and improve

efficiency.

Rising costs for fossil fuels could create the incentives needed for an energy efficient and more climate-friendly industry. Reducing demand and rethinking the virtue of unqualified growth will be key. In a recent report, the conservative American Petroleum Council said there is just one way to avoid a future energy crisis: radically cutting consumption.

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