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Fewer emissions from U.S. power plants in 2009 were the result of cheaper prices of natural gas, reducing the industry's reliance on coal, researchers say.

As the United States tumbled into economic recession in that year, CO2 greenhouse gas emissions also fell by 6.59 percent relative to 2008, but the recession was not the main cause, researchers at Harvard University said.

Instead, the primary factor in the reduction in emissions from power generation was a decrease in the price of natural gas, which allowed the industry to reduce its traditional reliance on coal, they said.

The economic model used to determine this also suggests emissions could be cut further by the introduction of a carbon tax, with negligible impact on the price of electricity for consumers, the researchers reported in the journal Environmental Science and Technology.

"Generating 1 kilowatt-hour of electricity from coal releases twice as much CO2 to the atmosphere as generating the same amount from natural gas, so a slight shift in the relative prices of coal and natural gas can result in a sharp drop in carbon emissions," environmental studies professor Michael B. McElroy said. "That's what we saw in 2009," he said, "and we may well see it again." Researchers said their model identifies the relationship between the cost of electricity generation from coal and gas.

"When the natural gas prices are high, as they were four years ago, if the gas prices come down a little bit, it doesn't make any difference," study lead author Xi Lu said. "But there's a critical price level where the gas systems become more cost-effective than the oldest coal-fired systems."

Electricity Pricing Areas – Feb 28, 2012

March

On-Peak	Per kWh
Cinergy	\$.02900
PJM West	\$.03405

ComEd Average Day Ahead LMP Electric Price

Time Period	Average per Kwh
Feb 1–Feb 28, 2011	\$.03581
March 1- Mar 31	\$.03668
April 1 – April 30	\$.03448
May1- May 31	\$.03954
June 1 - June 30	\$.03851
July 1 thru July 31	\$.05170
Aug 1 – Aug 31	\$.04064
Sep 1 - Sep 30	\$.03058
Oct 1- Oct31	\$.02968
Nov 1- Nov 30	\$.02816
Dec 1 – Dec 31	\$.02971
Jan 1 –Jan 31	\$.03043
Feb 1–Feb 27, 2012	\$.02967

Weather Tue: Cloudy. High 44F. Winds ESE at 10 to 20 mph. **Tonight:** Rain...perhaps a rumble of thunder overnight. Low 44F. Winds SE at 15 to 25 mph. Rainfall around a quarter of an inch. **Wed:** Windy with a few clouds from time to time. High near 55F. Winds WSW at 25 to 35 mph. Winds could occasionally gust over 40 mph. **Thu:** Mix of sun and clouds. Highs in the upper 40s and lows in the low 40s. **Fri:** Cloudy with rain. Highs in the upper 40s and lows in the mid 30s. **Sat:** A few snow showers possible, windy. Highs in the upper 30s and lows in the low 30s.

