

CORNHUSKER ECONOMICS

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Status of U.S. Initiatives to Limit GHG Emissions

The status of the United States initiatives to limit green house gas (GHG) emissions is the topic of this article. Although there are uncertainties associated with the science of climate change, some aspects of the science are known with virtual certainty (they have a greater than 99% chance of being true). Scientists know with virtual certainty that levels of greenhouse gases, like carbon dioxide in the atmosphere have been increasing since pre-industrial times; that the atmospheric buildup of CO₂ and other greenhouse gases is largely the result of human activities such as the burning of fossil fuels; and that increasing greenhouse gas concentrations tends to warm the planet.

Despite this vast scientific consensus and its relevance for human kind's welfare, a solution to the problem has not yet been reached. An obstacle in this respect is the very nature of the problem. Any jurisdiction – whether a nation, state, or city – that takes actions to limit its emissions will bear the costs of those actions, while the benefits (reduced risk of climate change damages), will be distributed globally. The climate effects from a single jurisdictions actions will be small, thus the benefits it obtains from its own climate policy actions will be less than the cost it incurs. This is despite the fact that the benefits of global action may well be greater than global costs. This situation creates a [free-rider problem](#), in which it is in the interest of each jurisdiction to wait for others to take action and benefit from them (that is, free-ride). This is the fundamental reason why the highest levels of effective government should be involved, that is, sovereign states (nations). And this is also why international cooperation is essential.

During the past two years there have been a number of federal climate change policy proposals,

| Market Report | Yr Ago | 4 Wks Ago | 10/15/10 |
|--|-----------|--------------|----------|
| <u>Livestock and Products,</u> | | | |
| <u>Weekly Average</u> | | | |
| Nebraska Slaughter Steers, 35-65% Choice, Live Weight..... | \$82.14 | \$97.68 | \$95.36 |
| Nebraska Feeder Steers, Med. & Large Frame, 550-600 lb..... | 99.39 | 124.00 | 120.85 |
| Nebraska Feeder Steers, Med. & Large Frame 750-800 lb..... | 97.15 | 113.35 | 114.79 |
| Choice Boxed Beef, 600-750 lb. Carcass..... | 135.29 | 158.15 | 153.18 |
| Western Corn Belt Base Hog Price Carcass, Negotiated..... | 49.61 | 80.30 | 64.00 |
| Feeder Pigs, National Direct 50 lbs, FOB..... | * | * | * |
| Pork Carcass Cutout, 185 lb. Carcass, 51-52% Lean..... | 55.35 | 91.34 | 81.96 |
| Slaughter Lambs, Ch. & Pr., Heavy, Wooled, South Dakota, Direct..... | 91.50 | 139.00 | 142.50 |
| National Carcass Lamb Cutout, FOB..... | 244.07 | 327.61 | 336.98 |
| <u>Crops,</u> | | | |
| <u>Daily Spot Prices</u> | | | |
| Wheat, No. 1, H.W. Imperial, bu..... | 4.06 | 5.95 | 5.76 |
| Corn, No. 2, Yellow Omaha, bu..... | 3.54 | 4.59 | 5.10 |
| Soybeans, No. 1, Yellow Omaha, bu..... | 9.57 | 10.49 | 11.08 |
| Grain Sorghum, No. 2, Yellow Dorchester, cwt..... | 5.57 | 8.13 | 8.89 |
| Oats, No. 2, Heavy Minneapolis, MN, bu..... | 2.36 | 3.26 | 3.65 |
| <u>Feed</u> | | | |
| Alfalfa, Large Square Bales, Good to Premium, RFV 160-185 Northeast Nebraska, ton..... | * | 152.50 | * |
| Alfalfa, Large Rounds, Good Platte Valley, ton..... | 82.50 | 72.50 | 75.00 |
| Grass Hay, Large Rounds, Premium Nebraska, ton..... | * | * | * |
| Dried Distillers Grains, 10% Moisture, Nebraska Average..... | 112.50 | 124.00 | 144.00 |
| Wet Distillers Grains, 65-70% Moisture, Nebraska Average..... | 39.00 | 41.50 | 50.75 |
| *No Market | | | |



such as that found in the Waxman-Markey legislation, passed by the U.S. House of Representatives in June, 2009, or the more recent Kerry-Lieberman bill in the Senate. These market-based legislative initiatives consisted of, among other things, a cap-and-trade program that promised reductions in GHG emissions at minimum aggregate cost. These proposals appear unlikely to be enacted in the near future, at least in their present form.

Nevertheless, as a result of the U.S. Supreme Court decision in *Massachusetts v. EPA* in 2007, and the administration's subsequent "endangerment finding" that emissions of carbon dioxide and other greenhouse gases endanger public health and welfare, the EPA is now required to regulate GHG emissions. The first wave of regulations will involve the EPA's proposed "Prevention of Significant Deterioration" program. Beginning in 2011, projects to build a new power plant or factory – or upgrade an existing facility – that will increase GHG emissions substantially (more than 25,000 tons of carbon-dioxide per year), will require an air permit and be required to adopt the "best available control technology" for greenhouse-gas emissions. To develop a performance standard, EPA would identify the technologies that pollute the least for a given industry sector and require all companies in that sector to pollute no more than if they used those best demonstrated technologies.

Furthermore, starting in 2011, large emitters will be required to annually report their GHG emissions to EPA. Reporting entities include fossil fuel and industrial GHG suppliers, motor vehicle and engine manufacturers, and facilities that emit 25,000 metric tons or more of CO₂ equivalent per year.

At the same time, state and regional initiatives are flourishing. California's Global Warming Solutions Act of 2006 (Assembly Bill 32, or AB 32) requires that by 2020 the state's greenhouse gas emissions be reduced to 1990 levels, a roughly 25 percent reduction compared to business as usual estimates.

By January 1, 2011 the California ARB (Air Resources Board) will adopt GHG emissions limits and emission reduction measures, and may adopt a market-based cap and trade system applicable from January 1, 2012.

A coalition of ten states in the Northeast (Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New York, New Jersey, Rhode Island and Vermont) have put their electric utilities under a cap-and-trade system known as RGGI (Regional Greenhouse Gas Initiative). The program began capping emissions at current levels in

2009, and requires emissions reductions of ten percent by 2018.

Another state coalition, the Western Climate Initiative (WCI), formed by seven U.S. states and four Canadian provinces, which together represents 13 percent of U.S. and 50 percent of Canadian greenhouse gas emissions, has compiled a detailed plan for implementing a market-based system to reduce GHG emissions in their region to 15 percent below 2005 levels by 2020.

In addition, the WCI is exploring ways to join with other regional GHG markets in the future through the three regions initiative. There's also cooperation between RGGI and WCI so that in the future they could be linked up, possibly with Europe's system, and possibly with offset projects in, say, China and India.

These initiatives make it abundantly clear that states and regions intend to press ahead with their own climate policies, while at the same time acknowledging that national action remains essential for deep emissions cuts.

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