Resources for Monitoring Climate Change: The Environmental and Energy Study Institute's Climate Change News

The Environmental and Energy Study Institute
The Environmental and Energy Study Institute ("EESI") is a non-profit organization dedicated to promoting environmentally sustainable societies. EESI believes meeting this goal requires transitions to social and economic patterns that sustain people, the environment, and the natural resources upon which present and future generations depend. EESI produces credible, timely information and innovative public policy initiatives that lead to these transitions. These products take the form of publications, briefings, workshops, and task forces.

EESI publishes the weekly Climate Change News, available online at http://www.eesi.org/publications/Newsletters/CCNews/ccnews.htm, which provides brief updates from around the world. The following articles are reprinted courtesy of EESI:

**Increasing Climate Risk a Concern for Insurance Industry and Businesses**
(reprinted from Climate Change News, January 20, 2006)

An article in the January 17 issue of Fortune says that climate change may bring weather changes more violent and sooner than experts had thought. This has some insurance companies and businesses concerned. Though it is not possible to predict future specific weather events under climate change scenarios with certainty, these companies are beginning to respond and plan for such extreme weather events.

Following the September 11 terrorist attacks on the United States, insurers stopped writing policies that automatically included coverage of terrorist attacks. Ultimately a law was passed shifting responsibility for damage from future terrorist attacks to the US government. A number of major construction projects had to halt because banks would not finance them without terrorism coverage.

Similarly, Fortune says that as climate change starts inflicting losses, insurers will pull back, shifting financial risk to businesses and homeowners, the banks that finance them—and finally to taxpayers. This is already being seen. Increases of up to 40 percent in insurance rates in Florida in the wake of last year’s active hurricane season are already making it harder for people to sell homes. In coastal Cape Cod, the effects of Hurricane Katrina have led to a 20 percent rise in reinsurance costs. The increase prompted Hingham Mutual Group, a property and casualty insurer, to drop coverage for 6,500 commercial properties. Further, insurance rates for some offshore oil platforms have risen 400 percent in one year.

For insurers the hazards of climate change become more concrete each year. Andrew Dlugolecki, a risk analyst at the Tyndall Center for Climate Change Research in Britain, recently estimated that if climate gradually warms, the chances of the insurance industry getting wiped out by weather-related catastrophes will rise from about one in 100 worldwide today to nine in 100 by 2050. John Dutton, dean emeritus of Penn State’s College of Earth and Mineral Sciences, estimated that $2.7 trillion of the $10-trillion-a-year US economy is susceptible to weather-related loss of revenue. Fortune concludes that as businesses begin to recognize the dangers of climate change, markets will help economies adjust, pricing the risks and shifting resources. However, markets may underprice long-term or novel risks. In the case of climate change, where large-scale actions must be taken to mitigate risk, Fortune says that a purely market-based response would be too little, too late and that governments need to get involved to address the risks.

**Sharp Increase in CO₂ Concentration May Accelerate Climate Change**
(reprinted from Climate Change News, January 20, 2006)

According to The Independent, new unpublished measurements of atmospheric carbon dioxide (CO₂) concentration indicate a sharper increase in 2005 than anytime previous in the data record. CO₂ measurements have been collected at the US Carbon Dioxide Information Analysis Center (CDIAC) observatory at the 11,400 foot summit of Mauna Loa in Hawaii since 1958, yielding a continuous record of CO₂ concentrations. Until the 1990s, CO₂ concentration rose by an average of 1.3 parts per million (ppm) per year. In the late 1990s, the rate of increase rose to 1.6 ppm per year, and rose again to 2 ppm per year in the early 2000s. The unpublished figures released to The Independent on January 15 indicate a rise of 2.2 ppm in the first 10 months of 2005.

Scientists involved with this study believe this may be the first evidence of a CO₂-climate feedback, in which increasing temperatures at the Earth’s surface cause the ecosystem to release more CO₂ driving temperatures even higher. This feedback could result in increases in the rate of global warming, pushing the Earth’s climate into a new and potentially unpredictable state of accelerating warming.
ASIA-PACIFIC PARTNERSHIP ON CLEAN ENERGY MEETS IN SYDNEY
(reprinted from Climate Change News, January 13, 2006)

On January 11-12, ministers from Australia, China, Japan, India, South Korea and the United States, representing the Asia-Pacific Partnership on Clean Development and Climate (AP6), met in Sydney to discuss plans to reduce greenhouse gas (GHG) emissions through technology investment and business partnerships that do not require internationally-binding emission targets such as the Kyoto Protocol. Before the meeting, Australia’s Environment Minister Ian Campbell said, “The consensus of scientists around the world is that we need 50-60 percent lower emissions this century.” The ministers identified eight strategies they would pursue to reduce GHG emissions, including carbon capture and storage, nuclear power, energy efficiency and renewable energy.

The partnership contains four of the world’s top five coal producers; all depend heavily on coal for their domestic energy. Speaking on carbon dioxide (CO$_2$) sequestration, Louis Wibberley of the Australian government’s Commonwealth Scientific and Industrial Research Organization (CSIRO), said “[The] post-combustion capture route is where you strip the CO$_2$ from the flue gas and then compress it to be stored underground.... That process effectively consumes 20-25 percent of the power station’s output.... That also gives you a multiplier effect on the cost; and with current technology you will approximately double the cost of electricity.”

At the meeting, the United States and Australia pledged a combined $127 million to reduce greenhouse gas emissions by promoting renewable energy sources and cleaner ways to use coal—$75 million from Australia over five years and $52 million from the United States in the FY ‘07 budget. Environmentalists said the pledges were far too little and complained that the forum focused on untried technologies to support the fossil fuel industry.

A report by the Australian government’s Bureau of Agricultural and Research Economics (ABARE) stated “global greenhouse gas emissions are projected to almost triple between 2001 and 2050” without the partnership. Catherine Fitzpatrick, Greenpeace’s climate and energy campaign leader, said “ABARE’s claim that the pact would lead to 20 percent reductions in emissions cannot be taken seriously as this is only 20 percent less than business-as-usual emissions growth, not absolute reductions of 20 percent.... This means the pact will actually lead to a doubling of greenhouse pollution by 2050, when scientists tell us we must reduce pollution by at least 60 percent if we are to prevent the worst impacts of climate change.”

VIEWPOINTS FROM AROUND THE WORLD Continued from page 25

Nations. He sees that the United States and Canada are not as likely to pursue a strategy of harmonization. Thus, while harmonization would be ideal, Mr. Shimada doubts it is practical or feasible.

Mr. Marco Loprieno

Compliance is at the core of the credibility of any trading system. According to Mr. Marco Loprieno, Principal Administrator in the Climate Change, Ozone, and Energy Unit of the European Commission, trust must be present for the success of emissions trading. The only way to build trust is with strong, credible compliance. Emissions trading is an instrument to facilitate the global battle against climate change, and so by definition it is part of a multilateral approach. At the present, there are limitations to cross-border harmonization, such as the impending obstacle of only being able to harmonize with those that have signed onto the Kyoto Protocol. In order to bring countries into a regulatory program, it is important to have a common understanding of the definition of goals. Before these efforts are achieved, though, countries will still be able to improve their emissions trading systems by sharing knowledge and experiences.

Ms. Jane Barton

Compliance is important in making emissions trading work because in a program that is intended to address health-based issues like smog, you must be able to ensure the result, according to Jane Barton, the Chief of the North American Smog Program for Environment Canada. While the U.S. acid rain and ozone transport trading programs have resulted in significant air quality gains that have translated in health gains, in Canada, a similar trading program does not yet exist. However, the Canada-United States Emissions Cap and Trading Feasibility Study found that, with certain key elements in place, NO$_x$ and SO$_2$ emissions cap and trading could be feasible between Canada and the United States. One element essential to “seamless” cross-border trading would be the use of the same emissions monitoring systems in both countries. The Feasibility Study found that the rigor of the emissions monitoring and tracking systems was an important factor in compliance with the emissions cap reductions. Conclusions reached by the Feasibility Study regarding the elements necessary to ensure that the environmental goal is met through “borderless” trading, and robust markets may be useful where multilateral trading designs are being developed.