The Carbon Market
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Good Morning. Being a long-time admirer of the important work being done by all of you in this room, it is a privilege for me to speak to you today. In a few minutes Dale, Lucy and Cathy will be describing an exciting new venture for weatherizing low income housing that depends on the carbon market. My job is to make sure we are all on the same page about how that market works.

The Carbon Market: An Overview

Driven by the recognition of the relationship between carbon emissions and the threats posed by climate change, the Kyoto Protocol on climate change imposed national limits on the emissions of greenhouse gases.

Many countries have chosen to enforce those limits, or more stringent ones, using a cap-and-trade system, which is based on allowances that can be traded in the carbon market.

This is regulatory attempt to build more flexibility into the system and harness the power of the market to reduce carbon emissions rather than increase them. Putting a price on carbon, as this system does, markedly changes incentives by making carbon emission expensive.

One study released by Point Carbon, a European consultancy and analyst service in carbon markets, estimates that the world carbon market could be worth $3.1 trillion dollars by 2020. This is roughly the same size a foreign currency markets today. It is a big deal.

Most large banks and brokerage firms now have employees who specialize in carbon trading.

Cap-and-Trade: the Basics

The national goals, which define an allowable amount of emissions each year, are derived in some cases from the Kyoto Protocol for the early years, but for later years from climate science.

A set of allowances is created so that the total number of allowances (each allowing one ton of emissions) is equal to the annual allowed emissions.

The allowances are allocated either by auction to the highest bidder or gifted on basis of eligibility criteria and they are fully transferable to others.

At the end of the year each covered emitter must surrender a number of allowances equal to its actual emissions or face large penalties

Those emitters finding themselves with too few allowances at year's end can purchase them from emitters that have an excess they wish to sell.

Failure to comply (meaning too few allowances surrendered) involves a double penalty-loss of equivalent number of allowance from next year's allotment and a monetary fine.

First introduced in 1975 for other pollutants.

The Case for Cap-and-Trade

Incentives created by the policy are compatible with cost effectiveness and studies indicate that you can either achieve the same emissions reduction at a lower cost, typically about 35-50% less, or get more emissions reduction for the same expenditure.

In contrast to traditional policy it aligns responsibility with knowledge and rewards environmental leadership. Instead of government picking both the goals and the means of reaching those goals it allows environmental managers to pick the means; they typically have much better information on the choices for those specific operations than does the government and once they are

faced the need to surrender allowances for all emissions, it is in their interest to make good choices.

A cap-and-trade program creates a more level playing field for renewable energies to compete and encourages the development of new carbon reduction technologies. Otherwise high carbon alternatives have a significant advantage in the market because carbon emissions involve what economists call an external cost -- emitters don't have to pay for their effect on climate change.

Auctions provide the revenue to protect the lower income populations from the cost burden. The two congressional bills have provisions in them for that purpose and the evidence is that these rebates turn the program from being a net cost to low-income populations to providing a net gain.

Much is made in the press about the choice between a cap-and trade policy and a carbon tax. Let's be clear on the difference. A tax approach controls price of carbon and leaves the amount of emission reduction to the market, while the cap–and-trade approach controls the emissions reduction and leaves the price to the market.

Diffusion of the Concept

I have no intention of going thru the programs listed on this slide because it would take too much time. I would be happy to answer any individual questions about any of them after this session.

My point in showing them to you is to counter the myth that this is a novel approach about which we have little information. We have lots of information and the various bills before Congress have done a remarkable job of incorporating what we have learned as constrained by politics.

An Example: The Sulfur Allowance Program

To take this out of the abstract I wanted to provide you with some information about at least one program.

The sulfur allowance program was the centerpiece of the U. S. Acid Rain Control Program

By lowering cost it broke the political logjam that had prevented previous attempts to control SO_2

Applies to Large Electric Utilities, the major source of SO_2 emissions.

As of 2008 program had already reduced annual SO_2 emissions by 56 percent compared with 1980 levels and 52 percent compared with 1990 levels. And, according to EPA data, electricity prices for those utilities in the program did not rise in real terms despite the high degree of emissions control.

The Low-income Housing Weatherization Connection: Offsets

Since the cap does not cover all emissions sources, the question is what to do about the others.

The answer is to provide incentives for reductions using what are called offsets. Offsets are emissions reductions not covered by the cap that, once certified, are tradable to others.

Offsets can be used for compliance in regulated markets or acquired for other purposes (such as public relations or personal attempts to reduce carbon footprint) in voluntary markets.

Certification involves demonstrating that the reductions are real, additional, verifiable, and enforceable; the certification standards are typically more stringent for the regulatory markets than for the voluntary markets.

Let me now turn it over to my colleagues to give you the details on how selling offsets can be used to finance the weatherization of Maine housing.