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Good morning Chairman Baucus, Ranking Member Grassley and other members of the Committee. Thank you for inviting me to testify before the Committee today. I would like to start by describing the important role that auctioning can play in an efficient greenhouse gas (GHG) cap-and-trade program, then discuss the Department of the Treasury's experience running auctions, and finish by briefly describing how auctions have been used in some existing greenhouse gas cap-and-trade programs in the United States and abroad.

The Role of Auctioning in a Greenhouse Gas Cap-and-Trade Program

As you know, one of the President's top priorities is to develop a comprehensive energy and climate change plan to invest in clean energy, address the global climate crisis, and create new jobs. In turn, we believe that a greenhouse gas cap-and-trade program should play a central role in our effort to achieve these goals at the lowest possible cost. We are very appreciative of the work being done in both Houses of Congress to this end, and look forward to working together to craft successful legislation.

An economy-wide GHG cap–and-trade program would be one of the most important and substantial pieces of environmental legislation in our nation's history. Therefore, it is critical that we get the design and implementation of this program right.

Today, I'm here to discuss one important element of an efficient and fair cap-and-trade system -- allowance auctions. When managed effectively, auctions can distribute GHG emissions allowances efficiently by ensuring that they are allocated to those who value them most, thereby helping to minimize the cost of achieving our economy-wide emission targets. At the same time, the use of auctions can avoid the creation of windfall profits and can provide revenue that can be used to help working families in the transition to a clean energy economy.

The Administration's proposed budget auctions 100 percent of the allowances under a cap-and-trade program. Beginning in 2012, proceeds would be used to fund $15 billion annually in vital investments in clean energy research, development, and deployment and to provide tax relief for families through the Making Work Pay Tax Credit. The Administration's budget has proposed additional revenue generated from an allowance auction above that needed to fund these two initiatives will be used to assist vulnerable households, communities, and businesses in the transition to a clean energy economy.

While various estimates have been offered regarding the revenue that would be collected in an allowance auction, it is important to recognize that the actual amount of auction revenue that will be realized is highly sensitive to the design details of a cap-and-trade system and to fundamentals such as the price of energy and the cost and availability of key technologies, which will collectively influence allowance prices. Of course, reducing the share of allowances auctioned would also lower revenue generation and transfer the value of those allowances to their recipients—without reducing the price impacts felt by consumers.

Next, I'll describe Treasury's experience with public auctions.

Treasury Experience with Auctions

To finance the public debt, the Treasury Department uses auctions to sell a large volume of debt securities annually that can be classified into bills, notes, bonds, and Treasury Inflation Protected Securities. These constitute a diverse array of instruments, ranging from bills that mature in as few as 4 weeks to bonds maturing in 30 years. Each instrument has its own yield rates and terms. Collectively, these instruments offer characteristics that appeal to a wide range of institutional and individual investors. Moreover, the regular, predictable, and transparent nature of these auctions furthers Treasury's objective of financing the federal government at the lowest possible borrowing cost.

Each year, the Treasury Department's Bureau of Public Debt conducts more than 250 public auctions and issues over $5 trillion in gross debt through these operations. In FY 2008, for example, we conducted 279 auctions, in each case releasing the auction results data within our self imposed time constraint of two-and-a-half minutes after the auction's close. Such a rapid and consistent pattern of operations and information transmittal serves to minimize market dislocations and greatly enhance overall transparency.

Auctions are open to individuals, brokers, and institutions. Treasury encourages broad access to its auctions through simple online bidding tools available on its website at www.TreasuryDirect.gov. Minimum denominations for auctions are $100, offering individual small investors and individuals the opportunity to participate.

In these auctions investors are allowed to offer either competitive or non-competitive (i.e., price taking) bids. Competitive bids specify a set of particular yield levels acceptable to the investor. Treasury accepts these bids in ascending yield order until it reaches the auction clearing yield, whereby the total quantity of bids reaches the amount offered for sale (some bids may not be accepted). All accepted bids receive the same auction-clearing yield and a pro-rata amount of securities. Non-competitive bidders agree to accept the yield determined at auction, and are guaranteed to receive the desired pro-rata share of securities.

Treasury recognizes the critical importance of maintaining the integrity of, and ensuring investor confidence in, the market for its debt securities, including the proper dissemination of price and yield information. Toward that end, Treasury's Office of Debt Management leads bi-weekly market surveillance discussions through the Inter-Agency Working Group, which consists of staff from the Federal Reserve Board, the New York Federal Reserve Bank, the Securities and Exchange Commission, and the Commodity Futures Trading Commission. Treasury also encourages related private sector initiatives to broaden Treasury market liquidity. Such public and private surveillance efforts will also be important elements of a future carbon market in order to instill complete confidence among prospective participants.

Given the importance of funding the federal government, and given the large volume of financing provided through Treasury's auctions, ensuring a smooth and efficient auction process has been a critical component of our success to date. We place a premium on providing the most reliable Treasury auctions possible, in the most transparent manner – and the Department delivers on this responsibility each and every week. Treasury's long track record of successfully running high-value auctions demonstrates the key technical expertise necessary to manage auction details in a manner that builds public trust and confidence.

Auctions Under Other Greenhouse Gas Cap-and-Trade Programs

I'll focus next on briefly describing a few prominent examples of the use of auctions in existing GHG cap-and-trade programs.

<u>European Union Emission Trading Scheme</u>

In 2005, the European Union established its Emission Trading Scheme (commonly known as the EU ETS), which is the world's largest emissions cap-and-trade program. The EU ETS caps carbon dioxide (CO_2) emissions from the electric power sector and several other major industrial sectors in Europe, which collectively account for about half of Europe's CO_2 emissions. The EU ETS was set up to run in a series of phases. Phase I of the program ran from 2005 to 2007 and Phase II covers 2008 to 2012. Phase III will run from 2013 to 2020. As the EU ETS has progressed through these phases, there has been an evolution in the use of allowance auctions.

The use of auctions in the EU ETS has been limited to date. This is, in part, due to decisions made by the European Parliament, which required Member States to freely allocate at least 95 percent of their allowances in Phase I and 90 percent in Phase II, thereby limiting the potential role of auctions. In Phase I, only three Member States (Hungary, Ireland, Lithuania) chose to auction allowances, and each employed a sealed-bid, uniform price auction format. A fourth Member State, Denmark, sold allowances into secondary markets through a financial intermediary. In total, the number of allowances auctioned or sold by Member States during Phase I amounted to less than 0.2 percent of all allowances issued under the EU ETS.

Auctions are being employed somewhat more in Phase II (up to 10% of allowances), with roughly half of Member States planning to auction or sell allowances. These will collectively amount to at least 3 percent of all allowances issued across the European Union.

Since November 2008, the United Kingdom has already held two single-round, sealed-bid, uniform price auctions, which yielded a combined $144 million (€109 million) in revenue. Eight more auctions are planned between now and April 2010. In total, the United Kingdom expects to auction at least 7% of its Phase II allowances. Entities wishing to make competitive bids in these auctions must make them through financial institutions that act as intermediaries and directly participate in the auctions. Going forward, businesses will also be able to submit non-competitive bids for up to 10,000 allowances in an auction. Those submitting non-competitive bids agree to pay the auction's clearing price that is established through competitive bidding.

Britain's 2007 Finance Act authorized Her Majesty's Treasury to conduct these auctions. In turn, the auctions are being run by the U.K. Debt Management Office, an Executive Agency of Her Majesty's Treasury that is also responsible for auctioning U.K. Government securities (Gilts) and U.K. Treasury bills. Her Majesty's Treasury has also appointed an Independent Observer to oversee the auctions, whose role is similar to that of an auditor. Auction revenue is deposited into the United Kingdom's consolidated fund for general spending purposes.

There will be a substantial increase in the use of auctions in Phase III of the EU ETS. This significant shift followed from the recognition that free allocation of nearly all allowances has led many firms that received those allowances to realize windfall profits. In particular, with limited exceptions, the European Parliament has prohibited Member States from freely allocating allowances to the electricity sector, and has limited free allocations to other covered sectors. As a result, more than half of all allowances are expected to be auctioned in 2013, and this share is expected to increase thereafter. While the EU will not publish final guidelines for allowance auctions until next year, some principles have already been established. In particular, auctions must be open to all participants — not just to regulated entities — and must be conducted in an "open, transparent, harmonised and non-discriminatory manner." While Member States can ultimately use auctions revenues as they wish, the European Parliament is encouraging States to use at least half of all revenues to fund climate-related mitigation and adaptation efforts in Europe and in developing countries.

Regional Greenhouse Gas Initiative

The Regional Greenhouse Gas Initiative (RGGI), which is the first mandatory GHG cap-and-trade program in the United States, covers 10 participating states in the mid-Atlantic and northeast (CT, DE, MA, MD, ME, NH, NJ, NY RI, VT). RGGI covers GHG emissions from electric power plants, and mandates a 10 percent reduction in emissions from 2009 levels by 2018. Auctions play a key role in allowance allocation in RGGI. Auctioned shares are set by each state, and currently average 85 percent across all the states; the majority of states auction 100 percent. Auction revenues are spent at the discretion of each state, and a substantial share is devoted to promoting energy efficiency. The participating RGGI states are implementing a regional auction platform to sell CO_2 allowances that each state issues, resulting in a single price in each auction.

Here are some basic features of RGGI auctions. Auctions occur on a quarterly basis via an online auction platform, using a uniform price, sealed bid, single round format with a pre-announced reserve price. This reserve price establishes a lower bound on the auction's clearing price. Auctions are open to all parties who complete a Qualification Application and provide financial security in the form of cash, bond, or letter of credit. A party's maximum bid cannot exceed the amount of its financial security. No entity may buy more than 25 percent of the allowances for sale at any given auction. The auction clearing price is posted on the website after the auction, and financial settlement commences immediately following posting of the auction's clearing price. The clearing price for 2009 allowances at the most recent auction in March was $3.51 per short ton of CO_2, and the auction generated over $100 million in revenue. An independent market monitor oversees auctions and market activity. The monitor reports any bidder behavior that may have a material effect on the efficiency and performance of the auction. This independent monitoring is intended to help maintain a transparent auction mechanism that is free of irregularities.

The following principles established to guide development of RGGI auctions highlight some desirable characteristics of allowance auctions.[1]

- Fairness and transparency – auction participants and the public should understand the auctions and consider them to be credible.
- Efficiency – allowances should go to bidders who place the highest value on them. Efficient allocation of allowances means emissions reductions are made at least cost.
- Price discovery – accurate price discovery in an auction can help identify a market price close to the marginal cost of reducing emissions.
- Revenue – subject to efficiency and other goals, auctions should also effectively raise revenues.
- Minimize collusion – the system should limit opportunities for participants to engage in non-competitive behavior that could undermine auction prices.
- Minimize price volatility – price variability should reflect new information on fundamentals, not features of the auction design.
- Liquidity – auctions should not reduce the liquidity of the broad allowance market by limiting trading options or generating systematically different prices from the secondary market.
- Low cost – auctions should limit administrative costs, and avoid imposing high transaction costs on auction participants. For example, automated online systems can help control administrative and transaction costs.

[1] Based on Holt, C., W. Shobe, D. Burtraw, K. Palmer, and J. Goeree. 2007. "Auction Design for Selling CO2 Emission Allowances Under the Regional Greenhouse Gas Initiative." Final Report.

Concluding Comments

The Treasury Department recognizes that designing a working auction scheme for a cap-and-trade program will require careful consideration and substantial expertise. As we move forward in enacting and implementing cap-and-trade legislation, we expect that — together with domestic and international experiences in other cap-and-trade allowance auctions — Treasury's long experience in developing and conducting auctions will offer important insights in the design and operation of high-stakes GHG allowance auctions.