

**Outline for John Rowe's Speech  
at PennFuture Southeast Global Warming Conference  
Har Zion Temple, Penn Valley, Pa.  
7:30 PM, Monday, October 12, 2009**

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Thank you, Denis [O'Brien, President and CEO, PECO Energy; Executive Vice President, Exelon Corporation].

And thank you to PennFuture for sponsoring this conference and giving me a chance to talk about our climate and energy challenges.

An issue that is personally very important to me and to Exelon.

Have been working on it since 1992, when I testified before Congress about a carbon tax.

Since 2002, I have co-chaired the National Commission on Energy Policy.

In 2004, NCEP released a bipartisan report calling for comprehensive, economy-wide cap-and-trade legislation.

Exelon has been preparing for a low-carbon future for the last decade.

Sold or closed most of our inefficient fossil fuel plants.

Invested billions in our fleet of 17 zero-emission nuclear reactors.

In summer 2008, released Exelon 2020, our plan to reduce, offset, or displace 15 million metric tons of greenhouse gas emissions per year, equal to our 2001 carbon footprint, by 2020.

We are one-third of the way to our goal, and have a plan to accomplish the rest.

Today, we find ourselves closer than ever to passage of climate legislation.

One year ago, we were concluding a presidential campaign in which both candidates recognized the need to act on climate change.

Democrats were poised to increase their majorities in both houses.

And the House this summer passed the Waxman-Markey legislation.

We now are about to begin a great debate in the Senate.

Represents our best opportunity to take meaningful action to solve the climate problem.

Political rhetoric is escalating, and it is sure to get louder.

I'll get into the politics in a moment, but let me first get back to the most important principle of the debate.

The scientific evidence that the planet is warming is clear and becoming more alarming.

The evidence that the Earth's temperature is rising is unambiguous, and human activity almost certainly contributes to the increase.

This is the conclusion of the National Academy of Science and the Intergovernmental Panel on Climate Change.

Among the most widely respected scientific bodies around – far from being “junk scientists.”

Indeed, recent research indicates that the effects of warming are appearing faster than expected.

International Polar Year is one of the most comprehensive research efforts studying the Arctic.

IPY's most recent research indicated that summer Arctic sea ice was smallest in size in the past 30 years and has lost half of its thickness.

The consensus of the International Polar Year is that the Greenland ice sheet will disappear by the end of the century, resulting in sea level rise of roughly 3 feet.

Overall, sea levels are rising at twice the average rate of the 20<sup>th</sup> Century.

And there are dangerous feedback effects.

Warming creates more water, which expands when warmed

The earth revealed by melted ice reflects less heat

These things cause the pace of warming to further accelerate.

Consider the impact of these effects.

Not just a problem for people with vacation homes “Down the Shore.”

Will radically change the existence of people in countries like the Netherlands, Bangladesh, and the Maldives.

Political discussions and cable news tend to talk about these issues in terms of politics, elections, and money.

But, this debate has very real consequences for our planet.

We must not lose sight of that.

The critical first step to dealing with greenhouse gas emissions, particularly CO<sub>2</sub>, is to place a price on carbon.

Nothing else will encourage low-carbon investments and discourage high-carbon investments.

And it is essential to ensuring that we do the cheapest things first.

Perfectly illustrated by a poll by Resources for the Future.

Most Americans agree that global warming is real.

They oppose a carbon tax because they know it will cost them money.

They oppose cap-and-trade because they rightly suspect it will cost them money.

But they support mandates to buy renewable energy because they think it is free.

Exelon’s analysis indicates the exact opposite.

As part of Exelon 2020, we analyzed all the options for reducing our GHG emissions.

Determined the price per metric ton of CO<sub>2</sub> needed to make each option economic and rank ordered them along the x-axis of a supply curve based on their economic merit. (**See *supply curve at the end of this outline.***)

Size of each block is the amount of CO2 emissions avoided by the method.

The most economic items – on the left side of the curve – are improvements in energy efficiency and nuclear uprates – capacity expansions at our existing plants.

Some are economic even without a price on carbon, and we are doing them now.

As you move to the right, the options become more expensive.

A new natural gas plant is economic at carbon prices of \$25-\$45 dollars per metric ton, depending on its location.

A Texas nuclear plant would be economic only with a carbon price of \$75-\$80 dollars.

The rule of thumb is that a \$10 per ton increase in the carbon price translates into a \$0.01 per kWh increase in the price of electricity.

Doesn't take long until you're talking about real money.

We use the Exelon 2020 supply curve to rationalize and order our choices about how to reduce our carbon emissions based on what is cheapest.

Passage of a federal cap-and-trade system will let every company do a similar analysis.

In contrast, our current energy policy with no price on carbon frequently chooses the most expensive things first – those at the right end of the curve.

Renewable portfolio standards have been en vogue at the state level for years, and a federal standard is coming.

Renewables will be part of our energy mix.

Waxman-Markey will encourage an even greater amount of wind generation.

But according to Exelon 2020, wind costs about \$50 per metric ton of carbon and goes as high as \$90 per ton.

Federal and state policy continually flirts with coal with carbon sequestration.

Exelon 2020 tells us you need carbon prices of over \$150 per metric ton of carbon.

Using our rule of thumb, you are talking about electricity that costs an incremental \$0.05 to \$0.15 per kWh.

We must have a system that forces us to do the cheapest things first, like energy efficiency and nuclear uprates, and the other items in merit order.

Doing otherwise will impose great and unnecessary costs on American energy consumers.

Some argue that a cap-and-trade bill will raise energy costs and harm our economy.

It would be dishonest to claim that prices will not go up.

The legislation allocates free allowances to emit CO<sub>2</sub> to local delivery companies, like PECO.

Denis and his peers across the country will sell the allowances to parties who emit CO<sub>2</sub>.

And state regulators will watch very carefully to ensure that the proceeds mitigate the impact of higher prices.

The Senate is considering a price collar on allowances to prevent dramatic increases in cost – something Exelon supports.

It would also be dishonest to claim that our policy today isn't causing economic harm.

Many businesses have joined Exelon in advocating for cap-and-trade legislation.

They do so in part because they realize that our current piecemeal approach simply hides the costs.

Choosing more expensive options like wind and solar over cheaper ones adds costs that are passed through to businesses and consumers.

Cap-and-trade legislation may not be cheap, but it will be cheaper than the alternatives.

Some argue that the US shouldn't act unless we know that China and India will do the same.

India and China are certainly critical to a global solution.

But for years, the US was the largest emitter of GHGs.

China and India certainly will never act if the US refuses to show leadership.

And legislation can be structured with an off-ramp so the US isn't put at an economic disadvantage if China and India fail to control their emissions.

Earlier this month, Exelon announced that it was withdrawing from the US Chamber of Commerce due to the Chamber's opposition to climate change legislation.

Let me say that I am appreciative of a great many things the Chamber has done for its members over the years.

But on this issue, the Chamber's opposition is simply short-sighted.

We cannot put our heads in the sand and hide.

If Congress doesn't act, the Supreme Court has stated that the EPA has the authority to regulate CO<sub>2</sub> as a pollutant.

The result will be more arbitrary, more expensive, and more uncertain for investors and the industry than a reasonable legislative solution.

Exelon is not alone in the utility industry and the broader business community in recognizing this.

Twenty-five companies have worked to craft a solution through the US Climate Action Partnership.

The irony is that it is President Obama, Congressmen Waxman and Markey, and Senators Boxer and Kerry are the ones advocating the market-based solution, and the US Chamber is opposing it.

And that is the final reason that cap-and-trade legislation is so important: we need a climate bill that embraces competition and markets.

The danger in the EPA's command and control response is that no one really knows what the final technological solutions will look like.

Since we prepared the initial Exelon 2020 analysis, economic growth has slowed and natural gas prices have plummeted

Technologies that once looked attractive now look less so, while others have improved.

And therein lies the danger of choosing an option based upon a snapshot in time.

Be very wary of anyone who says “I have seen the future and it works.”

We need markets to give us feedback and allow adaptation.

This upcoming debate will be historic.

Thank you for spending your Monday night educating yourselves about it.

There are several more things I hope you will do.

Talk to your friends, neighbors, and co-workers and share what you have learned about the science, economics, and politics.

Contact your senators and tell them to support comprehensive cap-and-trade legislation.

Call, write, or email Senator Casey.

Do the same for Senator Spector – though I understand some of you see him at services in this very temple and perhaps can lobby him then.

The opposition is well-organized, and both senators want to hear that you support taking action on carbon emissions.

The climate challenge is one we must deal with.

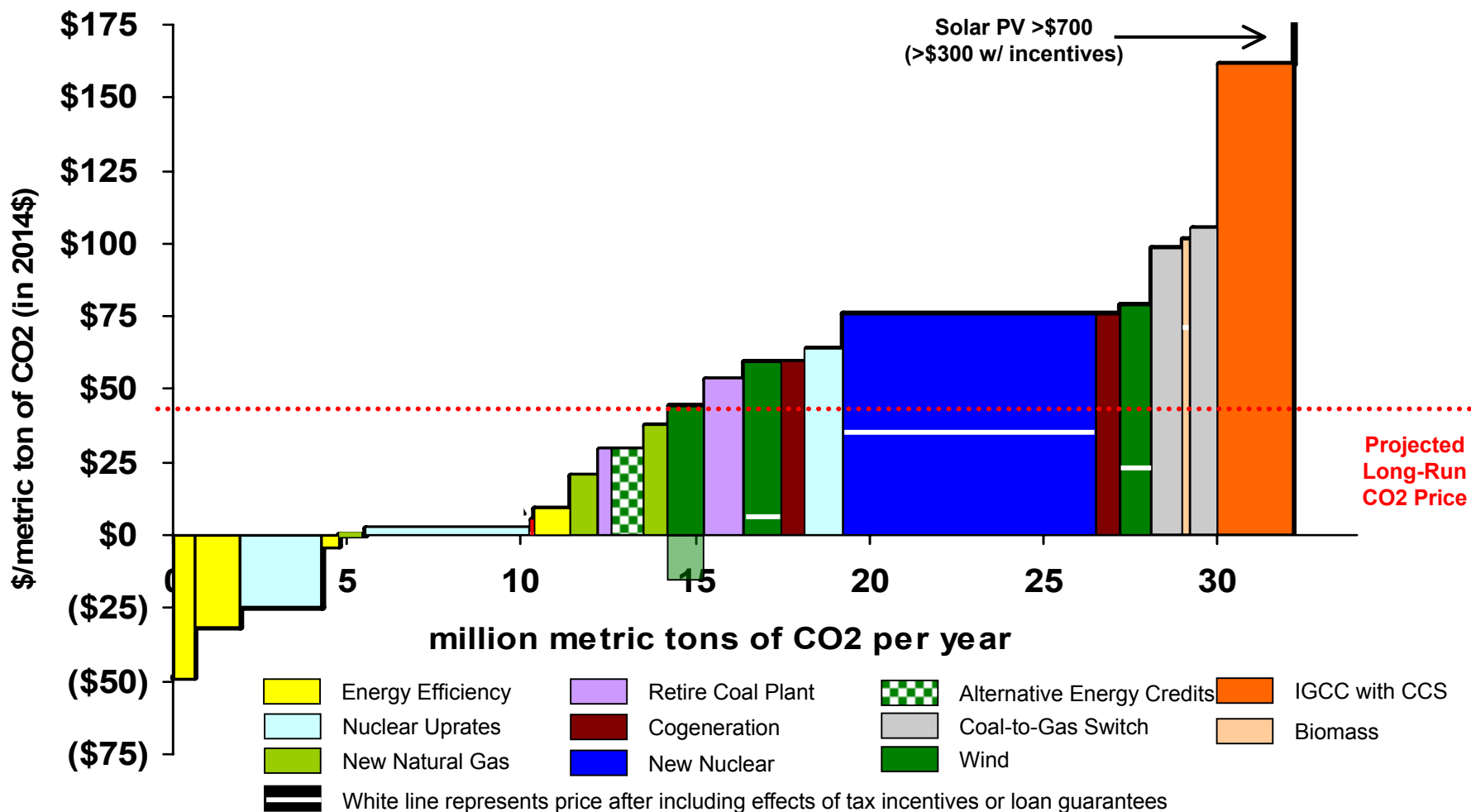
Failure to act now will only require more drastic and expensive action later.

We must keep our focus on the costs and ensure that we are doing the cheapest things first.

We must continue to work hard to pass cap-and-trade legislation that will rationalize the costs of our options across our economy.

And we must collectively summon the courage – political and otherwise – to do the difficult things that can help stem the rising temperatures and sea levels.

# Cost of Carbon Mitigation in Electricity Supply



Note: Emissions abatement estimates for new generation capacity represents emissions reduced in the market as a result of the project less emissions introduced due to the project (if any). New nuclear plants assumes 1,460 MW of new generation.

**Cap-and-trade legislation will encourage us to do the cheapest options first**