

Can you please briefly explain what is meant by "cap and trade?"

Stowell: Cap and trade is a market-based approach to emissions control. A cap is established — in this case, on carbon emissions — to set an absolute limit on the amount that can be emitted. That limit gives carbon an economic value in the form of a liability and creates a market for its reduction. Companies then use the market to seek the most economic path to comply with the law, buying or selling pollution permits to meet their share of the cap.

How does cap and trade work?

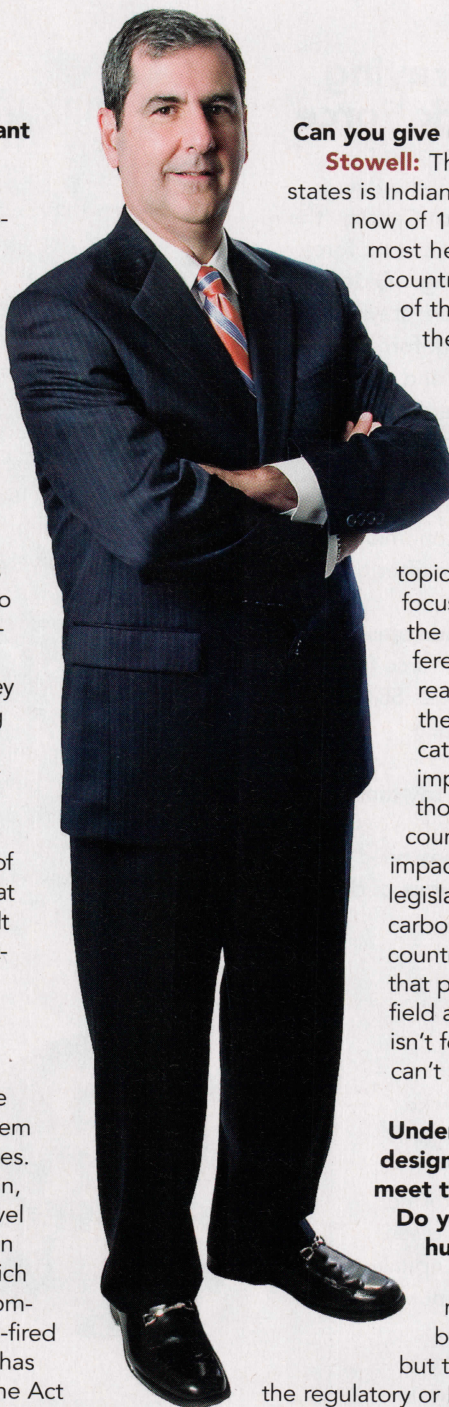
Stowell: Companies that are covered by this cap are issued emission permits that are equal to one ton of that emission. They can hold the permits or spend them. And they have to spend them if they emit that amount of pollutant. If they choose to overcomply by, for example, installing pollution-control equipment that reduces more emissions than their fair share, they can sell their leftover permits, which we call allowances, into the market. Companies who can't make their reductions as quickly or as cheaply as the price of these allowances, will instead buy allowances that will allow them to continue to operate. The result is that the overall cap is met, and it's met as inexpensively as possible.

Is this the first time we've ever had cap and trade?

Stowell: This is not a new concept. We are actually operating under a cap and trade system right now for sulfur dioxide and nitrogen oxides. Sulfur dioxide emissions contribute to acid rain, while nitrogen oxides help to form ground-level ozone or what we typically think of as smog. In 1990, Congress passed the Clean Air Act, which included, for the first time, a cap and trade component to control those two emissions at coal-fired power plants. It has been wildly successful. It has not only reduced emissions more than what the Act intended, but it did it at a substantially reduced cost.

Will cap and trade affect certain areas of the country more than others?

Stowell: The higher the coal content in your electric-generating supply chain, the more costly this is going to be to the consumer, so there is always going to be a little bit of a regional disparity because there is more coal burned in the Midwest than in the Southeast or West Coast. So there is a tremendous amount of sensitivity to the impacts that climate change legislation will have on the Midwest.



Can you give us an example?

Stowell: The most heavily impacted of our states is Indiana. We are looking at rate impacts now of 10–13 percent because it's one of the most heavily coal-intensive states in the country. In the Carolinas, only 50 percent of the generation is coal-driven, and there is a significant nuclear and gas presence, so the rate impacts of North Carolina are in the neighborhood of 2 percent.

How will cap and trade affect manufacturers?

Stowell: This is a complicated topic, and the manufacturers are very focused on this. There is a recognition that the manufacturing belt has already suffered tremendously, and there are good reasons not to make it suffer further. So there are provisions in the bill that allocate additional allowances to go to trade-impacted industries. These are defined as those industries that compete against countries that don't have their prices impacted by the additional cost of carbon legislation. Plus, the President can add a carbon tariff to imported goods from that country to reflect the carbon footprint of that product. This will help even the playing field and make sure a U.S. manufacturer isn't forced to leave a country because they can't afford an increase in energy prices.

Under cap and trade, each source can design its own compliance strategy to meet the overall reduction requirement.

Do you think this approach will help or hurt companies?

Stowell: Right now there is no need to design a compliance strategy because there's nothing to comply with, but that's soon to change, either through the regulatory or legislative process. Under the legislative process, if Congress were to enact a cap and trade bill, there would be flexibility for each business to decide what's the most cost-effective way to reduce their carbon emissions.

When will corporations feel concrete changes?

Stowell: My guess is we will be looking at 2014 or 2015 as the start of the cap; even then, because of the cost containment provisions that I believe will be a part of the bill, I think the bigger impacts won't happen for several more years after that.

Will cap and trade drive the creation of new alternatives in energy products and energy generation?

Stowell: There are technologies out there that we haven't even thought of that will be incentivized because of the carbon price. This will make those technologies not only viable, but also profitable. If you have a carbon price built into your energy component, that price is going to grow over time as the cap tightens. Those who want to just have a technology approach are either going to have to rely on massive government subsidies to incentivize that technology, or they're going to have to rely on the market. And the only way the market works is with that cap. You need both a cap and the technology infusion from a private sector/public sector partnership to push these technologies forward. It took us 150 years to build up the fossil-based economy. It's silly to think that in just a decade or two we can transition from being fossil-based to being totally non-fossil-based. It's going to be a long haul.

What do you think the future holds for cap and trade?

Stowell: I think a lot of businesses would like to just see this go away and, frankly, we would all be relieved if we

didn't face this issue. But I think we all realize that the science is pretty firm. We have a growing climate crisis that needs to be addressed. We have a dwindling supply of fossil energy that does have an environmental footprint, even beyond greenhouse gases. If we are going to advance our economy, we need a more sustainable energy supply. What manufacturers are worried about, and I am too, are the costs and how they are going to weather this. And that's why it's important to get the bill right, to be sure that allowances, offsets, and cost-containment provisions that are so important not only stay in the bill, but also are, in fact, enhanced.

THE ASSIGNMENT:

John Stowell, Duke Energy's vice president of environmental health and safety policy, spoke to *Area Development* about his insights on the pending cap and trade environmental policy bill proposed by the Obama administration. Duke Energy, headquartered in Charlotte, North Carolina, is one of the largest electric power companies in the United States, delivering energy to approximately four million U.S. customers in the Midwest and the Carolinas. The company also distributes natural gas services in Ohio and Kentucky.

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