



SPEECHES AND REMARKS BY USEA EXECUTIVE DIRECTOR BARRY K. WORTHINGTON

The Big Picture
Indiana Energy Conference
October 15, 2015 – Indianapolis, Indiana

Good morning. It is an honor and a pleasure to have the opportunity to address the 2015 Indiana Energy Conference. This is my second time being able to share some thoughts with you. And what a great theme: “The Big Energy Shake-Up: Adapting to Change.”

Our industry is facing change at a more rapid rate than ever before. Technological developments are providing opportunities for us to meet customer needs for lower costs and increasing reliability all with a lighter environmental footprint.

We are able now, and prepared as an industry, to provide customers with what they want. Years ago, before the Chevron-Texaco merger, the President of Texaco Technologies showed me a drawing of the service station of the future where you could choose from three blends of gasoline, diesel, natural gas, ethanol, and electric power to charge electric vehicles. This was 20 years ago. We are getting closer to this reality everyday – driven by technological advances.

Several of the largest U.S. electric utilities have adopted a corporate philosophy of “put the customer first.” Give the customer what they want. You want:

- Wind? You get wind.
- Solar? You get solar.
- Rooftop photovoltaics? We will own it, install it and maintain it.
- Efficiency? We will help you achieve your efficiency goals: Industrial, commercial and residential.

All driven by technological advances.

And today, we are in an energy era of abundance. Our domestic production of petroleum and natural gas is nothing short of incredible. Today, the United States is the largest combined producer of oil and natural gas in the world. If I predicted this the last time I was in Indianapolis, you probably would have laughed at the thought. But, in 2015, it is a fact. And we see a pathway to continue to push down our oil imports, particularly from countries that really do not like us.

So again, technological advances all across the energy spectrum are allowing us to serve our customers better than before in ways that are less expensive, more reliable, and with a small environmental footprint.

Now to the EPA Clean Power Plan.

Let's put this in context. It is not just about the Clean Power Plan. We have to consider a whole slew of regulations, some at various stages of legal challenges as well as other policy choices:

- Waters of the United States
- Endangered species
- Ozone
- Mercury
- Cross States Air Pollution
- Methane
- Restrictions on fossil energy developments on federal lands
- Restrictions on offshore fossil energy development. Meanwhile, leasing for offshore wind proceeds.

I could go on and on. And the big picture has to take into account global circumstances as well as domestic circumstances.

The United Nations Framework Convention on Climate Change Conference of the Parties meets in Paris later this year. For 20 years, these annual negotiating sessions have tried to hammer out an enforceable agreement to reduce greenhouse gas concentrations in the atmosphere, to hold average global temperature increases to two degrees Celsius. Many believe that this achievement is necessary to prevent serious climate change impacts. Obviously,

others disagree and in Washington, you can quickly get into very heated discussions as to whether climate change is real or not.

Optimism reigns that this year's Conference of the Parties – COP21 in Paris will result in a new global agreement. Countries have prepared and submitted commitments to reduce greenhouse gas emissions. The pledges are referred to as INDC's – Intended Nationally Determined Contributions.

The U.S. pledge is 26-28% reduction from a 2005 base by 2025. China has pledged to peak emissions by 2030, but not committed to any reductions. The European Union has pledged 40% reduction from 1990 levels by 2030. Mexico has pledged a 25% reduction from business as usual by 2030. And Switzerland, as one more example, has pledged a 50% reduction from 1990 levels by 2030.

So as you can see, these pledges range all across the board with really no consistency. China pledges to try. Mexico pledges to not emit as much as they otherwise would and the U.S. pledges to reductions of 26-28% below 2005 levels by 2025.

While individual national reductions have - and continue to be - announced, it is far from clear that an agreement can be reached in Paris. A couple of the stumbling blocks include:

1. There is a perspective both in regards to individual national contributions and collective total contributions that these proposed reductions are inadequate to avoid an average global two degree temperature rise.
2. There is no agreement as to if the so called "contribution", which implies best effort, should be a "commitment", which implies that it is "binding" and somehow legally enforceable. Many countries, particularly the Europeans, want a legally enforceable treaty by which action could be taken against those countries that fail to achieve reductions. The United States' position is that reductions must be essentially voluntary because any legally binding agreement, such as a treaty or protocol, is subject to U.S. Senate ratification. The perception is that today's Senate would reject any legally enforceable agreement.

3. A third major stumbling block is efforts to provide for monitoring and verification that reductions are achieved. Many countries, most notably China, have been very clear that they do not want provisions regarding monitoring and verification.

There are other areas of conflict but with these three stumbling blocks, you can see that a global agreement to reduce greenhouse emissions and atmospheric concentrations is far from certain.

So with legal challenges to the Clean Power Plan and no certainty over a global climate agreement, where does that leave us?

Frankly, I believe that we will reduce greenhouse emissions over time. Regardless of it we have a national or global regulation of emissions. And I say that because we are reducing GHG emissions already. Our U.S. emissions are 18% lower than 2005 levels.

This is due to fuel switching, deployment of renewables, the recession and efficiency standards for automobiles, appliances and lighting.

Regardless of your personal beliefs as to: “Is climate change real?”; “Is it caused by human activity?” and “Is the energy industry one of the culprits?” The reality is that our industry is under tremendous pressure to reduce greenhouse gas emissions. This pressure is from:

- Elected and appointed government officials on a local, state, national and global basis;
- Our customers want us to reduce emissions;
- Our stakeholders in our enterprises want us to reduce emissions;
- And yes, in some cases, our employees want us to reduce emissions;
- And our future employees. As we replace retirees with 20 somethings, the millennial generation, we will be under increased pressure to reduce emissions.

So our industry will participate in greenhouse gas reductions regardless of the legal challenges to the Clean Power Plan.

Considering that the world is going to continue using fossil fuel for decades, maybe even centuries, achieving the kind of reductions expected – 50% globally by 2050 - is a daunting task.

And consider that our industry is expecting to serve something like 1.3 billion people who lack access to electricity today and fully serve the 1.3 billion with inadequate, unreliable and sometimes unaffordable power today and serve a population increase of 2 billion more by 2050. Essentially, the projections are that we may have to double global energy production while reducing global emissions by 50% by 2050.

We will need every low carbon – no carbon energy resource available. That means not only all the renewables but new nuclear and preserving existing nuclear, in addition to coal and natural gas with carbon capture and storage.

To be successful we need policy parity for all low carbon-no carbon technologies. And currently it is critically important that we find ways to deploy carbon capture and storage, particularly demonstration projects, so that we acquire the learning and experience to drive costs down.

Progress is being made. SaskPower placed Boundary Dam in operation and they believe they could do Boundary Dam II for 20-30% less.

Shell is launching the Quest project in Alberta next month and two demo projects in the UK starting next year. The WA Parish plant retrofit outside of Houston is expected to be complete and in operation by 2016. And the Mississippi Power Kemper Country facility is nearing completion. But we have to do more. And to do so we need to work on policies that will encourage CCS. It is urgent that CCS has policy parity with renewables.

One much-discussed notion is a carbon tax. However, I do not see that happening given the current toxic political atmosphere in Washington. Maybe in some states, maybe someday, it may be possible if it is part of a major tax reform where personal and corporate income taxes are greatly reduced and a carbon tax becomes a de-facto consumption tax.

And I do not see the political support for a national cap and trade system; maybe some states and even regional groupings.

Washington tried that in 2008. Then-Governor Machin of West Virginia, running for the U.S. senate, put the 2000 page cap and trade legislation on a target, hauled out his rifle and “shot” the cap and trade bill. He then proceeded to turn it into a campaign commercial and won the Senate race.

During the financial crisis in 2008, caused in part by Wall Street shenanigans with mortgages, Congress was unwilling to put another huge part of the economy in the hands of Wall Street traders. And to close, there is a story that compares the carbon traders with the carbon emitters:

...So there is a Catholic school with the students ready to go through the lunch line. A big bowl of apples is in the line. [The apples represent the carbon emitters.] One of the nuns put a note by the apples that says: “Take just one; God is watching.”

So for the carbon emitters, we are going to regulate. We are going to monitor. God will be watching the carbon emitters.

So the students get to the end of the lunch line and there is a big plate of huge chocolate chip cookies! [These are the carbon traders.] One of the students put a note by the cookies that said, “Take all you want! God is busy watching the apples.”

Thank you for your kind attention.