"The Role of Utility Infrastructure in Meeting the Nation's Energy Needs"

Remarks By

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Thank you for that nice introduction. Good afternoon Ladies and Gentlemen. It's a pleasure to be with you today and to share my thoughts on a subject that is very important to me: "the role of utility infrastructure in meeting the nation's energy needs".

For those of you who may not be familiar with CenterPoint Energy, we're an energy delivery company headquartered in Houston, Texas. We are composed of an electric transmission and distribution utility that delivers electricity on behalf of 79 retail electric providers to more than two million customers in the Houston metropolitan area. We have local natural gas distribution utilities that serve over 3 million customers in six states. We own two interstate pipelines and a field services business that gathers natural gas in some of the most prolific fields in the U. S. We also own a competitive natural gas sales and service business with over 10,000 commercial and industrial customers in the eastern half of the U.S.

So when I say that utility infrastructure is a subject very close to my heart, I mean it. Utility infrastructure is at the very core of our business.

Now as you may know, I was originally scheduled to speak to you around this time last year. But Hurricane Ike compelled me to clear my calendar. There is nothing quite like a hurricane to drive home exactly how much our society relies on utility infrastructure.

Ike was the third most destructive hurricane to strike the United States. It made landfall with 110 mph winds making it a category 2 hurricane. But it had a 300-mile wide wind field, making it one of the largest hurricanes in recent history, which explains why it caused the largest power outage in Texas history. After Ike roared through our service territory, over 2 million of our electric customers were without power, and we responded to over 5,000 gas leak calls as well.

Houston, the nation's fourth-largest city, was virtually paralyzed.

I'm pleased to say we successfully made it through that challenge. Within ten days we restored electric service to 75% of our customers, and in 18 days to all customers capable of receiving power. This was a significant accomplishment by the men and women of CenterPoint and by the 11,000 linemen and tree trimming crews from 35 states and Canada that came to help us. While I am enormously proud of this effort, the lesson of Ike is that our citizens and our economy suffer when the infrastructure is not available to provide energy when needed to our homes and businesses.

While natural disasters like hurricanes will always present challenges, we face additional challenges as well. And some of the solutions we have historically utilized are no longer available to us.

Over the last three or four years, we have witnessed a dramatic rise in concerns about climate change, carbon emissions and energy security. These new concerns have, in turn, resulted in significant changes in the direction of the nation's energy policy. The New York Times recently described it as "the most profound shift in energy policy since the oil shocks of the 1970s." In the past when we needed more electricity we simply built more power plants and added more transmission and distribution lines. It's not that simple anymore.

So what does the future hold? What do these concerns and shifts in energy policy mean for the role of our industry and, specifically, of our utility infrastructure? And, what does this mean for future regulatory policies?

There are three responses to these changes that our electric and gas utilities must be an integral part of – energy efficiency, renewable energy and the use of natural gas – both in power generation and direct use by our customers.

Let's start with what may be the most obvious industry response: let's help our customers use less energy. Energy efficiency means lower carbon emissions and less dependence on imported fuels. It also means lower bills for our customers.

As an industry, we've been involved in energy efficiency for years, and we've become quite good at it. Research from organizations like J.D. Power and Associates, and others, has consistently shown that customers value, expect and trust energy efficiency information from utilities. Weatherization programs, residential and commercial energy audit programs and rebate incentives for high efficiency equipment have been proven to work, and I believe they will continue to be valuable tools.

But this isn't simply a case of "back to the future" or doing more of what we have done in the past. What will take us to the next level in energy efficiency is new technology.

One industry spokesperson has said that the new technology being adopted by the utility industry today is like going from the rotary dial phone to the iPhone in a single bound. I think that analogy works.

Take the so-called "smart meters" which CenterPoint and other major utilities have begun to install.

Smart electric and gas meters will enable customers to track their energy consumption in near real-time, either through their computers or a home monitor. A 2008 study conducted by the Electric Power Research Institute found that of all the ways smart meters can help reduce energy consumption, the most significant savings were the result of providing direct, detailed usage feedback to

customers. When customers see exactly how they are using energy, and how much it's costing them, they change their behavior.

We can amplify this effect by adding price signals through mechanisms such as time of day rates. When our customers know that they can save money by – to take just one example, doing their laundry at off-peak hours -- then we will see significant changes in our customers' consumption patterns.

But this is only the beginning. In the near future, smart meters will enable customers to communicate with a new generation of "smart appliances." Customers will be able to turn appliances off and on when they are traveling or commuting – or to run appliances at the lowest necessary power setting when no one is at home. In effect, customers will be able to tell their appliances – or even their entire houses -- to "go to sleep" or to "wake up" by remote control. This will be made possible through the digital infrastructure of the electric grid.

In short, energy efficiency programs, when combined with new technologies, will enable us to realize significant energy savings with the associated environmental benefits. And it will be made possible through new infrastructure investments. These infrastructure investments must be funded through twenty-first century rate mechanisms that better align the interests of utilities and customers. I will expand on this point a little later in my talk.

Even if properly funded, conservation and energy efficiency will not be enough to offset the need for additional energy and as our economy and population grows so will the need for additional energy.

Which brings us to renewable energy.

As a substitute for traditional fossil fuels in the production of electricity, renewable energy sources such as solar, wind and biomass offer a number of benefits. Since they are produced domestically, they make us more energy secure and independent. Solar and wind likewise produce no direct carbon emissions and thus can help minimize climate change concerns.

However, renewable energy sources provide only a small percentage, around 9% - less than 4% if you exclude hydro-electric power – of our current power production, and significantly expanding their use poses a number of challenges.

Let's start with wind power. As wind power technology has improved considerably over the last decade its use across the country has grown in response. Currently about 3% of our energy nationwide comes from wind. In my home state of Texas, it's about 4%. Unfortunately, wind is an intermittent source, and the areas of the United States with the greatest potential for wind power are,

not surprisingly, in areas that are distant from our population centers. Moving wind-generated power from where it's produced to where it's needed will require significant investment in transmission lines. Once again, our utility infrastructure will play the enabling role.

In Texas, utilities will invest almost $5 billion in the next five years to get wind power to the state load centers. Investment in other parts of the country where new transmission lines must cross state boundaries has run into more difficulties. It's understandable that many residents object to having new power lines in their backyard that won't necessarily benefit the residents of their state.

These are difficult issues, but they must be resolved if wind power is to live up to its potential. Ultimately, federal regulation similar to what's used for interstate gas pipelines may be necessary. It's worked well for pipelines and can work for interstate transmission as well.

Solar energy, at least in the form of large-scale solar farms, faces similar challenges. Solar power is not yet economically competitive without significant government subsidies, and those parts of the country that have the most predictable and reliable sunlight are often a long way away from the people who need that power. So like wind energy, solar energy even if economical will also require significant transmission investments.

While not cost effective today, even with large subsidies, roof top solar power may someday be a realistic alternative. If this happens, then utilities will play a major role in integrating such distributed power into the grid. Smart meters and a more intelligent grid will be necessary to effectively use this technology.

We also are exploring another source of distributed power – the plug-in electric hybrid vehicle. Hailed as a way to reduce significant amounts of carbon from traditional automobiles, it also may be a source of peak load power.

Plug-in electric hybrid vehicles are scheduled to be commercially available beginning next year. Their hybrid batteries, when plugged into an intelligent grid, will have the capability of serving as instantly available, high-capacity, spinning reserves- ready at a moment's notice to push power back into the grid if needed.

Achieving this full potential will require investment in both smart meters and smart grid technology as well as charging stations since most cars are not "at home" during peak electricity usage. Smart meters, with their two-way communication capabilities, will be able to talk directly to plug-in vehicles just as they would a smart appliance in the home. Effectively managing thousands of tiny generation sources will require a much more sophisticated electric grid, and that's where the intelligent grid comes into play. Working hand in hand with smart

meters, intelligent grid technology can track thousands of points along a local distribution grid, helping to ensure power reliability and power quality. This could make reverse metering practical and in so doing reduce the need for additional power plants.

These possibilities are exciting, but they will require substantial technological investment in our nation's utility infrastructure. Realizing their full promise is likely many years away.

So what else can we do now? Public concern over carbon emissions and climate change will make it increasingly difficult for us to generate electricity by burning more coal. There's nuclear power – but I believe that it's a long-term rather than a short-term solution, and uncertainties about long term storage of spent nuclear fuel and high construction costs make it unclear how large a role nuclear power will play in our energy future.

So if we need more energy, natural gas will be the only choice that remains. And I believe it's a good choice which addresses both the concerns about carbon emissions and energy security.

Natural gas has half the carbon footprint of coal – and 30 percent less than oil. It's a domestic fuel and it's plentiful. It's the obvious choice for generating electric power.

The benefits of natural gas are often even greater when it's used directly as an energy source. When used in appliances such as furnaces, water heaters, stoves and clothes dryers, 90 percent of the energy value of natural gas is typically used. By contrast, when natural gas is first converted to electricity and then sent over electric wires, energy loss in the conversion and transport process results in less than 30 percent of the energy value being used.

Put another way: a typical all-electric home – one that relies on electricity for space and water heating, cooking and clothes drying – produces an average of 7.4 tons of carbon dioxide per year. A home that uses natural gas for heating, cooling and drying clothes emits only 4.5 tons of carbon dioxide per year.

But the best news of all, considering all its advantages, is that recent improvements in drilling technologies mean that we have a lot more natural gas in this country than we once thought.

Just a few years ago, it was widely believed that U.S. natural gas production had peaked and was in decline. It appeared that we would have no alternative but to rely more on imports – particularly imports of liquefied natural gas or LNG – to meet our gas needs.

Geologists always knew that there was a tremendous amount of gas trapped in shale formations throughout the Unites States and Canada. Now, thanks to improving extraction technologies, this so-called "unconventional" gas has become economical to produce. Large gas reserves exist in the Barnett, Haynesville, Woodford, Fayetteville and Marcelus shale plays and there are likely other areas yet to be identified. Estimates of the country's natural gas reserves have risen 35 percent. Suddenly, we've found that we have enough natural gas within our borders to satisfy current demand for a hundred years.

It also requires – once again – new utility infrastructure. New interstate pipeline capacity to move the gas to market will be needed. A tremendous amount of new pipeline capacity has been completed over the last five years, and more will be needed in the future. Additional pipeline and utility infrastructure will be the enabler of this low carbon domestic fuel.

So this then is our new energy paradigm- energy efficiency, renewable energy, natural gas and new technologies. We will need all of them working in tandem as our nation transitions to a lower carbon and a more energy secure future. I believe our industry is ready to build a 21st century utility infrastructure. But there's one piece missing: we will also need a 21st century regulatory structure to encourage and support the extended role of utility infrastructure.

In many, if not most, regulatory jurisdictions, a utility's earnings are tied to the volume of energy consumed. All things being equal, the more electricity or natural gas customers use, the greater the potential for the utility to earn its regulated returns. However, these kinds of rate structures do not give utilities the right kind of incentives. Instead of encouraging utilities to promote energy conservation, they reward increased energy usage.

Many jurisdictions around the country, especially for gas distribution utilities, have begun to decouple a utility's opportunity to earn a profit from the amount of energy customers' use. Decoupling rates in this way minimizes the impact of reduced customer use on earnings, and thereby allows utilities to actively promote conservation and energy efficiency. This aligns utilities' interests with those of their customers. I believe we'll need to see decoupling applied to electric utilities in the future if we're going to realize the full potential of energy efficiency programs.

We also need smart, progressive rate structures that promote capital investment. The investments I've described today will require billions, if not trillions of dollars. In order to raise the capital needed to make such investments, utilities must have adequate returns, a healthy balance sheet, and a supportive regulatory environment. It's the only way utilities will be able to make the investments that will be necessary.

This is a great challenge. But I believe that this country's utilities, working closely with our regulators, are up to this task.

I'd like to close with what I believe was an especially astute observation from author and journalist Thomas Friedman.

A year ago, when I was chairman of the American Gas Association, we invited Tom to speak to us. On that occasion, he said something about America's utilities that impressed me very much.

I notice that he said essentially the same thing in his current book, "Hot, Flat, and Crowded." So I'm going to end with this quote from Tom Friedman's book:

"Love them or hate them," he says, "local and regional regulated electric utilities are going to remain at the heart of our nation's energy system for a long time. If we're going to build a clean energy platform, it will be largely through the actions implemented by and through America's utilities. They have the customer base, the ability to raise huge volumes of cheap capital, and the installed technology infrastructure that we need to drive the development of an Energy Internet.

And the public trusts utilities. It is no accident that when people want to commit fraud, one of their favorite strategies is to knock on someone's door dressed as a service person from the local power company. Hey, come right in!"

Thanks, Tom, for that vote of confidence.

Utilities have a big part to play in meeting America's energy needs while simultaneously addressing public concerns over climate change and energy security. Utility infrastructure will be crucial to our efforts.

We are ready to do our part.

Thank you.