

“Nuclear Power – A Vital Part of a Balanced Energy Future”
Platts Nuclear Energy Conference – Bethesda, MD
February 17, 2011 (11:00 a.m.)

Good morning. It’s a pleasure to be back at the Platts Nuclear Energy Conference.

Five years ago I spoke at this conference at a time of growing confidence in nuclear expansion in the United States. Those of us in the industry knew then that a long, challenging road lay ahead, but the conditions for success were falling into place.

That was 2006 – before the financial crisis and economic recession had dampened electricity demand, made investors risk-averse and diverted attention from global climate change. And it was before shale gas discoveries had boosted the supply of domestic natural gas and flattened the price.

It was also five years ago that Progress Energy announced two sites for potential new nuclear plants – a greenfield site in Florida and an existing site in North Carolina. Since then, we have filed license applications with the NRC and have continued to keep our options open to build these plants, even though the in-service timelines have shifted to beyond 2020.

So here we are in 2011 at another conference sizing up where nuclear power fits into our nation’s energy future. How do we make sense of the current climate for building new plants?

In my view, the picture remains promising but also complicated and challenging. And that makes me both realistic and optimistic about the road ahead.

THE CURRENT SITUATION

Despite the sea change of events in the last five years, the underlying need for a secure, clean and affordable energy supply is stronger than ever. And today there's an even more compelling case that greater use of nuclear power is a vital part of a balanced energy strategy.

The logic is clear to a large and growing number of people inside and outside the industry, and in both political parties. But, as we all know, it's much easier to design a rational energy plan on paper – and talk about it in forums like this – than it is to execute it in the real world. That's especially true with large capital projects with long lead times and skeptical investors.

To me, the **central question** is not **if** the United States embarks on a significant nuclear expansion program, but **when** and **how**.

- Do we pursue nuclear development in a thoughtful, strategic way – and on the scale and timetable sufficient to the need?
- Or do we slog through on a project-by-project basis – and fall short of the momentum and overall impact required?

The public policy framework matters a great deal – at the state level as well as the national level. It can be a force multiplier. That's because, in a real sense, regulated utilities are in the business of raising private capital to implement public policy. And given the capital-intensive nature of a nuclear project, this technology requires strong, sustained policy support.

President Obama recently boosted the profile of nuclear power as part of our national conversation about a clean energy future. In his State of the Union Address three weeks ago, the President called for the United States to produce 80 percent of America's electricity from clean energy sources by 2035.

Importantly, he said we need wind, solar, nuclear, clean coal and natural gas: “To meet this goal, we will need them all.”

A general statement doesn’t make an energy policy, but I’m encouraged by the recognition that we need a broad array of energy options, including nuclear. Now we’re seeing serious policy discussions in Washington about what this clean energy goal could actually mean and what it would take to achieve it.

My perspective on these matters is informed by our company’s mission, experience and asset mix, and by my view on carbon and other environmental issues.

So keep in mind that Progress Energy is in the integrated, regulated utility business. Our two electric utilities serve more than three million customers in the Carolinas and Florida. And our mandated mission is to provide reliable, affordable service in an environmentally responsible way.

Our company has five nuclear reactors at four sites, and they produced a third of our electricity in 2010. The proposed merger with Duke Energy we announced last month will give the combined company 12 nuclear units at seven sites, all but one in the Carolinas. At 9,000 megawatts, this will be the largest regulated nuclear fleet in the country, and the third largest overall.

I’m one who thinks we should do something about carbon in this country. It’s not an issue that’s going away; nor should it, even if attention has been diverted by the urgency of economic issues. Inevitably, our nation will need to reduce its carbon footprint – its overall environmental footprint – and transition to a clean energy future.

THE 2030S: A CRITICAL DECADE

It's hard to look beyond the near-term horizon, but it's worth thinking about the decade of the 2030s because it's shaping up to be a critical one. And the choices we make in the new few years will go a long way toward filling in that energy picture.

Consider the decade that begins in less than 20 years:

- Global electricity consumption is expected to double by 2030 as emerging economies industrialize and hundreds of millions of people raise their standard of living.¹
- U.S. electricity consumption is expected to grow 30 percent by 2035 even as we increase our energy efficiency.²
- About one-third of the existing U.S. nuclear fleet will be at least 60 years old by 2035.³ The decade of the 2030s could see a wave of nuclear plant retirements. Four of our company's five nuclear units will hit the 60-year mark during this decade.

What strategic energy choices will we make now to create the future we want and need? Will we have an energy system that's secure, clean and affordable? And what role will nuclear energy play in the mix?

The pieces of this puzzle will not fall into place automatically or by wishful thinking. Key stakeholders must work together and make smart, timely decisions to make it happen. And we should be aware of the broader context of change.

¹ World Nuclear Association, December 2010 paper on The Nuclear Renaissance

² U.S. EIA Annual Energy Outlook 2011 early release (3,745 billion kWhs in 2009 to 4,880 in 2035)

³ U.S. EIA Annual Energy Outlook 2010

AN ELECTRIC SYSTEM IN TRANSITION

Recognize that the U.S. electric power system is at the front edge of a long-term transformation. It is being driven by an unprecedented convergence of new federal environmental rules, as well as by technological developments and aging facilities.

This transformation will include retiring older coal-fired plants and making large investments in a diverse mix of demand-side and supply-side resources. It will require enormous capital investments, which, ultimately, will be reflected in the rates that utility customers pay.

As CEO of one of the companies that must execute these changes, I take a pragmatic view of the challenge, knowing that we're bound by the laws of physics, economics and politics. Making these changes is not a theoretical exercise.

Earlier this week I spoke at a national forum of state utility regulators, and we discussed the implications of the transition occurring in the power sector. These regulators tend to be particularly interested in the reliability and price impacts on utility customers. So am I.

At Progress Energy, we're already investing heavily in modernizing our generation system as well as our power grid. We're retiring older coal plants – almost 30% of our North Carolina coal fleet – while building efficient new plants fueled by natural gas. And we've invested more than \$2 billion in environmental retrofits at our more efficient coal plants.

As part of what we call our Balanced Solution, we also have a comprehensive set of energy-efficiency initiatives, a substantial Smart Grid program and a growing number of alternative energy projects. And we're active in preparing for the ramp-up in electric vehicles on the market.

And, yes, Progress Energy is strongly interested in greater use of nuclear energy. We know the benefits it delivers now, and we've invested in power uprates to increase the capacity of our existing reactors. We believe nuclear power will be an increasingly important part of a clean energy future.

KEY DRIVERS FOR NUCLEAR EXPANSION

So what are key drivers for nuclear expansion?

First is an eyes-open awareness about the technology and a rigorous discipline to operate the current fleet safely and reliably day after day, year after year. Nuclear energy is a unique, demanding technology, and it's not for every company. It requires a serious, sustained commitment to excellence.

The first wave of existing U.S. nuclear units is now moving beyond the originally licensed 40-year life. That includes our Robinson nuclear plant in South Carolina, which started its 20-year license extension period last year.

As an industry, I believe we've underestimated what it takes to address an aging fleet. We must ensure we are positioning these plants to excel in safety, reliability and value.

A second important driver for nuclear expansion is financial strength. The global financial crisis dampened the risk appetite of lenders and elevated the scrutiny on creditworthiness. Taking on a new nuclear project requires a strong balance sheet.

The merger between Duke Energy and Progress Energy will make it more feasible to build new nuclear plants. The combined company will have a stronger balance sheet, lower cost of capital and reduced risk profile.

A third and closely related driver is having regional partnerships.

We see the value of a regional approach in the two projects now under construction in South Carolina and Georgia. I think a partnership among joint owners will prove to be the standard model for how this new wave of nuclear plants is built.

We believe in regional approach because it makes the projects more manageable for both owners and customers. It's a form of risk management. Having more parties with a stake in the project spreads the financial risk, smoothes the rate impact and broadens overall support.

That brings me to the last driver, which is a linchpin for nuclear expansion. It's having the right public, political and regulatory support. This goes beyond general support. In regulated states, where I think most nuclear construction will take place, it means having an effective way to recover financing costs during construction.

The states moving forward with new nuclear projects have a rate mechanism for efficient, timely recovery of financing costs, and we are hopeful that North Carolina and other states will see the wisdom of this approach as well. Such a regulatory provision is already in place in South Carolina, Florida and Georgia, among other states.

The objective is to lower the carrying cost – and thus the ultimate price tag and rate impact – of such a large, long-lead time project. This rate mechanism does not enable a utility to recover the actual capital investment before the plant goes into service. The construction costs are still addressed in the state's traditional regulatory process through a full rate case.

I've mentioned four drivers that will accelerate our nation's expansion of nuclear energy:

- excellence in maintaining and operating our current fleet of reactors;
- financial strength of the companies that plan to build more plants;
- regional partnerships among joint owners; and
- broad support, including efficient, timely recovery of financing costs during construction.

There is positive momentum on all these fronts, but more work needs to be done, especially in putting the right cost-recovery mechanisms in place.

And, obviously, success in completing the first few nuclear projects now under construction will create positive momentum. Success breeds success. Getting a clear price signal on carbon would be an even bigger boost for nuclear development. And we still need a long-term federal waste management plan.

CLOSING

Yes, the energy sector has seen remarkable change in the last five years, and some issues remain unresolved. What matters now are the decisions we make, or don't make, in the next five years. These decisions will shape how secure, clean and affordable our energy future will be.

In that context, consider what the psychologist Abraham Maslow said years ago: "If the only tool you have is a hammer, you tend to see every problem as a nail."

Nuclear energy is certainly not the only tool we have or need in building a clean energy future. There's a toolbox of options, and we'll need a diverse mix tailored for each company and region.

But I do believe that advanced nuclear technology is one of the essential tools our nation must employ in a bigger way. It's a key part of a realistic, balanced solution. The need is compelling, and the global trend is undeniable.

I would like to see the United States lead the way in commercial nuclear expansion – thoughtfully, strategically, and on a scale and timetable sufficient to the need.

Colin Powell has said: “Perpetual optimism is a force multiplier.”

I encourage you to help our nation turn optimism and possibility into reality. Take an active part in the conversation about energy policy and our energy future.

Help us find common ground – a shared understanding – that serves as a solid foundation for moving forward on a rational path. Help both the industry and the policymakers step up to the energy challenge.

Thank you for your attention, and I'd welcome your thoughts and questions.

###