Transforming the Electric Utility Industry

Remarks by

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Good afternoon. We always look forward to our annual briefing to talk to you about the key issues that are facing the electric utility industry. This year may mark a watershed in the way that our nation thinks about and addresses energy—how we get it, how we use it, and how much it costs. What is happening in our industry is the beginning of a transformation. And much of this transformation is the result of the need to address the issue of global climate change.

Transformations are most easily viewed in retrospect. When Thomas Edison announced his commercially practical light bulb, few could imagine the wholesale transformation that that technological advance would bring to the world. In fact, back in 1879, the immediate effect of Edison's announcement was a precipitous fall in the value of gas stocks!

Imagine that you are back in 1879. You take a look at a demonstration of the new incandescent light bulb that can burn for hours on end. Could you imagine the future that that bulb represented? All the appliances and applications that electricity would be used for? Everything from medical equipment to industrial processes to home appliances to computers and the internet and everything in between. Not even Edison could have envisioned all the good things electricity would bring to life.

Today, the great challenge before us is the need to supply affordable, reliable electricity to a world that is growing both in population and standard of living, while at the same time, moving to a low carbon future. We believe the key to this challenge is technology. And many of the policy decisions that we are making today will affect the kinds of technologies that are developed and how they are used.

We are going to give you an overview of the issues that we are facing and the various factors that need to be addressed. As you listen to the presentation, I ask you to imagine what is possible in the years to come if we make the right choices now.

2007 Performance

First, I would like to spend just a moment looking back on 2007. The EEI Index continued to post strong returns, up 16.6 percent. And over the past five years, the EEI Index has produced an average of 20 percent annual growth. Strong electricity demand has helped to fuel these returns.

Robust Gross Domestic Product growth, along with much higher than normal cooling degree-day totals, drove electricity output in 2007 to over 4.1 million gigawatthours (GWh). This was the first time that we have eclipsed the 4 million GWh level in a given year since we began compiling the records 75 years ago.

Last year's electric output was also an increase of almost three percent over 2006. Looking ahead to this year, the slowdown in economic growth is now predicted to cause a slight drop in electricity demand from last year's prediction—1.5 percent to 1.3 percent.

But, although the growth outlook for the nation as a whole is projected to dip slightly, short-term, some regions of the country—especially the Northeast, California and the Southwestern states—still will see their reserve generating capacity margins continue to shrink. More supply and demand-side resources will be needed in these regions in the near-term, as well as more transmission lines.

Federal Legislation

Last year ended with the passage of far-reaching new energy legislation. In addition to setting higher fuel efficiency standards for automobiles, the new energy law should help us to increase energy efficiency and reduce greenhouse gas emissions. In particular, the new law includes:

- Incentives for plug-in hybrid electric vehicles.

- An aggressive and expanded federal research development and demonstration (RD&D) program for carbon capture and sequestration technologies.

- More stringent efficiency standards for a wide variety of appliances. Notably, the new energy law effectively starts to phase out the incandescent light bulb in four years.

- The new energy law will also help us to make the electric grid smarter. By this, I mean a grid that uses advanced communications and control technologies to enable homes and electric utilities to begin to talk to each other. This sets the stage for a wide variety of customer and utility benefits.

On the tax front, we were disappointed that a number of provisions were dropped at the last minute. Among them were the production tax credits and incentives in the Energy Policy Act of 2005 (EPAct 2005) that are spurring the growth of renewable energy sources. These are now set to expire at the end of December, and it is critical to investor confidence that they get extended. We are working aggressively with Congress and a long list of allies to find a way to get these tax provisions extended in legislation this year, as well as including accelerated depreciation for “smart meters.”

We are also actively pursuing our multi-year campaign for the extension of the dividend tax rate reduction, which currently expires in 2010. We will be working in several broad industry coalitions to pursue this important objective. It will be difficult to get this done in the current Congress. But, as you know, the dividend tax rate reduction has never been an easy lift.

In the past, opponents of the dividend tax rate reduction have stated that the provision only benefits large investors. To address that issue, EEI, in conjunction with the American Gas Association, is finalizing a dividend tax rate study. In that study, we will be able to demonstrate the age and income demographics of the average utility shareholder. When the study is complete, you may be surprised to know how many of our shareholders are over the age of 65 and have modest incomes. We hope to be able to use that data on both a statewide as well as an individual congressional district basis in support of our lobbying activities.

Climate Change

I would like to move the discussion to the main event: climate change. Climate change is one of the major factors that is transforming the electric power industry. It is changing the way that Wall Street thinks about our industry. The Carbon Principles that were announced last week make that clear. We all agree that we need to ramp up our actions to reduce carbon dioxide (CO_2) and other greenhouse gas emissions (GHG). And we agree that we need to get the right solutions and the right approaches in place to do so.

We believe that we must support policies that reduce emissions without placing onerous burdens on the economy or jeopardizing the supply of affordable, reliable electricity.

To accomplish that, we believe there are a number of critical components:

- Realistic carbon reduction targets that give industry the time to develop and deploy a full suite of climate-friendly technologies to achieve them. For us, these technologies include an expanded role for energy efficiency and renewable energy sources, greater nuclear capacity and advanced nuclear designs, clean coal technologies and carbon capture and storage.

  Some of these technologies are available—although at a higher cost than conventional generation sources—but many are not. All have different time horizons, but all are critical to reducing greenhouse gas emissions. And the goals for these emissions reductions MUST be harmonized with the development and commercialization of the technologies.

  This is a critical point. The consequence of NOT harmonizing emissions reduction goals with technology will be tremendous price pressures on natural gas, higher consumer prices and heavy burdens on the competitiveness of U.S. industries.

- A "safety valve" or upper limit on the price of carbon emission allowances. This is essential for protecting electricity customers and country's international competitiveness.

- Along with a safety valve, the robust use of offsets is critical both to reducing compliance costs and maximizing reductions. And from both an economic and environmental standpoint, it makes sense to have the option to undertake these activities anywhere in the world.

- An economy-wide approach. Greenhouse gas emission sources are widespread in the U.S., with electric generation accounting for about a third. Legislation that focuses only on the power sector would create disproportionate increases in energy costs, and would not yield the environmental results of an economy-wide program.

- There must be meaningful participation by developing nations such as China and India. China will soon to be, if not already, the largest emitter of carbon.

The international aspect of climate change must be addressed for any policy to be effective and fair.

- The widespread commercialization of plug-in hybrid electric vehicles is a further component in our strategy to address climate change. A comprehensive study by the Electric Power Research Institute (EPRI) and the Natural Resources Defense Council (NRDC) found that PHEVs would result in significant reductions in GHG emissions and an improvement in overall air quality, with a small increase in electricity demand. We must encourage manufacturers to accelerate their efforts to cut emissions, improve gas mileage, and develop alternative fuel sources for their fleets of the future. PHEVs have the further, very significant, benefit of reducing our dependence on oil and adding to our energy security as well.

Clearly, energy efficiency and renewable energy sources are parts of the solution. New nuclear, the only zero-emissions base load option, will be key. Hydro, natural gas, cleaner coal and plug-in hybrids also must be included in the mix.

This year, Congress is almost certain to consider federal legislation dealing with the climate issue. In the Senate, we expect the Lieberman/Warner climate bill to come to the floor. This bill would reduce U.S. GHG emissions to 2005 levels by 2012, and 60 to 80 percent below those levels by 2050. While we agree it is time to move forward on climate, we are deeply concerned about the Lieberman-Warner proposal. The aggressive early targets and timetables do not allow for the technology harmonization we believe is so critical. Likewise, the lack of an effective safety valve, offset provisions and effective provisions for meaningful participation by high-emitting developing nations will have unnecessarily high negative impacts on American consumers and the competitiveness of American businesses and industry.

In the House, Chairmen Dingell and Boucher are still working on their version of a climate change bill as well. The framework and specifics of their proposal are still taking shape

But even if legislation doesn’t make it through this Congress, there are markers being set down all along the way that will determine the shape of eventual legislation. And we are working with business and industry groups, labor organizations, energy consumers and policymakers at all levels of government to try to assure that any program finally enacted embodies the principles we believe are so important to an effective and workable path forward.

At the same time, we continue to have a business to run. As I mentioned, reserve margins in some parts of the country are shrinking, and we will need to build new generation before legislation and technology can provide the certainty that many are looking for. I would encourage you to keep an open mind to the variety of solutions and the use of all fuel sources – including coal – as you make decisions to finance new facilities. All options must be on the table if we are to make the transition to a low carbon future without major disruptions in the economy and our quality of life.

Energy Efficiency

Energy efficiency gives us a tool to produce significant and immediate benefits for the environment, the customer, and the industry. And promoting it aggressively gives us a bridge to the future. It will help us to reduce emissions until both the nature and extent of carbon regulation has been determined and better generating options become available. In many ways, it truly is the “fifth fuel.”

As an industry, we have been promoting the efficient use of electricity since the first oil embargoes of the early 1970s. And we continue to make significant progress with our efficiency programs. But to transform our industry successfully, we need to transform energy efficiency’s role in our energy mix. Energy-efficiency must be viewed as the equivalent of generation. It must be factored into the portfolio of generation capacity that each utility holds. In order to do that, we must develop new business models that enable efficiency to become a full-time business for utilities. A number of electric companies and their state regulators have already begun this process.

New technologies will help us to transform the role of energy efficiency in America. For example, a new “smart” grid that enables electric utilities and their customers to communicate with each other opens the door to greater savings in energy and money, as well as a variety of potential new services.

Recently, we formed the Institute for Electric Efficiency under the auspices of the Edison Foundation. This new organization will act as a forum to share energy efficiency information, ideas, and promote best practices among electric utilities. The formation of this Institute further emphasizes the critical nature of energy efficiency in all we do and the commitment that our industry is making to it.

Renewables

Along with increased energy efficiency efforts, the industry is transforming its supply options by expanding the use of renewable energy sources. Wind, solar, geothermal and new hydro technologies all enjoyed record growth in 2007.

Almost 6,000 megawatts (MW) of new renewable energy came on line last year, with wind capacity alone expanding by more than 5,200 MW. This represents a 45 percent increase in the nation's total wind power generating capacity. Last year was also a record year for solar energy, with 314 MW of new solar-powered generating capacity installed—an increase of 125 percent from 2006. Geothermal power projects under development will more than double the U.S.'s existing geothermal capacity—raising it from 2,936 MW to 6,300 MW. And the hydroelectric industry also is growing. In the past two years, 18 incremental hydropower projects have provided an additional 231 MW.

Transmission

A key resource for expanding renewable energy sources is greater transmission capacity. And we are building. Our sector of the industry invested $6.9 billion in the nation's transmission infrastructure in 2006, and we plan to invest an additional $37 billion from 2007 to 2010. That is a 55 percent increase over the amount invested between 2003 and 2006. According to the North American Electric Reliability Corporation's (NERC) 2007 Long-Term Assessment, the total number of transmission miles is projected to increase by almost nine percent over the next ten years. This is more than a 30 percent increase from the previous assessment.

Even with this progress, building transmission faces many hurdles today. Public opposition, especially in densely populated areas, as well as differences in state statutes and regulations, have made transmission lines among the most difficult facilities to site. The lengthy permitting delays are problematic for power companies and for consumers. Besides the extra costs, the delays raise reliability concerns as well. A lack of transmission also limits the growth of renewable energy sources, especially wind projects, which are typically located far from the population centers demanding their electricity.

For example, the Midwest Independent System Operator has indicated that there are already applications for over 50,000 MW of wind-generated capacity in its generator interconnection queue. But the region's existing transmission capabilities cannot handle the added capacity being proposed. Similarly, in the western states, developing wind (and potentially solar central stations) can only be done with a strong commitment to building new transmission lines.

Congress recognized that if new transmission is going to be built, the states need stronger incentives to make timely decisions with respect to proposed projects, and they need to consider the regional implications of their siting decisions. To effect these changes, Congress gave the Federal Energy Regulatory Commission (FERC) a limited role as a backstop siting authority in EPAct 2005.

Even though the federal backstop siting authority is a carefully balanced federal-state framework for addressing the reality of today's changing electric transmission grid, there have been votes in Congress on numerous amendments to try to overturn this authority. With the help of businesses and industries who understand the critical need for new transmission; of renewable energy producers, who need transmission to get their energy to load centers; of labor organizations and many others, these amendments have been defeated. NRECA, APPA, NEI, EPSA and other electric organizations also support our efforts. But, the controversy continues, and I have no doubt the debate is far from over. Our coalition remains active and vigilant.

Coal

Greater energy efficiency and renewable energy use are essential for reducing our carbon emissions. But to meet projected demand, we will need new coal-based power plants. Coal today generates about 50 percent of the country's electricity. It is and will remain a vital energy resource for keeping electricity reliable and affordable.

Given the recent cancellations in coal plants that have been occurring across the country, we recognize that we need to transform how we generate electricity from coal. It is a transformation that we already have begun.

For example, our coal use has increased 75 percent since 1980. During this time, the industry has cut sulfur dioxide (SO_2) and nitrogen oxides (NO_x) emissions by more than 40 percent nationwide. We have also avoided approximately 40 percent of mercury emissions during that period as a co-benefit from technologies designed to control non-mercury emissions. In complying with new regulations, we will cut these emissions by more than 70 percent each.

Reducing CO_2 emissions will require an investment in advanced coal plant technologies, and we have already begun to make it. We are moving ahead with several advanced coal technologies to begin the development, demonstration and commercialization process. These technologies produce even fewer air emissions and offer the potential for capturing and storing CO_2.

But this transformation to advanced coal plants will take time and money. Keep in mind that plants with carbon capture and storage will cost approximately 20 to 50 percent more to build. They will also require that we as a nation create a commercial track record for them as well. For this reason, we welcome the more aggressive and expanded federal RD&D program for carbon capture and storage technologies in the new energy bill.

While these advanced coal technologies are being developed, we will continue to need to build coal plants that rely on the current best available technologies if we are to continue to provide reliable, low-cost power.

Given the difficulty in some areas of building new coal plants, we also expect to see more natural gas projects for new power plants. Nineteen percent of the U.S. electric industry's generation capacity is powered today by natural gas. That is expected to increase to 22 percent over the next ten years. This will continue the price pressures on natural gas. More importantly, to sustain this growing use of gas, not only for electric generation, but for all other uses, we must to develop and expand our access to our domestic supplies. We also need to increase our capacity for gas imports.

Nuclear

The industry is also expanding its nuclear capacity and developing advanced nuclear designs. Nuclear energy is our only zero-emitting baseload option for generating electricity. Only a decade or so after the U.S. nuclear industry was considered in a state of decline, ownership of more than a dozen plants has changed hands. And at the close of the year, plant applications had been filed by NRG Energy Inc., the Tennessee Valley Authority, Dominion Resources and Duke Energy Corp. Existing plant capacity figures are improving as well, and are now in the 90 percent range, after being in the 70 percent range during the mid-1990s.

We ask Wall Street to support the electric utility industry's expansion of nuclear capacity. This is clearly a key to addressing climate change. The revival of the nuclear side of the industry is long past due.

To continue our dialogue on new generation and transmission building issues, I would like to extend an invitation to you. The Edison Foundation will be holding a conference here in New York on April 21-22. "Keeping the Lights On—Our National Challenge" will look at a number of the issues we're addressing today. I hope you will be able to attend.

FERC

Turning our attention to issues involving FERC, as well as the states, I would now like to have David give you his insights.

FERC has an important role in the industry's transformation through the adoption of policies that 1) provide for the development of a strong energy infrastructure, 2) enhance the development of competitive wholesale markets and 3) enforce reliability standards and prevent market power abuse.

As Tom mentioned, we did successfully overturn attempts in Congress last year to repeal the federal transmission backstop siting authority that had been part of EPAct 2005. Maintaining this siting authority is critical to getting the transmission lines we need built.

Building more transmission is also a primary goal of FERC. The Commission recognizes that it is key to improving the competitiveness of the country's wholesale electricity markets, expanding renewable energy sources, and maintaining a reliable electricity system. The popular support for renewable energy is also causing FERC to reassess its policies with respect to generator interconnections, transmission incentives and transmission pricing.

FERC has already begun to develop attractive incentives for construction. And through EPAct 2005, they are working with the U.S. Department of Energy to streamline the siting process. Importantly, they are supportive of competitive markets. So is Congress, and so are we. Two rulemakings FERC made last year will help to strengthen the nation's wholesale markets.

Following three technical conferences early last year to explore the challenges and means of strengthening competition in the organized power markets, FERC issued an Advanced Notice of Proposed Rulemaking in December. The Commission identified four possible areas for reform: (1) the role of demand response in organized markets and greater use of market prices to elicit demand reductions during a power shortage; (2) increasing opportunities for long-term power contracting; (3) strengthening market monitoring; and (4) enhancing the responsiveness of RTOs and ISOs to customers and other stakeholders.

Significantly, based on the extensive testimony it received, the Commission determined that only incremental reforms were appropriate, and declined to propose the drastic changes to regional transmission organization and independent system operator-run wholesale electric markets that a number of parties have requested. We agree with their finding and will work with FERC to make these reforms.

The Commission's new Order 890 will also help to strengthen the nation's electricity markets. It reduces the opportunity for discrimination in providing transmission service, and it will enable transmission providers to better plan and construct their systems to accommodate customers.

The hybrid nature of the electric power industry today—with some regions operating in a competitive environment and some in a regulated one—underscores a need for cooperation between FERC and the states. The newly forming regional state committees (RSCs) may be the link that is needed to create this cooperation. FERC has advocated forming RSCs—representing the states within a regional power market—as a means for states to develop consensus on regional policy and planning issues. But right now, the role of the RSC is still evolving.

We are working with FERC as it prepares to begin enforcing the new cyber-security standards that NERC has established for the grid. FERC enforcement will begin in 2010. Implementing these rules will require cooperation across many divisions within a utility. We have set up compliance assurance programs for our member companies to share best practices in meeting the new FERC objectives.

The NERC provisions against possible cyber attacks closely follow the establishment of two new departments at FERC—the Office of Electric Reliability, which will oversee the enforcement of the county's new mandatory reliability and security standards, and the Office of Innovation. The need for technical innovation in transmission has become a major issue for FERC. It wants to promote the introduction of new technology into transmission developments, and both the U.S. Department of Energy and EPRI have programs to make the grid smarter.

In EPAct 2005, Congress also provided the Commission with guidance as to the types of technologies to encourage, among other things, demand response. Giving customers the capability to react to market prices through a smart grid can provide a hedge against volatile fuel prices. It can also alleviate transmission congestion, improve reliability, and potentially be a cost-effective means to complement or defer transmission expansion or improve the efficiency of transmission upgrades.

Commissioner Wellinghoff is a strong proponent of demand response, and we will support him this year when he comes up for re-appointment.

Conclusion

I would like to turn back now to Tom to have him conclude with an overview of our efforts on the last major challenge we will be addressing this year—improving public and regulator understanding of the need to invest in America's electric future.

Thank you, David. The industry is facing significant capital expenditures (capex). Estimates of last year's capex are about $73 billion—a 21.1 percent increase over 2006, and a 77.9 percent jump from 2004 levels. Looking ahead, industry capex is projected to reach approximately $75 billion in 2008 and 2009. Some companies, however, have since made upward revisions to these projections.

Although the escalating capex will provide rate base growth, the expansion may also create credit quality challenges and downward pressure on realized return on equities (ROEs). EEI is advocating ratemaking policies to help mitigate the regulatory lag that can occur in recovering these costs, which are a primary culprit of lower ROEs in a rising capex environment.

EEI continues to help to educate key constituents about this need to invest in new generation, transmission and distribution infrastructure enhancements. Our "Investing in America's Electric Future" campaign is reaching political leaders at all levels of government, state and federal regulators, the investor community, opinion leaders and the public at large. This effort provides the underpinning and the intellectual framework that supports all of the issues confronting our industry. I encourage you to visit the Web site that we created to help all electricity consumers understand the key issues facing electric companies: www.getenergyactive.org.

As the need to develop and build new infrastructure grows, so too does the need for skilled labor to build and manage it. Our industry is going to see significant retirements over the next ten years. We need to develop the labor force that will be needed to make those new technologies work. Along with the American Gas Association and the Nuclear Energy Institute, we have begun the Center for Energy Workforce Development to address this issue.

With the price of oil remaining at a record high, and the cost of natural gas increasing, we will also continue or advocacy efforts to gain additional federal funding for the Low Income Home Energy Assistance Program (LIHEAP). Since LIHEAP's inception, the number of eligible households has increased by 78 per cent, yet in FY 2006, states were only able to serve less than a quarter of the 24.4 million eligible households. LIHEAP is a highly efficient federal block grant program that helps millions of low-income households pay their heating as well as their cooling bills.

As I said at the beginning, it is time for the industry to transform itself. A mere transition will not do. We, like Congress, FERC, and the states, have a new vision for the industry, one with far less impact on the environment. One that uses new technologies—even some we have not yet thought of—to generate our power. One that capitalizes on interactivity to fully realize the potential of a "smart grid" system. One that is always striving to be more energy-efficient. To achieve all of this, while maintaining a reliable and affordable electricity supply will be difficult, to say the least. But at the end of the day, we will be able to say that the industry is ready to meet the challenges of the future in a way that would make Edison proud.

—EEI—