

**State of the Industry Address
Nuclear Energy Assembly
May 6, 2008**

Good morning. I am John Rowe.

As chairman of the Nuclear Energy Institute's Board of Directors, let me welcome you to NEI's annual conference and to Chicago, Exelon's hometown.

We are delighted to have you here in Chicago for this year's Nuclear Energy Assembly.

This is truly one of the world's great cities – strong, energetic, and, with Mayor Daley's leadership, increasingly sustainable.

It is the birthplace of nuclear energy, and a part of its future.

I especially look forward to tomorrow night's event at the Chicago History Museum, which I am proud to chair.

At this annual gathering of the U.S. nuclear power industry, custom demands that the chairman of the NEI Board provide an assessment of the state of the industry.

I am pleased to report to you that the state of our industry is very sound indeed.

Last year's performance was outstanding.

The fleet operated at almost 92 percent, the highest capacity factor ever and a reflection of the effort all of you bring to plant management and operations.

Output set an all-time record, over 800 billion kilowatt-hours – mostly the result of high capacity factors, but also due to more capacity available,

High output obviously drives economic performance.

NEI estimates production cost last year was \$16.80 per megawatt-hour – cheaper than coal

We have much to be proud of.

But as I told you last year, my role here today is not to be the industry's head cheerleader.

Rather, I believe it is my obligation to brief you on the state of the industry using the same clear-eyed analysis with which we at Exelon approach all matters of business.

Many of our companies – mine included – are considering construction of the first new nuclear power plants in the United States in several decades.

We are doing so because the energy needs of our nation demand it.

The need for new baseload generating capacity is unmistakable.

The electric sector's dependence on natural gas exposes our customers to unacceptable price volatility, and our companies to political and regulatory stress.

Nuclear power is an essential part of any workable response to the climate change issue.

We have made steady progress since we met last year in Florida:

- ▶ Nine applications filed with the Nuclear Regulatory Commission for construction/operating licenses, and between 7 and 11 more expected before the end of the year**
- ▶ Two current designs already certified by the NRC, and three pending certification**
- ▶ A steady drumbeat of announcements about companies ordering long long-lead components**
- ▶ At least one agreement between an operator and a vendor on the terms and conditions of an engineering-procurement-construction contract – a step in the direction of finally producing a credible cost estimate.**

Congratulations to David Ratcliffe, Bernie Beasley and Southern Nuclear for that achievement, announced last month.

- ▶ Legislation or regulations last year in Louisiana, North Carolina, South Carolina, Texas and Virginia providing incentives, or greater assurance of investment recovery, to companies that build new nuclear plants.**
- ▶ Approval by the Florida Public Service Commission of Florida Power and Light's request for a determination of need for two new nuclear units at Turkey Point.**

Congratulations to Lew Hay and his team at FPL.

- ▶ **Progress from the Department of Energy for the loan guarantee program, which is so essential to financing new nuclear plants, And approximately \$20 billion in loan volume authorized in 2008 and 2009 – a good start.**

I am emotionally biased but economically objective about this.

Excellent progress has been made, but the renaissance is not yet here

I am 63 years old, and not likely to get rich from the next nuclear unit

And I know that we cannot afford to let ourselves be carried away on the enthusiasm of press releases.

We must not misjudge the challenges facing companies developing new nuclear projects.

We must create realistic expectations.

Realistic expectations about the “renaissance” of nuclear power suggest that it will unfold slowly over time

Perhaps four to eight new plants in commercial operation as early as 2016 or so.

If those first plants are working to schedule...

- **within budget estimates**
- **without licensing difficulties**
- **with continued public policy support,**

A second wave could be under construction as the first wave reaches commercial operation.

What is behind this new development?

What is governing its pace, and our level of confidence in it?

We're seeing the first signs of recovery in the supply chain for nuclear-grade equipment.

Companies are considering investments in new manufacturing facilities in the United States – like Alstom's decision to invest \$200-million in a facility in Chattanooga to build turbines.

But the infrastructure is still limited, bottlenecked by current global demand and years of atrophy.

Industry infrastructure mobilization is essential to overcome constraints and delays.

We're addressing our workforce challenges

Working with the federal government, state governments, universities and community colleges, high schools, labor unions, and trade and professional organizations.

Thanks to NEI's Carol Berrigan for driving work on this issue

We're promoting nuclear energy careers and employment opportunities among younger people.

At the university level, enrollment in undergraduate nuclear engineering programs has quadrupled in the last several years.

The presence of so many dynamic members of North American Young Generation in Nuclear here today – and the contributions they make not just on the job but also in building public support for nuclear power – is testimony to a strong nuclear future.

But – while we should all be proud of this workforce development, we have work yet to do

In career development for engineering, craft and technician positions

And in continuing to build the diversity of the nuclear energy community.

There is good economic news for new nuclear.

Nuclear production costs are down by a third over the last ten years, while gas-fueled electricity prices have doubled.

Despite short-term disruptions in the uranium market, we're confident in the long-term fuel market.

- **Plenty of uranium resources are coming to market**
- **New enrichment technologies are in the pipeline,**
- **And we are seeing the expansion of conversion capacity.**

Nuclear operators are making money with the current fleet

But cost confidence in new nuclear construction is hard to come by.

Commodity prices are experiencing significant volatility -- a problem for all generation options.

No reactor vendor is offering solid price certainty. -- and even the rough preliminary estimates are increasing rapidly.

And carbon pricing, a key element in nuclear's competitive edge, is energy policy issue #1 – but legislation has yet to move.

Disciplined project execution is critical for the success of new nuclear plant construction

Nothing will chill the rebirth of nuclear power more quickly than finding ourselves 18 months into construction on a project and 18 months behind schedule.

We must demonstrate that we have learned the lessons of our past, and will learn the lessons of recent successful Asian construction.

However, we must not hesitate to take credit for our achievements.

The companies operating nuclear plants in the United States today, and preparing to build new ones, are operating to higher standards than the companies that built the last generation of plants.

Today's nuclear industry is not the same industry, and that difference dominates all the others.

We are where we are today because this industry started many years ago on a systematic program to identify what went wrong the last time, and develop ways to eliminate or manage those risks.

That program has been highly successful to date.

We must acknowledge that new nuclear plants are high-cost, capital-intensive plants -- especially compared to the book equity or market capitalization of the companies building them.

These costs are daunting, by any measure, and clearly represent a financing challenge for the electric power industry.

Companies are not willing to bet the farm on the success or failure of a single project.

We need to find new and innovative ways to share the risks.

Policymakers must recognize this, and it is our duty to educate them.

Many of you are aware that the French and Japanese export credit agencies are keenly interested in participating in financing new nuclear plants in the United States, and are in active discussions with some of our companies.

That confidence is encouraging

But we still face a challenge in turning the Department of Energy's loan guarantee program into a stable financing platform.

We have been encouraged by the recent staff additions to the DOE Loan Guarantee Office, and expect the solicitation for new nuclear plants to be issued soon.

However, we anticipate that the request for loan guarantee coverage will far exceed the limited authorization available.

Public policy on the issue of spent fuel also remains unsettled.

There has not yet been a new standard contract negotiated with DOE for new reactors – a key uncertainty.

Yucca Mountain is stalled and there has been no progress on an alternative

It is our responsibility, along with the federal government, to consider our legacy to future generations, and get this issue resolved.

We have made substantial progress in regulatory stability.

The licensing process for new nuclear plants is markedly improved, and is structured to minimize and mitigate risk.

Nuclear operators, vendors, and the NRC are committed to making this process work.

We must acknowledge, however, that it is untested.

Political support for nuclear has become increasingly bipartisan.

Our friends in organized labor have played a key role in helping build support among policy-makers who are not traditional industry allies

It will be critical for us to continue to work with labor and other stakeholders to build support at all levels of government.

In brief, the industry has taken and continues to take effective steps to learn the lessons of the past and manage the risks that it can.

We are rebuilding the infrastructure and practicing a rigorous discipline.

But the requisite stability in public policy to support a multi-billion dollar long-term investment continues to be a risk we cannot control, or predict.

We will see a new administration in a few months, and a number of our key champions will not be on Capitol Hill next session.

Each of the three candidates for president has taken a clear position on the need for action on climate change

We can only hope that will translate into realistic support for new nuclear generation

It is simply not possible for rational policymakers to think we can solve our national goals for economic security, energy security, or environmental security without a large block of new nuclear power plants

The numbers are clear:

Even with aggressive energy efficiency programs, we will need 30% more electricity by 2030

We will need to get that electricity from a diverse portfolio of fuels lest we add a dangerous reliance on natural gas imports to our addiction to oil

And we will be unable to comply with existing environmental laws, much less necessary and inevitable future limits on greenhouse gases, if we rely too heavily on coal to meet that demand.

I am convinced that we will need at least 25-30 new reactors by 2030 if we are to succeed in limiting greenhouse gases

In sum, the public policy case for new nuclear is compelling, for a rational policymaker

Of course, I have used the word “rational” in the same sentence as “policymakers” but one must always hope.

So there is work to be done to address the risks of new build.

By the industry:

- **Disciplined adherence to the licensing process**
- **Timely and complete reactor designs**
- **A more robust infrastructure and manufacturing sector**
- **Improved construction methods, schedules and costs**
- **More cost certainty ... and more risk-sharing in the remaining uncertainty.**

By the government, with our help and strong urging:

- **Continued regulatory and policy stability**
- **Resolution of spent fuel issues**
- **Effective implementation of the loan guarantee program**

We will take a measured approach to new plant deployment, in the certain knowledge that it’s better to do it right than do it fast.

When I addressed this assembly last year, I reported:

- **Operating performance is strong**
- **The need for increased nuclear generation capacity is compelling**
- **But policy, cost, and infrastructure obstacles to new build continue to be substantial.**

All still true today.

Yet we have made progress.

And as we continue to move forward, remember that we are still best served by clear-eyed analysis, and straightforward communication, on our future prospects and commitments.

Thank you.