STATEMENT FOR THE RECORD

by

Leslie C. Kass
Senior Director of Business Policy and Programs
Nuclear Energy Institute

to the

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Chairman Kucinich, Ranking Member Jordan, members of the subcommittee, thank you for your interest in loan guarantees for construction of new nuclear power plants to meet our nation's energy needs and reduce carbon emissions. I appreciate the opportunity to speak with you today.

I am Leslie Kass, senior director of business policy and programs at the Nuclear Energy Institute. By way of introduction and background, I have a degree in Materials Science and Engineering from MIT, an MBA from Duke University's Fuqua School of Business and 17 years of service in the nuclear industry, including time as an engineering manager at an operating reactor and I helped prepare the financing package for the $1.5 billion National Enrichment Facility currently under construction near Eunice, New Mexico. I have spent the past year and a half focusing on business policies affecting the nuclear industry including the Title XVII loan guarantee program.

Before I address the issue of loan guarantees for clean energy technologies, let me provide some essential context.

First, all mainstream analyses of climate change show that reducing carbon emissions will require a portfolio of technologies, that nuclear energy must be part of the portfolio, and that expansion of nuclear generating capacity over the next 30-50 years will be essential.

The Energy Information Administration's analysis of the Waxman-Markey climate change legislation showed that the U.S. would need to build 96 gigawatts of new nuclear generation by 2030 (69 new nuclear plants). This would result in nuclear energy supplying 33 percent of U.S. electricity generation, more than any other source of electric power. To the extent the United States cannot deploy new nuclear power plants in these numbers, the cost of electricity, natural gas and carbon allowances will be higher.

As the President stated last month at the announcement of the conditional commitment offered to the Vogtle nuclear project: "To meet our growing energy needs and prevent the worst consequences of climate change, we'll need to increase our supply of nuclear power. It's that simple …. [I]nvesting in nuclear energy remains a necessary step …. I hope that this announcement underscores both our seriousness in meeting the energy challenge – and our willingness to look at this challenge not as a partisan issue, but as a matter far more important than politics. Because the choices we make will affect not just the next generation, but generations to come."

Second, we are confident that new nuclear generating capacity will be competitive – particularly in a carbon-constrained world – and we're not aware of any credible analysis that shows otherwise.

In last year's National Academies' report on *America's Energy Future*, new nuclear capacity competes well against all other baseload options in the carbon-constrained world in which we are likely to be living in the future.

We see similar results in analyses by the Energy Information Administration, the Brattle Group, the Congressional Budget Office, and the Massachusetts Institute of Technology.

Third, the U.S. electric industry faces a formidable investment challenge. Consensus estimates show that the electric sector must invest between $1.5 trillion and $2 trillion in new power plants, transmission and distribution systems, and environmental controls to meet expected increases in electricity demand by 2030.

To put these numbers in perspective: the book value of America's entire electric power supply and delivery system today is only $750 billion, and that reflects investments made over the last 60 years.

Addressing the financing challenge will require innovative approaches. Meeting these investment needs will require a partnership between the private sector and the public sector, combining all the financing capabilities and tools available to the private sector, the federal government and state governments.

Loan guarantees are one of the most effective tools available to the federal government, and are widely used by the federal government to support financing of projects that have substantial public value. The federal government manages a successful loan guarantee portfolio of approximately $1.2 trillion which, on balance, returns more to the Treasury than it costs the taxpayer. The United States government uses these credit support programs to support shipbuilding, steelmaking, rural electrification, affordable housing, construction of critical transportation infrastructure, and for many other purposes.

By reducing the cost of capital, loan guarantee programs – like the clean energy loan guarantee program authorized by the 2005 Energy Policy Act – serve the public interest by accelerating the deployment of clean generating technologies at a lower cost to consumers.

As this committee knows, a number of clean energy technologies are eligible under the Title XVII loan guarantee program. If the President's budget proposal for FY2011 is approved, energy efficiency and renewables will have $56.7 billion in loan volume available; nuclear power projects will have $54.5 billion in loan volume; front-end nuclear fuel cycle facilities will have $2 billion; fossil energy projects, $8 billion; and advanced vehicles, $25 billion.

To ensure protection of the taxpayer's interest, all projects seeking loan guarantees will be subjected to detailed due diligence and underwriting by a rating agency and by the Department

of Energy. This due diligence evaluates the legal, technical and financial attributes of each project, and will produce a credible estimate of default probability that has a factual, analytical basis. DOE's due diligence is conducted in concert with outside legal and financial advisers, independent engineering consultants and market experts. The analysis includes a rigorous assessment of the creditworthiness of the project, which can be accurately measured using well-established project finance ranking criteria such as the credit rating of the project sponsor, project capital structure, project cash flow, the strength of power purchase agreements, the terms and conditions of the engineering-procurement-construction contract, and other factors.

The nuclear energy industry is confident that the new nuclear power plants being developed can be built and commissioned to cost and schedule. Recent construction and operational experience demonstrates that experienced project management teams – with effective quality assurance and corrective action programs, with detailed design completed before the start of major construction, with integrated engineering and construction schedules – can complete projects on budget and on schedule. The global nuclear industry, including the U.S. nuclear industry, has performed projects ranging from new plant construction to major upgrades to plant restarts to refueling outages efficiently, on time and on budget.

In addition, the new nuclear power plant designs that will be built in the United States between 2015 and 2020 will have been built overseas first and, as a result, U.S. projects will benefit from lessons learned overseas. By the time the U.S. plants receive their combined licenses and close on loan guarantee financing, one design will be in the final year of construction and the others will be operational. The final costs will be informed by this additional data and will be reviewed as part of the financial closing for the loan guarantee.

Finally, the companies building new nuclear power plants will have significant shareholder equity ($1 billion or more per project) at risk. This equity is in a "first-loss" position: The company would forfeit that equity in the event of default. For most electric companies, such a loss would be unsustainable. The significant amount of money at risk imposes a high level of discipline on investment decisions. As a result, the companies seeking loan guarantees for nuclear power plants have a powerful incentive to ensure that projects are properly developed, constructed, operated and maintained to achieve commercial success. The federal government's interest and the company's interest are completely aligned. Like the federal government, the nuclear companies wish to avoid default at all costs.

The amount of misinformation about nuclear plant construction, loan guarantees for new nuclear projects, and the methodology used to calculate the cost of those loan guarantees is remarkable. One of the more egregious examples is the continued use of a 50 percent default rate from a 2003 Congressional Budget Office (CBO) analysis of a different loan guarantee program that was never enacted. CBO Director Douglas Elmendorf was moved to explain on March 4 that the 2003 report "reflected information about the technical, economic, and regulatory environment as it existed in 2003, almost seven years ago. Such generalized estimates of credit risk may not apply to a guarantee for any particular power plant because of variations in the technical, economic, regulatory, and contractual characteristics of each project. Without such information, much of which would be proprietary, CBO has no basis for estimating the cost to the government of any specific loan guarantee of this type."

The principal determinant in calculating credit subsidy cost – and the sole issue of concern to the federal government – is the degree of lender protection and the strength of that lender protection. Detailed analysis and historical data demonstrate that the new nuclear power projects being proposed for DOE loan guarantees provide a very high degree of lender protection.

That high degree of lender protection will drive the calculation of credit subsidy cost.

A realistic analysis of default probability and recovery rate based on project specifics will produce credit subsidy costs sufficient to protect the taxpayers' interest, and there are procedures and protocols in place to ensure this. Credit subsidy calculations must be approved by the Department of Energy's Credit Review Board, the Office of Management and Budget – which provides the government-wide credit subsidy cost calculator used for government loan guarantee programs – and by the Treasury Department.

It's worth noting that the average fee for all government loan guarantee programs in the 2010 fiscal year is 0.2 percent of the loan amount. The government-wide average subsidy fee is low because many loan guarantee programs generate more fee revenue for the federal Treasury than they cost, as the DOE loan guarantee program for nuclear energy is expected to do.

Given the very low probability of losses associated with nuclear projects, the benefits far outweigh the risks. Electricity consumers and American workers and manufacturers are the major beneficiaries of a loan guarantee program for new nuclear plants.

- Electricity consumers will benefit from low cost clean energy. Southern Company projects that its $3.4 billion loan guarantee for two reactors at its Vogtle plant in Georgia would, if ultimately approved when the project receives its license from the Nuclear Regulatory Commission, save consumers $15 million to $20 million in interest costs annually.

- American workers and manufacturers will benefit from the loan guarantee program. For each plant, that means:
  - Approximately 1,400-1,800 jobs during construction on average (with peak employment as high as 2,400 jobs at certain times).
  - 400-700 permanent jobs when the plant is operating: These jobs pay 36% more than average salaries in the local area.
  - 400-700 additional jobs in the local area to provide the goods and services necessary to support the nuclear plant workforce (e.g., car dealers, dry cleaners, food service).

- American manufacturers will benefit from the loan guarantee program, because construction of new nuclear plants will create demand for commodities like concrete and steel and hundreds of components, large and small. For example, a single new nuclear power plant requires approximately:
  - 400,000 cubic yards of concrete—five times as much concrete as in the foundation and floor slabs of the 100-story Sears Tower in Chicago
  - 66,000 tons of steel

— 44 miles of piping and 300 miles of electric wiring
— 130,000 electrical components.

In conclusion, the nuclear loan guarantee program is an opportunity to build the clean energy facilities necessary to support our economy and to put Americans back to work. The analytics show that the risks of default are very small and as the President explained, the benefits cannot be ignored.

Mr. Chairman, thank you again for the opportunity to testify.