

OBSERVATIONS ON NUCLEAR PLANT FINANCING IN THE UNITED STATES

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There is a myth that financing new nuclear power plant construction in America is a uniquely difficult undertaking, burdened with nearly insurmountable risks. This is not the case.

Point #1: We can, and will, finance new nuclear build in America. Under the right conditions, with appropriate stimulus for investment, and protection of that investment, new nuclear plant financing is feasible and possible and, in fact, a highly attractive proposition. Thanks to the energy legislation enacted into law last month in the United States, the right investment conditions now largely exist. More on the energy legislation in a moment.

Point #2: New nuclear plant financing is a risk-management exercise. For the last five years, we have worked to peel apart systematically the risks and business issues that exist at each stage of project development, from licensing through construction and into commercial operation, and have identified tools and techniques to manage and contain those risks. We are fortunate in America to have a licensing process in which we receive all regulatory approvals before construction begins, before we place significant capital investment at risk. New nuclear plant designs are approved (or certified) in advance. Sites are similarly approved before major capital investment begins. And we receive a single license to build and operate the plant. That license includes measurable, quantitative criteria that, if met, will allow the plant to load fuel and start up when construction is complete. The threshold for intervention after the construction and operating license is issued is set very high, and is intended to preclude frivolous intervention, unwarranted delays and other costly mischief.

Point #3: Protecting private sector investment must be protected. Although the licensing process is designed to preclude mischief and delay, no-one can guarantee zero risk of delays during construction or, more damaging, delays in full-power operation of a completed plant. We believe such delays are extremely low probability events but, if they occur, they have extremely high consequences. To manage this risk, we worked with our government to fashion a form of insurance under which the federal government will cover debt service for the first few plants if commercial operation is delayed. This coverage is capped at \$500 million for the first two reactors, and \$250 million for the next four reactors. This insurance for delays beyond the private sector's control is included in the energy legislation enacted into law last month. Does this insurance cover all of the costs and

foregone revenues and earnings associated with a delay in commercial operation? No, it does not. But it does provide debt investors assurance that **their** investment is secure. And to the extent we have other costs left uncovered, we can develop ways to hedge those risks — through a pooled self-insurance approach, for example. As you know, the U.S. industry already has a well-established mutual insurance entity that provides property insurance.

Point #4: The new U.S. energy legislation provides substantial stimulus for investment in new nuclear plants, which will offset the higher first-time costs of the first plants, ensure that their electricity is competitive, enhance the financial returns available to debt and equity investors, and make financing easier. The legislation provides a federal guarantee of the debt financing up to 80 percent of total project cost. This will allow companies to structure projects with a more aggressive, more highly leveraged capital structure than is typical of conventional regulated utility financing, obtain debt at preferential rates, and reduce total project cost by several hundred million dollars. The legislation also includes a production tax credit of \$18 per megawatt-hour, subject to certain dollar and capacity limitations, available for plants that start construction before 2021. This incentive represents \$5 billion to \$6 billion of economic benefit that will serve as a powerful inducement for potential investors.

Point #5: Flexibility. We are fortunate, at least in the United States, in having enormous flexibility in how we structure and finance new nuclear projects, and in how we manage the risks associated with financing. About one-half of the states are still operating under traditional cost-of-service regulation. In those states, companies can build new nuclear plants as rate-base projects, using a conservative 50/50 capital structure, with approval from state regulators to recover costs through electric rates. This regulatory arrangement provides substantial protection: Investors know that all costs prudently incurred will be recovered through rates; and companies will likely receive some recovery of costs during construction. But we also have unregulated generating companies that will build and finance new nuclear plants as merchant projects, using the loan guarantee protections in the Energy Policy Act of 2005 to support the debt financing. So I expect to see a spectrum of financing arrangements: Regulated projects, merchant projects, varying degrees of leverage, projects built by single companies, projects built by consortia in order to share risk, projects that are non-recourse to the project developers' balance sheets, projects that are full recourse, and other arrangements that we have not yet thought of.

Point #6: New nuclear plants are not uniquely large capital projects. In fact, by energy industry standards, even a \$2.5 billion nuclear project is not particularly daunting. The Hibernia oil platform offshore Newfoundland was a \$6 – 7 billion project. LNG projects, including liquefaction facilities, tankers and regas facilities, cost significantly more than new nuclear build. The petroleum industry typically manages the risks associated with these projects through shared ownership of production facilities, and nuclear generating companies may find themselves in the same position, at least during the plant construction phase.

Point #7: Consumers will play a key role in financing, particularly large industrial users and electric distribution utilities. New nuclear plant financing in the United States will require long-term offtake arrangements for the electricity. In America today, we see 20-year power purchase agreements, or PPAs, that support the financing of new coal-fired projects, and I expect we will see similar PPAs supporting the creditworthiness of new nuclear plant construction in America.

One final point: Industry must accept its share of the risk. The nuclear industry does not, and cannot, expect to be protected against all risks, all events, at all times. There are business risks which should, and must, remain a private sector responsibility. We cannot expect to be protected against poor construction management, delays in construction and commercial operation that are within our control, schedule slippage due to late equipment delivery, and the like. Fortunately, there are well-established tools and techniques — liquidated damages provisions, for example — to hedge these risks. We also have construction experience with advanced reactors in the Far East and elsewhere that provides a high level of assurance that industry can build to schedule and cost.

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To conclude, we have worked closely with energy industry specialists in the financial community over the last several years, and will continue to do so. Their counsel helped shape the investment stimulus and investment protection in America's new energy legislation. We know investment capital is available to support the next round of nuclear plant financing in the United States. We even see the large private equity funds now taking positions in the nuclear energy business for the first time.

I do not wish to mislead you: Financing the next nuclear plants in America, particularly the first-movers, will not be a simple undertaking. These deals will have many moving parts. They will be highly structured. But the deals **can** be done and, rest assured, the potential rewards all round are large enough that the deals **will** be done.