

### Nuclear Power and the Bottomless Bank

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Congress and the Obama Administration are on a course to provide the nation's nuclear industry an unprecedented financial package which could dwarf the combined expenditures of the bailout programs enacted during the past year. The legislative package is accompanied by restrictions – billed as efforts to streamline bureaucracy – which would block the Nuclear Regulatory Commission from completely examining the major components of untried nuclear power systems and preclude counting nuclear underwriting in the national debt.

The extensive support for the development of nuclear power is incorporated in the Clean Energy Jobs and American Power Act moving separately through Senator Barbara Boxer's (D-Calif.) Environment and Public Works, and Senator Jeff Bingaman's (D-N.M.) Energy and Natural Resources committees. They are already incorporated in House version of the bill, which passed in June.

If enacted, the legislation would create a special "bank" affiliated with the Department of Energy called the Clean Energy Deployment Administration which could potentially provide underwriting for 187 new nuclear power projects – at a present, estimated cost of \$10 to \$14 billion each – and assume responsibility for expenses emanating from cost overruns and delays.

If the Senate version is approved, there would be unlimited funding for nuclear power projects throughout the country, instead of just in the three states – Florida, Georgia, and South Carolina – which allow utilities to bill consumers in advance for the cost of constructing nuclear power plants. Federal investment in nuclear energy would replace that from the Wall Street investment community which has been loathe to invest in these expensive capital projects.

The reticence, said energy analyst Jim Hempstead of Moody's Investors Service, stems from the fact that these plants tie up a large percent of a utility's capital and have a high probability of default. Moody's, therefore, downgrades the ratings of companies beginning nuclear projects. "History has not been a friend to the sector," said Hempstead. What we know is that the last go-round, things didn't work out so well.

"These designs we are talking about are not in operation, so there is a first of a kind risk with all of these plants. None of these designs have been approved and there is a significant amount of execution risk with any of these projects. China has two of these Westinghouse AP-1000 reactors under construction. But it doesn't work. It's like Boeing's Dreamliner, which worked wonderfully well on the computer, but didn't fly."

The energy bill would scrap the system used to build the nation's existing energy infrastructure: investors and lenders paid for the construction, and the public paid for the energy and amortization of capital costs after the plant was in operation.

"It is very bad public policy," said Peter Bradford, a former NRC commissioner and former member of the New York State Public Service commission. "It means the entities best positioned to control costs and control risks – mainly construction managers and the private financial system – don't have to worry about those risks because they are being borne by the taxpayers who have no control over them.

"It exposes taxpayers to very large potential losses when you consider that nearly half of the nuclear plants that received construction permits were cancelled before they came on line."

Specifically, CEDA would take over the loan guarantee authority currently vested in the Department of Energy, which has is currently budgeted at \$18.5 billion for nuclear plants underwriting. DOE Secretary Steven Chu told the Senate Committee that the current allocation should underwrite the development of four nuclear power plants.

The Senate bills, however, starts the new funding at \$100 billion – a figure the Nuclear Energy Institute, the industry's lobbying arm, calls "a minimum acceptable additional loan volume."

In theory, CEDA would be used to underwrite the development of a variety of technologies having difficulty obtaining funding on Wall Street. To that end, the House version of the bill states no more than 30% of the funds can go to any one energy source. The Senate versions, however, remove that restriction, which would allow the nuclear industry to pursue funding for far more nuclear development.

"This is pretty breathtaking," said Ellen Vancko, nuclear energy and climate change project manager for the Union of Concerned Scientists. "On top of the loan guarantees, they are looking for investment tax credits, production tax credits, worker training tax credits, changes to the IRS codes for nuclear decommissioning funds and the inclusion of nuclear energy in the nation's renewable energy standards. That's pretty ambitious.

"Up front, they say that without massive underwriting and tax breaks they can't get it done. I believe them there. But if all these risks get shifted from the private sector to the public sector, then why don't we just nationalize the nuclear industry like the French – whom they are always pointing to – and be done with it?"

In addition to financial support, the industry is pushing for provisions which would bar NRC engineers from examining the capabilities of new reactor systems as they evolve in the design process. In practice, the NRC tests each major system designed for a new reactor, and then tests its interaction with previously certified systems. That has

been deemed necessary to discover unforeseen glitches as complex electrical and pressurized systems interact. But under proposals in the bills designed to streamline the approval process, once a system is approved it could not be subject to a new test with another newly designed system. Public hearings on nuclear safety issues, under the bills, would become informal and non binding instead of an integral part of the license review process.

Between the trillion dollars in construction loan guarantees and the regulatory restrictions, said Vancko, “it’s early Christmas for the nuclear industry if they can get it.

“They have successfully branded the public as the problem for their previous difficulties in launching the nuclear renaissance, and are blaming the regulators for their current delays. If they can eliminate the public and tie the hands of the regulators and get the taxpayers to pick up the bill, they should be able to move along quite nicely.”

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