

NUCLEAR POWER: THE NEXT DE-GENERATION

Nuclear Provisions in the Energy Policy Act of 2005

1973 was the last time a U.S. nuclear power reactor was ordered and then actually built. Many orders were cancelled after the accident at Three Mile Island, and due to cost over-runs or local opposition.ⁱ The commercial nuclear industry has been in decline, but the industry hopes the tide is turning. The Energy Policy Act of 2005 awards more than \$14 billion in tax dollars, taxpayer-backed loans, and tax credits, to the revival of – no, the *relapse* into -- commercial nuclear power reactor construction.

Since nuclear energy is one of the most expensive ways to try to reduce carbon emissions and is not a competitive form of electric power generation when full life-cycle costs are considered, this is truly a regression. The same money invested in energy efficiency (appliances, pumps, motors and light bulbs that use less power to do the same job; insulation; better windows...) would reduce carbon emissions by as much as 7 times more than this investment in nuclear power.ⁱⁱ Similarly, the same funds dedicated to wind power generation would yield three times more electric power.ⁱⁱⁱ

The Energy Policy Act of 2005 (EPAAct of 2005) is the result of Vice President Cheney's efforts, started in 2001 during his first weeks in office. Celebrated as consultation with the top levels of the energy industry, the Cheney process of cutting deals was so secret that it took legal action by the U.S. General Accounting Office and concerned organizations to reveal even the identity of the people Cheney met with. Given the EPAAct's large subsidy for nuclear power, it is not surprising that representatives of the nuclear industry dominated Cheney's secret negotiations.

Direct Subsidy: Nuclear Welfare

The Energy Policy Act features a package of new R & D money for the nuclear establishment – inside government and out.

The total of \$4.1 billion includes support for:

- ❑ The Department of Energy's Nuclear Power 2010 program for public / private investment in 50 new nuclear power reactors in the USA by 2020
- ❑ The national laboratories to become more involved in nuclear power research

including the so-called Generation IV program

- ❑ \$1.25 billion is dedicated to a new nuclear reactor to be built at the Idaho National Engineering Lab to produce hydrogen – and additional money for this project “such sums as are necessary” -- are also authorized
- ❑ More than \$200 million will be channeled into academia to beef up nuclear physics and engineering programs and technical personnel training
- ❑ A ‘Santa’s bag’ of give-aways to more arcane parts of the industry, including use of radioactive waste in industrial applications and the possible use of radiation to refine oil.

Taken together, this is throwing good money after bad given the miserable track record of the first generation of nuclear power in the USA.^{iv}

When Building a Reactor, It Pays to Fail

One of the most controversial provisions in the Energy Policy Act of 2005 is a \$2 billion line item specifically to compensate nuclear corporations for any delay that may be encountered in licensing of a new reactor. Of the more than 400 nuclear power reactors that were on order, under construction, or on line in 1978, almost three quarters of these were canceled. Many of the cancellations were due to citizen action to require greater accountability, safety and security.

The new law would actually pay the costs of any delay in licensing. That means if citizens again intervene for safety, security and accountability, their own tax dollars will subsidize the nuclear corporation's attorney fees and other costs of licensing delay.

Loan Guarantees

The EPAAct of 2005 will give virtually unlimited loan guarantees for new nuclear energy projects (capped for now at 80% of the cost of six new reactors). The Congressional Budget Office has projected that there is a 50% likelihood that the nuclear industry would default on a loan. The same agency estimated that new reactors would

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cost \$2.5 billion each (even though the last ones completed were more than \$4 billion each). Assuming loans are taken for 6 reactors, this subsidy would add up to a colossal \$6 billion in tax dollars to bail out financial institutions in the event of a likely loan default. A yardstick comparison is that \$6 billion would build 800 new schools, or 55,600 affordable housing units.^v

Tax Credits for Reactor Operations

A tax-credit is not a deduction; it is a direct loss to the US Treasury. The EAct of 2005 awards the nuclear industry up to \$5.7 billion in tax credits for electricity produced by new generating capacity, through 2025. This will be accrued as 1.8 cents per kilowatt-hour of electricity generated by new nuclear power reactors.

What about a BIG Problem? – Limited Liability

The insurance industry has never been willing to provide coverage for commercial nuclear power. The “first generation” of reactors was only possible because of an act of Congress known as Price Anderson. This legislation continues to cover existing reactors, but the new law extends it to include any new reactors built in the next 20 years. Price Anderson only applies to really big accidents and then caps the industry’s liability at \$15 billion, well below the costs associated with the contamination of hundreds of square (especially urban) miles.

Plutonium Economy

More than half a billion dollars will go to the revival of one of the worst practices on the planet – dissolving high-level nuclear waste and recovering the plutonium that is in it. (All reactors that use uranium fuel make plutonium during operation.) This activity is dangerous locally and globally. It sends the wrong message to countries that are still pursuing this environmentally catastrophic practice called “reprocessing,” as well as those seeking plutonium. It also reverses a 30-year ban on reprocessing in the USA.

Creative Accounting

The combined construction and operating license for new reactors will be exempted from anti-trust review, and the rules for decommissioning funds (clean-up of old sites) are being relaxed, leaving the taxpayers holding the bag for another \$1.3 billion. Enronanomics?

Good News

EAct of 2005 *authorizes* these programs *in theory*, however all Congressional Acts have two parts – the theory, or **authorization** legislation, and then the spending – or **appropriation** legislation. The champions of this nuclear relapse have to win the money in what is known as the “Battle of the Budget” to actually **pay** for this radioactive extravaganza.

The appropriations battle is where citizen action and intervention is most needed at this point, and each year for years to come – since spending bills are for one fiscal year at a time.

Many major boondoggles of the past – like the MX Missile program and the supercollider have been defeated by citizen action in the appropriations process. We can win this one, due largely to the fact that there are better things—such as rebuilding the Gulf Coast—to spend our tax dollars on!

This fact sheet is based on legislative analysis from Public Citizen, www.citizen.org

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ⁱ The Watts Bar reactor owned by the Tennessee Valley Authority, near Knoxville was ordered in 1973 and went on line in 1996. More than 250 other reactor plans in the US were cancelled during this period.

ⁱⁱ Amory Lovins, September 2005, Scientific American, “More Profit With Less Carbon.”

ⁱⁱⁱ Many energy price reports do not reflect life-cycle costs; <http://www.bwea.com/ref/econ.html> does.

^{iv} See: http://www.rmi.org/images/other/Energy/E05-08_NukePwrEcon.pdf or for a short excerpt from the 1990’s Greenpeace classic “Fiscal Fission” see:

<http://www.ratical.org/radiation/NGP/HalfTrillion.html>

^v derived from the Budget Trade-off feature of the National Priorities Project, available on line at: <http://database.nationalpriorities.org/cgi-bin/WebObjects/NPP.woa/13/wo/4kEgqJ8BKtK3skB7RWbo7w/4.0.1.3.2.5?70,24>