U.S. Department of Energy Budget Request for Fiscal Year 2009

> An analysis by Robert Alvarez Senior Scholar Institute for Policy Studies February 5, 2008

U.S. Dependence on Foreign Oil

- Currently, the United States, which has about 5.5% of the world's population, consumes more oil than any nation -- 20.58 million barrels per day, or 24 percent of the world's total production.
- More than three fourths of the crude oil consumed by the U.S. comes from foreign sources.
- Oil demand by the United States increased more than 10 percent since 1990.
- Unfortunately, the Energy Department's proposed budget does little to impact this enormous problem.



The Energy Department in Fiscal Year 2009AgencyBudget Request



Energy Activities Include:

• Energy Efficiency and Renewables – \$1.3 Billion

• Fossil Energy -- \$1.3 Billion

• Nuclear Energy (fission & fusion)-- \$1.9 Billion

• Electric Transmission -- \$134 Million

•Energy Information Administration -- \$110.6 Million

Power MarketingAdministrations -- \$209 Million

Actual energy spending is about 17% of the DOE's \$25 billion budget request.

Programs to reduce foreign oil dependency in the near term are cut

- Spending for energy efficiency and renewable forms of energy are cut by more than \$467 million from FY 2008. Specifically:
 - * Energy conservation is cut by \$263 million.
 - * Solar Energy is cut by \$12.3 million.
 - * Hydrogen fuel technologies are cut by \$64.8 million.



DOE proposes to spend over seven times more on nuclear weapons than for energy conservation and renewable energy sources.

Nuclear weapons get the most money.



DOE seeks to make more nuclear weapons.

- Energy proposes to develop a new nuclear weapons design – known as the Reliable Replacement Warhead (RRW) despite Congressional elimination of this program in FY 2008.
- The U.S. nuclear weapons stockpile already contains approximately 10,000 warheads of which about half are deployed and the other half are in reserve.
- To meet the current Bush nuclear arms reduction goal of ~2,500 active/deployed warheads by 2012, at least 5,000 warheads would have to be dismantled from 2007 to 2023. This would still leave a large number of excess warheads held in reserve.



Nuclear energy gets the largest R&D subsidy.



Energy Loan Guarantees

\$18.5 billion for nuclear reactors

\$8 billion for coal projects

\$10 billion for renewables and electricity delivery

> \$2 billion for uranium enrichment

The department is not able to provide \$38.5 billion in energy loan guarantees stipulated in Congressional report language before its authority expires in September 2009.

Before proceeding DOE is required to submit an implementation plan for Congressional approval.

DOE is seeking to extend its loan guarantee authority through FY 2011 before it develops safeguards to protect the American taxpayer from loan defaults.

Will Congress support the Bush administration and tie the hands of the next administration with risky energy loans?

Nuclear Energy and Global Warming

In order to maintain global emissions of C0₂ at the year 2000 level:

- 1,000 to 3,000 power reactors would have to constructed by 2050.
- Each new reactor would have to come on line ranging from every week to twice a month for the next 40 years.
- Moody's Investor Service reported in October 2007 that reactor costs are likely to be twice are large as market estimates.



The Global Nuclear Energy Partnership (GNEP)



Last year Congress halted funding to build reprocessing and fast reactor facilities under GNEP and will only permit DOE to carry out research and development.

Also, the National Academy of Sciences advised DOE last year to scale back its efforts to deploy unproven technologies under GNEP.

DOE has yet to provide Congress with necessary information such as long term costs, and radioactive waste resulting from GNEP.

GNEP and **Proliferation**



DOE requests \$301.5 million (a 60% increase) for development of spent nuclear fuel reprocessing and "fast" reactors to convert weapons materials.

For the last 30 years the U.S. has refrained from reprocessing civilian reactor spent fuel because it makes nuclear explosive materials available for nuclear weapons production.

DOE's is funding cooperative programs with nations such as Russia and South Korea to separate nuclear explosive materials from civilian reactor spent fuel. Nuclear weapons production has resulted in the most expensive environmental cleanup program in the United States.



Dealing with Wastes from Past Reprocessing



Taxpayer costs for treating and disposal of past reprocessing wastes are more than \$100 Billion

Nuclear Waste Disposal



Proposed Yucca Mountain Project



• DOE is requesting \$494 million in FY 2009 for high-level radioactive waste disposal at the Yucca Mountain Site.

• DOE's plan to submit a license application for the Yucca Mt. Site to the Nuclear Regulatory Commission by June 2008 is uncertain.

• The schedule for the Yucca Mountain disposal site has slipped two decades past the original opening date of January 1998.

Conclusions

 Despite America's extraordinary dependence on foreign oil supplies, the Energy Department's budget does little to address this enormous problem.

 DOE's single largest funding priority is to maintain a large, oversized nuclear arsenal and to build new weapons.

DOE has made little progress in treating its most dangerous nuclear wastes and establishing safe disposal for power reactor spent fuel.

The Bush administration is seeking to tie the hands of the next administration with \$38.5 billion in risky energy loans.

Conclusions

- Approximately 45 percent of energy research and development funds in FY 2009 are for nuclear energy – more than any other energy source.
- Despite major misgivings by the Congress and the National Academy of Sciences, DOE is aggressively seeking to develop risky technologies that would make nuclear explosive materials more readily available.
- The imperative to maintain DOE's large and antiquated nuclear infrastructure is a major impediment to achieving a balanced and sound national energy policy.