

Federal R&D Investments in Energy for 2009 and Beyond

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for the Northwest Energy Innovation Summit

AAAS R&D Budget and Policy Program

<http://www.aaas.org/spp/rd>

See the “What’s New” section for the latest updates; see the “Seminars and Presentations” section for copies of this presentation.



THE FY 2009 BUDGET

FY 2009 has started, but only 3 departments (DOD, DHS, VA) have their final 2009 budgets.

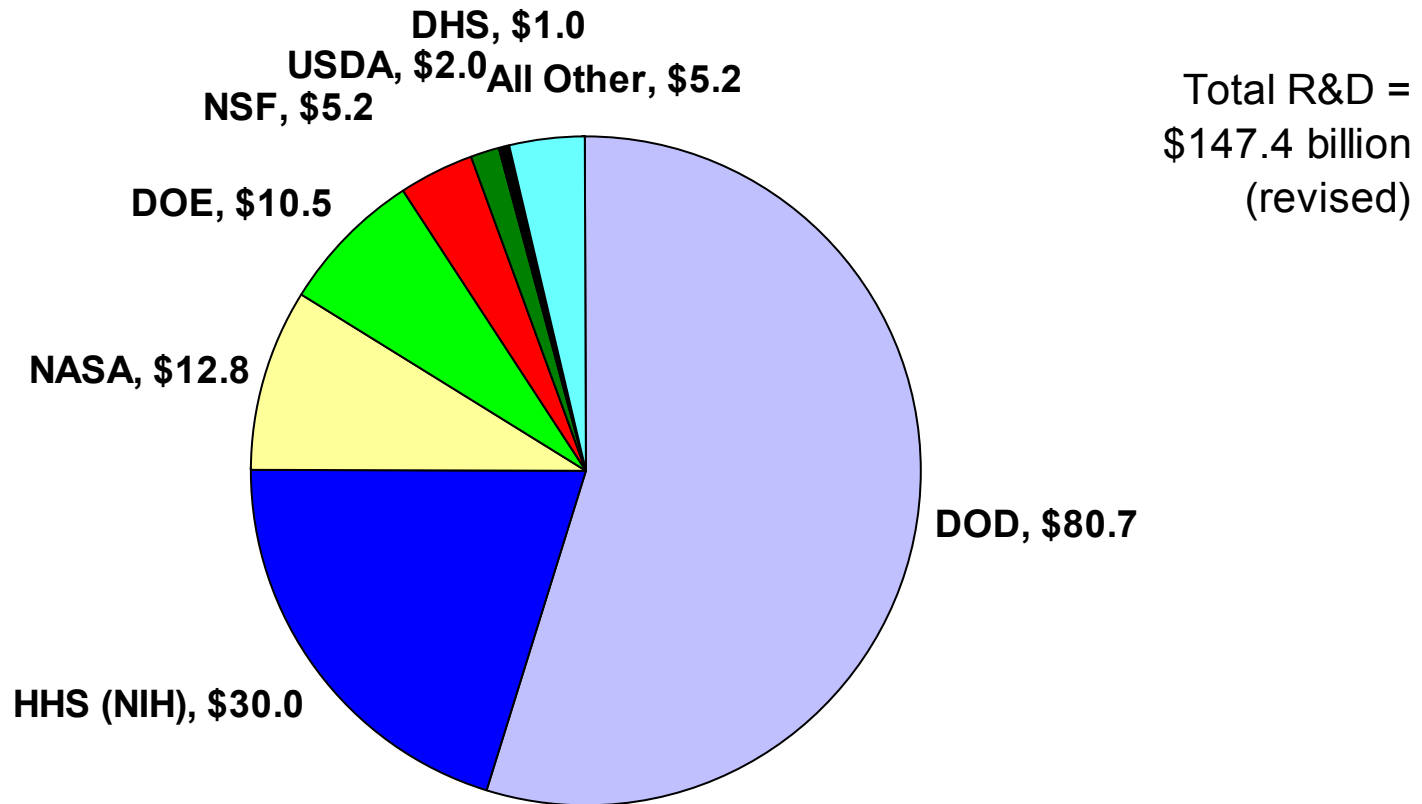
The remaining federal agencies are operating under a CR (continuing resolution) at or below 2008 levels through March 6.

The new 111th Congress plans to send the remaining 9 (of 12) 2009 appropriations bills to President Obama in February or March.

This Congress may still approve 2009 supplementals for NIH, DOE, and others as part of an economic stimulus package. “Green” or clean energy projects COULD be a priority.

Total R&D by Agency: FY 2009 Proposed

Budget Authority in billions of dollars



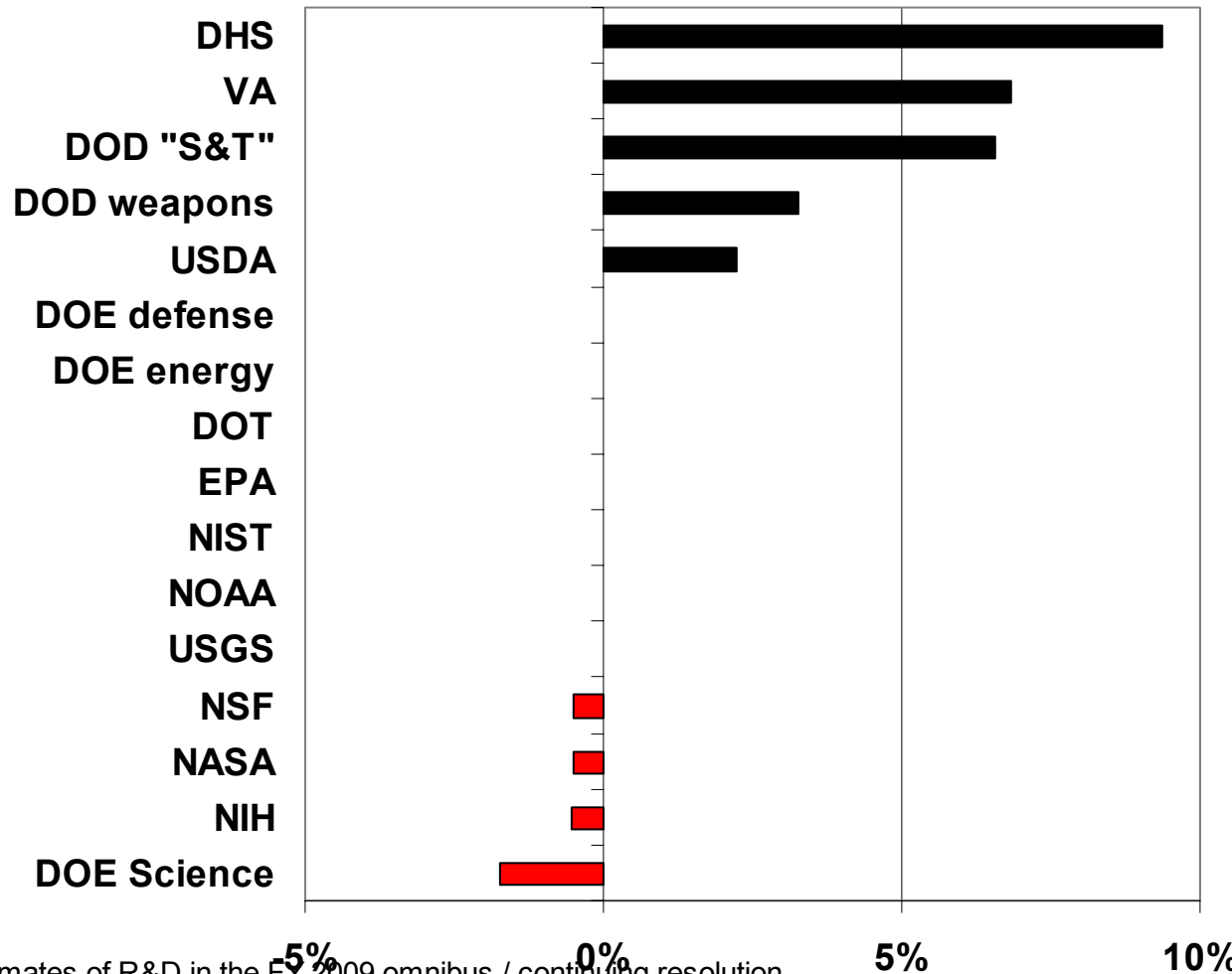
Source: AAAS, based on OMB R&D Budget Data and agency estimates for FY 2009.

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FY 2009 R&D Appropriations in the 2009 CR

Percent Change from FY 2008 (as of SEPT. '08)



Source: AAAS estimates of R&D in the FY 2009 omnibus / continuing resolution.

Only DOD, VA, and DHS have final FY 2009 appropriations. The remaining agencies are funded temporarily through March 6 under the continuing resolution.

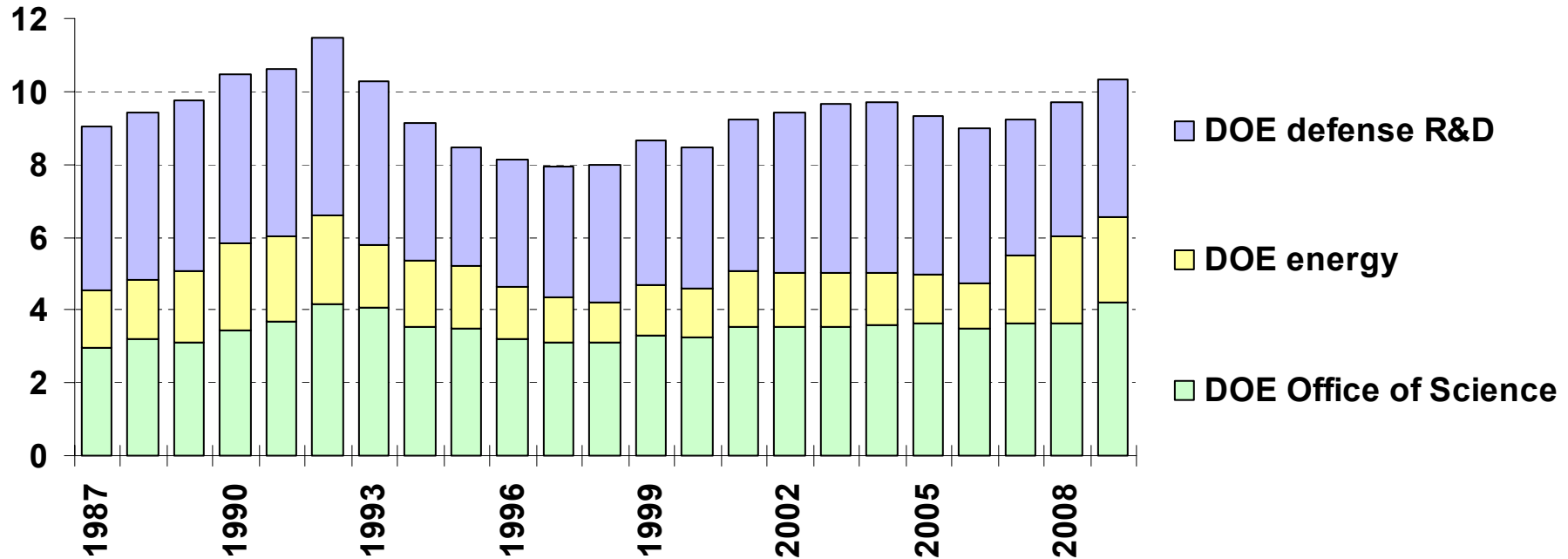
DOD "S&T" = DOD R&D in "6.1" through "6.3" categories plus medical research.

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Trends in DOE R&D, FY 1987- 2009 *

in billions of constant FY 2008 dollars



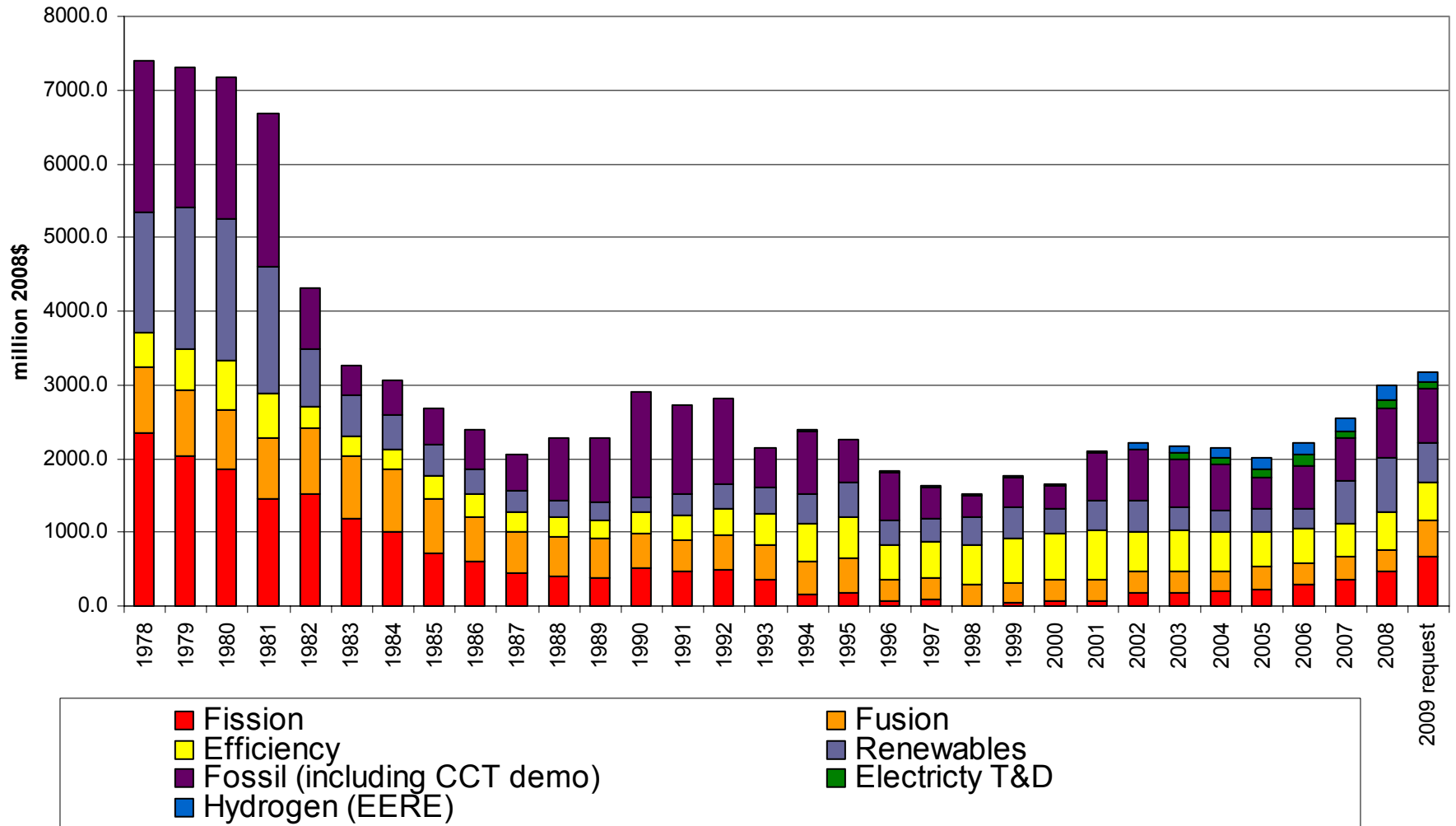
Source: AAAS analyses of R&D in *AAAS Reports VIII-XXXIII*. * FY 2009 figures are latest AAAS estimates of FY 2009 request.

R&D includes conduct of R&D and R&D facilities.

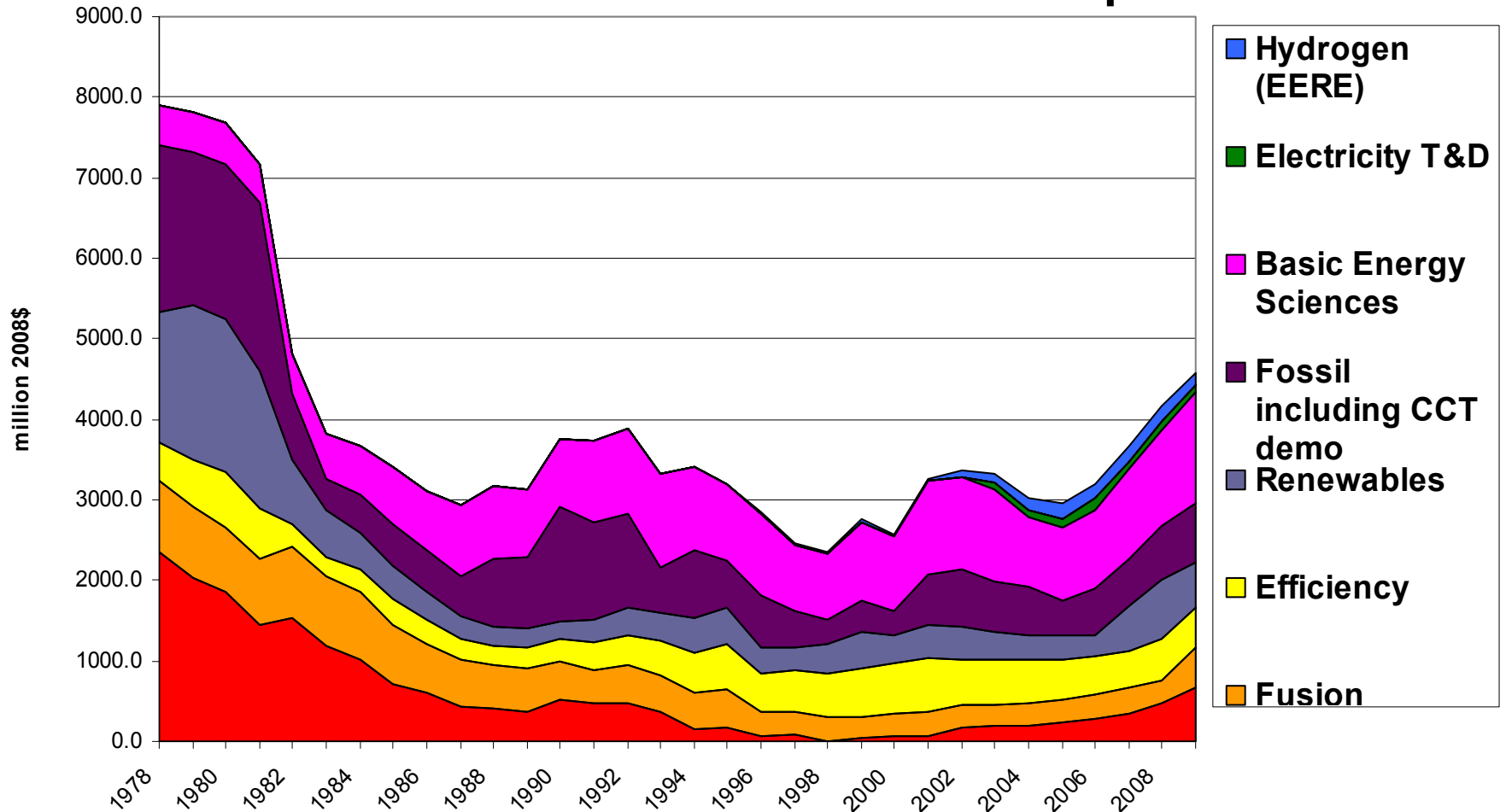
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U.S. DOE Energy RD&D Spending FY1978-FY2009 Request

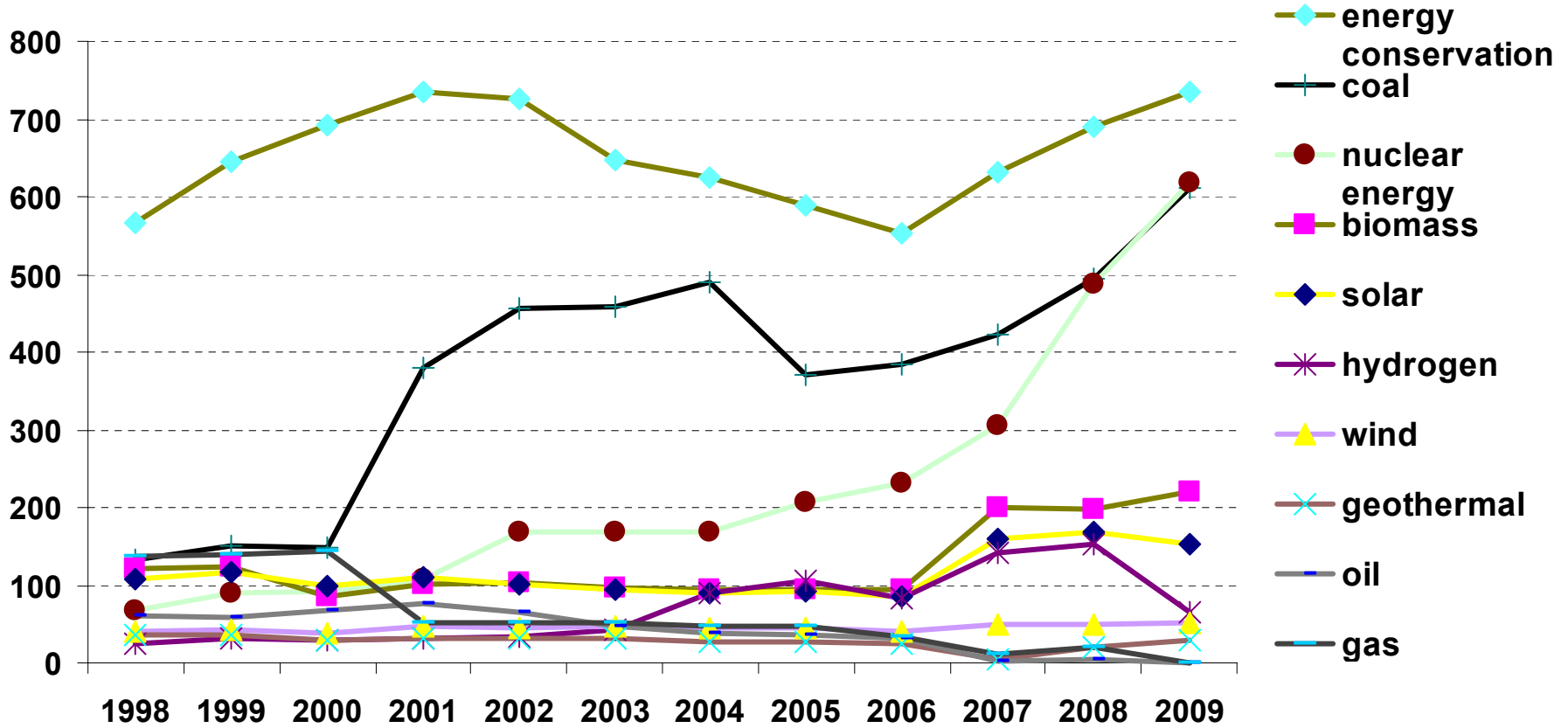


U.S. DOE Energy RD&D FY1978-FY2009 Administration Request



Trends in the DOE Budget, FY 1998-2009

(budget authority in millions of constant FY 2008 dollars)



Source: DOE historical budget documents. Adjusted for inflation using OMB's GDP deflators. Line items include R&D and non-R&D components, and have been adjusted for comparability across years. Coal figures exclude previous Clean Coal Technology funds. FY 2008 figures are final appropriations; 2009 figures are latest estimates of FY 2009 request.
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SOME NOTES ON ENERGY R&D

- Most federal energy R&D is performed in DOE national or federal labs, and industry.
- Although funding is flat so far in 2009 under the CR, the Senate proposed a 22 percent increase in DOE energy R&D.
- DOE's Office of Science, as part of the ACI, hopes to dramatically expand its energy research funding, especially at universities. There could be new ways to engage universities and state/local governments in energy R&D, such as Energy Discovery Innovation Institutes (DDIs).
- ARPA-E is authorized under the America COMPETES Act, but so far has not received an appropriation. But the DOE Secretary-designate Steven Chu is a proponent of ARPA-E.

MORE NOTES ON ENERGY R&D

- Congress has made clear its intent to dramatically expand energy R&D spending toward peak 1970s levels. The Obama campaign promised to invest \$150 billion over 10 years in clean energy technologies (from climate change legislation revenues).
- If Congress and the Obama administration agree on climate change legislation next year with a carbon tax or equivalent, there could be a major new revenue source, a portion of which could go to renewable energy R&D and climate change research.
- Proposed climate change bills contain authorizations for new or expanded programs in energy R&D in areas such as clean coal, carbon sequestration, alternative energy, nuclear energy, etc.
- Comprehensive energy legislation could contain expanded mandates for renewable energy sources, as well as tax incentives or subsidies for renewable energy.

WHERE IS FEDERAL R&D FUNDING HEADED?

- The new Congress and President Obama could finish FY 2009 appropriations with increased funding for key R&D programs later this month or in February.
- The FY 2010 budget proposal will be released in April; it will be the first budget to be formulated under current economic conditions.
- Energy is a top priority for the new administration, especially the links between energy and climate. But the economic crisis could delay or limit efforts to remake our energy system.

FOR MORE INFORMATION...

The AAAS R&D web site is
www.aaas.org/spp/rd

