

THE LEADER IN ENERGY & ENVIRONMENTAL POLICY NEWS

8. DOE:

'Mesoscale' research push hits roadblock in Senate Appropriations

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Published: Wednesday, May 2, 2012

They buried their thoughts deep in a committee report, but some Senate appropriators who oversee the Department of Energy aren't quite ready to fund a new field of research that some scientists see as a key offshoot of nanotechnology.

Last week, when the Appropriations Committee approved a fiscal 2013 budget for DOE, the spending bill did not include funding to grow "mesoscale" research, which takes the lessons of atomic-level research and applies it to phenomena that take place at larger scales -- roughly the size of a living cell.

DOE had proposed \$42 million for the program, saying it could lead to advances in clean energy technologies ([Greenwire](#), April 2).

The agency says the most promising innovations could come in the direct conversion of solar energy to fuels, storage and transmission of electricity, carbon capture and sequestration, and the efficient use of energy, but appropriators want more details.

"While the committee understands that there may be merit in pursuing mesoscale science to advance future energy technologies, DOE has not provided sufficient justification for a significant new investment," the committee wrote in its report on the budget.

Appropriators in the Republican-controlled House did not mention the mesoscale program in the fiscal 2013 budget that cleared committee last week. Now that DOE has been quietly rebuffed by the Democratic-controlled Senate, the agency has no choice but to return to the drawing board.

In its report on the budget, the Senate committee told DOE to work with its Basic Energy Sciences Advisory Committee (BESAC) and send Congress a report on "the scientific needs for pursuing this research, what facilities are available to effectively pursue this research, and possible measurable outcomes."

In an emailed statement, DOE spokeswoman Keri Fulton said the agency will continue to support its budget request, and that the department's Basic Energy Sciences Advisory Committee will come out with a report in July to "provide additional information about the benefits of the proposed mesoscale initiative."

John Hemminger, a chemistry professor at the University of California, Irvine, and chairman of BESAC, said he was not surprised by the senators' request, because a shift in research "as transformational as this doesn't happen very often."

"I would have been shocked if they'd said, 'Oh yeah, here's \$40 million,'" he said.

Hemminger said researchers were also encouraged by the wording, which suggested that Senate appropriators are interested in the research. If the committee finishes its report in July, that could still be soon enough to get money for the research in fiscal 2013, which begins at the start of October.

"It depends on whether there's an appropriations bill before the summer," he said. "I don't know anybody that believes that will happen, though people are trying."