

Inside Energy

November 23, 2009

White House a regular stop on loan-guarantee road

The Energy Department generates mountains of paperwork in its financially exacting but often slow-moving effort to issue loan guarantees for new solar facilities, nuclear power plants and other energy projects.

But according to a key DOE official, a lot of that paper-shuffling revolves around concerns that the White House Office of Management and Budget raises over proposed loan guarantees that could put US taxpayers on the hook for billions of dollars.

Steven Spinner, DOE's chief strategic operations officer for loan programs, said last week that DOE is getting better at addressing the various concerns that OMB raises over loan-guarantee applications. As DOE learns what OMB is looking for, there will be less back-and-forth between the two agencies,

thereby speeding the approval process, Spinner said.

"The more deals we do, the less issues there will be in the learning process, and then we can just focus on having an over-all streamlined process with OMB," Spinner said at a climate-change conference in Washington sponsored by *The Economist* magazine.

Overall, DOE has the authority to issue about \$83 billion in loan guarantees. The program was created in the Energy Policy Act of 2005, but DOE did not issue its first provisional loan guarantee until earlier this year. That delay has frustrated developers, but critics point to failures of a similar program in the 1970s and 1980s that left the government on the hook for millions of dollars.

So far, DOE has committed to only a *continued on page 16*

Behind the scenes, concern over EPA's carbon rule

Some Obama administration officials are quietly expressing concerns over a proposal by the Environmental Protection Agency to bypass Congress and use its existing rulemaking authority to regulate greenhouse gas emissions from electric utilities, oil refineries and other industrial facilities, according to an internal discussion document that was recently made public.

The document, titled "Summary of Interagency Working Comments," outlines more than two dozen concerns that various departments and agencies within the Obama administration have raised over EPA's so-called "tailoring" rule for industrial GHG emissions. The tailoring rule would amend a key section of the federal Clean Air Act so EPA could regulate coal-fired power plants, petroleum refineries and other large

facilities that generate more than 25,000 tons of carbon dioxide and other heat-trapping emissions per year.

When EPA Administrator Lisa Jackson unveiled the tailoring rule on September 30, she forcefully rejected claims by Republican lawmakers and other critics that the measure would require millions of small sources such as restaurants, schools and even nursing homes and farm animals to reduce their carbon emissions. "Very soon, we will hear about doomsday scenarios, with EPA regulating everything from cows to the local Dunkin' Donuts," Jackson said at the time. "But let's be clear: That is not going to happen."

But in the recently released summary of the inter-agency review process, an agency identified only as "SBA" — the official acronym for the Small Business

INSIDE THIS ISSUE

Climate Change

- As Reid delays vote on climate bill, Kerry emphasizes job-creation role 3
- Groups hint they would sue EPA over plan to regulate carbon emissions 4
- US, China tout progress on climate, but hopes fade for Copenhagen accord 4

Loans/Loan Guarantees

- Alexander, Webb seek \$100B boost for DOE's loan-guarantee program 5

Nuclear Energy

- Barton says DOE plan to kill Yucca Mt. could violate federal nuclear waste law 7
- NEI sees only a handful of reactors in the next few years, but many by 2030 8

Oil/Natural Gas

- Oil execs call for offshore access; options for buffer zones discussed 8
- Trade group says Interior locking up legitimate gas leases in Western US 9
- BLM seeks designation for Indian art near gas drilling project in Utah 10
- Judge: anti-drilling activist can't use global-warming defense at his trial 10

Renewable Energy

- BLM may hire private contractors to help Calif. approve solar projects 11

Energy Efficiency

- Prodded by Calif., DOE to set national efficiency standards for TVs 12
- Energy retrofits, gas vehicles seen as solutions to US unemployment 12

Congress

- Bingaman sees overlap among international clean energy programs 13

National Laboratories

- After extensive search, Berkeley Lab taps interim director for permanent job 14

Research & Development

- Web site seen helping maintain research funding beyond stimulus 15

Administration — takes issue with that claim.

“We are concerned that EPA is certifying that there is no significant economic impact on a substantial number of small entities,” SBA says in the document. “Despite this certification, SBA believes there are many small entities that will immediately become subject to [federal GHG regulations].”

SBA’s working definition of a “small entity” seems to differ from EPA’s, as SBA appears to argue in the document that a facility could emit more than 25,000 tons of carbon per year and still qualify as a “small entity.”

“These small entities include small municipal utilities, pulp and paper mills, and foundries, among others,” SBA said in its inter-agency review comments. “We believe there are at least hundreds of these sources.”

The seven-page summary of the inter-agency review process is not dated, but it was posted in the online “docket” folder for EPA’s tailoring rule on October 27. SBA is the only agency that is identified by name, suggesting that the acronym was not supposed to appear in the summary document at all.

In addition to the concerns cited by SBA, the summary document also articulates other potential problems with EPA’s proposal to regulate industrial GHG emissions. For example, one unidentified agency said the tailoring rule “does not provide adequate consideration of why higher thresholds [for triggering GHG regulations] might be appropriate.”

“If the goal is to ‘relieve’ the administrative burden [on small GHG emitters], wouldn’t a higher threshold be more desirable?” the agency said.

Another agency argued that EPA’s efforts to avoid imposing carbon regulations on small emitters could come back to bite the agency in the future.

“We are concerned that this ‘administrative burden rationale’ and similar cost analysis could later be cited against EPA by opponents of any new [Clean Air Act] regulatory requirement,” the unidentified agency said. According to the agency, raising the threshold for carbon regulations to 25,000 tons per year could “establish a precedent that could later be used against EPA under similar facts.”

EPA’s rule would make CO2 and other greenhouse gases subject to the “prevention of significant deterioration” provision of the Clean Air Act, which requires facilities to install “best available control technologies” to limit emissions of nitrogen oxide, sulfur dioxide and other “conventional” air pollutants. Currently, the so-called BACT requirement is triggered when newly constructed plants, as well as older plants that undergo “major modifications,” emit more than 250 tons of a pollutant per year.

EPA’s tailoring rule is especially controversial because it would raise that 250-ton threshold to 25,000 tons for carbon dioxide and other greenhouse gases, in keeping with the agency’s pledge not to regulate homes, schools and other small sources. But industry groups have hinted they will sue if EPA finalizes the rule, as they say the agency does not have the authority to change an emissions threshold that was set by Congress (*related story, p. 4*).

EPA is accepting public comments on the tailoring rule until December 28, though the agency could extend that deadline if it is asked to do so. — *Brian Hansen*



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Editorial Director

William E. Loveless

Managing Editor

Brian Hansen

Associate Editors

Derek Sands, Jean Chemnick,
Alexander Duncan, Herman Wang

Contributing Editors

Steven Dolley, Bill Holland, Mu Li,
Jim Magill, Rodney White

Contact the Editors

+1-202-383-2240

Editorial Director, Global Power

Larry Foster

Vice President, Editorial

Dan Tanz

Platts President

Larry Neal

Manager, Advertising Sales

Ann Forte

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E-mail: support@platts.com

North America

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Latin America

Tel: +54-11-4804-1890

Europe & Middle East

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CLIMATE CHANGE

As Reid delays vote on climate bill, Kerry emphasizes job-creation role

As the White House downplayed expectations last week for the upcoming UN-sponsored climate talks in Copenhagen, Denmark, key senators continued to work on a carbon-reduction package they hope can clear the chamber in 2010.

Senator Harry Reid said last week that a combined climate and energy bill was still a priority of his. "We're going to try to do that sometime in the spring," he said.

Before the measure can come to the floor, the Senate will take up a major health-care reform bill, a financial markets regulation bill, and possibility a so-called "jobs bill" aimed at putting the growing section of the US population that is unemployed back to work.

Senator John Kerry, Democrat-Massachusetts, said he would make the case to Reid that the climate bill should be the jobs bill. But both the House and Senate seem poised to move employment bills that have more in common with a major economic stimulus bill than with the climate bill. Asked whether he would buy Kerry's argument that a climate measure could substitute for a 'jobs' bill, Reid was noncommittal.

"If we do it right, the energy bill, the climate bill (S. 1733) could very, very job productive," he told reporters.

Reid and Kerry met with four Senate chairmen on Monday who have jurisdiction over the Senate climate bill to plot a way forward on the measure.

Two days before, President Barack Obama and other world leaders announced that Copenhagen would not yield the binding international treaty they once hoped for.

Kerry, who has emerged as the leading coordinator for climate legislation in the Senate this year, said that Copenhagen would produce a political agreement, rather than a legal one. "Out of that will come the very specific, nitty-gritty treaty language and crossing the 'T's and dotting the 'I's," he said.

Kerry said that Senate Finance Committee Chairman Max Baucus, a Montana Democrat, had committed to hold votes on his portion of the climate bill early next year in order to meet Reid's spring timeframe.

Baucus plans to draft and mark up legislation which deals with how free emissions allowances would be distributed, and with international trade issues and any tax breaks that might be part of the bill.

Both Baucus and Senator Blanche Lincoln, who heads the Agriculture Committee, are moderate Democrats who have voiced significant concerns about the climate bill, but while Baucus has made his wish list known and committed to holding votes, Lincoln has said simply that she would prefer that Reid not move a bill this Congress.

Baucus has proposed weakening the bill's 2020 emissions-reduction target from 20% to 17% or 14%, limits to EPA authority to regulate carbon under the Clean Air Act, and other adjustments.

Lincoln, meanwhile, has not made any plans to hold a climate markup, her office said, and is focused instead on financial regulation and other committee business.

Alternatives to cap and trade?

Kerry has said that while he is open to alternative ideas on how to place a price on carbon emissions, the main line of discussion in the Senate continues to focus on an economy-wide cap-and-trade model.

Kerry told reporters on Capitol Hill that allowing businesses to trade emissions allowances and choose how to comply with reduction targets remains the best way to address climate change.

"There's no government tax. There's no government dollar," Kerry said of cap and trade. "It's a private mechanism where one private entity can trade with another, which is the American market system."

"If someone else can show us a viable and terrific way of putting a price on carbon that's effective and helps to deal with the transitional costs and reduces the impact on citizens, I'm all for it," said Kerry. "I've been at this for 20 years, and I'm all for it."

Still, he dismissed the possibility of limiting cap-and-trade only to the power sector. Senator Joseph Lieberman and others once proposed regulating nitrogen oxide, sulfur dioxide, mercury and carbon dioxide emissions in one bill, aimed at the power sector alone. A so-called four pollutants bill passed the Environment and Public Works Committee in 2002, but was never brought to the Senate floor. But Indiana Senator Richard Lugar, the top Republican on the Foreign Relations Committee, is working on such a bill, according to news reports.

But Kerry said a power-sector-only bill would be more expensive than an economy-wide approach because it would eliminate less costly opportunities for reductions in other sectors.

"You get no transitional cost help that way," he said. "We're looking at all kinds of options, but the take on that is that it's very problematic."

Several Senate Republicans have said that a straightforward "carbon tax" would be more transparent than a cap-and-trade model. Senator Bob Corker, a Tennessee Republican, has proposed a "cap-and-dividend" approach that would refund revenues to the taxpayer.

His proposal, which is effectively a tax, would not give away free allowances to interests with powerful allies in Congress, he argues.

"I think people are beginning to see through the cap-and-trade bills that have been put up," he said. "If you look at much of what climate enthusiasts have focused on, it's been all about money. It's been purchasing the support of interest groups, free allowances to entities. This has been a big money game."

Kerry said that Republican boosting of a carbon tax did not mean they would cast a vote for a levy that was high enough to persuade companies to reduce emissions.

"Not only do you have to pass a 'tax,' it has to be a pretty big one," Kerry said. "It ain't going to happen. Dead on arrival."

But some moderate Democrats, like Lincoln, have given cap-

and-trade a similar prognosis, at least for this Congress.

Missouri Democrat Claire McCaskill has refused to discuss climate change until after the Senate votes on health care, which will consume its time this week and potentially for the rest of the year.

"After you do one really, really, big, really, really hard thing that makes everybody mad, I don't think anyone's excited about doing another really, really big, really, really hard thing that makes everybody mad," McCaskill said. "Climate fits that category." — *Jean Chemnick*

Industry groups hint they would sue EPA over plan to regulate carbon emissions

With the Senate still gridlocked over climate legislation, a host of industry groups warned last week that the Obama administration would violate federal law if it sought to regulate industrial greenhouse gas emissions under the existing Clean Air Act.

Howard Feldman of the American Petroleum Institute, an oil-industry trade group, said at a public hearing Wednesday just outside of Washington that the Environmental Protection Agency's plan to regulate GHG emissions from petroleum refineries, power plants and other large stationary sources is "clearly unlawful."

"The broad departure from the plain language of the statute to sustain EPA's proposed [emissions] threshold increase is patently inconsistent with the statute," said Feldman, API's director of regulatory and scientific affairs.

EPA held the hearing to give interested parties a chance to comment on its so-called "tailoring rule," which would amend a key section of the Clean Air Act so the agency could regulate large GHG-emitting facilities. EPA says the rule is necessary so that it would not have to regulate GHG emissions from millions of homes, restaurants and other small sources. But API and other industry groups say the rule would be illegal because EPA cannot change an emissions threshold in the Clean Air Act that was set by Congress.

Specifically, EPA's rule would make CO₂ and other GHGs subject to the Clean Air Act's "prevention of significant deterioration" provision, which requires facilities to install "best available control technologies" to limit emissions of nitrogen oxide, sulfur dioxide and other "conventional" air pollutants. Currently, the so-called BACT requirement is triggered when newly constructed plants, as well as older plants that undergo "major modifications," emit more than 250 tons of a pollutant per year. But EPA's tailoring rule would raise that 250-ton threshold to 25,000 tons for GHGs, in keeping with the agency's pledge not to regulate homes, schools and other small sources.

API's Feldman said EPA's rule would be illegal because the Clean Air Act explicitly specifies a threshold of 250 tons. David Friedman, director of environmental affairs at the National Petrochemical and Refiners Association, agreed.

"We have to be within the statutory confines," Friedman said. "Two-hundred fifty still means 250."

Other industry groups also spoke against the measure, although for varying reasons. The National Association of

Manufacturers assailed EPA for not yet knowing what the "best available control technology" industry would have to install.

"Sorting through the definition of 'BACT' and imposing technology requirements on a case-by-case basis, as outlined by federal law, will further add to project uncertainty and increase costs to facilities subject to the new rule," said Bryan Brendle, NAM's director for energy and resources policy.

NRPA, API and other industry groups have hinted that they would sue if EPA finalizes the rule. Howard Hoffman, an EPA attorney who attended the public hearing last week, acknowledged that promulgating the rule would likely spark litigation. But Hoffman said in an interview that he was confident that the rule would hold up in court, given the legal precedents that have been established by the so-called "absurd results" and "administrative necessity" doctrines. Hoffman said those legal principles illustrate that EPA could not keep the threshold at 250 tons for GHG emissions because doing so would cripple the ability of permitting agencies to function.

"The law says 250 [tons] but there are situations where courts will not follow the literal reading of the law," Hoffman said. "There is ample precedent for both of those to be applied."

The Democratic-controlled Congress is trying to pass a stand-alone climate-change bill, which would likely take precedence over any GHG regulations issued by EPA. But negotiations are proving to be contentious, particularly in the Senate. The House passed its carbon cap-and-trade bill this summer, and both President Barack Obama and EPA Administrator Lisa Jackson have said they would prefer legislation over EPA regulations.

A number of environmental groups spoke at the public hearing in support of EPA's tailoring rule. Carl Pope, executive director of the Sierra Club, said he would prefer Congress to pass a stand-alone climate bill, but he emphasized that EPA should still move forward with its regulations as well to make clear to industry what kinds of technology it should use in its respective sectors to reduce pollution.

"It gives the emitter certainty," Pope said.

EPA is accepting public comments on the tailoring rule until December 28, though that deadline could be extended.

— *Alexander Duncan*

US, China tout progress on climate, but hopes fade for Copenhagen accord

President Barack Obama and Chinese President Hu Jintao agreed last week to step up their countries' respective efforts to combat climate change, launching collaborative programs to develop clean-coal, electric-vehicle and other low-carbon energy technologies.

Obama, who met with Hu in Beijing as part of a week-long trip through several Asian countries, touted a joint statement Tuesday saying the US and China "agreed that the transition to a green and low-carbon economy is essential, and that the clean-energy industry will provide vast opportunities for citizens of both countries in the years ahead."

The US has long pressed China to commit to serious efforts at reducing its greenhouse gas emissions, but China

has been resistant, saying it does not want to risk slowing its economic ascent.

Still, Tuesday's announcement of the clean-energy initiatives spurred hope among some environmentalists and China observers that the two countries may have set at least a tentative — if vague — framework for climate-change treaty negotiations ahead of the upcoming December UN summit in Copenhagen, Denmark.

The Copenhagen negotiations were to have been the setting for crafting an international climate-change treaty to succeed the Kyoto Protocol, but Obama and other world leaders have acknowledged in the past week that the summit may only result in a political accord, not a legally binding treaty.

"We didn't expect big announcements on the critical issues of specific emissions reduction commitments from the two countries, but the US and China did agree to some very positive shifts on a couple of fronts," said Jake Schmidt, the Natural Resources Defense Council's international climate policy director. "These were subtle, but important, changes in the Chinese position that has occurred over the last year. Having President Obama talking about global warming with China on such frequency and at such a high-level has definitely helped with this shift."

On the Copenhagen negotiations, Obama and Hu agreed that their countries would take "significant mitigation actions" with full transparency, and that any accord reached there should include GHG reduction targets for developed countries and "nationally appropriate mitigation actions" for developing countries, including China, according to the joint statement. It did not state any specifics for what those emissions targets or mitigation actions might be.

"Clearly there are many other countries involved, and I think both the president and President Hu discussed today how they will work with each other and with other countries to try and reach an agreement," said US Deputy National Security Adviser Mike Froman. "It's not enough for the US and China to agree to have an agreement in Copenhagen, but clearly it's important that US and China be pulling in the same direction if we're going to succeed in Copenhagen."

Representative Edward Markey, Democrat-Massachusetts, who sponsored a climate-change bill that passed the House in June, applauded the apparent US-China détente.

"In just a month, the conventional wisdom on US-Chinese climate politics has been turned on its head, and not a moment too soon," Markey said in a statement. "With just days to go before nearly 200 countries meet in Copenhagen to forge a new way forward on climate and clean energy, this agreement shows that the last remaining roadblocks are being pushed aside."

Obama's energy and climate adviser Carol Browner added that the agreements would make Copenhagen more of a success than people anticipate despite an acknowledgement by world leaders that the summit would not yield a binding treaty.

"We move on now to Copenhagen with an important statement from the Chinese with what they're prepared to discuss," Obama's aide Carol Browner said Wednesday. "We feel like it was a constructive engagement on the issue of climate change."

The joint initiatives include the establishment of a US-China

Clean Energy Research Center that will be supported by public and private funding of at least \$150 million over five years, split evenly between each country.

The US and China also created an electric vehicles initiative to develop joint standards, set up demonstration projects and create public education projects. Obama and Hu "emphasized their countries' strong shared interest in accelerating the deployment of electric vehicles in order to reduce oil dependence, cut greenhouse gas emissions and promote economic growth," the White House said.

The presidents also announced a joint energy efficiency action plan to improve the efficiency of buildings, industrial facilities and consumer appliances. The countries will enter a US-China Renewable Energy Partnership to support renewable energy deployment and electric grid modernization, and they agreed to cooperate on clean coal research, including large-scale carbon capture and storage projects.

In addition, the US and China will seek to develop China's shale gas potential, and the countries will establish an energy cooperation program that includes 22 companies, focusing on renewable energy, smart grid, clean transportation, green buildings, clean coal, combined heat and power and energy efficiency.

"Through some of the kinds of clean energy partnerships that we announced today, we can both support each other's efforts in this area, learn from one another [and] open the door for us to work together with the Chinese to tackle challenges that are very much common to our countries and our cities," US Deputy National Security Adviser Ben Rhodes said.

The US and China — through the US Environmental Protection Agency and China's National Development and Reform Commission — also signed a memorandum of understanding Thursday. A key part of the MOU is for the US to provide support to China to for "capacity building for developing greenhouse gas inventories" to better measure the country's pollution. — *Herman Wang*

LOANS/LOAN GUARANTEES

Alexander, Webb seek \$100B boost for DOE's loan-guarantee program

Two senators introduced legislation last week that would authorize the Energy Department to issue an additional \$100 billion in loan guarantees for new nuclear power plants, solar facilities and other types of energy projects, more than doubling DOE's current loan-guarantee authority.

Tennessee Republican Lamar Alexander and Virginia Democrat Jim Webb told an American Nuclear Society meeting in Washington on Monday that their bill, the Clean Energy Act of 2009 (S. 2776), is aimed at "jump-starting" the nuclear power industry.

Included in the bill's provisions will be \$100 billion in new DOE loan-guarantee authority, which Alexander said he hoped would largely go to nuclear energy projects. The bill

could help industry double US nuclear power output in 20 years, Alexander said.

Currently DOE has \$18.5 billion in loan-guarantee authority for new nuclear power plants, but has yet to award a single guarantee for projects in that sector, although Energy Secretary Steven Chu did say Monday he hoped to award the first before the end of the year.

A single new nuclear power plant costs billions of dollars, and the nuclear industry has expressed the need for more loan guarantees from the department.

"Greater loan-guarantee volume is needed because it is not one, two or three nuclear plants that need to move forward, it is six, and then nine and then a dozen," said Mike Wallace, the vice chairman and chief operating officer of Constellation Energy, which along with EDF Group operates five nuclear power reactors.

Credit subsidy said too high

Wallace also said that as the program stands, the costs associated with loan guarantees are too high. DOE charges a so-called "credit subsidy," which is meant to reimburse the federal government for its expenses and risk associated with the guarantee. The agency now has \$4 billion available under the stimulus package to cover credit subsidy costs for renewable energy projects, but none for nuclear projects.

"The loan guarantee is just that, a guarantee. We still have to pay the interest rate and the cost of the loan," Miller told the ANS. "The cost of the guarantee has got to be reasonable. One percent of total loan value is what we deem reasonable. And 8% subsidy cost is simply not workable."

Anti-nuclear activists, however, did not wait long to lash out at the Webb-Alexander bill. Mark Cooper, a senior fellow at Vermont Law School's Institute for Energy and the Environment, said the bill ignores the fact that Wall Street has declined to underwrite new nuclear reactors, citing default risk and a legacy of failed plant construction projects in the 1970s and 80s.

"It is ironic that at a moment when the nation has suffered mightily from the misallocation of the cost of risk in the financial sector, some of the strongest supporters of free markets and critics of government-sponsored enterprises, would urge another massive federal subsidy intended to circumvent the judgment of the capital markets and put another multi-billion-dollar program of federal support onto the backs of the American people as taxpayers and ratepayers," Cooper said in a statement.

Alexander also said their bill would include \$1 billion over five years to aid the Nuclear Regulatory Commission in investigating nuclear reactor design. The bill also would provide \$1 billion over 10 years to train nuclear engineers and workers, as well as \$500 million to extend the lifetime of existing nuclear power plants.

The non-loan guarantee provisions would bring the total cost of the bill to \$20 billion over 10 years, which Webb said was practical. About half of that cost would go to support the loan guarantees.

Alexander has long supported investing heavily in new

nuclear energy research, and the bill also would include \$750 million/year over 10 years for five "mini-Manhattan Projects" for energy. The projects would focus on five subjects: carbon capture and storage for coal-fired power plants; advanced biofuels; advanced batteries for electric vehicles; more efficient and cost-competitive solar and recycling used nuclear fuel.

Webb also made remarks at the meeting, and emphasized to reporters afterward that the bill would stand alone and was not part of the controversial energy and climate change bill now working its way through Congress.

Alternative to climate bill?

In a follow-up news conference on Capitol Hill later in the day, the senators promoted their legislation as a more passable bill than the Kerry-Boxer climate-change bill, which both oppose in its current form largely because it contains an economy-wide cap-and-trade component.

They said they have talked to several of their colleagues about their bill, including Senators Joe Lieberman, Independent-Connecticut; John Kerry, Democrat-Massachusetts; and Lindsey Graham, Republican-South Carolina, who are attempting to draft bipartisan climate change legislation that centers around expanded nuclear power and offshore oil and gas drilling.

But so far, Webb and Alexander said they have gotten no indication that their bill may be attached onto those efforts.

"What we have here is something that's targeted and achievable," Webb said. "These are things we know we can do. ... This is something we can move forward, whether or not people will vote for the other one."

Alexander said his staff has calculated that the bill would "come pretty close" to achieving benchmarks set out by the Kyoto Protocol, including 2030 greenhouse gas emissions levels of 7% below 1990 levels. It also would achieve many of the emissions targets outlined in the Waxman-Markey and Kerry-Boxer bills, he said, without the specter of cap-and-trade.

"By my office's computations, we believe that if we double nuclear power production and electrify half of our cars and trucks, we come pretty close to the goals of Kyoto in 1990," he said.

But the bill contains no incentives or mandates for reduction of carbon emissions. That calculation includes a number of assumptions, including development of commercial-scale capture of carbon from coal-fired power plants, Alexander said. It also assumes that as aging coal plants "wear out or otherwise go offline, given the increasingly tough regulatory climate for coal, ... they'll most easily, efficiently be replaced by nuclear power plants," Alexander spokesman Jim Jeffries said.

Alexander has for years espoused a goal of building 100 new nuclear plants over the next few decades, but he said the Webb-Alexander bill would help spur the development of smaller, more localized and modular reactors that could meet his goal of doubling nuclear production.

He also said the bill matches many of the Obama administration's energy priorities, including Energy Secretary Steven Chu's goal of creating several energy innovation hubs, dubbed "Bell Lablets," after the legendary industrial lab, Bell

Laboratories. Congress, however, declined to fund seven out of eight of the lablets proposed by DOE in its 2010 budget.

— *Derek Sands, Herman Wang*

NUCLEAR ENERGY

Barton says DOE plan to kill Yucca Mt. could violate federal nuclear waste law

Two key Republican lawmakers warned Energy Secretary Steven Chu last week that DOE could violate federal law if it follows through with its plan to cease work on a pending license application for the Yucca Mountain nuclear waste repository project in Nevada.

In a letter to Chu on Wednesday, GOP Representatives Joe Barton and Greg Walden said DOE's plan to halt the Yucca Mountain licensing work that is currently underway at the Nuclear Regulatory Commission "raises serious questions about your adherence to statutory obligations and responsibilities under the Nuclear Waste Policy Act."

Abandoning the Yucca license application would also subject DOE to additional lawsuits from nuclear utilities, as well as "strand billions of dollars in federal funding and investment in the project," Barton and Walden wrote.

DOE's plan to halt work on the Yucca license application as soon as next Tuesday (December 1) is articulated in an internal department memo that was recently obtained by Platts and other news organizations (*IE*, 16 November, 1) The October 23 memo from DOE Chief Financial Officer Steve Isakowitz declares that "all license defense activities will be terminated in December 2009."

The memo also sets the target funding for Yucca Mountain in fiscal 2011 at \$46.2 million, a fraction of the \$196.8 million the program received this fiscal year. The document also shows that DOE would seek no funds for the program from fiscal years 2012 to 2015. Though the budget request is considered a working draft, Isakowitz wrote that "we do not expect the information to change."

The Obama administration announced earlier this year that it planned to terminate the Yucca Mountain program, but the Isakowitz memo offers new details about how DOE would carry out that task. Barton, Walden and other many other Republican lawmakers oppose DOE's plan, saying it would squander the approximately \$6 billion in federal funds that have been spent on the project to date, and that it would derail hopes of a nuclear power "renaissance" in the US.

Barton, the top Republican on the House Energy and Commerce Committee, said closing Yucca Mountain would "unfortunately be the most significant decision of [Chu's] tenure."

"Before Secretary Chu unilaterally shuts down the Yucca Mountain program, perhaps he should explain why, something lacking from any of his public comments to date on the nuclear waste site," Barton said.

In their letter, Barton and Walden asked Chu to clarify his plans for Yucca Mountain and provide any and all documents that detail DOE's plans to terminate the project. They asked Chu to provide "legal citations" for any relevant documents that DOE possesses but declines to turn over. They said they wanted a response no later than December 2.

DOE officials have declined to confirm the contents of the leaked Isakowitz memo. Asked about the Barton/Walden letter to Chu that cites the memo, DOE Press Secretary Stephanie Mueller said that the Obama administration's position on Yucca Mountain "has not changed."

"The president and Secretary Chu have made it clear that nuclear waste storage at Yucca Mountain is not an option, period," Mueller said. "The 2010 budget clearly reflects the president's commitment to moving beyond Yucca Mountain and developing a long-term waste management solution."

If DOE is to halt the NRC licensing process in December, as the Isakowitz memo states, the department would have to formally request a reprogramming of its fiscal 2010 appropriation, which would require approval from the House and Senate Appropriations subcommittees overseeing DOE.

But that is likely to run into resistance from Representative Rodney Frelinghuysen of New Jersey, the top Republican on the House Energy and Water Development Subcommittee, a GOP staffer said.

Frelinghuysen "supported the appropriation of funds to continue the licensing application, and he feels that terminating it is not the right way to go," the aide said. "He has some significant concerns with the administration, if it were to go through with this."

On November 13, the Nuclear Energy Institute, a Washington-based trade group, responded to the leaked Isakowitz memo by urging NRC to accelerate its technical review of the Yucca Mountain license application by suspending the simultaneous adjudicatory proceedings. NEI said this would help conserve time and money, given DOE's intent to slash Yucca Mountain's budget.

"This will avoid unnecessarily consuming stakeholder resources in the face of DOE's potential withdrawal of its license application," NEI President and CEO Marvin Fertel wrote in a letter to NRC Chairman Gregory Jaczko.

The Nevada Agency for Nuclear Projects, a state agency that opposes the Yucca Mountain repository, sent Jaczko a missive of its own, saying NEI's suggestion would deny opponents the chance to participate in and observe the license review.

"Indeed, if acted upon, NEI's proposal would be an appalling denial of due process of law and would permit DOE and NRC staff to proceed to resolve technical issues related to Yucca Mountain without any meaningful participation by any adverse party," wrote Martin Malsch, an attorney for Nevada.

NRC spokesman Dave McIntyre said the commission has yet to receive any instructions from DOE on the license application. He declined to comment on the letters from NEI and the Nevada Agency for Nuclear Projects.

"We will look them over and reply in due course," he said.

— *Herman Wang*

NEI sees only a handful of new reactors in the next few years, but many by 2030

The nuclear power industry's main trade group said last week that it expects to see four to eight new nuclear units operating in the US in 2016, and 35 or more by 2030, depending on the success of initial projects.

Douglas Walters, vice president for regulatory affairs at the Nuclear Energy Institute, said in a presentation Monday at the American Nuclear Society's winter meeting in Washington that the number of new units operating by 2016 will "probably be closer to four" than to eight.

An additional 10 to 12 new units are expected by 2020, and possibly 35 or more new units by 2030, Walters said.

The Nuclear Regulatory Commission is expected to take 42 to 50 months to complete its first few reviews of applications for combined construction permit-operating licenses for new power reactors, Walters said.

David Matthews, director of NRC's division of new reactor licensing, said at the ANS meeting that his agency is reviewing 13 COL applications to build a total of 22 new units.

Reviews of five other COLS to build a total of six units are currently suspended at the requests of the applicants. But one of those reviews — involving UniStar Nuclear's application to build a new unit at Constellation Energy's Nine Mile Point plant near Syracuse, New York — is expected to resume in 2010, Matthews said.

NRC has been notified that an unnamed applicant expects to submit a COL application in the 2010-2011 timeframe, and another unnamed applicant will submit in 2011-2012, Matthews said. NRC has not been authorized by those potential applicants to name them publicly, he said.

Southern Nuclear Operating Company may submit a COL application for a greenfield site in 2012, Matthews said. NRC has also been notified that one further unnamed applicant may submit for a COL sometime in the "very uncertain future," he said.

NRC expects to receive applications for early site permits in 2010 from Exelon for its Victoria County, Texas, project, and from Public Service Enterprise Group for its Salem-Hope Creek site in New Jersey, Matthews said. An ESP represents NRC staff's finding that a site is suitable for nuclear power reactor construction. The permit is valid for 10 to 20 years from the date of issuance and can be renewed for an additional 10 to 20 years.

Both Exelon and PSEG's applications will use the "plant parameter envelope" approach, Matthews said, meaning the ESP would not be tied to a particular reactor design. Most if not all ESP applicants will likely use this approach to preserve flexibility, he said after his presentation.

Two unnamed applicants have notified NRC they expect to submit applications in 2012 and 2013, Matthews said. Additionally, the Southern Ohio Clean Energy Park Alliance has told NRC it expects to submit an ESP application for the Piketon, Ohio, site of a former DOE uranium enrichment plant,

he said. The alliance has told NRC that its ESP application could potentially be followed by a COL application, he said.

— *Steven Dolley*

OIL/NATURAL GAS

Oil execs call for offshore access; options for buffer zones discussed

Two top oil company executives told senators last week that US regulations for oil and natural gas production are among the most rigorous in the world, and the federal government should speed the permitting process while making new offshore areas available for drilling.

Shell Oil President Marvin Odum and David Rainey, vice president for Gulf of Mexico Exploration for BP America, told the Senate Energy and Natural Resources Committee Thursday that advances in technology had enabled the industry to reduce the occurrence of oil spills and other environmental consequences of offshore drilling.

"OCS development has been going on for the last 50 years, and it has been going on in a way that is both effective and protective of the environment," Rainey said.

Both companies have major operations in Alaska. Odum attempted to refute environmentalists' arguments that fragile Arctic environments make recovery from oil spills more difficult, citing a 2009 study by the SINTEF Norwegian Research Institute which found that Arctic ice actually slowed the spread of spills and sometimes gave recovery workers more time to contain them.

Both Odum and Rainey said US regulations required no further tightening. Instead, Odum said, the government should adopt policies to speed US production and "avoid the hypocrisy of being willing to buy from other countries rather than produce our own resources."

Odum referred to the Interior Department's permitting process, which he said was under-staffed and so slow that projects often wait years for approval.

The committee that Odum and Rainey addressed is composed of some of the oil and gas industry's best friends in the Senate, including its top Republican, Lisa Murkowski of Alaska, and Louisiana Democrat Mary Landrieu.

Committee Chairman Jeff Bingaman has also supported expanded oil and gas development in the past, including co-authoring a 2006 law that made new areas of the Gulf of Mexico available for development.

Murkowski, who said previously she wants the Senate to include provisions for expanded oil and gas production in climate change legislation, told her committee colleagues Thursday that the drilling issue is "not going away."

"It's now been a year since the offshore moratoria were lifted," Murkowski said, recalling the expiration of federal drilling bans on most of the Outer Continental Shelf. "In the meantime,

this committee voted for greater offshore production to boost our economy and energy security. But many executive actions — and quite a few not taken — are signaling a move in the opposite direction.”

In June, the committee passed a major energy bill (S. 1462) that included a provision to lift a 2006 moratorium on oil and gas drilling in the eastern Gulf of Mexico, including the gas-rich Destin Dome area. The provision includes a 45-mile buffer zone to protect Florida’s coast.

Senate leaders plan to add the bill to the climate change legislation before bringing the latter to the floor for a vote next spring.

Senator Byron Dorgan, a North Dakota Democrat, offered the amendment to expand Gulf of Mexico drilling, which he predicted on Thursday would become law. “In my judgment, more of those areas in the eastern gulf will be open. All of it will be open,” Dorgan said. “The question isn’t whether, the question is how do we do that,” he added.

Dorgan has also proposed legislation establishing buffer zones if the government begins leasing new areas along the Atlantic and Pacific coasts, a topic that the hearing was intended to address.

Senators asked Minerals Management Service Deputy Director Walter Cruickshank if it would be better to authorize buffer zones legislatively, or allow MMS to make those decisions on its own. Bingaman pointed out that laws are more difficult to change than agency regulations.

Cruikshank said MMS already has authority under existing law to impose no-production buffer zones to address various concerns, including wildlife values, views and care of particularly vulnerable environments.

“We try to do that based on the specifics that we know about the area,” he said.

While some committee members sought to lend an air of inevitability to the idea of expanded offshore drilling, the Dorgan provision in the panel-passed energy bill faces obstacles when the legislation goes to the Senate floor for a final vote. Florida Democrat Senator Bill Nelson, for one, has suggested he will filibuster to block the bill.

Even some members of the energy committee expressed concern last week that new oil and gas production would threaten the environment while having little effect on the price and supply of oil and fuels.

Given the limits to US oil resources, New Jersey Democrat Robert Menendez said opening more offshore areas to drilling would not result in “low oil prices and rainbows.”

“I’m concerned about these incredibly rosy pictures,” he said. — *Jean Chemnick*

Trade group says Interior locking up legitimate gas leases in Western US

A trade group representing Rocky Mountain oil and natural gas producers accused the Obama administration last week of putting 15% of the nation’s gas supply at risk by refusing

to issue paid-for leases and slow-rolling the permitting process.

In a report Wednesday, the Independent Petroleum Association of Mountain States said Interior Secretary Ken Salazar “has made several decisions that are making it increasingly difficult for producers to supply the natural gas necessary to reduce greenhouse gas emissions and increase energy security.”

The report comes at a time when several US gas producers, including some IPAMS members, have shut in production because of storage capacity limits and low wellhead prices. But IPAMS Director of Government Affairs Kathleen Sgamma said decisions that the Obama administration is making now will affect Rockies production well into the future.

“Sure, for the short term, prices are down and there’s shut-in production,” she said. But Salazar’s actions are “putting at risk future production” because of the long planning times required for drilling on federal lands, from which 54% of Rockies gas comes, Sgamma said.

In its report, IPAMS accuses Salazar and Interior’s Bureau of Land Management of several irregularities in the management of Western lands. For example, BLM’s failure to award properly purchased leases, and its reduction of the size of lease sales and withdrawal of lease blocks from certain sales, “mean less American energy, less economic activity and fewer jobs” for Rockies residents, the report declared.

IPAMS said BLM is currently holding on to \$100 million worth of leases in Colorado, Utah and Wyoming because of last-minute protests by environmental groups, tying up the capital of the producers that successfully bid on the leases.

“BLM has taken the companies’ money, but is left waiting for guidance from Interior before it can move forwards and issue leases legitimately won in public auctions,” the report said.

The economic damage goes further, IPAMS contended, as budget-starved states are being deprived of the tax and royalty revenues producing leases would generate.

IPAMS said the federal government has reduced the number of Rockies leases for sale by one-third when compared with the first year of the Clinton administration, and reduced the amount of acreage for lease by nearly half.

In response, Interior Press Secretary Kendra Barkoff said in the most recent fiscal year alone, the department “has held 29 onshore lease sales and two offshore auctions, offering more than 55 million acres for oil and gas development. Those sales have generated more than \$931 million in revenues.”

Barkoff said Interior has offered 2.7 million acres in the West lease over the period, generating \$126 million in revenue.

Even so, IPAMS asserted that BLM is putting up extra obstacles to leasing land that has already been studied extensively for years, or slowing permit processing times despite a 62% increase in the permitting fees.

“Independents are left with high processing costs, delay and uncertainty that they can continue their drilling pro-

grams," the group said.

IPAMS' complaints echo those American Petroleum Institute President Jack Gerard made recently regarding offshore leasing and drilling. — *Bill Holland*

BLM seeks designation for Indian art near gas drilling project in Utah

The Bureau of Land Management has called for historic designation for portions of a remote region of central Utah known for both its historic Native American rock art carvings and its natural gas production potential.

Megan Crandall, a spokeswoman for BLM's Utah office, said Tuesday that the agency had nominated 63 sites on the Nine Mile Canyon floor to the National Register of Historic Places.

Nine Mile Canyon, home to more than 10,000 Indian rock carvings, is located near the West Tavaputs Plateau, where BLM is considering a plan by Denver-based Bill Barrett Corporation to substantially increase gas drilling.

Crandall said BLM would take into account the historic nature of the sites as it prepares a supplemental draft environmental impact statement for the West Tavaputs Full Field Natural Gas Development, a 138,000-acre project that calls for 807 gas wells from 538 pads atop the plateau.

Advocates for historic preservation of the rock art fear that because trucks must travel through the remote canyon on their way to and from gas fields, the drilling project would result in more trucks kicking up dust that could damage the delicate carvings.

Paul Loether, chief of the National Register and National Historic Landmarks Division of the National Park Service, said the division is expected to decide on the historic designation by the end of the month. However, he said that any designation would not, in and of itself, change the current level of environmental protection for the nominated sites.

He said Section 106 of the National Historic Preservation Act already requires that proposed development projects that could harm historical resources go through a thorough review process.

"It is a process that's designed to make sure that whatever mitigation that is needed can take place," he said. The Nine Mile Canyon area "is highly sensitive, so it's already involved in that review process, even though it's not yet listed."

Historic designation of the sites is largely "honorific" in highlighting the significance of the canyon "and will get much more play from an educational standpoint," Loether said. "From the material impact of this, it's a wash."

Steve Robinson, president of the Utah Rock Art Research Association, told Platts that while he favors the historic designation, he still has a great deal of concern about the impact increased gas drilling on the West Tavaputs Plateau could have on the historic carvings on canyon walls.

But Robinson said he is hopeful BLM will craft a development plan for the plateau that addresses the concerns of gas developers as well as "the people concerned with the protection of the rock art treasure that was created many centuries ago."

— *Jim Magill*

Judge: anti-drilling activist can't use global-warming defense at his trial

An environmental activist who disrupted a major oil and natural gas lease sale last year will not be able to defend himself at his upcoming trial by claiming that his actions were justified because of the alleged dangers posed by global warming and US dependence on fossil fuels.

In a nine-page order filed Monday, Judge Dee Benson of the US District Court in Salt Lake City ruled that the activist, Tim DeChristopher, cannot use the so-called "choice of evils" defense if his case goes to trial.

"The court finds that DeChristopher's necessity defense fails because there were reasonable, legal alternatives open to DeChristopher other than his alleged criminal acts," Benson wrote.

DeChristopher, a 27-year-old University of Utah student, faces up to 10 years in prison and \$750,000 in fines over his self-described "protest" of a Bureau of Land Management lease sale in Salt Lake City on December 19, 2008. Prosecutors say DeChristopher posed as a legitimate bidder in order to run up prices on oil and gas leases that he had no intention of developing or paying for. He "won" 14 parcels, putting himself on the hook for nearly \$1.8 million. DeChristopher told reporters after the sale that he never intended to pay for the parcels he won, and that he disrupted the auction in an effort to protect the environment.

DeChristopher was charged earlier this year with making a false statement on his bidder-registration form, and with violating the Federal Onshore Oil and Gas Leasing Reform Act, both felonies. DeChristopher sought to use a "choice of evils" defense at his trial, arguing in court papers that his actions were spawned by the "government's violation of its own laws and regulations and the consequential exacerbation of global warming and climate change."

But Justice Department attorneys representing BLM in the case sought to bar DeChristopher from using the lesser-of-evils defense, saying it would have "no bearing on the elements of the offenses charged," and that it would only "improperly inflame or confuse the jury."

"The defendant may be passionate, sincere, and even articulate in trying to explain that there was some sort of emergency that justified his criminal acts," prosecutors said in court papers earlier this year. "Nevertheless, there was no 'personal danger,' 'direct harm,' or 'real emergency' that any court would recognize as one that could support a necessity defense."

Benson agreed with DOJ in his order last week, saying the lease sale did not pose the sort of "imminent harm" that would justify DeChristopher's actions. Benson noted that there were approximately 1,600 protests filed against the sale, and that BLM would have to sort through all of them before finalizing the leases.

"Even assuming *arguendo* that the BLM's lease sale was 'evil,' the evidence does not support a finding of imminent harm because the issuance of the oil and gas leases offered ... was not certain to occur," Benson wrote.

DeChristopher also failed to prove that driving up the bid prices and winning only 14 of the 100-plus parcels that were

offered would effectively combat global warming, Benson said.

"Unlike a person demolishing a home to create a firebreak, DeChristopher's actions were more akin to placing a small pile of dirt in the fire's path," the judge wrote.

Benson also noted that DeChristopher could have chosen to protest the lease sale in various "legal" ways, including joining with environmental groups in a lawsuit that forced BLM to drop some parcels from the sale.

"Impatience with or failure to take less visible and more time-consuming alternatives does not constitute an absence of legal alternatives," Benson wrote.

Benson has not yet set a trial date in the case, and it was unclear last week what sort of legal strategy DeChristopher would use if the matter does go before a jury.

The Utah lease sale at issue was controversial even before DeChristopher started making headlines last year. Environmental groups and other government agencies complained the development would harm air quality and scenic views in two nearby national parks. In February, Interior Secretary Ken Salazar cancelled 77 of the 116 leases sold at the auction after an environmental group contested them in a lawsuit. Of the 14 parcels that DeChristopher "won," 11 were cancelled by Salazar. — *Brian Hansen*

RENEWABLE ENERGY

BLM may hire private contractors to help Calif. approve solar projects

The Interior Department is considering hiring additional environmental contractors to help the cash-strapped California Energy Commission expedite its approval of utility-scale solar-power projects on federal land throughout the coming year, a senior official with the Bureau of Land Management said last week.

"We're taking a close look as to how much resources CEC can commit to and if there are some things we can do by hiring contractors to do some of that work instead of dumping that work on CEC staff," Ray Brady, BLM's energy team manager, said in an interview.

CEC is in the midst of approving many new solar projects, among them a selection of seven expansive projects on BLM land where CEC is the lead permitting agency. These so-called "fast track" projects have to be approved by the end of 2010 in order to get hundreds of millions of dollars apiece in federal economic stimulus funds.

However, a tight state budget and the corresponding three mandatory furlough days per month are putting significant strain on the CEC employees. CEC is currently processing 300 applications for various power projects, which include the solar projects on federal lands.

One of the top BLM officials in California working on new renewable energy projects, Greg Miller, said that helping out CEC by hiring additional contractors would alleviate the financial and time constraints being put on the state agency.

"They are under a lot of strain and stress to get things done with much less people," said Miller, who is the director of renewable energy policy for the BLM Desert District, which encompasses the southern third of California. "It's definitely hampering the energy commission to get these through at a faster pace than what they're used to."

Percy Della, a CEC spokesman, said in an e-mail that Terry O'Brien, CEC's deputy director for power-plant siting, would be open to the move. "He has discussed this issue with BLM and this option is still on the table," Della said. "We are evaluating on a project-by-project basis."

The first and only fast-track solar project to receive a draft environmental impact statement thus far has been BrightSource's 440-MW Ivanpah solar tower facility. The next on the list is Stirling Energy Systems' 750-MW Solar Two facility in Imperial County, which is expected to receive a draft EIS by the end of the year.

California and the Interior Department signed a memorandum of understanding this fall to help coordinate efforts. Brady said that the MOU allows for the use of BLM funds to help out CEC for the solar projects on federal land.

"We collect cost recovery dollars for these projects so we've got adequate funds if CEC needs some extra help," Brady said. "Now, we can't give money to CEC, but we can hire contractors to give CEC that additional support through the use of cost-recovery dollars."

BLM's Miller echoed that view, noting that contractors already do a significant amount of work for both BLM and CEC. Project developers hire contractors to prepare preliminary National Environmental Policy Act and California Environmental Quality Act documents, and other contractors perform additional work for BLM and CEC deeper into the regulatory process.

The ongoing financial crisis has spread to counties as well, and BLM is also looking at the possibility of hiring San Bernardino County officials on as BLM employees to help permit some photovoltaic facilities. "We're trying to get help to everyone we can," he said.

San Bernardino and seven other counties are being looked at as part of a proposed draft EIS for a Desert Renewable Energy Conservation Plan. BLM published a notice of intent to do the draft EIS in the *Federal Register* on Friday.

The plan would address issues such as best land-use practices with regard to water, local species, and preserving cultural heritage sites. It would also help to "identify the most appropriate locations" for utility-scale renewable-energy projects of all kinds, including solar, wind and geothermal.

Meanwhile, Brady came back on Monday from a week-and-a-half-long trip to Spain, where he visited a series of solar thermal power plants. He said the trip gave him optimism for the potential for solar development in the US, since solar resources are much better in the US. The potential for solar power is measured in kWh/cubic meter/day, and the average for southern Spain is between 4.5 and 5, he said.

"A lot of our land in the Southwest is in excess of 6.5. We have very rich solar resources," he said.

But he also cautioned that Spain's experience of building up an entirely new industry on robust government subsidies could

only last for so long, pointing to a recent drop in the market for new projects. Spain has a “feed-in tariff” that guarantees 40 cents/kWh for 25 years, which created a boom in recent years, he said. But the government has pulled back, limiting the amount of future projects that could take advantage of the program.

“They realized the government wasn’t going to be able to provide those financial incentives indefinitely,” he said. “Over the next several years, solar technology is going to have to increase in efficiency and decrease in cost in order to be market competitive. They can’t depend long term on financial subsidies.” — *Alexander Duncan*

ENERGY EFFICIENCY

Prodded by action in Calif., DOE to set national efficiency standards for TVs

Calling her home state a standard bearer on energy-efficiency requirements, Senator Diane Feinstein called on the Energy Department last week to follow California’s lead and establish national energy-efficiency standards for televisions.

“California was the first state to enforce minimum efficiency requirements for refrigerators and other products in 1979,” Feinstein, a Democrat, wrote in a letter Thursday to Energy Secretary Steven Chu, a fellow Californian and self-described efficiency junkie. “Given the success of these programs, I hope [DOE] will take a serious look at creating national standards for televisions which are as effective as California’s promising program.”

Feinstein, a Democrat, made her request on the same day the California Energy Commission set standards for televisions that will require them to use one-third less than current energy consumption by 2011, and half of current energy consumption by 2013.

DOE was immediately receptive to Feinstein’s request, saying it would soon begin a rulemaking process to establish a new federal test procedure and a new federal energy efficiency standard for televisions.

“The secretary supports efforts to reduce home energy consumption and is working aggressively to strengthen and increase the enforcement of energy efficiency standards for a wide range of household appliances,” said DOE Press Secretary Stephanie Mueller. “With homes generating more than 20% of the country’s carbon pollution, there’s a lot more that can be done to save households money on their energy use, and the secretary is committed to working with Congress to continue to advance energy efficiency.”

Feinstein, in her letter, wrote that televisions account for almost 10% of energy consumption in US households.

According to California officials, the state’s new standards will save consumers \$8.1 billion dollars in utility bills in the decade after 2011 and conserve the equivalent of powering

854,000 single family homes for a year. The standards were backed by environmental groups, utility companies and television manufacturer Vizio, but opposed by several California retailers and the Consumer Electronics Association, a trade group.

DOE has the authority to set energy-efficiency standards for household appliances under the Energy Policy Conservation Act of 1975, but Feinstein noted that standards have been set for every appliance listed in the act except televisions.

The government’s Energy Star program does include televisions, but that is a voluntary labeling program for manufacturers. Televisions with the Energy Star label use about 35 percent less electricity than the average model, according to the Energy Star web site.

“While I appreciate successful programs such as Energy Star that have helped consumers choose better models, standards can ensure the improved efficiency of the worst performing models and reduce energy use,” Feinstein said in her letter to Chu. — *Herman Wang*

Energy retrofits, gas vehicles seen as solutions to US unemployment

A new coalition of more than 50 labor unions, businesses, consumer advocates and environmental groups called on Congress last week to adopt legislation that would help renovate 50 million buildings by 2020 to make them more energy efficient and take other steps to more aggressively promote energy savings, moves they said would create and sustain 625,000 jobs in construction, manufacturing and related fields.

The coalition’s pitch for jobs through energy retrofits was one of several made on Capitol Hill to use energy initiatives to address the US nagging unemployment. Members of the House Natural Gas Caucus said Congress should put people to work building natural gas vehicles, and the infrastructure to support such transportation, as part of any job-creation bill.

The Energy Future Coalition and the Center for American Progress Action Fund, which organized the coalition, said legislation pending in the Senate would “fall short of what’s needed to save consumers money and create jobs.”

The coalition’s push came as the US unemployment rate rose above 10%, and Republican lawmakers charge that Obama administration policies are raising the federal budget deficit but doing little to create jobs.

Citing data from the federal Energy Star program and the American Council for an Energy Efficient Economy, the coalition said campaigns to save energy can spawn jobs in states where losses in the the manufacturing sector have been substantial.

In a letter sent to all 100 members of the Senate Wednesday, the coalition proposed the massive retrofit of buildings across the US, as well as other aggressive initiatives, such as an energy-efficiency standard of 10% by 2020.

The group called for an increase in allowances allocated to

states under a proposed cap-and-trade scheme to reduce greenhouse gas emissions. To help states invest in energy efficiency and renewable energy, the group proposed providing states with 10% of the allowances through 2030, with 25% of those allowances directed towards building retrofits.

A climate change bill cosponsored by Senators John Kerry and Barbara Boxer would give states 10.35% of the allowances in 2012 and 2013, then cut the allocation to more than 4% in 2022 and later.

Senator Sherrod Brown, Democrat-Ohio, who attended a news conference held by the coalition, said his state is becoming the "Silicon Valley of alternative energy," with new plants to manufacture wind turbines and solar panels.

Senator Arlen Specter, Democrat-Pennsylvania, also applauded the group.

"Great energy efficiency initiatives will put people to work [on] innovating and manufacturing advanced materials, and installing them in new and existing buildings and facilities," Specter said in a statement, "I will work to ensure that any clean energy legislation contains measures to take advantage of Pennsylvania's and US opportunities in energy efficiency."

Lonnie Coleman, president of the Mechanical Contractors Association of America, said his group backed the proposal because its members would benefit from initiatives to weatherize homes, build infrastructure and training workers. He sees those efforts as "not even low hanging fruit; it's off the tree on the ground just waiting to be picked up."

"There's not a more cost-effective expenditure of dollars than in the energy efficiency area, and specifically on building retrofits," said Steve Brobeck, president of the Consumer Federation of America

Mark Ayers, president of AFL-CIO's Building and Construction Trades Department, said that the administration needs to create "not just jobs but [also] careers," through training in energy-saving professions.

Separately, Representative Dan Boren, Democrat-Oklahoma, told the Natural Gas Roundtable in Washington Thursday that Congress could create tens of thousands of jobs through more gas-based transportation.

"A jobs package is expected to come out before the end of the year," Boren said. "I think this is our opportunity to insert the NAT GAS Act into it and create 500,000 new jobs in the natural gas industry. It will put people back to work and do it with a product that is 98% produced right here in the US and not some place like Saudi Arabia."

Boren, who is co-chairman of the House gas caucus, sponsored the New Alternative Transportation to Give Americans Solutions Act, or NAT GAS Act (H.R. 1835), in April.

This bill, which has 121 cosponsors, would provide tax credits for gas vehicles and refueling facilities, as well as require that 50% of all vehicles bought by the government by 2014 use compressed or liquefied natural gas.

"If we can get something done on this before the end of the year, what a home run it would be for the entire Congress," Boren said. "People don't want a Democrat or Republican solution, they just want some jobs." — *Mu Li, Rodney White*

CONGRESS

Bingaman sees overlap among programs on international clean energy research

Senate Energy and Natural Resources Committee Chairman Jeff Bingaman last week called for better cooperation among US agencies involved in programs that promote international research on clean energy.

At a hearing on the international aspects of climate change Tuesday, the New Mexico Democrat said while the programs run by the Energy Department and five other agencies do "very valuable work," they "lack a unified national strategy to guide their efforts."

"The result is a duplication of capacity across agencies, under-resourced programs where they do exist, and less-than-optimal outcomes from the nation's international energy technology portfolio," Bingaman said. "I hope we can develop a better approach to international energy cooperation than simply creating more interagency coordinating groups"

Bingaman has not decided yet how to respond to the situation, committee spokesman Bill Wicker said after the hearing. While some options are being explored by committee staff, the chairman raised the issue at the hearing to solicit feedback, Wicker said.

Separately, the committee's top Republican, Senator Lisa Murkowski, said she hoped the Senate would re-evaluate its approach to climate change legislation now that President Barack Obama and other world leaders have acknowledged that a UN conference in Denmark next month will not produce a new treaty to control greenhouse gas emissions.

"I think we need to go back to the drawing board here," said the Alaska lawmaker, who has supported climate change legislation in principle, but criticized a pending cap-and-trade bill as threatening to the US economy. "We simply can't forget that our action will make little difference unless the rest of the world is working with us in a global effort," she said.

Witnesses told the committee, however, that US action or inaction on climate change would affect other countries' actions, even if it would not dictate them.

Michael Levi, a senior fellow for the Council on Foreign Relations, said US inaction on greenhouse gas emissions leaves a deep impression with other nations, particularly those in Europe. By acting to curb its emissions, the US would "remove this as a debating point across the Atlantic," he said.

"Ultimately, the United States is far more effective in its climate diplomacy when it stands shoulder-to-shoulder with Europe," Levi said.

Nigel Purvis, president of the consulting firm Climate Advisers, said the US would have about six months to a year after the UN climate summit to commit to an emissions reduction strategy before the rest of the world loses faith that it will.

"Even with a successful outcome [in Copenhagen], further progress in 2010 would be unlikely without greater clarity about

the shape, timing, and ambition of new US climate and energy legislation," he said.

Jake Colvin, vice president for global trade at the National Foreign Trade Council, said adopting border protection language akin to what the House passed in June would be more likely to spark a trade war than encourage developing countries to curb their emissions.

Colvin said the House's language granting free allowances to industries like aluminum and steel, which are vulnerable to both high energy prices and international competition, might be viewed by the World Trade Organization as a subsidy.

More troubling, however, was House language requiring the US president to impose a de-facto tariff on imports from countries without comparable carbon reduction laws, he said.

A group of US senators led by Ohio Republican Sherrod Brown plans to expand this language as part of the Senate's climate change bill (S. 1733).

"Regardless of whether it is possible to design a provision that complies with global trade rules, it is not in the economic or environmental interest of the United States to rely on border adjustment measures," Colvin said. "Border measures are likely to encourage retaliation from U.S. trading partners and will make it more difficult for American businesses to succeed in the global economy," he added. — *Jean Chemnick*

NATIONAL LABORATORIES

After extensive search, Berkeley Lab taps interim director for permanent job

Paul Alivisatos, a prominent chemist and the interim director of Lawrence Berkeley National Laboratory, has been named to permanently take over the director's chair there, the lab's contractor announced last week.

In a conference call with reporters Thursday, Alivisatos, 50, said the California lab "is being asked to step in and do a great deal more research to help the nation and the world deal with problems of energy and the environment."

"We have a lot of new research initiatives emerging in that area," he said. "So I am personally just thrilled to be a part of the effort to try to build that new renewable-energy science base for the nation."

He is the seventh director the lab has had since it was founded in 1931.

After a formal search that looked at 140 different candidates, the University of California's board of regents voted in an open session on Thursday to approve Alivisatos to the post, which was held until January by Energy Secretary Steven Chu. UC manages and operates the lab for the Energy Department, and makes decisions on hiring.

Alivisatos has made a name for himself for his basic research into nanoparticles, which have the potential for contributing to breakthroughs in solar power and battery technology, among other things. He received his Ph.D. from the University of

California Berkeley, and then worked for AT&T Bell Laboratories for two years beginning in 1986, where he first worked with nanomaterials.

He has also started three high-tech companies based on his own nanotechnology research, including a company called Solexant which is currently preparing to build a pilot plant to manufacture solar cells.

Steven Koonin, DOE's under secretary for science, praised the pick.

"I've known Paul for many years," Koonin said. "He's a wonderful scientist and has done a fine job as interim director. All of us at DOE look forward to helping him take the lab to new heights."

Alivisatos joins an elite group of just 17 DOE national lab directors in the US. Together they oversee billions of dollars in the agency's research spending every year. Berkeley Lab alone has a budget of about \$600 million, and it received about \$220 million more under the economic stimulus package.

Some of those lab directors, who have worked with Alivisatos in the National Laboratory Directors Council, were fulsome in their praise.

"I think Paul is probably the best choice you can imagine," said Argonne National Laboratory Director Eric Isaacs.

"The vision that he has, which of course has evolved out of his scientific career, is going to be very important in thinking about alternative paths for the future," Isaacs said. "A combination of a great scientist, but also, I think a bit of a visionary is required at this point."

Thomas Mason, the director of Oak Ridge National Laboratory, said he was looking forward to working more closely with Alivisatos as their labs work together in future building efficiency research.

"I have enjoyed working with Paul during his tenure as interim director and that positions him well for a seamless transition into the permanent role," Mason said by e-mail.

Alivisatos, a chemist by education, got into the energy field after becoming intrigued with the problem of producing low-cost solar photovoltaic cells, which can produce electricity directly from sunlight. Getting the cost down is still one of the major hurdles to widespread adoption of solar power. He took the post of deputy lab director in April 2008, and became interim director earlier this year.

Alivisatos said that since taking the helm, he has been working to put together a "broad umbrella" of energy and environmental research at the lab.

"We are looking at the complete carbon cycle, and trying to develop our own kind of vision of what future energy is going to look like. So there is an activity we are developing presently that will have a very broad scope and bring together the energy and environment research across the laboratory in new ways," he said.

Research at Berkeley Lab spans the scientific spectrum, including carbon capture and storage, artificial photosynthesis, climate modeling, building efficiency, cancer research and cosmology.

While Alivisatos said he has been personally passionate about solving the riddles of affordable solar power, and still

thinks it will be a crucial part of energy in the future, he sees the lab's role as taking a more holistic approach.

"I think right now we see that all the energy solutions that are coming about as essentially each group developing their own piece at the laboratory," he said. "What we really need to do is put forth for the nation and the world, a complete vision, what is energy going to look like 25-30 years from now."

The lab is also trying to help integrate applied and basic research across the department. This includes the Joint BioEnergy Institute, or JBEL, a model for DOE research integration. The facility is aimed at developing advanced plant-based biofuels, and is home to researchers looking at every aspect of the problem, from plant genetics to the technology that will go into a biofuels pilot plant the lab hopes to eventually build.

Berkeley Lab is located close to the high-tech venture capital heartland of California's Silicon Valley, and it is well-regarded in the research community for its technology-transfer practices, especially engaging with industry. Chu was the lab's director before he became part of President Barack Obama's Cabinet in January, and during his tenure, the lab aggressively pursued a \$500-million project with BP to build an advanced biofuels research center.

Alivisatos said that he would like to see even closer cooperation with industry.

"I have been very much involved in helping to create start-up companies, and I'm hoping the lab will do much more of that than it has already," he said. "We have a lot of really great technology now that could find its way into start-ups in that way."

In addition, the lab is looking at ways to increase partnerships with larger, established companies.

"We see opportunities for that across the board, especially in places like building efficiency, where the industry is still fragmented in some ways," Alivisatos said. "There are areas where our ability to deliver a solution is hampered by how industry is structured. We need get involved in help that restructuring to occur." — *Derek Sands*

RESEARCH & DEVELOPMENT

Web site seen helping maintain research funding beyond stimulus

Advocates of federal funding for science unveiled a web site last week that they say will show how the American Recovery and Reinvestment Act supports research, and they hope will help make the case for continued funding in the face of tighter government spending in coming years.

The web site highlights a wide variety of research projects, such as a new Arctic ice-breaker that could help study climate change and higher sea levels and a plant study aimed at producing better biofuels.

"Through our ongoing support for researchers across the country, we will ensure that the Recovery Act was not the end

of our investment in innovation, but the beginning of a sustained commitment to science," House Speaker Nancy Pelosi, a California Democrat, said Tuesday at a Washington news conference called to promote the web site.

The site — www.scienceworksforus.com — is run by several organizations, including The Science Coalition, the Association of American Universities and the Association of Public and Land-grant Universities, all representing research universities.

It lists, by state, some of the university research projects receiving money from the \$787-billion economic stimulus law, which provided about \$21 billion for research and development and for research equipment and infrastructure.

The Energy Department received about \$2 billion of that amount for its Office of Science and its new Advanced Research Projects Agency-Energy program.

Most of the remaining stimulus funding for research went to projects supported by the National Science Foundation and the National Institutes of Health.

Joining Pelosi at the news conference were other lawmakers, including Tennessee Democrat Bart Gordon and Massachusetts Democrat Edward Markey, along with representatives of major research universities, all of whom called for continued federal funding for research.

While the Recovery Act has been a massive boost to research spending, White House Science Adviser John Holdren and university researchers, among others, have expressed concern that such funding will fall off as the Obama administration and Congress struggle to reduce the federal budget deficit.

Gordon, who chairs the House Science and Technology Committee, said maintaining federal research spending will require a renewed effort by the lawmakers and researchers who pushed for such support through the Recovery Act.

"You cannot just sit back and think it is over with. You have got to bring that same coalition together to demonstrate to the country and to the appropriators here that R&D investment equals jobs for us and for our kids and grandkids," Gordon said. "We've got to get the band back together. We've got to move forward, and I think this web site would be a good way to start that."

Academic representatives agreed, saying they needed to avert hitting a funding "cliff" for research.

"All the universities are hoping that if they are good custodians of this infusion of money, and it does in fact lead to some substantial discoveries, and furthers economic growth, that the budgets of all the federal agencies will be looked at post-stimulus," said Steven Fluharty, the vice provost for research at the University of Pennsylvania. "The cliff is a real problem. Many of us have to, in order to sleep at night, remain optimistic that this won't be a cliff."

The Recovery Act funding came none too soon for researchers in the physical sciences, which have seen flat funding for the past 25 years, according to Emily Carter, a physics and engineering researcher at Princeton University.

"With one fell swoop, this bill, the [stimulus law] has changed the tone among the whole scientific community," Carter said. "We were feeling demoralized, to be perfectly honest, and feeling that all of our efforts and our good ideas were

being slighted because the funding wasn't there."

While Carter said she was thankful for the infusion, she also said continued research funding is crucial to the economic well-being of the US.

"The discoveries that come out of this basic scientific research lead immediately to patents, which leads immediately to small companies, which then leads to jobs," Carter said. "It is a long process, but you in fact know that the unemployment that we are experiencing today is partially because we didn't invest 20 or 30 years ago in getting the new ideas, getting the new inventions."

While the lawmakers and university researchers praised the web site, its functions are limited. It lists the total amount of R&D stimulus funding going to each state, and it provides brief explanations of several research projects in each state. However, links to individual universities lead primarily to the schools' introductory web sites, and require further scrutiny to find the total amount of stimulus research funding they received. — *Derek Sands*

White House OMB a regular stop on DOE's road to issuing loan guarantees ... (from page 1)

handful of loan guarantees, worth \$594 million.

Spinner said OMB's review process is aimed at reducing the risk of developers defaulting on their loans, which would cost taxpayers' money. To that end, he said DOE prepares a very "complex and complicated" package of legal, technical, environmental and financial analyses to send to OMB. All together, the loan guarantees would likely represent tens of billions of dollars in risk for the federal government.

"That money is to go out, but it is absolutely to come back," Spinner said. "The level of due diligence that is required for a company to get a loan is extensive, is extraordinary."

One way of reducing risk to taxpayers is through the so-called "credit subsidy," which is a fee for the loan that OMB calculates using a number of factors, including the technology

used in the project, as well as the market environment. The credit subsidy is meant to offset some of the risk to taxpayers, and can range from zero to 100% of the total project cost.

However, even at several percent of the cost, some developers have said it is an unbearable burden. Last Monday, for example, the nuclear industry voiced concern that an 8% credit subsidy on loan guarantees for their multi-billion-dollar projects would be prohibitive, and that it should be closer to 1%.

While the nuclear industry is required to pay credit subsidy costs, DOE currently has \$4 billion from the American Recovery and Reinvestment Act that it can use to pay the credit subsidy costs of some renewable energy and other projects. The agency estimates that the \$4 billion will support \$32 billion in loan guarantees, meaning it estimates the average renewable-energy-project credit subsidy to be 12.5%.

Spinner also told the investors gathered for *The Economist* meeting that DOE hoped to finish the loan-guarantee program funded by the Recovery Act — worth about \$32 billion for renewable energy, biofuels, and electricity transmission and distribution projects — as soon as investment markets affected by the global economic slowdown began providing capital again.

"That is not an area that, long term, the government wants to play in, and we very much look forward to an opportunity where we can start ratcheting back our involvement from a loan guarantee standpoint as those markets recover," he said. By law, DOE must issue those loan guarantees by September 30, 2011.

The remaining loan guarantees — \$51 billion for new and innovative technologies that have long been neglected by investors, as well as nuclear — do not fall under the Recovery Act, and will likely remain a part of the DOE wheelhouse.

"To help out those companies that are at that late stage, but not yet ready for prime time from an [initial public offering] standpoint, to get access to capital to continue their development and not have to deal with funding issues that historically have plagued the industry," he said. "We found an opportunity that we can fill that role." — *Derek Sands*

NEWS IN BRIEF

DOE names new oil, gas officials

The Energy Department's Office of Fossil Energy announced the appointment of three senior staff members last week: James Wood as deputy assistant secretary for clean coal, Christopher Smith as deputy assistant secretary for oil and natural gas, and Michelle Dallafior as senior policy adviser to the assistant secretary.

Wood, most recently the president and CEO of combustion-equipment designer and manufacturer Babcock Power, has more than 30 years of experience in the power industry.

Smith has 11 years experience in upstream business development and liquid natural gas trading with two major international oil companies, including three years negotiating production and transportation agreements in Bogota, Columbia.

Dallafior is a 20-year veteran of public policy, most recently

serving as a Democratic policy staff member of the House Science and Technology Subcommittee on Energy and Environment. In that position, she oversaw several energy issues, including nuclear energy, carbon-capture and sequestration and smart electrical grids. She has also been chief of staff to Representatives Charles Wilson, Democrat-Ohio, and Ted Strickland, Democrat-Ohio.

"The Energy Department is fortunate to have attracted such qualified people with relevant industry and Capitol Hill experience," said James Markowsky, DOE's assistant secretary for fossil energy.

DOE's Office of Fossil Energy oversees the research and development of oil, gas and coal technologies, as well as DOE's carbon sequestration program and maintenance of the Strategic Petroleum Reserve.

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