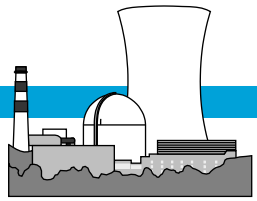
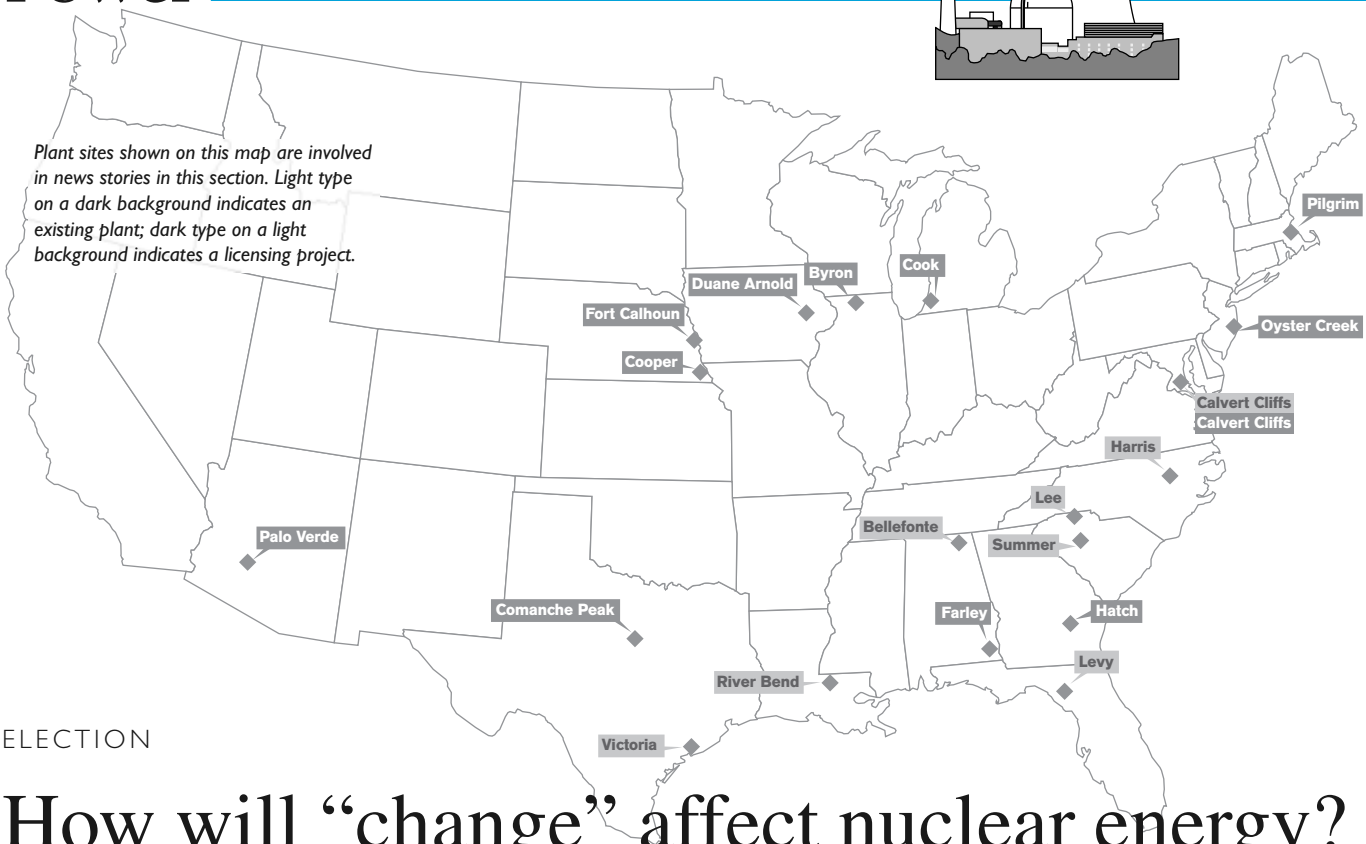




ELECTION

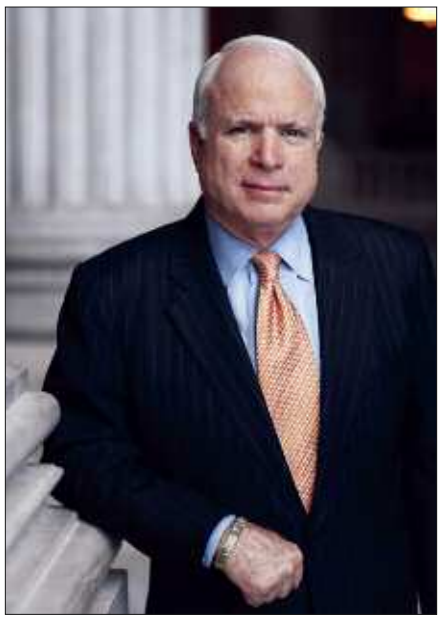
How will "change" affect nuclear energy?

The election of Barack Obama as president of the United States and the increase in Democratic majorities in both houses of Congress will mean an approach to nuclear issues that differs from the Bush administration's, but not necessarily an environment hostile to the expansion of nuclear power.

THE WORD "CHANGE" was used so much in Barack Obama's presidential campaign that it seemed as though the word itself and the many phrases in which it was used had been trademarked. Even before Obama's victory over John McCain on November 4, however, it was becoming apparent that the federal government's stance on nuclear energy issues was bound to change from that of the Bush administration, no matter which candidate was elected. The growing federal budget deficit and the crisis in the credit and financial markets are likely to drive the new president away from the kind of direct federal funding that has upheld some major nuclear programs in recent years. At this writing, Obama had not yet taken specific steps to indicate how his administration would set priorities in energy (or anything else)—no announcement of proposed appointments to cabinet posts or to independent agencies such as the Nuclear Regulatory Commission (which currently has one vacancy).

The Democratic Party not only gained control of the White House but expanded its majorities in both houses of Congress. The Democrats are certain to have 56 seats in the Senate to the Republicans' 40 (with four seats still undetermined), and 252 seats in the House of Representatives to the Republicans' 172 (with 11 seats not yet decided). This appeared to be bad news for the proposed Yucca Mountain high-level waste repository in Nevada, which continues to be

Obama



McCain

opposed by Senate Majority Leader Harry Reid, and is also opposed by Obama. McCain favored Yucca Mountain, and Obama won Nevada, 55 percent to 43 percent.

Despite Reid's stance on Yucca Mountain, however, he supports nuclear power in general, and in both houses there are numerous Democrats who favor nuclear power, perhaps enough to join with Republicans to prevent Congress from becoming openly antinuclear. The harsh realities of the economy and the budget deficit may curtail direct handouts from the federal government, perhaps threatening the long-term vision of nuclear power supported by the Bush administration, but the "nuclear renaissance" of new power reactor licensing may have a chance to continue if the private sector picks up the entire tab.

Federal support has already fallen short of the nuclear community's expectations because of the inability of the government to pass budget legislation before the start of fiscal year 2009, which began on October 1. Federal agencies have been operating since then under a continuing resolution (CR) by Congress, which essentially replicates FY 2008 funding levels into FY 2009. Budget matters may not be addressed again until after the new administration and Congress take office in January. The CR has the effect of slowing down programs that were set up to gain momentum in FY 2009, in which the budget request was 37 percent more for nuclear energy programs than had been appropriated for FY 2008. The Department of Energy's Nuclear Power 2010 (NP 2010) program was in line for an increase of 80.6 percent, to $241.6 million, with funding for "first-of-a-kind finalization activities" for two reactor designs, Westinghouse's AP1000 and GE Hitachi's ESBWR.

While the 50 percent cost-sharing from NP 2010 is intended to see these reactor models through to detailed design and engineering, it is not clear whether it is completely necessary for this support to continue. Two other reactor models not covered under NP 2010—Areva's U.S. EPR and Mitsubishi's US-APWR—are also going through the design certification and combined construction and operating license processes. The use of these models in projects overseas may be helping to reduce the effects of first-of-a-kind costs in the companies' U.S. initiatives, but to some extent Westinghouse could derive similar benefits from the work it is doing on AP1000s already ordered and now under early construction in China. Even as the industry's initial approach to NP 2010—with a few utility consortia exploring the licensing process without making substantial commitments—has been overtaken by more than a dozen new reactor projects with no DOE cost-sharing, the original NP 2010 projects could probably continue on their own without direct federal support, with first-of-a-kind expenses accepted as part of the cost of doing business.

Obama's public statements on nuclear power have been generally favorable as far as operating reactors are concerned. He has mainly been noncommittal on new reactors, expressing a willingness to consider them but stating that their prospects may depend on the resolution of issues such as HLW disposal and the proliferation of fissionable material. There has not been a clear indication that an Obama administration would actively interfere with the licensing projects now under way.

Prospects may be far darker, however, for the other big-ticket nuclear initiatives of the Bush administration. The DOE submitted its license application for Yucca Mountain to the NRC earlier this year, but if Obama maintains his position, the DOE will probably have to withdraw it and perhaps seek to start the entire process to license an HLW repository over from scratch. Money may be irrelevant in this case, because HLW work is supposed to be backed by the Nuclear Waste Fund, which has been and continues to be funded by a surcharge on nuclear electricity consumption.

The Global Nuclear Energy Partnership (GNEP) was launched by the Bush administration as an effort to make civilian nuclear fuel available in sufficient quantity to deter the spread of technology for uncontrolled uranium enrichment and spent fuel reprocessing. Because more than a dozen nations are involved with GNEP, its fate may depend on the extent to which the Obama administration sees it as beneficial to international relations, and—either in its current form or revised—a way of reducing proliferation. Tied in with GNEP is the Advanced Fuel Cycle Initiative, which would have been boosted by 68.1 percent if the proposed FY 2009 budget had been passed.

Longer-term programs, such as the Next Generation Nuclear Plant and the Nuclear Hydrogen Initiative, have already been trending downward in budgetary support from the Bush administration and may at least face indefinite deferral under Obama. It is not clear yet whether the Mixed Oxide Fuel Fabrication Facility, already under construction at the Savannah River Site in South Carolina, will gain the support of the new administration. Continued involvement with the International Thermonuclear Experimental Reactor, the magnetic fusion project in France, may depend on the need for deficit reduction.

Despite the shift in Congress toward the Democrats, there were fairly few changes among the legislators on committees with responsibility for nuclear energy. In the Senate, only one incumbent was not a clear winner on election night, with Gordon Smith (R., Ore.), a member of the Senate Energy and Natural Resources (ENR) Committee, leading Democratic challenger Jeff Merkley. The other three changes fill Republican vacancies, and in two cases Democrats took the seats. Pete Domenici, of New Mexico, the ranking member of ENR and a longtime backer of nuclear energy, is succeeded by Democrat Thomas Udall; Republican James Risch kept for his party the Idaho post vacated by Larry Craig, also on ENR; and John Warner, of Virginia, a member of the Environment and Public Works Committee, is succeeded by Democrat Mark Warner (no relation).

Among the House nuclear-related committees, the only significant changes are losses by Nicholas Lampson (D., Texas), chair of the Energy and Environment Subcommittee of the Science and Technology (S&T) Committee, and Tom Feeney (R., Fla.), ranking member of the Space and Aeronautics Subcommittee of S&T; plus the departure of Mark Udall (D., Colo.), chair of Space and Aeronautics, for a run for the Senate that turned out to be successful. Unlike the Warners, the Udalls *are* related.

In any given election, wins and losses may actually bring fewer changes to committee memberships than migration by incumbents who shop for what they see as higher rankings or more desirable portfolios. The makeup of the Senate and House committees are not likely to be determined clearly until after the new Congress convenes in January.

It may turn out that President-elect Obama and the more substantially Democratic Congress will be less hospitable to nuclear energy than the Bush administration and the sometimes Republican Congress were, but 2009 would have marked the end of an era for nuclear in any case. Much of what is now taking place toward new reactor licensing was made possible by the Energy Policy Act of 2005. Obama voted for the bill. McCain voted against it.—*E. Michael Blake*