ENVIRONMENTAL AND ENERGY STUDY CONFERENCE

WEEKLY BULLETIN

HIGHLIGHTS

Week of March 13, 1989

ANWR fast track may slow down

Senate Energy gets down to business on Chairman J. Bennett Johnston's proposal to allow oil and gas leasing on the coastal plain of Alaska's Arctic National Wildlife Refuge. Numerous amendments are expected, and Johnston may be hard-pressed to finish this week (B8).

Rahall to urge coal factions to unite

West Virginia Rep. Nick Joe Rahall, who recently dropped his longstanding opposition to acid rain controls, plans at a hearing to urge opposing coal industry factions to unite behind legislation that will cause the least disruption to coal markets and jobs (B15).

Politics to center of Tongass stage

Environmental issues seem likely to be upstaged by state politics at Tuesday's House Interior hearing on proposals to reform timber management practices in Alaska's Tongass National Forest. A House Agriculture panel also will look at the Tongass issue (B12).

Hearing set on Wirth energy bill

Experts on energy efficiency technologies, conservation and renewable energy will talk at a Senate Energy hearing on Sen. Timothy E. Wirth's global warming bill (B7).

Future of advanced reactors examined

A new generation of nuclear reactors, designed to be less expensive, reduce the chance of accidents and increase public acceptance, will be examined by a House Energy panel (B11).

Reminder: Briefings on tropical forest research, wind energy

Members and staff are invited to a briefing today (Monday, March 13) at 2:30 p.m. in 366 Dirksen on the tropical forest research efforts of the U.S. Forest Service in the Caribbean National Forest in Puerto Rico. The briefing is sponsored by Senate Energy in cooperation with EESI and EESC. For more information, contact Al Stayman at x47865.

EESI also plans a briefing on the status of wind technology and its role in the country's energy supply picture. That event is scheduled for Wednesday, March 15, at 3:30 p.m. in 2318 Rayburn. For more information, contact Ann James at 628-1400.

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ENVIRONMENTAL AND ENERGY STUDY CONFERENCE

WEEKLY BULLETIN

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The Environmental and Energy Study Conference is a bipartisan legislative service organization with a membership of more than 330 Representatives and Senators. The Weekly Bulletin is the regular legislative report, published every Monday Congress is in session.

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Senate: Rudy Boschwitz (R-Minn.), John H. Chafee (R-R.I.), Christopher J. Dodd (D-Conn.), Al Gore (D-Tenn.), Patrick Leahy (D-Vt.), John McCain (R-Ariz.), Claibome Pell (D-R.I.) and Warren Rudman (R-N.H.).

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IN THE SENATE

No action

IN THE HOUSE

No action

IN COMMITTEE

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☐ Luken subcommittee to hold hearing this week on Eckart bill on federal facilities B5	plored at the hearing. Bits and bison have been straying outside the park borders in short supply due to the fires and heavy snows. Bison wasdering outside the park must be killed by madering outside the spread of brucellosis to the prevent the spread of brucellosis to demestic cattle. The disease causes cows to about their catves. Over 400 of the purk's 2,700 bison had been shot by midfeduary, Rep. Ron Marlonee (R-Mont.) The energy and hards to me to the mortage and has invited the Montana state veteringring.
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IN COMMITTEE

Parks and public lands

NPS threatened species care eyed

Leafy spurge may not sound like a very exotic name to most people, but in North Dakota's Theodore Roosevelt National Park, the plant is exotic — not native — and it's killing off the park's indigenous plants by taking over riparian areas and choking out competitors.

Besides leafy spurge, species such as feral goats in Washington's Olympic National Park and various Hawaii parks, and feral pigs in Great Smoky Mountains National Park are often cited as exotic threats to park resources.

Exotic species represent one of several threats to the habitat of plants and animals within the national park system. Many activities can threaten or destroy habitat, including overgrazing by domestic stock, pollution from upstream mines, timber harvesting on park boundaries, or air pollution from sources outside the park.

As part of a continuing series of oversight hearings on the present and future health of the park system and its resources, House Interior's Subcommittee on National Parks and Public Lands Thursday will hear testimony on the threats facing park animals and plants.

Yellowstone: Aides say the effect of last summer's fires and the hard winter on the bison and elk in Yellowstone National Park will be one of the areas explored at the hearing. Elk and bison have been straying outside the park borders in search of food, which is in short supply due to the fires and heavy snows. Bison wandering outside the park must be killed to prevent the spread of brucellosis to domestic cattle. The disease causes cows to abort their calves. Over 400 of the park's 2,700 bison had been shot by mid-February. Rep. Ron Marlenee (R-Mont.) has invited the Montana state veterinarian to discuss the disease.

An aide says Marlenee will also pursue questions about the proposed reintroduction of gray wolves to Yellowstone. The aide says two witnesses will discuss the possible effect of wolves on big horn and other wild sheep populations and on other ungulates in the park.

Panther: Another species that may receive particular attention at the hearing is the highly endangered Florida panther. A Florida state biologist estimates that there are fewer than 30 of the cats left in the wild; state and federal authorities have taken a number of steps to increase the animals' habitat and remove threats presented by road construction and other human activity.

A minority aide said one witness will testify that some Florida sportsmen believe that the federal government is "sensationalizing" the panther's plight to control hunting in and access to its habitat.

When: The hearing will begin at 10 a.m. in 1324 Longworth on Thursday, March 16.

At press time, a final witness list was not available; invited speakers included representatives of the park service; various Yellowstone interest groups; national environmental organizations such as the National Parks and Conservation Association, The Wilderness Society and Defenders of Wildlife; the Foundation for North American Wild Sheep; and the Montana state veterinarian.

House Interior contacts: Rick Healy, majority, x67736; Kurt Christensen, minority, x62311. — LD

Appropriations

Nuclear, FERC budgets examined

House Appropriations continues its hearings on the fiscal year 1990 Department of Energy budget request this week.

The energy and water subcommittee is scheduled to meet at 1 p.m. Monday, March 13, in 2362 Rayburn to discuss the Bush administration request for nuclear fission, nuclear waste, and uranium supply and enrichment.

Witnesses at the Monday hearing are expected to include Mary Ann Novak, DOE's acting assistant secretary for nuclear energy, and Samuel Rousso, acting director of the office of civilian waste management at DOE.

The panel will meet again at 10 a.m. Tuesday, March 14, in 2362 Rayburn to look at the FY '90 request for the Federal Energy Regulatory Commission.

FERC Chairman Martha O. Hesse is scheduled to testify at the Tuesday hearing.

Aides say committee members will most likely question the witnesses at the nuclear hearing about the progress of DOE's high-level nuclear waste program. DOE's management of the program has come under fire recently from NRC and utilities. Several members have also criticized the program for wasting money with very little progress or direction.

Funding for research on advanced reactors—such as the liquid metal reactor and the high-temperature gas reactor—is also likely to be of interest to the committee, according to aides.

Members also are expected to ask about uranium sales, the Atomic Vapor Laser Isotope Separation (AVLIS) program, and the potential for commercialization of the technology.

Nuclear energy research: The Bush fiscal '90 request for nuclear research and development is \$353 million, slightly down from the fiscal '89 level of \$355 million.

Within the nuclear research category, the Reagan administration has proposed for the past three years that most of DOE's civilian advanced reactor research be shifted to military and space applications, including the Strategic Defense Initiative. The new nuclear funding priorities have been partially approved by Congress.

In fiscal '90, Bush would cut advanced reactor research 57 percent from the fiscal '89 level — to \$33 million. According to DOE, the cut is due to government and private sector cost-sharing initiatives that DOE plans to develop.

High-level waste: Following several years of political stalemate, Congress

Included in the FY '90 estimate of \$6.9 billion in receipts are \$2.1 billion for rents and bonuses for the Arctic National Wildlife Refuge and \$1 billion from the resolution of an offshore boundary dispute between Alaska and the federal government. Critics say the estimate for ANWR receipts is premature and unrealistic, since Congress has not yet approved legislation approving ANWR leasing.

This year's receipts are estimated at \$3.7 billion. Bush cut \$457 million in estimated receipts for the FY '90 budget when he indefinitely postponed leasing off sections of California and Florida.

Senate Appropriations contacts: Rusty Mathews (DOE), x45271, and Charles Estes (MMS), x47214, majority; and Jeff Cilek, minority, x47262. — MM

Global environment

Antarctic included in '90 NSF budget

Environmental issues in the Antarctic will be discussed by one of three panels testifying this Tuesday before House Science on the National Science Foundation fiscal year 1990 budget.

The administration has requested a total of \$156 million for the U.S. Antarctic Program, of which \$17.5 million would go toward research. The remainder would be used for support activities, construction and procurement.

The request also includes a multiyear safety, environment and health initiative, beginning in FY '90. The environmental goals of the initiative include improvement of wastewater treatment and solid waste management plus increased environmental monitoring. Part of the \$10 million proposed in 1990 for the initiative would be used to clean up a former dump at Winters Quarters Bay.

The House Appropriations HUD-Independent Agencies Subcommittee also is holding hearings this week on the NSF budget.

Background: The Antarctic is considered an important area because it exerts a major influence on the world's climate through the interaction of air, ocean and ice.

The NSF research program includes a study of atmosphere, ice, cold climate phenomena, meteorology, solar dynamics, terrestrial and marine biota, glaciers and plate tectonics. During the average 120-day field season, about 300 scientists are involved in some 80 research projects.

One of the most important research topics studied is the annual ozone hole that appears over the Antarctic during the Southern Hemisphere's springtime. Researchers believe that the extreme cold and high altitude clouds found at the Antarctic set the stage for a rapid destruction of the stratospheric ozone layer when the sun rises after the polar winter.

Certain compounds, primarily chlorofluorocarbons and halons, react with other chemicals in the stratosphere to destroy ozone. By studying the speededup process in the Antarctic, scientists hope to predict what is happening at a slower rate elsewhere in the earth's atmosphere.

Ozone acts as a shield to ultraviolet rays coming from the sun. Without it, experts predict, there will be an increase in skin cancers, a possible weakening of the human immune system and the death of certain plants and ocean plankton.

The United States and other nations already are moving to reduce the production of ozone-destroying chemicals with the Montreal Protocol on Substances that Deplete the Ozone Layer (Treaty Doc. 100-10, Ex. Rpt. 100-14), which went into effect on Jan. 1.

CFCs are used in refrigerators, air conditioners, in foam blowing and as cleaning solvents by the electronics industry. Aerosol propellants are the single largest use of CFCs outside the United States. Halons are used in fire extinguishers.

Hearings: The Science Committee hearing, which is being held by the Science, Research and Technology Subcommittee, is scheduled for 9:30 a.m. Tuesday, March 14, in 2318 Rayburn.

The panel on the Antarctic, the third and last of the day, will consist of: Robert Rutford, president of the University of Texas at Dallas and an expert on the Antarctic; Robert Craig, president of the Keystone Center in Colorado, which studies environmental policies; and Bruce Manheim of the Environmental Defense Fund, who wrote the August 1988 report "On Thin Ice: Failure of the National Science Foundation to Protect the Environment."

The speakers are expected to support the administration's request for an increase in funding for the Antarctic program and NSF's plan to address safety, environment and health problems there.

Also: The House Appropriations HUD subcommittee hearings will begin at 2 p.m. Tuesday, March 14, and will continue Wednesday, March 15, at 10 a.m and 2 p.m., if necessary. The hearings will be held in H-143 of the Capitol.

NSF director Erich Bloch is expected to touch on the foundation's global environment program in his opening statement. In addition to the Antarctic program he will mention NSF's initiative on biodiversity.

House Science contacts: James Wilson, majority, x58844; Dave Goldston, minority, x54024. House Appropriations contacts: Dick Malow, majority, x53241; Peter Gossens, minority, x54380. — Stephanie Reynolds

Appropriations

PMA proposal to be questioned

The administration's proposal to accelerate repayment of the federal investment in the Department of Energy's power marketing administrations is likely to get a critical reception from a House Appropriations panel this week.

The Energy and Water Subcommittee, chaired by Rep. Tom Bevill (D-Ala.), plans a hearing on the fiscal 1990 budget requests of the power marketing administrations, which market wholesale electric power from 127 federally built dams.

The panel is likely to ask questions on a variety of issues other than repayment reform. DOE is continuing its effort to sell the Alaska Power Administration, and will seek legislation to study selling the Southeastern, Southwestern and Western power administrations.

With the exception of the Alaska proposal, past administration proposals to sell or study selling the power marketing administrations have run into strong congressional opposition. Although the administration says privatization would produce economic benefits, opponents say that the PMAs bring revenue to the federal government and that the sale of PMAs could lead to rate increases.

Other issues that may arise include non-federal participation in the third A.C. intertie, a transmission line between the Northwest and California, and issues particular to each PMA.

Hearing: The hearing is set for 10 a.m. Wednesday, March 15, in 2362 Rayburn. Witnesses will include DOE officials and the heads of the five power marketing administrations.

Repayment: The Reagan budget proposal says the administration will seek legislation to require the PMAs, in repaying federal investments, to make regular planned payments of unpaid principal by adopting straight-line amortization schedules. The PMAs also would be required to pay market interest rates on new borrowing as well as on the unpaid federal investment.

The result would be that the PMAs would be paying more money back to the federal government more quickly. The administration says the proposals would reduce federal subsidies to PMAs, which it says were intended to operate as businesses without federal subsidies.

"Today, the PMAs and, indirectly, their customers, are benefiting from billions of dollars in hidden subsidies because the federal government allows them to pay below-market interest rates, to borrow for project additions and improvements at interest rates that have not been increased in decades, to defer repayment of principal, to take 50 years to repay their debt, and to enjoy unquestioned access to the federal Treasury," the administration proposal says.

The administration says that over the next five years, the reforms would produce more than \$3.9 billion in additional receipts, the budget says. The initiatives would save U.S. taxpayers \$900 million in 1990, the administration says.

Opposition: The proposal

prompted a letter Jan. 31 to budget director Richard Darman from 25 senators and representatives from the Northwest. They are particularly concerned about the potential effect on the Bonneville Power Administration, the largest power wholesaler in the Northwest.

The Northwest delegation said Congress has opposed similar administration proposals in recent years because they would cause economic hardship in many regions of the country by increasing electricity rates.

"Moreover, Congress has been averse to withdrawing from commitments made by the federal government regarding repayment schedules for construction projects conducted under power marketing administrations," they said.

The Northwestern members said the proposal would require BPA to virtually double its repayment obligation and lead to a 35 percent increase in BPA rates.

"This rate increase would have a devastating impact on the region's aluminum industry, which employs 10,000 direct workers, with a payroll of about \$350 million," the letter said. "In addition, thousands of other jobs would be placed in jeopardy in key industries such as pulp and paper, industrial chemicals, and food processing. We are also concerned about the eventual impact on residential customers, especially those living on fixed incomes."

The letter says the resulting economic damage and unemployment would decrease revenues and raise government spending, more than offsetting increased revenues to the Treasury from the proposal.

House Appropriations contact: John Michael, x53421. — *JKC*

Air pollution

Rahall to urge coal factions to unite

West Virginia Rep. Nick Joe Rahall (D), who recently dropped his long-standing opposition to acid rain controls, plans at a hearing this week to urge opposing coal industry factions to unite behind legislation that will cause the least disrup-

tion to coal markets and jobs.

Rahall, who comes from a top coalproducing state and chairs the House Interior mining subcommittee, has been "one of the most vehement and aggressive of those against an acid rain bill," a staffer said. But two weeks ago, he said, Rahall announced he's going to support an acid rain bill.

Rahall's switch — which mirrors an announcement last fall by Sen. Robert C. Byrd (D), leader of the West Virginia delegation and former Senate majority leader — is a sign of the times. Chances are good that the long deadlock over acid rain and clean air legislation will finally be broken during the 101st Congress, according to key legislators and lobbyists with industry and environmental groups.

"We think there's going to be an acid rain bill," said a staffer with Rahall's subcommittee. "Everybody's telling us there's going to be an acid rain bill."

With that in mind, Rahall has scheduled the subcommittee hearing to highlight the difference in economic effects on the coal industry that different kinds of acid rain legislation would have.

"It's also Mr. Rahall's opening shot at trying to get the coal industry together and form a united front," the staffer said. Rahall is expected to tell coal-industry representatives that they need to resolve their differences if they are to help shape an acid rain control bill.

The acid rain issue divides low-sulfur coal interests in the West and central Appalachia from high-sulfur coal interests in northern Appalachia.

Rahall's district is low-sulfur coal country. But West Virginia is one of two states — Kentucky is the other — that have large amounts of both high- and low-sulfur coal. Rahall wants to minimize coal market disruption, a staffer said.

Despite Rahall's call to unite, coal industry witnesses are likely to be divided over a proposal by the United Mine Workers of America that is designed to protect existing coal markets and mining jobs. Asked if Rahall supports it, a staffer said, "We're still looking at it."

The proposal, a compromise between the union and Sen. George Mitchell (D-Maine) reached in September 1988, nearly was incorporated into the Senate

WEEKLY BULLETIN, MARCH 13, 1989 Out Right because you have not and I think we have not superfere standile for now.

Environment clean air bill (S 1894) and brought to the Senate floor. Byrd was very close to final agreement with Mitchell on the proposal. The legislation died when the proposal was attacked by environmentalists, utilities and the low-sulfur coal industry.

Hearing: The hearing before the Subcommittee on Mining and Natural Resources is set for 9:45 a.m. Tuesday, March 14, in 1324 Longworth.

Witnesses will include coal-industry representatives — high-sulfur, low-sulfur, East and West — a big utility coal buyer, and representatives of the UMW and natural gas industry.

Conflict: When coal is burned by electric utilities or industry, the sulfur is transformed to sulfur dioxide, the pollutant that is the leading cause of acid deposition in the Eastern United States.

Acid deposition and its precursor pollutants can kill life in lakes and streams, decrease visibility, and damage buildings and other materials, and may damage forests and contribute to human illnesses. The extent and types of damage remain in dispute.

Low-sulfur coal producers would gain from legislation allowing utilities to switch from high-sulfur to low-sulfur coal, which in most cases would be a utility's cheapest option for reducing emissions. Those gains, however, would come at the expense of high-sulfur coal production and mining jobs in northern Appalachia and the Midwest. The UMW says that if there is to be acid rain legislation, it should protect current coal miners' jobs by accomplishing emissions reductions through technology controls.

The split among coal interests produces regional differences that have helped block acid rain controls. Most Western coal is low in sulfur. The Appalachian region contains both high- and low-sulfur coal. The Midwest produces mostly high-sulfur coal.

The Alliance for Clean Energy, which represents low-sulfur coal producers in the East and West, has not fought acid rain legislation

The utility industry and much of the coal industry have opposed acid rain legislation, saying Congress should wait for further study of acid rain and for develop-

ment of "clean coal" technologies that could reduce emissions less expensively than existing flue-gas desulfurization systems, known as scrubbers. Now, some say it is in their interest to help shape legislation rather than fight it.

Average sulfur content of coal by region

(in percent*)

East	
Alabama	1.5-1.7
Georgia	blac magazin w
Kentucky, East	0.9-1.2
Kentucky, West	2.3-3.5
Maryland	1.5-1.6
Pennsylvania	1.9-2.1
m	1.2
Virginia	1.0-1.1
West Virginia	1.1-2.0
Midwest	shill be milian
Illinois	2.7-3.1
Indiana	2.3-2.9
Iowa	w
Kansas	3.5-4.4
Missouri	3.6-5.0
Ohio	3.5
Oklahoma	1.9-3.6
Texas	1.2-1.7
West	
Arizona	w w
Colorado	0.5-0.6
Montana	0.6
New Mexico	0.5-0.8
North Dakota	0.9-1.0
Utah	0.5
Washington	Wynes noid rum b
Wyoming	0.5

*As measured by shipments to electric utilities and "other industrial" users, in percent of sulfur by weight.

w = data withheld to avoid disclosure of individual company data.

Source: DOE

Scrubbing vs. switching: The long debate over scrubbing vs. coal switching centers on the economics of saving high-sulfur coal mining jobs through technology controls.

Bill Banig, legislative director of the UMW, said that 20,000 high-sulfur coal mining jobs in Appalachia and the Mid-

west would be lost if Congress enacted a bill requiring a 10-million-ton SO2 reduction and allowing utilities free choice to switch to low-sulfur coal.

"We're trying to prevent more unemployment of miners and really destruction of the communities that they live in," he said. "These communities have existed for hundreds of years. They have historical roots in these communities. They would actually become ghost towns."

ACE president Harry Storey said the answer to the problem is not to mandate scrubbers. Across-the-board scrubbing would cost twice as much for the same environmental results as a 10-million-ton bill that allowed utilities to decide how to reduce emissions, he said.

"If (low-sulfur coal) is the most economical coal to protect the environment, why shouldn't it be used?" he said.

Storey said that the extra cost of an all-scrubbing bill — which he put in the tens of billions — could reduce U.S. competitiveness, increase the trade deficit, and cause greater job losses. But Banig said that when all social and economic costs to communities are considered, the costs of switching and scrubbing bills are similar.

Storey cites figures on regional job shifts that are somewhat lower than the UMW's. A July 6, 1987, ICF analysis of a free-choice, 9-million-ton bill found 8,300 jobs would be displaced from northern Appalachia, but that 11,700 jobs would be gained in central Appalachia. Another 8,500 Midwestern coal mining jobs would be shifted to Appalachia and the West.

Analysts caution that the regional job loss figures may be greater than the number of people who actually lose their jobs as opposed to people who are never hired. Some of the reduction could be taken up by miners who retire or change to other work and are not replaced.

Analysts also point out that if productivity gains continue, the coal mining work force may diminish further, and acid rain bills would displace fewer jobs. On the other hand, shrinking of the work force could make any job shifts caused by acid rain legislation more painful.

Social programs? Storey said Congress should decide outside the context of acid rain legislation whether to help displaced coal miners. Options such as retraining and relocation programs would be less expensive than the extra cost of a mandatory scrubbing bill, he said.

To the UMW, relocation and training programs are "no solution," Banig said. "What are we going to train these people for? What's going to happen to these communities?"

Relocation to other coal-mining areas won't work, he said. In the last 10 years or so, he said, productivity gains have reduced coal mining employment by roughly 100,000 workers.

"We have real long-term structural unemployment in every coal producing region in the country," he said.

Westerners and low-sulfur coal producers say low-sulfur coal already has been hurt by the 1977 amendments to the Clean Air Act, which mandated scrubbing for new coal-fired power plants through a percentage reduction requirement.

UMW proposal: UMW president Richard L. Trumka called on the new Congress to pass the Mitchell-UMW compromise in an op-ed piece Jan. 23 in *The Washington Post*. "By discouraging utilities from switching fuel supplies, the proposal defends the Midwest and northern Appalachia from the long-term economic devastation threatened by previous acid-rain-control bills," Trumka said.

The proposal calls for a 10-millionton reduction in annual nationwide sulfur dioxide emissions by 2003. By 1995, scrubbers would be required for 33 gigawatts of electric generating capacity at power plants where the technology would be most cost effective. By 2003, all utility coal-fired units of at least 100 megawatts with 1985 SO2 emission rates greater than 1.2 lbs. per million Btu would be required to met a 1.0 lb. per million Btu annual limit.

To subsidize the cost of SO2 control technology, a one mill-per-kilowatt-hour fee would be imposed on electricity from fossil-fuel fired plants that do not meet the 1.0 standard. The subsidy would be \$200 per kilowatt-hour during phase I and \$150 per kilowatt in phase II.

The proposal also calls for reductions in nitrogen oxides, the other main acid rain-causing pollutant. (For more, see Oct. 3, 1988, Weekly Bulletin, p. A28.)

Last fall, environmentalists rejected the proposal, saying it would not actually achieve the 10-million-ton reduction goal and that the 2003 deadline was three years too late. Western senators and the low-sulfur coal industry said the proposal would allow little coal switching, be extremely expensive, put some Western low-sulfur miners out of work, and hurt the market for low-sulfur coal.

In the op-ed piece, Trumka said the reason Western senators opposed the proposal "is that their region — whose coal production already is expected to double between 1980 and the year 2000 — does not further gain."

"Moderate growth is expected in all coal regions in the absence of an acid rain bill, and there is little change forecast under the compromise," Trumka said.

Study: A September 1988 analysis of the proposal by ICF Inc., which analyzes acid rain bills for the Environmental Protection Agency, said that the proposal would cause little change in high-sulfur coal markets during phase I. During phase II, the projected effects on high-sulfur coal production range from a gain of 20

million tons to a loss of 50 million tons. In all cases analyzed, production would remain above current levels.

The proposal would cause moderate production gains in low-sulfur coal producing regions — central Appalachia and the West — due to some coal switching during phase II. The two regions would share the gains if coal is available in central Appalachia that would meet the 1.0 emissions rate, ICF said. If not, virtually all the increased production would be in the West and, to some extent, from high-sulfur coal regions.

Protecting high-sulfur coal markets would cost money. ICF estimated the total annualized costs of the program at \$6.1 billion to \$7.8 billion — at the high end, roughly twice as much as a least-cost approach allowing utilities to decide how to reduce emissions.

The result would be a 1-2 percent electricity rate increase if spread nationally on a levelized basis, ICF said. But increases could be significantly higher—4 to 7 percent—in Missouri, Kentucky, Indiana, Ohio and West Virginia. If no Eastern coal to meet the 1.0 standard is available, the increase in West Virginia could be about 12 percent, the ICF analysis said.

On effectiveness, ICF said the proposal would reduce utility SO2 emissions 7.9 million to 8.6 million tons below the 1980 level. In addition, 1 million tons of reductions from the 1980 level have already occurred or are expected to occur, ICF said.

House Interior contacts: Jim Zoia, majority, x67761; Nils Johnson, minority, x62311. — Jim Ketcham-Colwill