

THE CQ Researcher

PUBLISHED BY CONGRESSIONAL QUARTERLY INC.

◆ WINNER, SOCIETY OF PROFESSIONAL JOURNALISTS AWARD FOR EXCELLENCE

Energy Policy

Should the focus be on production or conservation?

Electricity blackouts in California, skyrocketing heating bills and the likelihood of higher gasoline prices this summer are raising concerns about energy supplies. The Bush administration says the nation faces an “energy crisis” and calls for boosting domestic supplies of oil, coal and natural gas and building new nuclear power plants. Critics say that focusing more on increasing supply than on reducing demand would only worsen pollution and threaten sensitive habitat while discouraging conservation and a greater reliance on environmentally benign, renewable energy sources, such as solar and wind. But supporters of the president’s supply-side energy policy suggest that growth in energy demand is inevitable if Americans are going to maintain and improve their standard of living.



INSIDE THIS ISSUE

THE ISSUES	443
BACKGROUND	450
CHRONOLOGY	451
CURRENT SITUATION	454
AT ISSUE	457
OUTLOOK	459
BIBLIOGRAPHY	461
THE NEXT STEP	462

CQ

May 25, 2001 • Volume 11, No. 20 • Pages 441-464

FREE WEB TRIAL
See back cover

THE ISSUES

- 443 • Is the government doing enough to relieve California's electricity shortage?
 • Should environmental regulations be relaxed to ensure adequate energy supplies?
 • Should nuclear power play a bigger role in the nation's energy mix?

BACKGROUND

- 450 **Energy Crisis**
 The nation had abundant oil until 1973.
- 452 **Energy Deregulation**
 Deregulation has profoundly impacted the nation's energy sector.
- 453 **Recent Shortages**
 Shortages and high prices have developed in several energy sectors.

CURRENT SITUATION

- 454 **Bush's Plan**
 President Bush wants to open public lands to oil and gas drilling, fast-track approval of new power and transmission facilities and use more nuclear power.
- 456 **State Actions**
 Many states are slowing or reversing their electricity-deregulation plans.
- 458 **Voluntary Efforts**
 Several major corporations have voluntarily reduced the environmental impact of their energy use.

OUTLOOK

- 459 **Policy Prospects**
 Democratic opposition to Bush's plan is expected.
- 459 **Long, Hot Summer?**
 Some areas face worsening power shortages.

SIDEBARS AND GRAPHICS

- 444 **Americans Favor Investing in New Energy Sources**
 They also want more energy-efficient appliances.
- 445 **Rising Demand for Electricity**
 Energy usage more than doubled since 1980.
- 447 **The President's Plan**
 President Bush proposed 105 energy initiatives.
- 451 **Chronology**
 Key events since the 1970s.
- 454 **Major U.S. Energy Sources**
 The U.S. has diversified.
- 456 **U.S. Nuclear Power Plants**
 Reactors provide about 20 percent of U.S. electricity.
- 457 **At Issue**
 Should protected public lands be opened to oil and gas development?

FOR MORE INFORMATION

- 461 **Bibliography**
 Selected sources used.
- 462 **The Next Step**
 Additional articles from current periodicals.
- 463 **Citing *The CQ Researcher***
 Sample bibliography formats.

May 25, 2001
 Volume 11, No. 20

MANAGING EDITOR
 Thomas J. Colin

ASSISTANT MANAGING EDITOR
 Kathy Koch

STAFF WRITERS
 Mary H. Cooper
 Brian Hansen
 Kenneth Jost
 David Masci

PRODUCTION EDITOR
 Olu B. Davis

ASSISTANT EDITOR
 Scott D. Kuzner

CQ PRESS
 A Division of
 Congressional Quarterly Inc.

SENIOR VICE PRESIDENT / GENERAL MANAGER
 John A. Jenkins

DIRECTOR, LIBRARY PUBLISHING
 Kathryn Suarez

DIRECTOR, OPERATIONS
 Sandra D. Adams

CONGRESSIONAL QUARTERLY INC.

CHAIRMAN
 Andrew Barnes

VICE CHAIRMAN
 Andrew P. Corty

PRESIDENT AND PUBLISHER
 Robert W. Merry

Copyright 2001 Congressional Quarterly Inc. (CQ). CQ reserves all copyright and other rights herein, unless previously specified in writing. No part of this publication may be reproduced electronically or otherwise, without prior written permission. Unauthorized reproduction or transmission of CQ copyrighted material is a violation of federal law carrying civil fines of up to \$100,000.

The CQ Researcher (ISSN 1056-2036) is printed on acid-free paper. Published weekly, except Jan. 5, June 29, July 6, July 20, Aug. 10, Aug. 17, Nov. 30 and Dec. 28, by Congressional Quarterly Inc. Annual subscription rate for libraries, businesses and government is \$500. Single issues are available for \$10 (subscribers) or \$20 (non-subscribers). Quantity discounts apply to orders over 10. Additional rates furnished upon request. Periodicals postage paid at Washington, D.C., and additional mailing offices. POSTMASTER: Send address changes to The CQ Researcher, 1414 22nd St., N.W., Washington, D.C. 20037.

Cover: Roughnecks work the Peterson Drilling Co. oil rig in Carlsbad, N.M. President Bush's new energy plan calls for more exploration and drilling for domestic oil and natural gas. (Photo by Joe Raedle/Newsmakers)

Energy Policy

BY MARY H. COOPER

THE ISSUES

Rolling blackouts in California, skyrocketing utility bills and the prospect that gasoline may top the \$2 mark again this summer are a few of the signs that the United States faces troubled times on the energy front.

To boost energy supplies, President Bush unveiled a new energy plan on May 17 that promotes opening public lands to new oil and natural gas drilling and relying more heavily on coal and nuclear power to generate electricity. The plan also stresses the need for new refineries, generating plants, pipelines and transmission lines to speed delivery to customers. (See box, p. 447.) “If we fail to act, Americans will face more and more widespread blackouts,” Bush said. “America cannot allow that to be our future, and we will not.”

Indeed, Energy Secretary Spencer Abraham has said, “America faces a major energy-supply crisis over the next two decades. The failure to meet this challenge will threaten our nation’s economic prosperity, compromise our national security and literally alter the way we live our lives.”¹

The last time public figures routinely invoked the term “crisis” to describe the nation’s energy situation was during the late 1970s, after Arab oil producers, angered by U.S. support of Israel, embargoed oil exports to the United States. As supplies dried up, prices skyrocketed, gasoline was rationed and drivers sat in long lines at the pump. Then-President Jimmy Carter told Americans that the days of cheap and abundant energy were over and introduced a series of en-



News-makers/Justin Sullivan

Candlelight adds atmosphere to the “Burger Joint” in San Francisco during one of California’s now-famous “rolling blackouts” in March.

ergy conservation and efficiency measures to reduce demand.

But many experts say today’s energy problems are not as serious as they were three decades ago — or as the Bush administration implies. “We have an energy problem, but I think the rhetoric is a little bit overblown,” says Paul R. Portney, president of Resources for the Future, a nonpartisan research group. “There are some reasons why the country needs to pay pretty close attention to energy issues. We’re very short on refining capacity, and there’s an inability to move electricity from those parts of the country where it is abundant to those parts where it’s scarce. But I don’t think we have a crisis here.”

In fact, although the United States is even more dependent on foreign sources of oil now than it was three decades ago, there is no immediate lack of crude oil. The current energy shortage is largely the result of extremely low energy prices in the late 1990s, which discouraged oil and gas companies from building new refineries and pipelines to process and deliver their products. Meanwhile, demand was skyrocketing in the United States, where a robust economy and

a growing population boosted energy consumption.

By this past winter, natural gas suppliers couldn’t keep up with demand for home heating fuel, sparking in some cases a doubling or tripling of utility bills in the Midwest and Northeast. Oil refineries also found it hard to keep up with growing demand, so gasoline prices at the pump began to creep up.

California’s electricity shortage stems largely from a flawed utility-deregulation plan passed in 1996, which unfettered wholesale prices but capped

what utilities could charge retail customers. When demand for electricity began to outpace supply last fall and early this year, suppliers raised their prices, and utilities — unable to pass those costs on to consumers — began imposing a series of rolling, or staggered, blackouts that are only expected to get worse as warmer weather triggers air-conditioner use.

In formulating a response to the nation’s energy problems, President Bush and Vice President Dick Cheney — both former oil company executives — are focusing more heavily on increasing supply than on reducing demand. Focusing on the supply side of the energy equation finds enthusiastic support among fossil-fuel producers. “We are essentially maxed out at our refineries, [and] have to rely on net imports to meet customer demand,” says Red Cavaney, president of the American Petroleum Institute, the oil industry’s chief lobbying arm. “If Congress and the administration don’t address some of these outstanding conditions, we will, in short order, certainly have a crisis.”

Supporters of supply-side energy policy suggest that growth in energy demand is inevitable if Americans are going to maintain and improve their

Americans Favor Investing in New Energy Sources

Americans say investing in new energy sources, such as solar, wind and fuel cells, is the best way to deal with the country's energy problems. They also showed strong support for more energy efficiency. But a majority opposed oil drilling in Alaska's Arctic National Wildlife Refuge.

Which of the following ways to deal with the energy situation do you generally favor or oppose?

	Support	Oppose
Invest in new sources of energy	91%	6%
Mandate more energy-efficient appliances	87	12
Mandate more energy-efficient new buildings	86	12
Mandate more energy-efficient cars	85	14
Invest in new power-generating plants	83	13
Foster a government partnership with auto industry to produce more energy-efficient cars	76	22
Invest in more electrical transmission lines	69	23
Invest in more natural gas pipelines	64	29
Drill for natural gas on federal lands	63	33
Increase use of nuclear power to generate electricity	48	44
Explore for oil in Arctic National Wildlife Refuge	38	57

Source: Gallup Organization, based on national telephone poll of 1,005 adults 18 and over, May 5-7, 2001

standard of living. “Over the last decade we adopted a ‘negawatt’ philosophy — we thought we could diet ourselves into abundance,” says Fred Smith, president of the Competitive Enterprise Institute, which advocates free enterprise and limited government. “Now we’re beginning to suffer from energy anorexia.”

Days after taking office in January, Bush asked former oil industry executive Cheney to chair a task force to formulate a new national energy policy. The panel did not hold public hearings, but instead met privately with leaders of the petroleum industry and several Cabinet members with ties to the oil industry. The final report

called for shifting the focus of national energy policy to increasing production of fossil fuels.

Reducing demand — a key focus of U.S. policy since the 1970s — plays a far smaller role in Bush’s proposals. The new policy calls for tax breaks to encourage purchases of “hybrid” cars that use less fuel because they run on a combination of gasoline and electricity.

Underlining the shift away from conservation, Cheney recently said, “Conservation may be a sign of personal virtue, but it is not a sufficient basis for a sound, comprehensive energy policy.”² Citing Energy Department projections that the United

States would need at least 1,300 new power plants over the next 20 years, Cheney said, “As a country, we have demanded more and more energy. But we have not brought online the supplies needed to meet that demand.”

Even before the task force made its recommendations, the broad outlines of Bush’s energy policy were made clear in his budget request for fiscal 2002, which begins Oct. 1. If Congress approves the president’s budget, federal spending on most energy-conservation programs would plummet. Although research on technologies to reduce harmful coal emissions would receive more fund-

ing, programs encouraging conservation and energy efficiency would lose significant funding, as would research into emerging technologies to produce energy from non-polluting, renewable sources, such as wind, solar and geothermal.

Supporters of renewable energy say the cuts would come at a time when promising new technologies are on the verge of becoming economically viable alternatives to fossil fuels. "The worldwide markets for wind and photovoltaics have grown substantially over the last year," says Bobi A. Garrett, associate director for planning and technology management at the National Renewable Energy Laboratory in Golden, Colo. Photovoltaic cells harness solar energy by converting light into electricity.

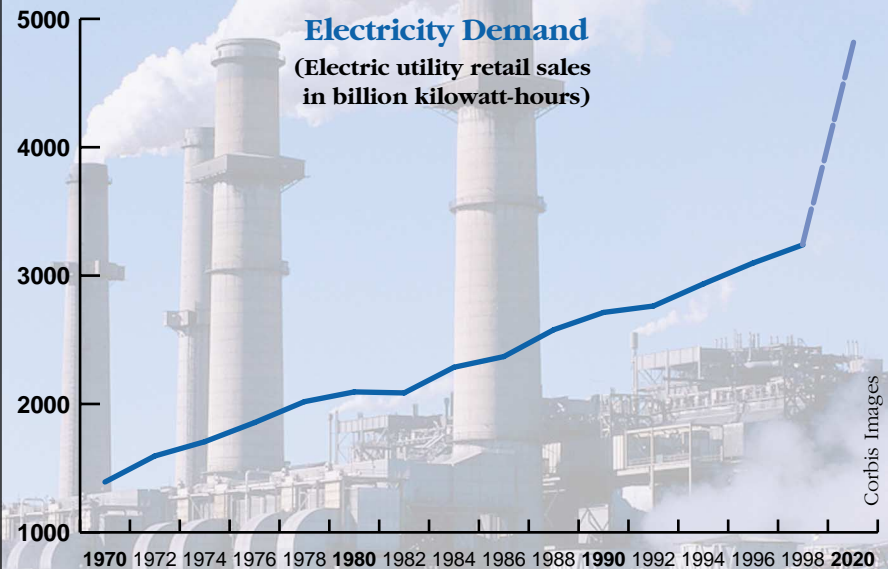
Cutting funds for research in renewables also may hurt the prospects of the United States becoming more independent from imported energy and from having to import the technology to develop our own renewable-energy resources, says Garrett. Already, Japan has pulled ahead of the United States in production of photovoltaic technology, and Denmark and Germany are leaders in the production of wind generators, a field once dominated by the United States.

"I'd hate to see us [become] dependent on foreign sources of technology to tap our own indigenous resources," Garrett says. "There is no one energy source that will be the answer. They all are going to be part of our portfolio, but they all need sustained commitment to bring them forward."

Critics also say Bush's focus on increasing energy supplies comes at the expense of the environment. "Everyone needs to recognize that energy and environmental policy are two sides of the same coin," wrote Bill Richardson, Energy secretary from 1998 to 2001. "We need to emphasize

Rising Demand for Electricity

The amount of electricity used in the United States more than doubled from 1970 to 1999, largely due to industrial and retail expansion, construction of larger houses and the rising use of computers. By 2020 usage will have tripled, according to Energy Department projections.



Source: Energy Information Administration Annual Energy Review, 1999

supply and demand in equal measure. This balance will be the true recipe for success.”³

As Congress takes up Bush's new energy plan, these are some of the issues lawmakers will consider:

Is the federal government doing enough to relieve California's electricity shortage?

In 1996, California became one of the first states to dismantle decades-old regulations governing the electric utility industry.⁴ A new law freed suppliers — mainly coal- and natural gas-burning power plants both inside and outside of the state — to charge California utilities whatever the market would bear for their electricity. To protect consumers, however, the law capped the prices utilities could charge their customers.

But deregulation arrived at the same time that the booming state economy and a growing population were increasing demand for electricity. While providers demanded increasingly high prices for electricity, utilities were barred from passing those costs on to consumers.

California's biggest utilities — Pacific Gas & Electric (PG&E) and Southern California Edison — went into debt, forcing the state government to buy electricity on the high-priced spot market to prevent widespread blackouts. By May 7, the General Assembly — in what would be the biggest municipal bond sale in U.S. history — was forced to adopt a plan to sell \$13.4 billion in bonds to pay for the state's electricity needs.

"The California law is very flawed," says Howard Gruenspecht, a senior

researcher at Resources for the Future and former Department of Energy official. “Unlike any other [deregulation] laws, it guaranteed a relatively modest price to the end user, which didn’t allow the utilities to enter into long-term contracts for power.”

In addition, California’s lengthy building-permit process delayed construction of new power plants, even in the face of escalating demand. “You can build plants in California that meet the state’s environmental requirements, but the permitting process requires a lot of time,” Gruenspecht says. “That’s another difference between California and other states.”

To keep the lights on in California, the state’s Democratic governor, Gray Davis, announced price hikes, designed to curb demand by 10 percent, and agreed to buy Southern California Edison’s transmission-line network to help keep the troubled company afloat. PG&E, meanwhile, abandoned negotiations with the state and declared bankruptcy under Chapter 11.

But Davis, along with many consumer advocates and California lawmakers, says the electricity shortage is so serious, and likely to worsen in coming months, that the federal government should intervene. On May 22, the state’s Democratic leaders and the City of Oakland filed suit in federal appeals court, seeking to force the Federal Energy Regulatory Commission (FERC) to exercise its responsibility to ensure “just and reasonable” electricity rates by capping wholesale prices. The state has repeatedly complained that out-of-state

electricity providers overcharge utilities during power shortages.

FERC, with administration support, has refrained from aggressively intervening in what it considers a local problem best left to market forces to sort out. “Market prices are sending the right signals to both sellers and buyers,” said FERC Chairman Curt L. Hébert Jr. “Market prices will increase supply, promote delivery, enhance infrastructure and reduce demand,

an artifact of the price caps,” says Smith of the Competitive Enterprise Institute. “Whatever may or may not have happened in the prices charged, California [made] it almost impossible for Californians to get a good deal on electricity purchases.”

Smith says charges of price gouging will only make the situation worse. “California now has proven that selling electricity to Californians is dangerous,” he says. “Countries that go around

shooting their farmers find themselves going hungry, and if you’re shooting electricity producers by criminalizing their behavior, then you’re in real trouble.”

But the signal that power suppliers are receiving from FERC may not be the same one the agency is trying to send. If California consumers get no relief from rolling blackouts, popular support for a state ballot initiative to reregulate the state’s utility industry may escalate, further discouraging power producers from building new capacity.

“People who are considering building a power plant are not really looking at what prices are today, they’re looking at what prices will be when their power plant gets built,” says Gruenspecht. “If FERC’s actions today are raising the specter of a state takeover via ballot initiative, that signal is not going to make people want to build power plants.” Thus, FERC’s actions may actually be counterproductive, he adds. “That’s the challenge that FERC faces.”

As summer approaches, electricity shortages are only likely to become more frequent. On May 7, high temperatures and temporary power-plant closures forced the state’s energy



President Bush has proposed cutting funding for research into wind generators and other technologies that produce energy from non-polluting, renewable sources.

Corbis Images

thus correcting the current imbalance.”⁵

The agency has declined to investigate most allegations of price gouging by electricity wholesalers, except for a few charges related to periods when the state’s electricity supplies were dangerously low. FERC’s investigations quickly prompted one of California’s leading electricity suppliers, Williams Co. of Tulsa, Okla., to refund \$8 million to the state.⁶

Conservatives oppose additional price caps, pointing out that limiting retail prices got California into its current predicament. “The so-called price gouging was nothing more than

The President's Energy Plan

The national energy plan unveiled by President Bush on May 17 proposes 105 initiatives ranging from relaxing regulations on oil and gas exploration to providing \$4 billion in tax credits for a new generation of fuel-efficient cars. The sweeping plan adopts most of the proposals recommended by an energy task force chaired by Vice President Dick Cheney. The major recommendations include:

Oil and Natural Gas

- Opening 2,000 acres of the Arctic National Wildlife Refuge (ANWR) and other federal lands in the Rocky Mountains to drilling for new oil and gas deposits;
- Changing the tax code to provide incentives for new production;
- Reviewing laws and regulations limiting offshore exploration and drilling;
- Considering allowing polluted urban areas to share supplies of reformulated gasoline at times of shortage;
- Easing regulations and simplifying permitting procedures to encourage construction of new oil refineries and natural gas pipelines;
- Building a new pipeline to deliver natural gas from Alaska to the Lower 48 states;
- Increasing the amount of oil stored in the Strategic Petroleum Reserve;
- Reviewing current sanctions that penalize oil companies that deal with Iran, Iraq and Libya, all major oil producers;

Coal

- Spending \$2 billion on research into new “clean-coal” technologies aimed at reducing emissions from coal-fired power plants;
- Reviewing clean-air regulations limiting emissions from coal-fired plants;
- Allowing coal-fired plants to engage in emissions trading: enabling plants that exceed allowable limits on emissions of sulfur dioxide, nitrogen oxides and mercury to lawfully keep running by buying pollution credits from cleaner plants;

Electricity

- Building at least 1,300 new power plants in the next 20 years — about one a week — and modernizing others;

- Empowering the Federal Energy Regulatory Commission (FERC) to clear the way for new electricity transmission lines by extending the agency’s existing power of “eminent domain” — which currently allows it to seize private land only for natural gas pipelines;
- Easing regulations to facilitate the transfer of electricity from out-of-state generators to California;
- Studying the feasibility of nationalizing the electricity grid to remove bottlenecks;

Nuclear Power

- Streamlining power-plant licensing and relicensing procedures;
- Offering tax credits to encourage nuclear power;
- Providing a “deep geologic repository” for storing nuclear waste;
- Developing technologies for reprocessing spent fuel;

Hydropower

- Streamlining relicensing procedures for hydroelectric plants;

Renewable Energy and Conservation

- Using royalties from drilling in ANWR to fund research of alternative fuels;
- Considering changes in the Corporate Average Fuel Economy (CAFE) standards, pending completion of a National Academy of Sciences study in July;
- Increasing funding for research into biofuels, made from crop waste;
- Providing tax incentives to promote energy conservation and efficiency programs, as well as renewable energy sources like wind and solar power;
- Providing new tax credits for purchasing “hybrid” cars that run on a combination of gasoline and electricity.

managers to resume rolling blackouts for the first time since late March. But judging from the Bush administration’s energy proposals and the actions it has taken to date, California cannot hope for aggressive action from Washington to solve its electricity shortage.

The president in early May ordered federal employees to conserve at least 10 percent of their energy use

in California. Beyond that, the administration has made it clear that California is on its own.

“They haven’t built any electric power plants in the last 10 years,” Cheney complained. “And today they’ve got rolling blackouts because they don’t have enough electricity; they’ve got rising prices; they’ve got a whole complex of problems caused by relying only on conservation and

not doing anything about the supply side of the equation.”⁷

Should environmental regulations be relaxed to ensure adequate energy supplies?

Energy production and consumption are leading sources of environmental degradation, and environmental policy since the 1970s has focused largely on curtailing energy-related

pollution.⁸ To reduce the smog, tainted water and other harmful effects of energy use, laws and regulations have mandated cleaner-burning gasoline, scrubbers on coal-fired power plants, stricter fuel-efficiency standards for automobiles and offshore drilling bans.

Conservatives have long blamed environmental regulations for hindering economic progress. Now they are blaming the nation's energy woes on the Clinton administration's emphasis on environmental protection over energy production. "The energy issue is not only about a clean environment, it's about cleaning up the messes and mistakes created by an administration that failed for eight long years to provide this country with a coherent energy policy," said House Republican Conference Chairman. J.C. Watts Jr., R-Okla. "Now this country is waking up to the nightmare of a full-blown energy crisis, complete with blackouts and high gas prices."⁹

Reversal or relaxation of numerous environmental-protection measures is a key component of Bush's energy-policy goals. Most of these regulations are aimed at curtailing air, ground and water pollution caused by the extraction and use of fossil fuels — oil, coal and natural gas — which the administration has identified as essential ingredients of the country's energy mix.

Shortly after taking office, Bush



The gas-guzzling sport utility vehicle (SUV) has become the symbol of American consumers' energy extravagance, even in the face of rising gasoline prices. About 20 percent of all new cars purchased in America today are SUVs, despite gasoline prices that this month reached their highest recorded level ever — a nationwide average of \$1.70 a gallon — and surpassed \$2 a gallon in the Midwest.

Newsmakers/Tim Boyle

abandoned a campaign promise to mandate reductions in power-plant emissions of carbon dioxide and renounced the Kyoto Protocol, an international treaty aimed at reducing pollutant emissions that contribute to global warming.¹⁰ In addition, the president wants to open many protected public lands to oil and gas exploration, including federal lands in the Rocky Mountains and the Arctic National Wildlife Refuge (ANWR), as well as certain offshore areas currently closed to drilling. He also has rolled back several Clinton adminis-

tration environmental regulations, including a rule requiring more efficient air-conditioners.¹¹

Bush allowed for certain exceptions to another Clinton regulation — a ban on road-building in 58 million acres of national forests, which would essentially prevent oil and gas drilling companies as well as mining and timber interests from exploiting those lands. Bush also has called for greater reliance on coal — the country's most abundant fossil fuel and the leading source of electrical power, but also the main source of acid rain and much of the air pollution in the Northeast.

Not surprisingly, the fossil fuel industries support the administration's outspoken endorsement of their products and say environmental regulations are partly to blame for the fact that the United States today must import 57 percent of its oil. "A major obstacle has been the inability to have access to federal government lands, where the prime resource reserves are located," says Cavaney of the American Petroleum Institute. "That's true of both crude oil and natural gas."

The difficulty of obtaining drilling permits is another significant problem, he says. "It's a combination of both areas that are off-limits, either through moratoria or through executive orders, plus the difficulty of obtaining permits," he says. "Those delays have the effect of significantly increasing the cost."

Obtaining permits to build new power plants is another difficulty, and Cheney's task force recommended relaxing regulations governing that process, citing Energy Department forecasts suggesting that 1,300 new plants will be needed to satisfy growing consumer demand by 2020.

Bush's early moves on energy and the environment have raised concern beyond the environmental-protection community. "In order to solve the challenge of climate change, we must develop new domestic sources, such as coal, using clean-coal technologies, while also engaging in bold initiatives to develop new technologies in the area of energy conservation, energy efficiency and renewable energy," said Sen. Robert C. Byrd, D-W.Va., who represents the nation's leading coal-producing state. "I am concerned, based on preliminary reports, that the administration's plan may not reflect such a balanced and far-sighted perspective."¹²

Even before the administration released its new policy recommendations, congressional Democrats released an alternative energy proposal on May 15. It calls for more support for conservation, the release of crude oil from the Strategic Petroleum Reserve to alleviate supply shortages and the imposition of price caps on wholesale electricity prices in California to prevent price gouging by power providers.

In apparent anticipation of a backlash by Democrats and environmental advocates against its endorsement of fossil fuels, the administration has toned down its rhetoric calling for immediate drilling in the ANWR. The Bush plan also made a bow toward the use of less-polluting fuels and measures to reduce energy-related pollution. For example, the report recommended new tax credits to encourage consumers to buy "hy-

brid" cars that run on both gasoline and electricity, and Cheney did not rule out raising federal fuel-economy standards that are a high priority among environmentalists.

Some conservatives chastise Bush for not going far enough to suspend environmental regulations in the quest for energy independence. "Confused is the best way I could describe this policy," says Smith of the Competitive Enterprise Institute. "On the one hand, it looks like we will have an affordable energy policy and do everything possible to make it easier for Americans to have abundant energy for the future, which is a policy I happen to like.

"But on the other hand, it seems we're going to a pristine Earth policy that somehow we can have gourmet dinners every night, but we're never going to wash any dishes. There's an insane attitude in America today that the messy side of life can be somehow legislated away, and unfortunately politicians are often willing to promise people that."

Some experts say policy-makers should make a greater effort to reconcile the often-conflicting goals of protecting the environment and ensuring adequate energy supplies. They say certain government policies have discouraged construction of new power plants and refineries and overloaded the gasoline-distribution system. Among those are emissions standards for coal-fired power plants and refineries and regulations requiring different types of cleaner-burning gasoline in different cities — what Portney of Resources for the Future calls the "balkanization of fuels" in the United States.

"I'm not suggesting that any of these regulations were wrong," he says. "But I think it wasn't done as part of a more conscious and coordinated effort to integrate environmental and energy decision-making."

Should nuclear power play a bigger role in the nation's energy mix?

In the early 1970s, nuclear energy appeared to offer a virtually inexhaustible source of pollution-free electricity. The United States has ample uranium deposits, and nuclear power generators emit almost no harmful pollutants — as long as they run as intended.

But after a reactor vessel at the Three Mile Island nuclear plant near Harrisburg, Pa., sprang a leak in 1979, plant construction ground to a halt nationwide. Although the accident caused no apparent harm, there was widespread concern over the potentially disastrous radioactive contamination of air and water posed by nuclear energy. That fear only mounted in the wake of the devastating 1986 nuclear plant explosion in Chernobyl, Ukraine, which caused long-lasting radioactive pollution of the immediate area and contaminated some food supplies in neighboring countries. Plus, policy-makers have been at a political impasse for years over where to store a mounting backlog of radioactive waste from the nation's 103 operating reactors.¹³

The last order for a new nuclear plant in the United States was placed in 1978, and it was later canceled. But the threat of electricity shortages and the rising cost of natural gas — the leading source of electricity in newer power plants — have prompted a flurry of applications to extend expiring nuclear plant operating licenses.¹⁴

In endorsing greater use of nuclear power, Cheney on April 30 called it one of the "cleanest methods of power generation that we know." If the nation is serious about environmental protection, he said, "then we must seriously question the wisdom of backing away from what is, as a matter of record, a safe, clean and very plentiful energy source."

Industry spokesmen say Bush's plan to increase nuclear power generation is long overdue. "One of the strengths of the U.S. electricity infrastructure has long been its diversity of fuel sources, and we believe that we must have that diversity moving forward," says Steve Kerekes, a spokesman for the Nuclear Energy Institute, the leading industry association. "That diversity must, should and will include nuclear energy."

Opponents of nuclear power contend that it is far from safe. "Nuclear generation does not create the same emissions as fossil fuel generation, but it has its own set of risks and safety issues," says Alan Noguee, director of the clean energy program of the Union of Concerned Scientists (UCS) in Cambridge, Mass. "Nuclear plants inherently have a risk of catastrophic accidents that could kill or injure tens of thousands of people and make large areas uninhabitable and produce waste that remains in the environment and harmful for tens, if not hundreds, of thousands of years."

The nuclear power industry and the federal Nuclear Regulatory Commission (NRC) say nuclear power is safe. They point to a 10-fold drop in the plant malfunction rate, which has declined from about five automatic scrams, or shutdowns, per plant per year in the mid-1980s to less than one in 2000. "The plants are operating more safely now than ever," says Victor Dricks, a spokesman for the commission.

But critics say the accident rate is likely to rise again as existing plants age and deteriorate. "All these plants are approaching 40 years, which is their original licensed lifetime," says David Lochbaum, a nuclear safety engineer at the Union of Concerned Scientists. "The accidents at Three Mile Island [and] Chernobyl occurred in the facilities' first year of operation, or break-in phase. The other

time [nuclear] technology becomes at risk is during the wear-out phase. If there are cracks in piping or other signs of aging, we may not find them until they actually fail and cause an accident."

Lochbaum charges that safety inspections are actually becoming less frequent over time. "As people get older, we tend to see doctors more often to maintain a level of health that we deem to be adequate," he says. "But as these nuclear power plants get older they're getting fewer and fewer safety checks, and the only reason is money."

Dricks rejects Lochbaum's reasoning. "That analogy is not a good one," he says. "A well-maintained machine will last a long time, and the initial 40-year license granted by the NRC for most of these plants was chosen as a regulatory limit, not because of any technical limitation. There's a process in place that seeks a 20-year license extension to demonstrate that the effects of aging are well understood and can be managed. So there's no reason to believe that the aging of the plant is going to be reflected in degraded performance. In fact, the [improved] shutdown numbers demonstrate the opposite."

Even critics concede that new technology promises to alleviate some of the safety concerns associated with nuclear power. So-called "pebble-bed" nuclear plants, being developed in South Africa, substitute helium for the water now used in existing plants to cool the reactor core and spin the electricity-producing turbine. "Most of the low-level radioactive waste that's generated at plants today comes from the cleanup of water or, once water is contaminated or spilled, what it touches and then contaminates through association," Lochbaum says. "By only using helium throughout that loop, the volume of low-level waste generated is reduced almost to zero, which is clearly a good thing."

The pebble-bed technology also allows plant operators to load smaller amounts of fuel into the reactor at a time, reducing the risk of a catastrophic accident.

Despite these technological improvements, critics say there are safer clean-energy alternatives to nuclear power. "We can avoid those risks as well as avoid problems of fossil-fuel emission if we invest in improving our energy efficiency and in developing clean, renewable energy resources like solar, wind, geothermal and biomass power," Noguee says. According to a 1997 study by UCS and other organizations, increased investment in energy efficiency, advanced natural gas technology and renewables would allow the United States to phase out both nuclear and coal electricity generation by 2030.¹⁵ ■

BACKGROUND

Energy Crisis

Endowed with abundant supplies of oil, coal and natural gas, the United States was able to power its growing economy on its own well into the 20th century. Even as the explosion of automobile ownership boosted demand for gasoline, cheap fuel was readily available from both domestic sources and Mideast oil fields, then controlled mostly by U.S. and European oil companies.

By 1970, however, the days of cheap energy were numbered. The United States had begun importing oil in the late 1950s, as domestic production approached its peak. Middle Eastern countries had regained ownership and control of their oil resources just as domestic oil

Continued on p. 452

Chronology

1970s *Oil-price spikes thrust energy policy to the top of the policy agenda.*

October 1973

Arab members of the Organization of Petroleum Exporting Countries (OPEC) embargo oil shipments to the United States in retaliation for its support of Israel in the Middle East conflict.

1975

Congress creates the Strategic Petroleum Reserve, a federally owned stockpile of crude oil, to cushion the blow of future oil-supply emergencies.

1977

President Jimmy Carter declares a national energy crisis and calls for a series of policy changes to reduce demand that defines national energy policy for the next several decades. The Department of Energy Organization Act creates the Federal Energy Regulatory Commission (FERC) to replace the Federal Power Commission.

1979

A reactor vessel at the Three Mile Island nuclear plant near Harrisburg, Pa., springs a leak, raising safety concerns that eventually halt new nuclear plant construction. Gasoline shortages produce long lines of motorists at gas stations.

1980s *Deregulation of the energy sector begins to take hold amid the continuing unpredictability of foreign oil supplies.*

January 1981

Oil prices reach \$34 a barrel after the 1978-79 Iranian Revolution and the 1980 outbreak of the Iran-Iraq War disrupt the flow of oil from the Persian Gulf.

1986

A devastating explosion at a nuclear power plant in Chernobyl, Ukraine, exacerbates safety concerns surrounding nuclear energy.

July 1989

Congress lifts remaining controls from domestic production of natural gas.

1990s *A booming economy masks the impact of tightening energy supplies.*

1990

Amendments to the 1970 Clean Air Act mandate cleaner-burning fuels in several heavily polluted cities, eventually forcing refineries to produce 16 different types of fuels and straining their ability to maintain reliable delivery of gasoline supplies to some urban areas.

1992

The Energy Policy Act opens the door for deregulation of the last heavily regulated energy sector, electric utilities.

1996

California becomes one of the first states to introduce electric utility deregulation with a law that unfetters wholesale prices but caps rates that utilities may charge retail customers. FERC

requires utilities to open their transmission lines to competing electricity generators.

December 1998

World crude oil prices reach a temporary all-time low of \$10 a barrel.

2000s *A new administration with extensive ties to the oil industry shifts the policy focus from energy conservation to production.*

July 2000

Gasoline prices exceed \$2 a gallon in Chicago and some other Midwestern cities. Oil companies blame low refinery capacity and growing demand.

October 2000

A series of rolling blackouts begins to hit California, as financially strapped utilities are unable to meet the state's burgeoning demand for power.

Jan. 29, 2001

Nine days after his inauguration, Vice President Dick Cheney convenes an energy task force to formulate the new administration's energy policy.

May 17, 2001

Declaring that the nation is in the midst of the worst energy "crisis" since the late 1970s, President Bush unveils his energy policy proposal, based primarily on increasing production of fossil fuels and nuclear power.

Continued from p. 450

producers were extracting the last of the most accessible oil reserves. The era of cheap oil came to an end in October 1973, when Arab members of the Organization of Petroleum Exporting Countries (OPEC) embargoed oil shipments to the United States in retaliation for its support of Israel in the Middle East conflict.

President Richard M. Nixon introduced a gasoline allocation system to distribute fuel evenly around the country. But the system merely produced long gas lines at the pump as American drivers, unaccustomed to shortages and expensive gasoline, resorted to panic buying.

To soften the blow of future interruptions in foreign oil supplies, Congress in 1975 created the Strategic Petroleum Reserve, a federally owned stockpile of crude oil.

In 1977, President Jimmy Carter declared a national energy crisis and set in motion a series of policy changes based primarily on reducing demand that would define energy policy for the next several decades. To help wean the country from its dependence on foreign oil, Congress also approved sweeping new rules calling for the doubling of auto-fuel efficiency as well as more efficient buildings and appliances. Consumers abandoned their gas-guzzlers for gasoline-sipping Hondas and Toyotas, causing the near collapse of the U.S. auto industry.

Finally, Congress passed a slew of tax incentives aimed at prompting the development of alternative energy sources, including renewable energy sources then in their infancy.

On the supply side, the energy crisis prompted the development of oil production in Alaska's Prudhoe Bay beginning in the late 1970s.

The country suffered a second oil shock during the winter of 1978-79, after the Iranian Revolution disrupted oil flows from the Persian Gulf. That

crisis deepened in 1980 with the outbreak of the Iran-Iraq War. By January 1981, oil prices had reached \$34 a barrel.

After the energy crises of the 1970s, the United States and other industrial nations diversified their sources of oil away from the volatile Middle East to alternative areas, such as the North Sea, Mexico and Venezuela, reducing OPEC's ability to control global oil prices. In fact, energy independence was one of the goals that spurred development of nuclear energy. First introduced in the late 1950s, nuclear power plant construction grew in the '60s and accelerated in the wake of the first energy crisis. But after the 1979 accident at Pennsylvania's Three Mile Island, interest in expanding nuclear power waned.

Despite major conservation measures, U.S. reliance on foreign oil continued to grow during the 1980s and '90s, as did the nation's overall energy consumption. But concern about energy supplies gave way to worries about the environmental impact of energy use, such as acid rain, urban smog and water pollution. Urban smog, caused mainly by coal-fired power plants and auto tailpipe emissions, was the focus of the 1990 amendments to the Clean Air Act, which required cleaner-burning fuels in several heavily polluted cities.

Some local jurisdictions introduced even tougher standards requiring a variety of different fuel formulations. By the end of the 1990s, the nation's refineries were producing 16 different types of fuels, each in three different grades.

Energy Deregulation

Deregulation, another trend that began in the 1970s and acceler-

ated with the support of President Ronald Reagan, profoundly impacted the nation's energy outlook. The first energy sector outside the petroleum industry to feel the loosening of federal controls was natural gas. Although the 1978 Natural Gas Policy Act left intact a system of price caps based on the location and depth of natural gas wells, FERC gradually eased those restrictions through several rulemaking changes. Finally, in July 1989, Congress formally lifted remaining controls from domestic production of natural gas.

The push to deregulate the energy industry continued under Reagan's successor, President George Bush. While it upheld much of Carter's emphasis on conservation and renewable-energy development, the 1992 Energy Policy Act also opened the door for deregulation of the last heavily regulated energy sector — electric utilities. The industry had been heavily regulated since the Public Utilities Holding Company Act of 1935, passed after claims that electricity providers were fixing prices.

The law essentially had offered the industry a trade-off similar to one it had offered the telephone industry: In return for treating electric utilities as "natural monopolies" protected from outside competition, the companies had to accept limits on the prices they charged their customers.

Awakened to concerns about energy availability by the energy crises of the 1970s, Congress began exposing the industry to limited competition. The 1978 Public Utility Regulatory Policies Act required utilities to buy at least some of their power from outside sources. The Energy Policy Act of 1992 took this trend a step further by allowing new, unregulated power producers to sell electricity to utilities. Four years later, FERC issued a new rule requiring utilities to open

their transmission lines to competing generators as well.

It was up to the states, however, to decide whether or not to adopt broader utility deregulation. Lured by the promise that deregulation would lower electricity prices, just as telecommunications deregulation had lowered telephone long-distance rates, many states embraced utility deregulation. In 1996, New Hampshire launched a pilot program to allow competition. The same year, California became the first state to open the retail side of the industry to competition. Arizona, Massachusetts, Pennsylvania and Rhode Island quickly followed suit.

By 1998, President Clinton endorsed deregulation as part of his comprehensive national energy strategy.

Recent Shortages

Several trends converged in the late 1990s to produce shortages and high prices across a number of energy sectors, culminating in the Bush administration's call for sweeping change in energy policy.

First came a sudden rise in oil prices. By the mid-'90s, thanks to competition from other oil-supplying nations, OPEC was no longer capable of controlling oil prices. By December 1998, world crude oil prices had reached an all-time low of \$10 a barrel.

Lulled into complacency by affordable gasoline and a strong economy, many consumers had long abandoned their concerns about energy conservation and had traded their gasoline-conserving Hondas and Toyotas for a new type of vehicle, the gas-guzzling sport utility vehicle (SUV). Amid the nation's longest sustained period of economic prosperity, sales of the wildly popular SUVs skyrocketed, as did sales of home computers and usage of the Internet — all contributing to escalating energy consumption.

In mid-2000, however, Americans had a rude awakening when OPEC

which in today's dollars reached \$40 a barrel in the mid-1970s and more than \$70 a barrel in the early '80s. Perhaps more important, American consumers had become less sensitive to oil-price changes: Americans now spend just 3 percent of their after-tax income on fuel, half what they spent in the '70s.

No sooner had gasoline prices returned to their earlier levels than shortages and price hikes struck another energy sector — California's electricity market. By last fall, utilities were unable to purchase all the power they needed to provide electricity to San Diego; by early this year the crunch had spread to San Francisco and other mar-



Activists at Harvard University toss students' resumes into an oil barrel, urging classmates to avoid applying for jobs with oil companies that plan to drill in the Arctic National Wildlife Refuge, as President Bush has proposed.

AP Photos/Steven Senne

producers cut exports, and the price of a barrel of oil more than tripled to \$35. At the same time, a series of refinery shut-downs resulted in tight supplies, and gasoline prices rose to their highest levels since 1990. In some cities, gasoline topped the \$2 mark, prompting some governors to temporarily suspend gasoline taxes to soften the blow to consumers.

But in retrospect, the governors need hardly have acted. Not only did a record number of motorists hit the road over the July 4 holiday, just as gasoline prices reached their peak, but prices quickly fell back to the \$1.50 range as refineries came back on line and increased supplies.

The booming economy had helped cushion the impact of the gas price spike on consumers. For one thing, after accounting for inflation, last year's \$35 per barrel peak paled beside earlier price spikes,

Major U.S. Energy Sources

The nation's continuing vulnerability to disruptions in energy supplies stems largely from its dependence on foreign oil to meet many energy needs. Since the 1970s, however, America has tried to diversify its energy sources.

Here is a brief description of all major energy sources in the United States.¹

Petroleum: Until the 1950s, the United States produced virtually all the oil it consumed, but domestic oil production in the Lower 48 states began declining after peaking in 1970. In the late 1970s, drilling in Alaska's Prudhoe Bay helped slow down the decline, but that source also peaked in 1988.

Since 1992, the nation has imported more oil than it has produced. By 2000, imports accounted for 57 percent of oil consumption. Crude oil, used to make products ranging from home heating oil to plastics, is primarily refined into gasoline. Transportation accounts for two-thirds of all U.S. petroleum use.

Oil prices remain relatively low in the United States, despite recent increases. Last year, oil prices rose from \$17 a barrel in 1999 to about \$27; the Organization of Petroleum Exporting

Countries (OPEC) is trying to stabilize prices close to the \$27 level by controlling output. Last summer's spike in gasoline prices was not due to high prices for crude oil but to temporary supply disruptions caused by a shortage of refinery capacity, coupled with rising demand. Since 1995, gasoline demand has risen by 11 percent, while refinery capacity has grown by only 8 percent. No major refineries have been built since 1976, and refineries are working at near capacity.

A series of refinery shutdowns contributed to the current price hikes. Their re-entry into service is expected to help bring prices back down in the coming months.

Natural gas: A mixture of methane, ethane and propane, natural gas often is extracted from the same underground deposits as oil. Until the late 1980s, the United States was virtually self-sufficient in gas, but rapidly rising demand has required the country to import growing amounts of the fuel, mostly from Canada. More than half the domestic gas production is centered in

Texas, Oklahoma and Louisiana, but new technology has allowed for offshore drilling for gas, which now accounts for about a fifth of all domestic supplies.



Corbis Images

President Bush's national energy policy calls for reviewing laws limiting offshore oil exploration and drilling.

kets. Four blackouts ensued, costing the state more than \$1 billion in lost production.¹⁶ In March, Gov. Davis announced a 40 percent rate hike to help slow consumption, in an effort to prevent further blackouts.

Natural gas soon became the third energy sector hit with shortages and price increases in recent months. Low prices had discouraged natural gas production in recent years, leaving the supply system vulnerable to increases in demand that have resulted from the nation's increasing reliance

on gas to fuel new electric power generators.

An aging pipeline system also left the natural gas market vulnerable to supply interruptions. Those trends have converged over the past year, with natural-gas prices increasing by almost 70 percent. Homeowners in the Northeast and Midwest who use natural gas to heat their homes were especially hard hit by the unusually cold weather in December and January, when utility bills in some areas tripled over the previous winter. ■

CURRENT SITUATION

Bush's Plan

President Bush released his long-awaited national energy plan on May 17. "To protect the environment,

Industry is the biggest consumer of natural gas, but most new, independent electric power producers also use gas because it generates fewer pollutants than coal, the traditional source of electrical power. Gas also has replaced oil in many parts of the country for use in home heating, and small amounts also are being used to power vehicles. Natural gas prices are about double what they were early last year, in part because the nation's gas pipeline network has not kept up with rising demand. A sudden increase in demand during a cold snap last winter resulted in a tripling of utility bills in parts of the Northeast. In response to rising demand, the number of gas-drilling rigs in operation has more than doubled over the past two years, to about 900.

Coal: The United States possesses vast reserves of coal — enough to satisfy the nation's demand for an estimated 250 years. The U.S. is the world's second-leading coal producer, after China. In recent decades, coal production — once confined to the deep mines of West Virginia and Kentucky — has expanded to include surface mines throughout a broad area west of the Mississippi River.

The cheapest fossil fuel, coal has been the nation's largest domestic energy source since the late 1800s, except for the period 1952-82, when oil and natural gas led the way in domestic energy production. Today coal accounts for a third of all domestic energy production, and just over half of all electricity generated.

About 90 percent of the coal mined in this country is used to generate electricity. But despite research into "clean-coal" technology, coal is the most polluting of all major fuels. Coal burning is the main cause of acid rain, while coal-mining techniques like mountaintop removal cause water pollution.

Nuclear energy: Electricity-generating nuclear plants first came on line in the U.S. in the late 1950s. Nuclear now accounts for about one-fifth of the nation's electricity.

In the decade before the 1979 accident at Pennsylvania's Three Mile Island nuclear facility, orders for new reactors skyrocketed, and nuclear power was widely considered to be the most promising future source of inexpensive electricity. Orders ceased after the accident, however, and the number of nuclear reactors in operation has fallen from a peak of 112 in 1990 to 103.

Further development of nuclear power has been stymied by concerns about the potentially catastrophic impact of a major nuclear plant accident and a long-running political impasse over where to build a permanent repository for deadly radioactive waste.

Renewable energy: Unlike finite energy sources, such as fossil fuels, renewable energy sources like water, wind, solar and underground steam are virtually inexhaustible. With the exception of hydropower, which requires the construction of massive dams that can flood vast areas and disrupt fish migration, energy production from renewable sources poses far less of a threat to the environment. Unlike fossil fuels, which are the main source of carbon dioxide and other greenhouse gases believed to cause global warming, renewable energy production is virtually emission-free.

But because of high startup costs, development of renewable energy sources has depended largely on government funding. Today, wind energy in particular is mixed with traditional sources of electricity. But U.S. government spending on research and development has lagged behind that of other countries. Denmark and Germany are leaders in windmill technology, while Japan has become the leader in solar photovoltaics. Taken as a whole, renewable energy sources account for less than 10 percent of the nation's electrical power.

¹ Unless otherwise noted, information in this section is based on Energy Information Administration, "Energy in the United States: A Brief History and Current Trends," 1999.

to meet our growing energy needs, to improve our quality of life, America needs an energy plan that faces up to our energy challenges and meets them," he said. "Vice President Cheney and many members of my Cabinet spent months analyzing our problems and seeking solutions. The result is a comprehensive series of more than 100 recommendations that light the way to a brighter future through energy that is abundant and reliable, cleaner and more affordable. The plan addresses all three key as-

pects of the energy equation: demand, supply and the means to match them."

The president's eight-chapter report — the result of three months of secretive consultations between administration officials and industry representatives — encourages increasing production of traditional energy sources.

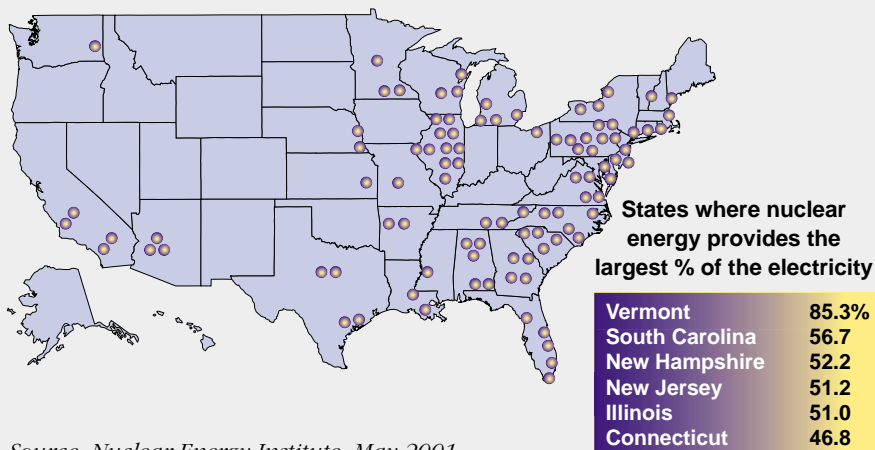
But both Bush and Cheney downplay the importance of renewables in the overall energy mix, saying they would be unlikely

to account for more than 6 percent of total energy supplies by 2020. In addition, the budget Bush submitted to Congress in April called for a 50 percent cut in spending for research into renewable-energy sources and a 28 percent cut in funding for a research partnership with U.S. automakers seeking ways to produce cleaner and more efficient cars and trucks.

While Cheney's task force was preparing its report, Republican lawmakers began introducing measures of

U.S. Nuclear Power Plants

The 103 nuclear reactors with operating licenses in the United States provide about 20 percent of the nation's electricity.



Source: Nuclear Energy Institute, May 2001

Continued from p. 454

their own. In February, Sen. Frank H. Murkowski, R-Alaska, chairman of the Senate Energy and Natural Resources Committee, introduced a bill that would allow drilling for oil and gas in the ANWR and provide tax incentives to encourage energy production throughout the country.

Reps. W.J. "Billy" Tauzin, R-La., and Joe L. Barton, R-Texas, are preparing another measure aimed at boosting production of fossil fuels and nuclear power, as well as renewable-energy sources. Barton also authored a bill that would help alleviate California's blackouts by allowing states to ask for temporary waivers of regulations limiting harmful power-plant emissions.

Congressional Democrats and environmentalists have decried the Bush administration's emphasis on boosting supplies of traditional energy sources, which they say threaten the environment.

"We cannot drill our way out of this problem," said Senate Minority Leader Tom Daschle, D-S.D., "and we cannot use our coming energy challenges as justification for an all-

out assault on the environment." ¹⁷ On May 15, Daschle joined other Democratic senators in introducing a comprehensive energy bill that would increase domestic production of energy and reduce demand by improving energy efficiency.

The Democrats' plan would force the federal government to intervene in California's electricity crunch by capping wholesale power prices and ordering refunds to customers for overcharges they have already paid. The plan also would:

- offer tax credits of up to \$4,000 for the purchase of energy-efficient cars and houses;
- tighten fuel-efficiency standards for SUVs and light trucks, and
- release oil from the Strategic Petroleum Reserve to help overcome any fuel shortages and reduce upward pressure on gasoline prices. ¹⁸

Critics complain that Bush's proposed cutbacks for programs supporting the development of clean energy and conservation couldn't be coming at a worse time.

"This is the wrong message to send out at this time," says Edgar A. De

Meo, a consultant in renewable energy in Palo Alto, Calif. "Technologies like wind energy are just now getting off the ground. Government underwriting of research work makes all the difference in whether or not renewable-energy companies can stay in business."

"It's not a very good time to be cutting back," agrees Portney of Resources for the Future. "If we're really committed, as the administration still says it is, to reducing carbon emissions over the long term, you could make a pretty good case for continuing that research."

However, supporters of the administration's focus on traditional fuels say it's the only realistic way to ensure adequate energy supplies over the long term. "There are risks associated with using energy," says Smith of the Competitive Enterprise Institute. "But there are massive risks associated with not having energy to use, too. Environmental policy has almost never faced up to that challenge.

"Environmentalists are now saying they're in favor of power plants, but the only power plants they will allow are some kind of green power or natural gas," he says. "They're not willing to consider coal or nuclear, and those two options are essential."

State Actions

One of the most controversial recommendations by Bush's energy task force is the proposal to take away from the states the authority for deciding the site of long-distance electricity transmission lines. Bush would give that authority to FERC. The agency has long enjoyed the power to condemn private land to build interstate natural gas pipelines,

Continued on p. 458

At Issue:

Should protected public lands be opened to oil and gas development?

MARK RUBIN

GENERAL MANAGER, AMERICAN PETROLEUM INSTITUTE

FROM TESTIMONY BEFORE SENATE ENERGY AND NATURAL RESOURCES COMMITTEE, APRIL 3, 2001

to ensure reliable and secure sources of oil, we have no choice but to diversify the sources of our supplies both domestic and foreign, and to increase both. To do this, we must remove the barriers that currently impede the U.S. oil and natural gas industry's ability to compete both domestically and abroad.

What is access to government lands? The U.S. oil and gas industry does not ask to drill on parklands or in wilderness areas set aside by Congress. Rather, we seek access to areas offshore, in Alaska and in the American West that have been designated by Congress for "multiple use" so numerous activities can take place there.

Most of these multiple-use areas are simply vast expanses of nondescript federal lands. [But just because] they lack the beauty and grandeur of the Grand Canyon or the Grand Tetons does not mean that we treat them with less respect than we do any other lands entrusted to us. Most people driving near or hiking in one of these areas would be hard-pressed to locate one of our facilities, once the drilling rig is removed. Safety and environmental protection are critical concerns, regardless of the location of drilling. And where our contractual obligations with the government require us to, we return the land to its original condition once drilling and production cease.

Yet, despite our record of sound stewardship, President Clinton used his executive powers under the Antiquities Act to bar oil and gas exploration and other activities on vast regions of government lands.

For example, the designation of the Grand Staircase-Escalante Monument in Utah in 1996 summarily withdrew promising valid oil and gas leases on state lands without giving notice to or consulting with state and local authorities or affected communities. Likewise, the U.S. Forest Service recently banned our companies from exploring for oil and natural gas on promising government lands when it published rules to bar road building on nearly 60 million acres in the forest system that . . . could hold 11 trillion cubic feet of natural gas.

Moreover, Congress has refused to authorize exploration on the small section of the Arctic National Wildlife Refuge (ANWR) specifically set aside for exploration in 1980. DOE's Energy Information Administration estimates that the ANWR coastal plain contains between 5.7 billion and 16 billion barrels of technically recoverable oil. The coastal plain provides the best prospect in North America for a new, giant Prudhoe Bay-sized oil field.

DAVID J. HAYES

FORMER DEPUTY SECRETARY, DEPARTMENT OF THE INTERIOR

FROM TESTIMONY BEFORE SENATE ENERGY AND NATURAL RESOURCES COMMITTEE, APRIL 3, 2001

Our nation has a long history of restricting oil and gas leasing on sensitive landscapes. We would not accept drilling for oil or gas in our national parks or in many other treasured public lands. Because we have made this policy choice, our nation loses the energy potential associated with the extraordinary geothermal resources in Yellowstone Park, the potential hydropower available if we were to flood the Grand Canyon or potential oil or gas production from the red rock canyons of Bryce or Zion or from the Indian ruins at Mesa Verde.

But in all of these cases we have recognized, and are honoring, competing values associated with conserving these lands in their natural state.

Against this historic backdrop, President Clinton set aside approximately 5 million acres of public lands as national monuments that must be protected from further development. The United States Geological Survey recently confirmed that only five out of the 21 national monuments had moderate-to-high probability for the occurrence of oil and gas resources. . . .

[R]eversing public-policy decisions and seeking to open up protected lands for new oil and gas production . . . would raise fundamental public-policy issues. It would not be responsible, in my view, to assert that there are economically and politically realistic opportunities to increase oil and gas production on our public lands so as to achieve domestic "energy independence."

Our nation is consuming 9.6 million barrels of oil per day. While domestic production on public lands has held its own in recent years, we have been importing more than 50 percent of our nation's oil needs for many years. Even if we were able to reverse the long-term declining trend of domestic oil production and greatly increase our oil production on federal lands, there is no plausible scenario by which new oil production from our federal lands could enable the United States to become independent of the foreign oil markets, or even to reduce our oil imports to less than 50 percent of our total needs.

A balanced energy policy is needed — one that continues to address supply-side needs by promoting responsible oil and gas development on public and private lands, provides incentives for the development of renewable energy sources and gives equal weight to demand-side issues by addressing energy-efficiency and energy conservation needs.

Continued from p. 456

but extending the power of eminent domain to include power lines is expected to run into stiff opposition from the states, with backing from land-rights organizations and environmentalists.

Public opposition has thwarted construction of new power lines in several states. Even in power-strapped California, a plan to expand an existing transmission line to help move power from the Pacific Northwest to San Diego and other southern cities has been stalled.¹⁹

A drought in the Pacific Northwest has compounded California's power shortage, since hydroelectric power from Oregon and Washington is a vital source of electricity throughout much of the West. Snowpack in the Cascade and Rocky Mountain ranges, which produces water for the Grand Coulee and five other dams on the Columbia River, was far below average last winter, reducing the dams' ability to generate power.

After watching California's ongoing electricity woes, many states are slowing or even reversing plans to deregulate their electricity markets. To date, 24 states and the District of Columbia have taken steps to restructure their electric utility industries. But according to a recent survey of state energy officials, many are reconsidering their plans out of concern that they, too, may be vulnerable to summer blackouts.²⁰

Outside California, New York City is the area most vulnerable to electricity shortages this summer. New York was one of the first states to deregulate its electric utilities. To forestall the need for brownouts as the summer air-conditioning season approaches, the state's power authority is trying to complete construction of 11 new "mini" power plants in and around the city by June 1. But the new gas-fired plants have run into opposition from resi-

dents who say the facilities will worsen their neighborhoods' already poor air quality; two plants have been put on hold pending completion of an environmental-impact study.

Both states are tightening the screws on power providers found to be taking advantage of electricity shortages by gouging ratepayers. Some California lawmakers propose making price-gouging by energy providers a felony carrying stiff fines and even a jail sentence. New York already has a procedure for fining and publicly identifying power providers that overcharge utilities during power shortages.²¹

In the Midwest, the administration's call for expanded oil and gas drilling on federal lands may lend support to a plan by Michigan's Republican governor, John M. Engler. He wants to allow drilling for oil and gas under Lake Michigan and Lake Huron using new directional, or "slant," drilling techniques that enable drillers to reach untapped underwater reserves from the shore. Michigan is one of eight Great Lakes states that bar drilling from platform rigs in the water.²²

Voluntary Efforts

Critics of environmental regulations have long asserted that they stymie economic growth by posing too heavy a financial burden on industry. But in recent years a number of companies, including some of those with the highest regulatory costs, have voluntarily adopted measures to lessen the impact of their heavy energy use on the environment. Oil giant BP Amoco, for example, now promotes solar energy and is developing cleaner blends of gasoline. It also reduced its carbon emissions by 5 percent in the late

1990s and expects to reduce them by an additional 5 percent by the end of 2003.

Even some U.S. utilities, among the world's biggest fossil-fuel consumers, have drawn up plans to curb their greenhouse emissions. Entergy Corp. of New Orleans, the nation's third-largest utility measured by production of electricity, has promised to limit carbon emissions from its 25 gas-, oil- and coal-fired plants for the next five years.²³ Even after Bush abandoned his earlier promise to mandate curbs in industrial carbon emissions, Ford Motor Co. reiterated its voluntary commitment to increase the average fuel economy of its sport utility vehicles by 25 percent by 2005.²⁴

Some critics of the administration's new energy plan say it will undercut such voluntary efforts and make it even harder for the United States to reduce its emissions of "greenhouse" gases — those believed to contribute to global warming.

"To the extent that [the plan] creates new subsidies for fossil fuels and nuclear power, and would reduce research and development of renewables," says the UCS's Noguee, "it will make it more expensive for companies to undertake voluntary actions."

Supporters of deregulation say the voluntary emission cutbacks were merely a poor business decision. "When Bush announced that he wasn't going to do something foolish in this area [of greenhouse gas emissions], these guys panicked because their investments were stupid," says Smith of the Competitive Enterprise Institute. "The only way we're going to have a brighter, more comfortable, safer, more mobile world is to have a lot more energy use, and the only way you can have more energy use over the next decade is to have more coal and other fossil fuels." ■

OUTLOOK

Policy Prospects

Congressional supporters of Bush's energy proposals hope to act on them quickly. Sen. Murkowski, a champion of opening ANWR to oil and gas drilling, on May 23 held the first in a series of hearings on the Bush plan and other energy policy proposals. If the committee finishes its work in time, Majority Leader Trent Lott, R-Miss., has vowed to call the measure up for a vote of the full Senate before the July 4 holiday. But the ANWR proposal, along with many other elements of the energy plan, face an uphill battle in Congress, where Democrats and several moderate Republicans say it is skewed too heavily toward increasing traditional energy supplies and places too little emphasis on conservation and alternative energy sources.

"We think the president's plan makes the wrong choices for America and for the American people," said House Minority Leader Richard A. Gephardt of Missouri at a May 17 news conference. "It was crafted behind closed doors with a lot of input from energy executives and in a highly secretive way that doesn't serve the public interest."

Gephardt also echoed growing criticism from California politicians that the administration is ignoring their immediate plight by refusing to prevent ratepayers from price gouging by power providers. The president's plan "focuses on drilling and production at the expense of our environment and conservation," Gephardt added, "and it does nothing to help people who need relief right now."

Long, Hot Summer?

The nation's energy crunch will become even more apparent in coming weeks, as consumers turn on air-conditioners and hit the road for long-awaited vacations. Motorists have been warned that gasoline may exceed \$2 a gallon; by mid-May, self-serve regular already averaged \$1.95 in California. But gasoline prices have begun to fall on the commodities markets, promising a return of more affordable gas for consumers likely by this fall.²⁵

Electricity supplies, however, are likely to remain tight for the foreseeable future. Brownouts and temporary blackouts appear likely to strike California and perhaps New York City this summer. "California is getting the big press right now," says energy consultant De Meo, "but this is on the verge of happening in a number of places."

But in most other parts of the country, tight energy supplies are more likely to be expressed in higher utility bills than in flickering lights, experts say. Almost all of the new plants being built today are fueled by natural gas, says Gruenspecht of Resources for the Future, which is more expensive than energy from coal-fired plants. "Most people may be looking at electricity prices being higher," he says, "but that doesn't get you to a California type of situation."

While some parts of the country face worsening power shortages and higher utility bills, many analysts expect deregulation to pay off over time, especially if states avoid California's mistake of capping retail, but not wholesale, prices. "Moving toward competition will certainly allow for more efficient pricing," Gruenspecht says. "One of the problems in California is that there's no price responsiveness, in that demand doesn't really change with price."

In the short term, the nation's energy problems are likely to act as a brake on economic growth. The Federal Reserve reported in early May that "energy costs that have risen sharply" pose a threat of inflation and helped explain the economic slowdown of recent months.²⁶

But over the long term, Gruenspecht predicts, the energy industry will initially benefit from further deregulation, and consumers will see the effects over time in lower prices for goods and services, as manufacturers and retailers pass on their energy savings. ■

Notes

¹ Abraham addressed a meeting on energy policy at the U.S. Chamber of Commerce in Washington, D.C., March 19, 2001.

About the Author

Mary H. Cooper specializes in environmental, energy and economic issues. Last December, she spoke on energy prices at an international conference in Paris sponsored by the French Institute on International Relations and the Brookings Institution. Her recent reports include "Global Warming," "Mad Cow Disease," "Water Quality" and "Energy and the Environment." Before joining *The CQ Researcher* as a staff writer in 1983, she was Washington correspondent for the Rome daily newspaper *l'Unita*. She is the author of *The Business of Drugs* (CQ Press, 1990). She also is a contract translator-interpreter for the U.S. State Department.

² Cheney addressed a meeting of The Associated Press in Toronto on April 30, 2001.

³ Bill Richardson, "Old Fuels and Poor Policy," *The New York Times*, May 5, 2001.

⁴ For background, see Adriel Bettelheim, "Utility Deregulation," *The CQ Researcher*, Jan. 14, 2000, pp. 1-16.

⁵ Testifying before the House Energy and Commerce Subcommittee on Energy and Air Quality, May 1, 2001.

⁶ See Peter Behr, "Energy Overcharge Case Settled," *The Washington Post*, May 1, 2001.

⁷ Cheney was interviewed on May 8, 2001, by CNN.

⁸ For background, see Mary H. Cooper, "Energy and the Environment," *The CQ Researcher*, March 3, 2000, pp. 161-184.

⁹ Statement, May 9, 2001.

¹⁰ For background, see Mary H. Cooper, "Global Warming Treaty," *The CQ Researcher*, Jan. 26, 2001, pp. 41-64.

¹¹ See Peter Behr, "Air Conditioner Energy Standard to Be Relaxed," *The Washington Post*, April 14, 2001.

¹² From a Senate floor speech on May 4, 2001.

¹³ For background, see Mary H. Cooper, "The Politics of Energy," *The CQ Researcher*, March 5, 1999, pp. 185-208. A forthcoming issue will examine the problem of nuclear waste: Brian Hansen, "Nuclear Waste Disposal," *The CQ Researcher*, June 8, 2001.

¹⁴ See Matthew L. Wald, "Industry Gives Nuclear Power a Second Look," *The New York Times*, April 24, 2001.

¹⁵ Alliance to Save Energy, American Council for an Energy-Efficient Economy, Natural Resources Defense Council, Tellus Institute and Union of Concerned Scientists, "Energy Innovations: A Prosperous Path to a Clean Environment," 1997.

¹⁶ See Christopher Plameri, "The Future of California," *Business Week*, April 30, 2001.

¹⁷ From a news conference held on March 22, 2001.

¹⁸ See Philip Shenon, "Sensing a Bush Liability, Democrats Push an Energy Plan," *The New York Times*, May 16, 2001.

¹⁹ See John Fialka, "States Protest Bush's Plan for Siting Power Lines," *The Wall Street Journal*, May 15, 2001.

²⁰ See Neela Banerjee, "States' Plans to Deregulate Get Second Look," *The New York Times*, May 2, 2001.

²¹ See Andrew Caffrey, "States Try to Deter Power Price Gouging," *The Wall Street Journal*, April 30, 2001.

FOR MORE INFORMATION

American Council for an Energy-Efficient Economy, 1001 Connecticut Ave., N.W., Suite 801, Washington, D.C. 20036; (202) 429-0063; www.aceee.org. Dedicated to advancing energy efficiency as a means of promoting both economic prosperity and environmental protection.

Competitive Enterprise Institute, 1001 Connecticut Ave., N.W., Suite 1250, Washington, D.C. 20036; (202) 331-1010; www.cei.org. This conservative research group advocates broader deregulation of energy markets and more domestic energy production.

Energy Information Administration, U.S. Department of Energy, 1000 Independence Ave., S.W., Washington, D.C. 20585; (202) 586-8800; www.eia.doe.gov. Collects and publishes a vast compendium of information on national and international energy trends and production.

League of Conservation Voters, 1920 L St., N.W., Suite 800, Washington D.C. 20036; (202) 785-8683; www.lcv.org. Supports candidates who call for strong environmental-protection measures. It is highly critical of the Bush administration's new energy proposals.

National BioEnergy Industries Association, 1616 H St., N.W., 8th Floor, Washington, D.C. 20006; (202) 628-7745; www.bioenergy.org. Represents landowners, foresters, equipment manufacturers and others involved in developing technologies to generate electricity from wood and other plant waste, or biomass.

National Coal Council, 1730 M St. N.W., Suite 907, Washington, D.C. 20036; (202) 223-1191. Represents coal producers and transporters.

Resources for the Future, 1616 P St., N.W., Washington, D.C. 20036; (202) 328-5000; www.rff.org. Conducts studies on the economic and policy aspects of energy and the development of natural resources.

Nuclear Energy Institute, 1776 I St., N.W., Suite 400, Washington, D.C. 20006; (202) 739-8000; www.nei.org. Promotes expansion of the nuclear energy industry in the United States and worldwide.

Solar Energy Industries Association, 1616 H St., N.W., 8th Floor, Washington, D.C. 20006; (202) 628-7745; www.seia.org. Represents industries with interests in the production and use of solar energy and monitors legislation and regulations on renewable energy.

Union of Concerned Scientists, 2 Brattle Square, Cambridge, Mass. 02238; (617) 547-5552; www.ucsusa.org. Supports the development of non-fossil fuels to help improve air quality and reduce emissions of greenhouse gases implicated in global warming.

²² See William Claiborne, "Risks, Benefits of Lake Drilling Argued," *The Washington Post*, May 4, 2001.

²³ See John J. Fialka, "Utilities Make Own Plans for CO₂ Curbs," *The Wall Street Journal*, May 4, 2001.

²⁴ See Keith Bradsher, "Ford Tries to Bur-

nish Image by Looking to Cut Emissions," *The Washington Post*, May 4, 2001.

²⁵ See "Gasoline Falls 4% as Price Peak Seen," *Los Angeles Times*, May 15, 2001.

²⁶ The Federal Reserve's latest portrait of regional economic activity, known as the "beige book," was issued on May 2, 2001.

Bibliography

Selected Sources Used

Articles

Ball, Philip, "Power Cells Get Warm," *Nature*, April 19, 2001.

A new type of fuel cell, developed at the California Institute of Technology, may speed the arrival on the market of electric cars. The new prototype converts hydrogen to electricity more efficiently than existing cells, which are too costly and heavy to be seriously considered as viable alternatives to the internal-combustion engine.

Fineman, Howard, and Michael Isikoff, "Big Energy at the Table," *Newsweek*, May 14, 2001, pp. 18-22.

Vice President Dick Cheney's energy task force reflects the fossil-fuels industries' growing clout in Washington. "Not since the rise of the railroads more than a century ago has a single industry placed so many foot soldiers at the top of a new administration," the authors write.

McCarthy, Terry, "War Over Arctic Oil," *Time*, Feb. 19, 2001, pp. 24-29.

The Bush administration's proposal to open part of the Arctic National Wildlife Refuge (ANWR) to oil drilling may prove to be the most controversial feature of its new energy policy.

Palmeri, Christopher, "The Future of California," *Business Week*, April 30, 2001.

The Golden State's electricity crisis, which has sent its biggest utility into bankruptcy and resulted in a series of rolling blackouts, may spill over state borders. California accounts for 14 percent of U.S. economic output, and a major downturn there — which could result from continued electricity shortages — may worsen the nation's current economic slowdown.

Roberts, Paul, "Bad Sports," *Harper's Magazine*, April 1, 2001.

Sport utility vehicles are among the most popular cars in America, accounting for about a third of the 17 million cars purchased. They are also the biggest, most energy-inefficient vehicles to hit the road in decades and serve as an emblem of enduring consumer tastes for extravagance even at a time of rising gasoline prices.

Reports and Studies

Citizens Coal Council, Hoosier Environmental Council and Clean Air Task Force, "Laid to Waste: The Dirty Secret of Combustion Waste from America's Power Plants," February 2000.

Three environmental groups dispute the efficacy of "clean-coal" technology and current environmental regulations in reducing the negative impact of electricity generation on air and water quality.

Energy Information Administration, U.S. Department of Energy, "Annual Energy Outlook 2001, With Projections to 2020," December 2000.

The EIA, an independent statistical and analytical agency within the Energy Department, assesses the current status of all energy sources. Its projections of the nation's demand for energy over the next two decades are widely cited in the Bush administration's new energy policy proposals.

Energy Information Administration, U.S. Department of Energy, "Energy in the United States: A Brief History and Current Trends," 1999.

This report examines the development of various U.S. energy sources and the forces that have determined their place in the overall energy mix. Growing demand, environmental concerns and prices are among the main determinants of energy-technology development.

Energy Information Administration, U.S. Department of Energy, "Renewable Energy Annual 2000, With Data for 1999," March 2001.

This overview contains detailed information about the various technologies currently being developed to harness energy from the sun, wind, plants and underground steam. Renewable sources, chiefly hydroelectric power and biomass, now account for less than 10 percent of total U.S. energy consumption.

League of Conservation Voters, "Bush and the Environment: A Citizen's Guide to the First 100 Days," April 24, 2001.

The league, a nonprofit group that supports the election of environmentally concerned candidates to public office, presents a critical review of President Bush's record on energy and the environment to date.

Nuclear Energy Institute, "Nuclear Energy: The Renaissance Revealed; A Strategic Direction for the 21st Century," May 2000.

Written by the nuclear industry's main lobbying organization, this report describes the history of nuclear power in this country. Although it presents a sympathetic view of nuclear power, the report reviews ongoing issues that hamper its further development, including environmental concerns and ongoing disagreement over where to dispose of radioactive waste.

The Next Step

Arctic National Wildlife Refuge

Murphy, Kim, "2 Villages, 2 Views of the Dynamics of Oil," *Los Angeles Times*, April 16, 2001, p. A1.

This is a tale of two villages and what could happen if Congress decides to open drilling on the Arctic National Wildlife Refuge's 1.5-million-acre coastal plain, alternately described as America's most important wildlife refuge and the nation's best chance of countering its dependence on foreign oil.

Murphy, Kim, "In Alaska, the Hunt for Oil, Gas Only Begins at Wildlife Refuge: High prices, pro-business government fuel the drive for drilling; Activists are gearing up," *Los Angeles Times*, Feb. 6, 2001, p. A1.

The coming debate in Congress over expanded oil drilling in the Arctic National Wildlife Refuge likely will emerge as the first big environmental battle of the Bush administration.

"Oil Debate in Alaska: Should we drill in the Arctic National Wildlife Refuge?" *Los Angeles Times*, March 31, 2001, p. A20.

Will drilling for oil on the pristine coastal plain of the Arctic National Wildlife Refuge ease America's energy burden? Or is it a temporary solution that will result in permanent damage to one of the most ecologically fragile areas on Earth?

California Blackouts

Chen, Edwin, and Richard Simon, "Bush Offers No Answers for California: President says he fears national economic fallout from outages but doesn't hint of any action. About 300,000 customers are affected in second day of blackouts," *Los Angeles Times*, May 9, 2001, p. A1.

President Bush suggested that the rolling blackouts flickering across California could endanger the nation's prosperity, but offered no hint of what his administration might do to prevent that from happening.

Dickerson, Marla, and Mitchell Landsberg, "Demand Grows for Early Warning of Blackouts: Employee safety and business losses are cited. Utilities' responses vary," *Los Angeles Times*, May 10, 2001, p. B1.

As California narrowly avoided a third day of electricity blackouts, utilities and state officials continued work on early-warning systems that would spare inconvenience to consumers and save millions of dollars for business owners.

Landsberg, Mitchell, and Karen Robinson-Jacobs, "Power Cut to Parts of State; First blackouts since March may be the beginning of warm-weather outages, industry officials warn," *Los Angeles Times*, May 8, 2001, p. A1.

The dreaded summer of 2001 cast its shadow over California as an early spate of hot weather forced an hour of scattered, statewide electrical blackouts — a precursor of what could be a difficult season ahead.

Energy Policy

"A Blinkered Energy Strategy," *The New York Times*, May 6, 2001, p. A14.

President Bush has said that his forthcoming energy package will be a balanced mix of recommendations aimed at increasing supply and, through improved energy efficiency, lowering demand. But it will be surprising if things actually turn out that way.

Allen, Mike, and Eric Pianin, "Energy Proposal To Emphasize More Production; But Bush Plans to Stress Conservation When He Releases Plan This Week," *The Washington Post*, May 13, 2001, p. A1.

President Bush plans to emphasize the need for conservation and alternative fuels when he unveils his energy plan this week, but the farthest-reaching parts of his proposal would clear the way for more coal mines, oil refineries, gas pipelines and nuclear reactors, administration officials said.

Bruni, Frank, "Bush Says Tax Cut Is the Quickest Way to Help Consumers With Energy Costs," *The New York Times*, May 12, 2001, p. A13.

President Bush said that the surest and swiftest way to help Americans cope with rising gas and oil prices was to enact a sweeping tax cut, which he said would give them more money to pay for the increases.

Bruni, Frank, and Katherine Q. Seelye, "White House Asks Unions To Meet on Energy Policy," *The New York Times*, May 10, 2001, p. A30.

In an effort to generate support from organized labor for its new energy policy, the Bush administration has invited officers of about a dozen unions to the White House for a confidential preview of the policy.

Dunn, Seth, "Why Oil and Wildlife Don't Mix," *World Watch*, May 1, 2001, p. 2.

The new Bush administration is right to recognize the need for a comprehensive energy strategy. But its proposal is neither compassionate nor conservative, focusing on domestic oil exploration in ecologically sensitive regions rather than on energy efficiency and the development of more sustainable sources.

Simon, Richard, and Greg Miller, "Bush Energy Plan Details 105 Tactics," *Los Angeles Times*, May 17, 2001.

President Bush is expected to unveil a national energy plan today calling for greater reliance on nuclear power, bigger utility bill subsidies, drilling in the Arctic National Wildlife Refuge and more than 100 other steps.

Nuclear Power

Beher, Peter, "Nuclear Power May Be Making A Come-back; Energy Crunch Helps Ease Industry's Image as Outcast," *The Washington Post*, April 23, 2001, p. A1.

Only recently, the nuclear industry seemed dead in this country. No new U.S. nuclear power plant has been built since the 1979 accident at Three Mile Island in Pennsylvania, and the Chernobyl disaster 15 years ago had left a cloud of public fear over the industry.

Redburn, Tom, "Nuclear Power: A Debate Renewed," *The New York Times*, May 13, 2001, p. A4.

With the threat of electricity shortages looming in many parts of the country, is it time to reconsider nuclear power? Vice President Dick Cheney certainly thinks so.

Rhodes, Richard, "Nuclear Power's New Day," *The New York Times*, May 7, 2001, p. A17.

Nuclear power, a product of naval propulsion research, emerged in the United States in the 1950s. Its first use as a commercial energy source came about because it had obvious benefits for pollution control.

Swanson, Stevenson, "Nuclear Power Gets Energetic Welcome After Years in Dark," *Chicago Tribune*, May 6, 2001, p. C1.

The prices that once-shunned nuclear plants are now fetching testify to nuclear power's remarkable turnaround. Vice President Dick Cheney last week gave nuclear energy its strongest public endorsement in decades in a speech outlining the Bush administration's probable energy strategy.

Wald, Matthew L., "Industry Gives Nuclear Power A Second Look," *The New York Times*, April 24, 2001, p. A1.

Nuclear reactors are now so desirable that when old ones go on sale, bidding wars have broken out. And the Bush administration's energy plan, scheduled for release soon, is expected to include strong support for new reactor construction.

Utility Deregulation

Alonso-Zaldivar, Ricardo, "Natural Gas Firm's Tactics Focus of Trial; A federal jurist will consider whether two units of El Paso Corp. manipulated prices in California by limiting supplies to the state," *Los Angeles Times*, May 14, 2001, p. B1.

It's the closest thing yet to a public trial in the California energy crisis. This morning, in a chilly hearing room about a mile from the U.S. Capitol, an administrative law judge will begin proceedings whose outcome could be critical to the future of energy deregulation in America.

Kahn, Joseph, "Utility Deregulation: Square Peg, Round Hole?" *The New York Times*, March 4, 2001, p. A4.

In the forensic pursuit of what caused California's power failure, the Bush administration, the energy industry and many analysts have granted immunity to deregulation.

Schodolski, Vincent J., "Energy Crisis Haunting Gov. Davis," *Chicago Tribune*, April 1, 2001, p. C12.

Sharply higher rates and other measures will help ease California's electricity crisis, but the long-term political and economic consequences of the state's bungled utility deregulation will linger for years and could prove to be a harbinger of problems for other parts of the nation.

CITING THE CQ RESEARCHER

Sample formats for citing these reports in a bibliography include the ones listed below. Preferred styles and formats vary, so please check with your instructor or professor.

MLA STYLE

Koch, Kathy. "Truck Safety." *CQ Researcher* 9(1999):209-32.

APA STYLE

Koch, K. (1999). *Truck safety*. *CQ Researcher*, 9, 209-32.

CHICAGO STYLE

Koch, Kathy. "Truck Safety." *CQ Researcher* 9 (March 12, 1999): 209-232.

Back Issues

**The CQ Researcher offers in-depth coverage of many key areas.
Back issues are \$10 for subscribers, \$20 for non-subscribers.
Quantity discounts available. Call (800) 638-1710 to order back issues.**

Or call for a free CQ Researcher Web trial!

On-line access provides:

- Searchable archives dating back to 1991.
- PDF files for downloading and printing.
- Wider access through IP authentication.
- Availability 48 hours before print version.

CHILDREN/YOUTH

Rethinking Ritalin, October 1999
Child Poverty, April 2000
Fatherhood Movement, June 2000
Juvenile Justice, April 2001

CRIMINAL JUSTICE

Policing the Police, March 2000
Drug-Policy Debate, July 2000
Community Prosecution, December 2000

EDUCATION

The Digital Divide, January 2000
Zero Tolerance, March 2000
Community Colleges, April 2000
Cheating in Schools, September 2000

ENVIRONMENT

Energy and the Environment, March 2000
Zoos in the 21st Century, April 2000
Mass Extinction, September 2000
Water Quality, November 2000

HEALTH CARE AND MEDICINE

Diet and Health, February 2001
Diabetes Epidemic, February 2001
Cell Phone Safety, March 2001
Biotech Foods, March 2001

LEGAL ISSUES

High-Impact Litigation, February 2000
Gay-Rights Update, April 2000
Faith-Based Initiatives, May 2001
'Designer' Humans, May 2001

MODERN CULTURE

Islamic Fundamentalism, March 2000
Future of Computers, May 2000
Future of Books, June 2000
Future of Language, November 2000
Sportsmanship, March 2001

POLITICS/GOVERNMENT

Utility Deregulation, January 2000
Campaign Finance Reform, March 2000

Immigration Reform, July 2000
Missile Defense, September 2000
The Federal Reserve, September 2000
Democracy in Latin America, Nov. 2000
Redistricting, February 2001

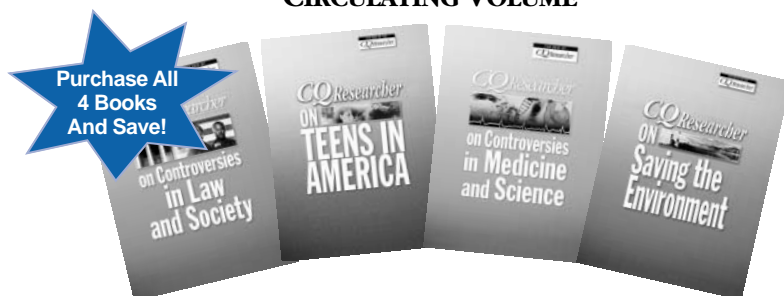
TRANSPORTATION

Traffic Congestion, August 1999
Airline Industry Problems, September 1999
Auto Industry's Future, January 2000

Future Topics

- ▶ **Libraries and the Internet**
- ▶ **Nuclear Waste Disposal**
- ▶ **Threats to Privacy**

CQ RESEARCHER FAVORITES IN A DURABLE, CIRCULATING VOLUME



The CQ Researcher provides reliable and complete background information and analysis on timely topics. Now that value is conveniently packaged in single-issue books for research and circulation. The CQ Researcher Books Set includes: **CQ Researcher on Teens in America**, **CQ Researcher on Controversies in Law and Society**, **CQ Researcher on Controversies in Medicine and Science** and **CQ Researcher on Saving the Environment**.

Set of 4 • Hardbound • ISBN 1-56802-693-5 • \$100.00



To PLACE AN ORDER

CALL TOLL-FREE: 800.638.1710 • FAX: 800.380.3810
WEB: WWW.CQPRESS.COM • OR E-MAIL: BOOKHELP@CQ.COM