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Energy in 2001: Crisis Again?

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Summary

For most of the 1990s energy was not a prominent issue, at least for the consuming public; supplies were ample and prices were perceived as reasonable. In 1999, however, cracks appeared in the smooth surface of the energy market, and by 2001 energy problems had reached crisis proportions. Gasoline prices were sharply higher, as were natural gas prices, and California's electricity shortages led to concerns that other localities might have similar problems. Now the crisis has abated somewhat, but many of the issues it raised remain.

This report deals with changes in the national energy picture since the early 1990s, when Congress last dealt at length with energy policy. It reviews the problem areas and discusses differing views on how to deal with the energy situation in the long run. A summary of some current legislative initiatives is also given.

In the case of petroleum, world proved reserves continued to grow faster than production, though not at the rate of the previous two decades. In the United States, however, proved reserves continued to decline as consumption increased, forcing a growing dependence on imported oil. Product prices declined steadily, then precipitously toward the end of the decade. In response, the OPEC cartel nations cut back production. The volatile oil market reacted sharply, with the price of crude more than doubling and product prices following suit.

Unlike oil, only a small proportion of natural gas is imported, almost all of it by pipeline from Canada. Prices remained low through the 1990s, and producers responded with reduced investments in supply. After 1986, the number of gas wells drilled per year fell sharply and remained low until tightening supply caused a sharp run-up in prices in 2000, which has resulted in increased drilling.

The sudden and unprecedented surge in gas prices surely was an important factor in the continuing crisis in California's electricity supply, but a large number of factors also contributed. Some of those other factors exist elsewhere. Among the most troubling is that electric industry restructuring may leave consumers more vulnerable to market volatility than formerly. Another potential problem is that, nationwide, the power transmission system appears stretched to capacity.

Approaches to dealing with energy problems vary. In one view, there is a need to stimulate and facilitate supply of more domestic energy resources, with due regard for environmental quality, and with a major focus on using energy efficiently. The assumption is that all these goals are compatible, and that if carried out there will be a return to the ample energy supplies and low prices of the prosperous 1990s.

Some critics of that view argue that it may not be possible to meet environmental goals without strenuous efforts that are not compatible with low energy prices. They propose much more vigorous measures to mitigate the environmental effects that abundant cheap energy may be expected to have. At the same time, they question whether economic growth can only be achieved through dramatically expanding domestic energy supply.

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Energy in 2001: Crisis Again?

About a decade ago, in the wake of the Persian Gulf war, Congress passed the massive Energy Policy Act of 1992. After 2 years of debate, the bill covered a broad range of energy issues, from the flow rate of shower heads to the privatization of uranium enrichment for nuclear powerplants. Two initiatives that had been widely supported, and as widely opposed, at the beginning of the debate, did not survive. One was the leasing of part of the Arctic National Wildlife Refuge (ANWR) for oil and gas exploration, and the other was tightening of Corporate Average Fuel Economy standards for automobiles.

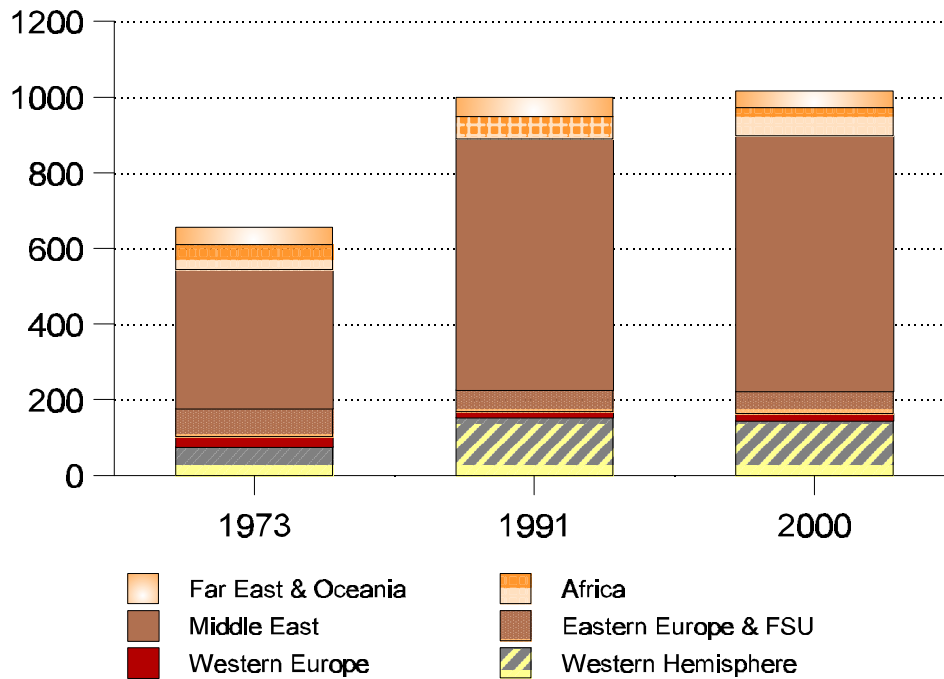
For most of the 1990s energy was not a prominent issue, at least for the consuming public; supplies were ample and prices were low. In 1999, however, cracks appeared in the smooth surface of the energy market, with shortages of gasoline in the Midwest and heating oil in the Northeast causing price surges. An electricity price spike in the Midwest caused further disquiet. By 2001, energy problems had reached critical proportions on three fronts. Nationally, gasoline prices were sharply higher. Consumption of natural gas, the fuel of choice for uses other than transportation, abruptly reached the limit of short term supply and more than doubled in price. And in California, wholesale electric power costs spiraled and shortages became apparent, the result of a combination of circumstances including natural gas prices, hydropower shortages, years of regulatory uncertainty, and the state's electric industry restructuring program.

Not surprisingly, the price spikes have caused changes in production and consumption of energy that have blunted some of the most egregious problems. But events suggest that a changing energy picture may be emerging from the current decade. This report is concerned with the question: what has changed in the national energy picture since the last time the Congress dealt at length with energy policy? It will review each of the three problem areas in sequence with that question in mind. Following this factual description is a discussion of differing views held by the Bush Administration and by some Democratic Members on how to deal with the energy situation in the long run. A summary of current legislative initiatives is also given.

Petroleum: Developments in the 1990s

One of the basic discoveries of the late 1980s was that, contrary to widespread belief a decade earlier, the world was not on the verge of running out of oil. The high prices of the 1970s and early 1980s, aided by improved exploration and production technology, stimulated a global search for, and discovery of, large amounts of new crude oil reserves, which actually increased by about 50% from 1973 to 1990. Some of the increase was in the Western Hemisphere, mostly in Mexico, but most was located in the region that already dominated the world oil market, the Middle East.

**Figure 1. World Crude Oil Reserves, 1973-2000
(billions of barrels)**

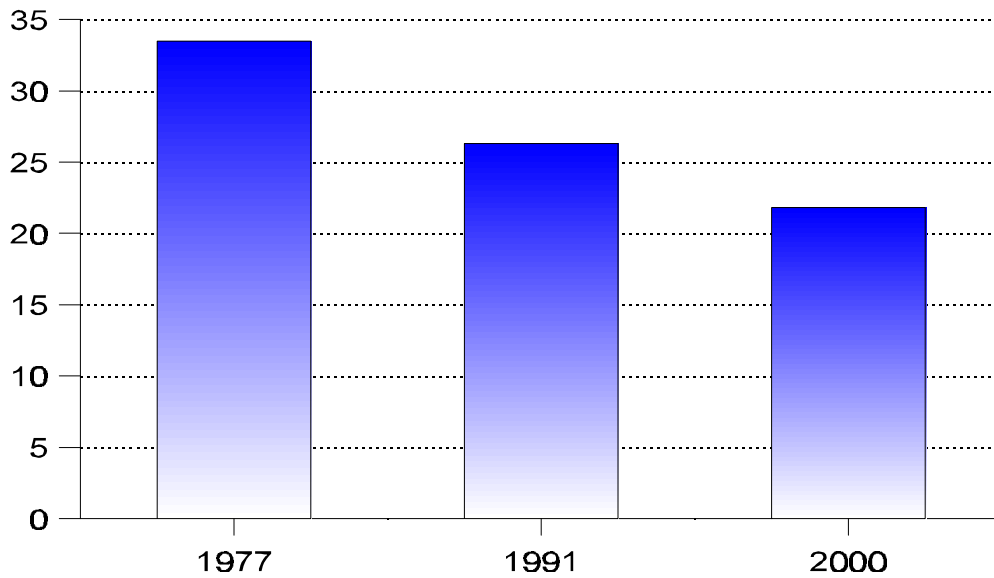


Source: CRS; Energy Information Administration (EIA), *International Energy Annual*, 1990, 1999.

With prices moderating in the 1990s, the search for oil slowed, but additions to reserves during the decade exceeded the amount of oil pumped out of the ground, as shown in Figure 1.

In the United States, however, crude oil reserves continued to decline as they had since the early 1970s. From 33.5 billion barrels in 1977, they were down to 26.3 billion in 1991 and 21.8 billion in 2000, as illustrated in Figure 2.

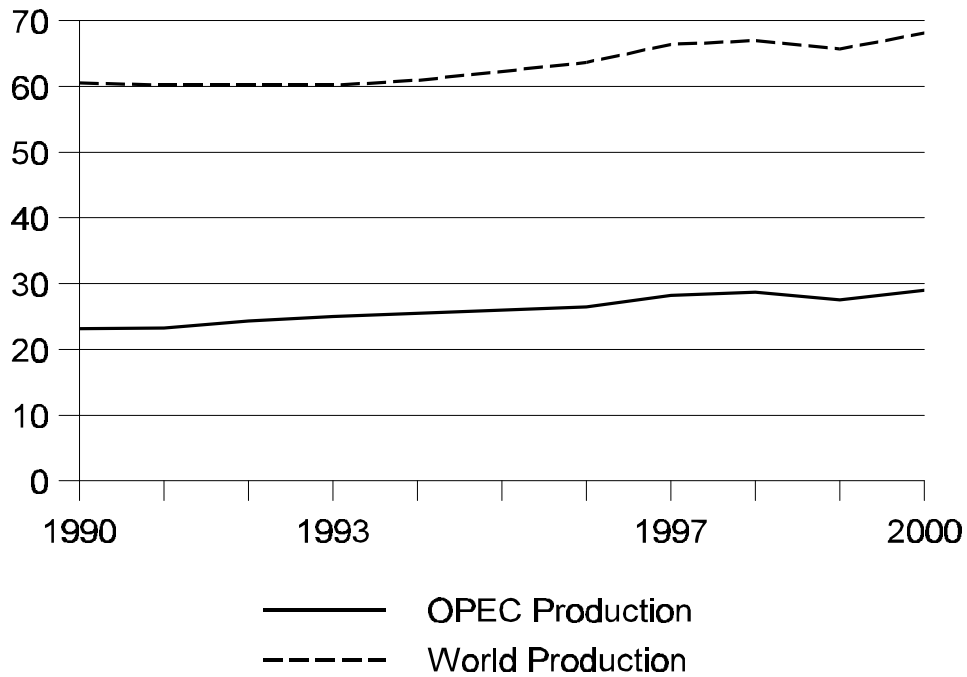
**Figure 2. U.S. Crude Reserves
(billion bbl)**



Source: Energy Information Administration (EIA), *International Energy Annual*, 1990, 1999.

Meanwhile, world crude production during the 1990s increased steadily, with the exception of a single year, 1999. That was the year that the members of the Organization of Petroleum Exporting Countries (OPEC), in a rare display of unanimity and resolve, agreed to cut back production quotas and subsequently did so without breaking ranks, as shown in Figure 3.

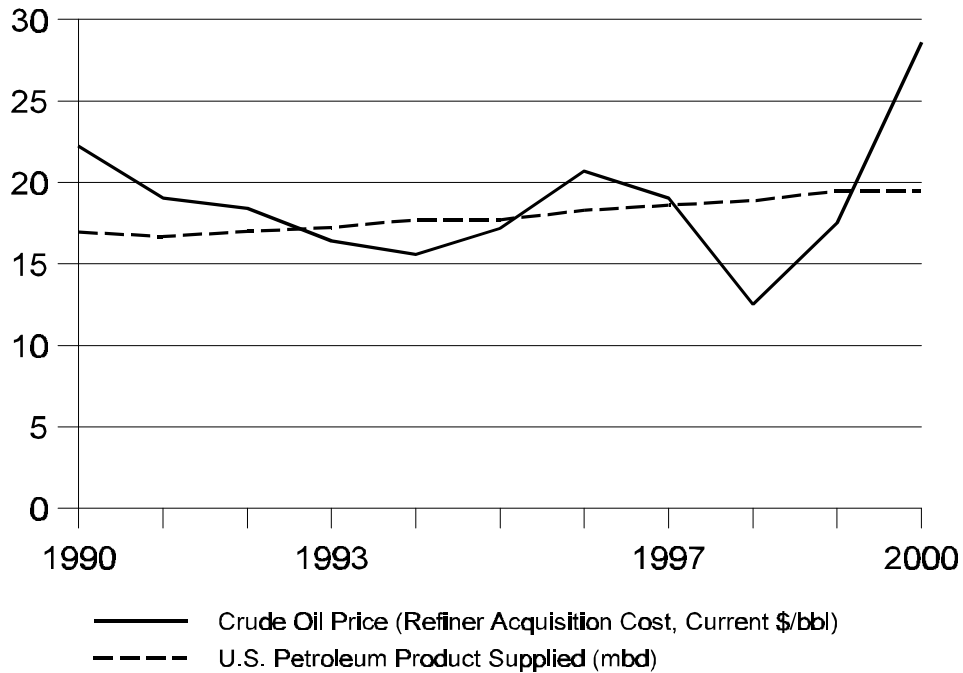
Figure 3. OPEC and World Crude Oil Production, 1990-2000 (mbd)



Source: EIA, *Monthly Energy Review*, May 2001, Table 10.

U.S. consumption of petroleum products also increased steadily during the 1990s, from 17 million barrels per day (mbd) in 1990 to 19.5 mbd in 2000. But the price of crude oil was anything but steady. (See Figure 4.) Even without the interruptions in supply that characterized the 1970s (the Persian Gulf war in 1991 resulted in no reduction in total world production) crude prices showed the volatility typical of large-volume commodities in which short-term demand is only slightly affected by price and small variations in supply sometimes can cause large speculative market shifts in price for brief periods. Overall, however, despite brief spikes, there was a steady decline in gasoline and heating oil prices, until 1999 (Figure 5), when OPEC's policy of production cutbacks finally had an effect on consumer supplies and prices.

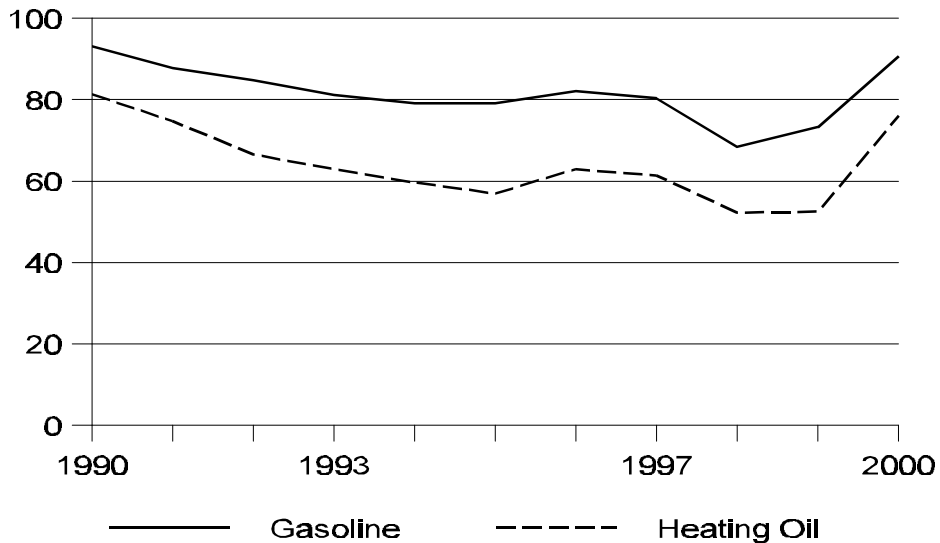
Figure 4. Price of Crude and U.S. Petroleum Consumption, 1990-2000



Source: EIA, *Monthly Energy Review*, May 2001, Tables 3,9.

The historical review above indicates that, in the case of petroleum, not much has changed in the decade since the Persian Gulf war. World proved reserves continued to grow, though not at the rate of the previous two decades, when high prices led to a 50% increase from 1973 to 1990. In the United States, however, proved reserves continued to decline as consumption increased, forcing a growing dependence on imported oil. World production of crude increased from 60 mbd to nearly 70 mbd, and U.S. consumption of petroleum products went from 17 mbd to 19.5 mbd. Product prices declined steadily, then precipitously toward the end of the decade. In response, the OPEC cartel nations agreed among themselves to cut back production and showed unexpected discipline in adhering to the agreement. The reduction was relatively small, but the volatile oil market reacted sharply, with the price of crude more than doubling and product prices following suit.

**Figure 5. Gasoline and Heating Oil Prices, 1990-2000
(1982-84 cents/gallon)**



Source: EIA, *Monthly Energy Review*, May 2001, Table 1.3.

Natural Gas: The Bubble Gone

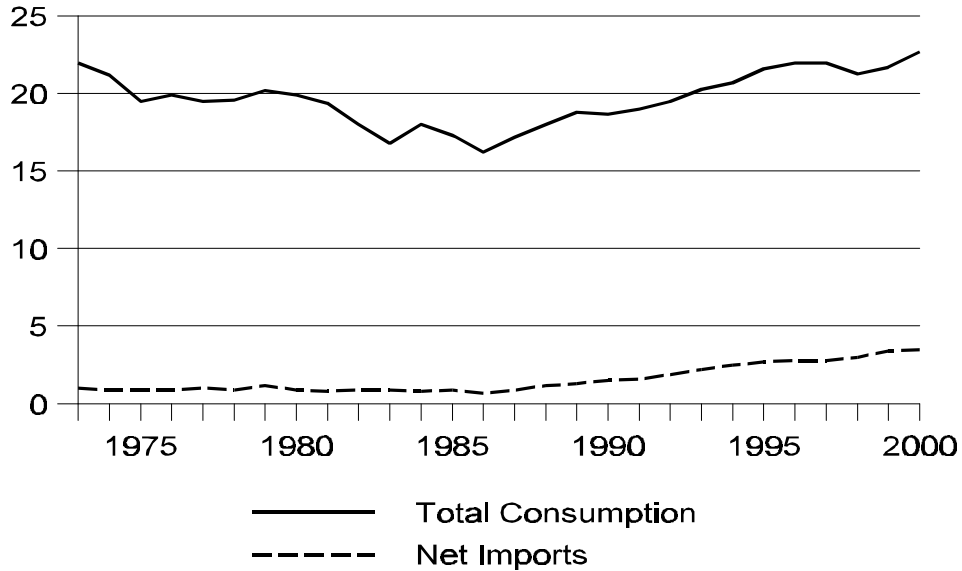
After the Natural Gas Policy Act of 1978 began to remove the price restrictions that had been discouraging production, supply increased rapidly. Industry analysts began speaking of a temporary gas “bubble” or excess of supply over demand as production and consumption gradually responded to deregulated prices. The “bubble” lasted close to 20 years, however, with surplus production capacity continuing and prices remaining low through most of the 1990s.

Producers responded to low prices with reduced investments in supply. After natural gas prices followed oil prices down in 1986, the number of gas wells drilled per year fell sharply and remained low until the sharp run-up in prices stimulated an increase in 2000.

The story with natural gas was thus somewhat different from that of oil, in part because only a small proportion of natural gas is imported, almost all of it by pipeline from Canada. Unlike oil, natural gas is carried to market in large amounts only by relatively inflexible pipeline systems, meaning that changes in supply take place rather slowly, and price tends to be influenced not only by supply but also by the price of oil, its primary competitor. However, natural gas is still subject to the kind of extreme price volatility that is typical of large commodity markets, particularly when supplies begin to appear uncertain.

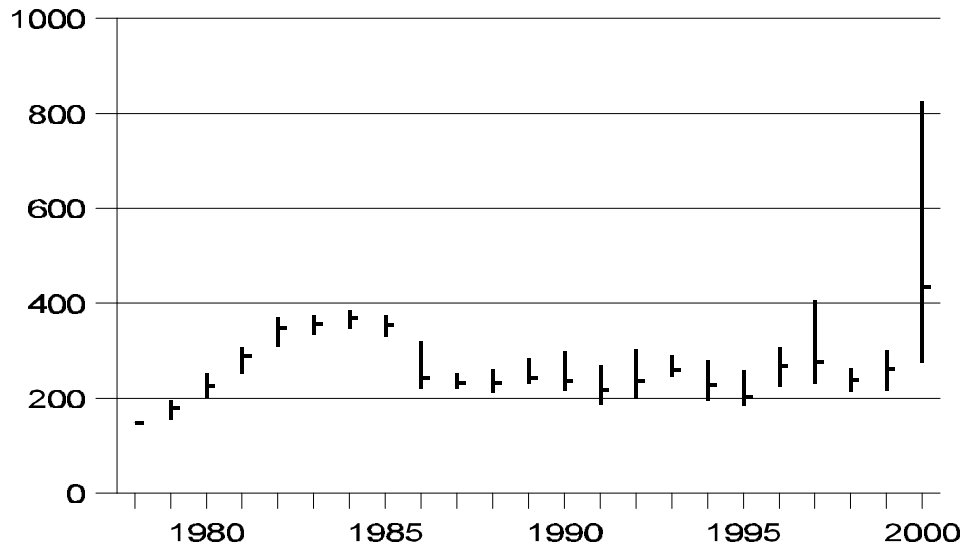
Natural gas was subject to a broad variety of regulations of price and supply during the 1970s, and consumption declined from 22 TCF in 1973 to about 16 TCF in 1986. But with the market largely deregulated and the price low, consumption increased steadily until it rose above 22 TCF in 2000. At that point, the sluggish rate of supply increases led to shortages which drove prices sharply upward.

Figure 6. Natural Gas Consumption and Imports (TCF)



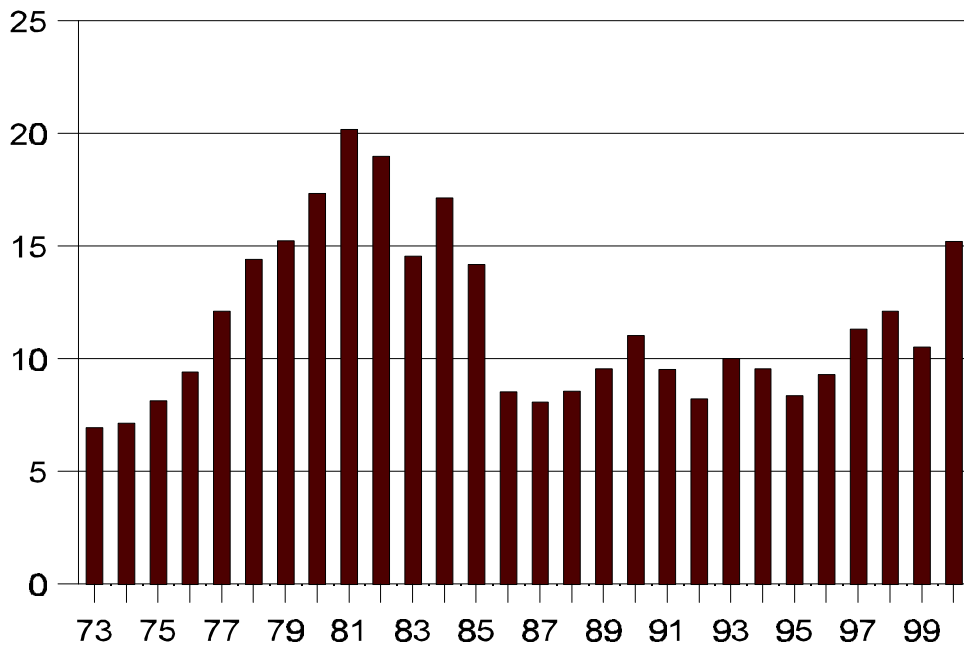
Source: EIA, *Monthly Energy Review*, May 2001, Table 4.1.

**Figure 7. Gas Prices to Utilities, 1990-2000
(cents/million BTU's)**



Source: EIA, *Monthly Energy Review*, Table 9.11.

**Figure 8. Gas Wells Drilled, 1973-2000
(thousands per year)**



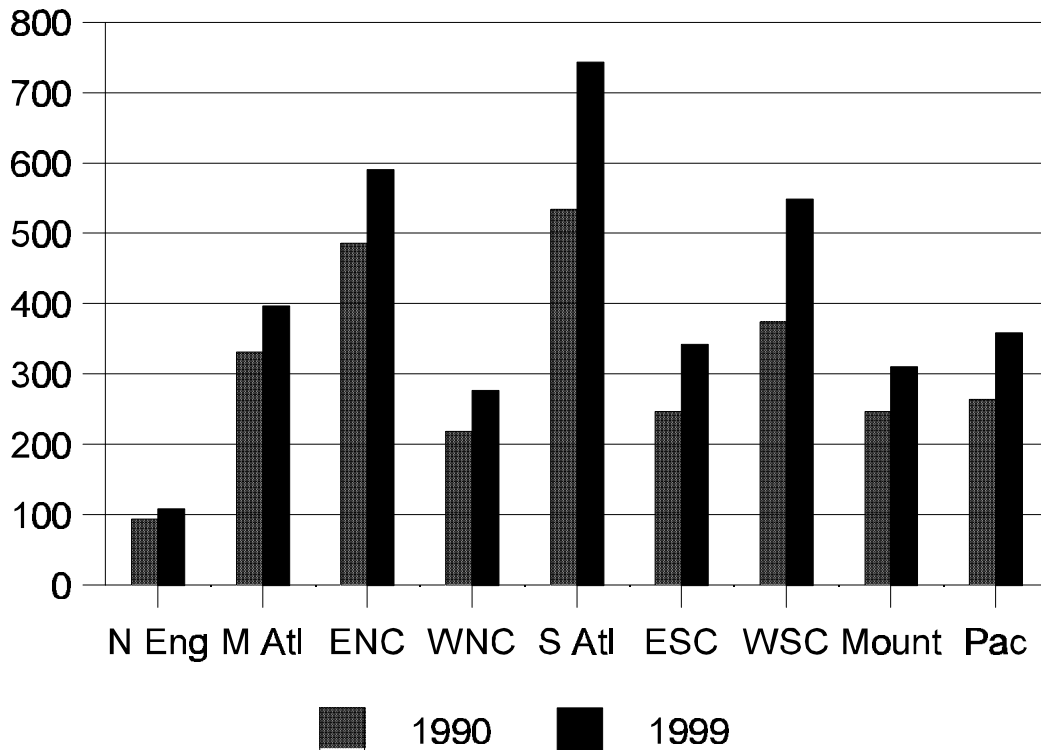
Source: EIA, *Monthly Energy Review*, May 2001, Table 5.2.

Electricity Woes

Many factors contributed to the continuing crisis in California's electricity supply, but the sudden and unprecedented surge in gas prices surely was an important one. Some of the other factors are discussed in this section.

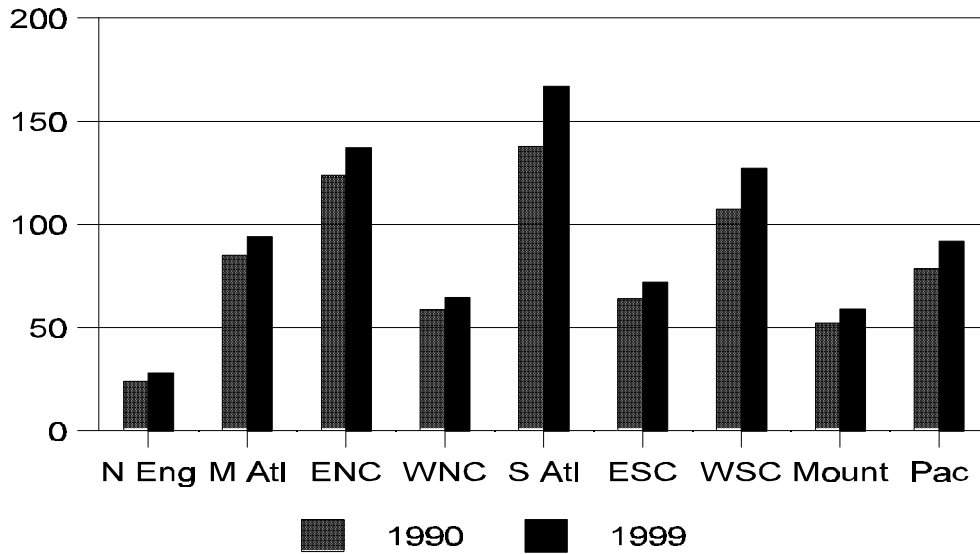
It has been suggested that growth in electricity demand combined with a lack of new capacity additions contributed to the crisis. Electricity consumption did not appear to grow at an unusual rate in the Pacific region compared to the rest of the country, and capacity additions were not greatly less than elsewhere, as the following figures show. However, California itself was in a different situation. Over 80% of electricity consumed is generated within the state, and no significant capacity had been added in the previous 10 years. The radical restructuring of the state's power system that was still in transition, transmission constraints, a weather-related downturn in available power from out-of-state hydro facilities, and the sudden run-up of natural gas prices combined to create a distinctive crisis that would have been difficult to predict.

**Figure 9. Electricity Generation by Region
(billion kwh)**



Source: EIA, *Electric Power Annual*, 1990, 1999

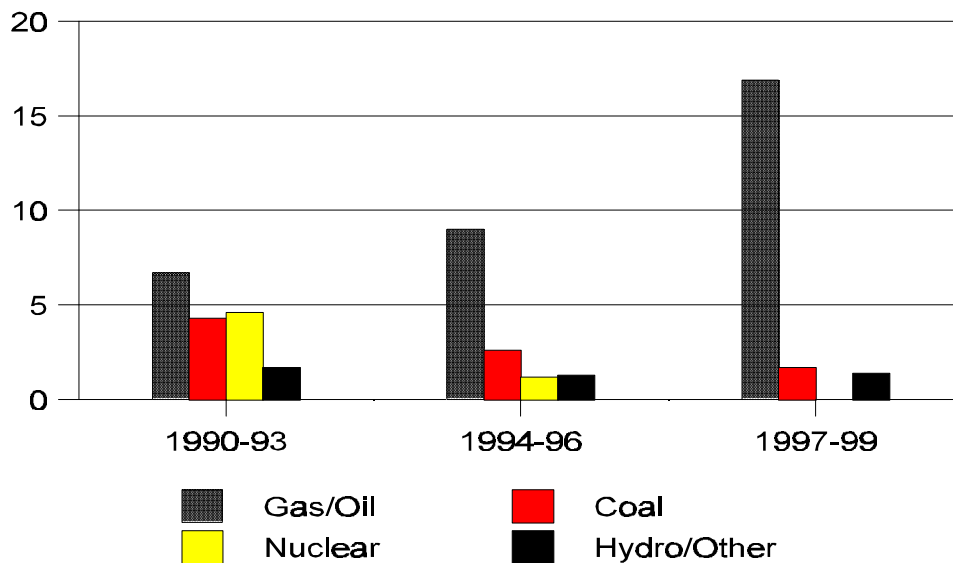
Figure 10. Generating Capacity by Region (gigawatts)



Source: EIA, *Inventory of Electric Power Plants*, 1990, 1999.

Another feature of the national power system that added vulnerability was that additions to capacity since the mid-1990s have been almost exclusively natural gas-fired.

Figure 11. Capacity Additions, 1990-1999 (gigawatts)



Source: EIA, *Inventory of Electric Power Plants*, 1990, 1999.

In particular, the Pacific region was vulnerable to the gas price run-up because the generation mix is dependent largely on gas and hydropower. Gas dependence is not significantly different from the country as a whole, but the role of hydropower is exclusive to the region. By chance, availability of hydropower, dependent on the weather, was significantly less in 2000 than average. In addition, in California in particular, the restructuring plan required utilities to obtain power on the day-ahead, hour-ahead market, and prohibited them from entering into new long-term contracts. They were thus immediately affected by the current high gas prices. In other regions, even where there was heavy dependence on gas, as in the West South Central region, long-term contracts probably shielded consumers from the effects of the suddenly higher prices.

In summary, a combination of circumstances, unlikely to be duplicated in other regions, appears to have been the source of the extremely severe crisis in California. Nevertheless, a number of factors that contributed to the California crisis do exist elsewhere, and may cause difficulty of varying degree. Among these trouble indicators are the following:

- Restructuring of the electric power industry to bring unregulated power generators into the market may lead to lower costs in the long run, but in the process a long-standing commitment to provide reliable supplies of power to all customers on the part of regulated utilities has been lost. Without that commitment, power consumers are much more vulnerable to volatile energy commodity markets, since utilities no longer need to assure that they have adequate generating capacity to meet their needs. The California experience demonstrated that unregulated electricity markets can be just as volatile as oil or gas; indeed, they may be more volatile, since they depend not only on their own inflexible supply constraints but those of the other energy markets as well. Additionally, most restructured electric power systems have shifted into a highly sophisticated market of fast moving supply and demand exchanges.
- Nationwide, the transmission infrastructure appears to be stretched to capacity. As with generating capacity, utilities have been relieved of the necessity of providing assured transmission capability to all their customers.

The problems facing a rapidly changing electric power industry are extremely complex, with many factors that are beyond the scope of this paper to discuss. For more detailed analysis, CRS maintains an Electronic Briefing Book on Electric Utility Restructuring, accessible at the CRS home page, [<http://www.crs.gov/>].

Policy Implications

The conjunction of three energy problems – surges in heating oil and gasoline prices, tight natural gas supply accompanied by a sudden jump in the price, and the crisis in electricity price and supply in California – has stimulated a renewed interest in energy policy, as well as a number of broad legislative initiatives. These proposals go beyond short-term efforts to deal with current emergencies, such as proposed federal caps on wholesale electricity sales in California, to deal with all aspects of energy supply and utilization.

The Bush Proposal. One such comprehensive review is by the Bush Administration's National Energy Policy Development (NEPD) Group, chaired by Vice President Cheney, which issued a report, "National Energy Policy," in May 2001. In the view of the Cheney report, there is a need to stimulate and facilitate construction of electric power generating capacity, to stimulate domestic production of oil and gas and encourage the use of coal and uranium, and to carry out these activities with due regard for environmental quality, and with a major focus on using energy efficiently. Among the recommendations accompanying the exposition of this scenario is a recommendation to study the possibility of imposing higher corporate average fuel economy (CAFE) standards on automobiles without damaging the domestic auto industry, and one recommending opening of the Arctic National Wildlife Refuge to oil and gas development. Implicit in the report is an assumption that all these goals are compatible, and that if carried out there will be a return to the ample energy supplies and low prices that characterized the prosperous 1990s.

Alternative Approach. Some congressional critics of the Cheney report argue that it may not be possible to meet environmental goals, particularly with regard to reducing emissions of greenhouse gases, without strenuous efforts that are not compatible with low energy prices. A number of initiatives from Democratic Members propose much more vigorous environmental quality and energy efficiency measures in order to mitigate the environmental effects that abundant cheap energy may be expected to have.

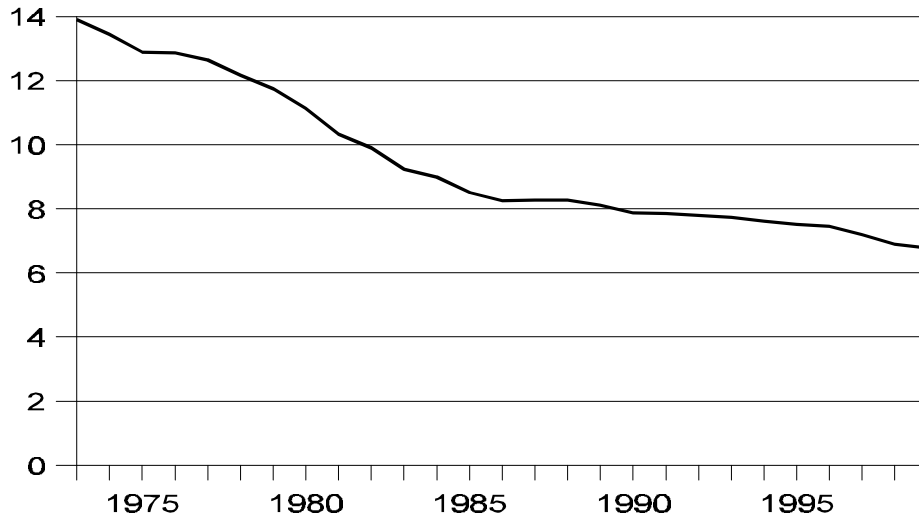
Contrasting Perspectives. The differing views described above share some common ground. All recognize that energy is an important ingredient of economic growth; all cite protection of the environment as a major goal; all view energy conservation and efficiency as practical and effective measures that can contribute to economic growth and reduce environmental pressure at the same time.

However, there is a significant difference between the two views. In one, an adequate supply of affordable energy is the central goal of energy policy, to be achieved in the most environmentally responsible manner and with due support for conservation and efficiency measures. The other places a higher priority on conservation and efficiency, both as worthwhile policy goals in themselves, and as essential for insuring that energy supply increases occur with minimal effect.

Central to these contrasting views is the degree to which economic growth depends on expanding energy supply. In this regard, analysis of historical data relating energy consumption and economic growth leaves an uncertain picture.

Energy Consumption and GDP. A frequent point of concern in formulating energy policy is the relationship between economic growth and energy use. It seems obvious that greater economic activity would bring with it increased energy consumption, but many other factors affecting consumption make the short term relationship highly variable. It has also been proposed that by applying energy efficiency measures, consumption and economic growth can be "decoupled" over the long run.

**Figure 12. Oil and Gas Consumption Per Dollar of GDP
(1000 BTU per 1996 dollar)**



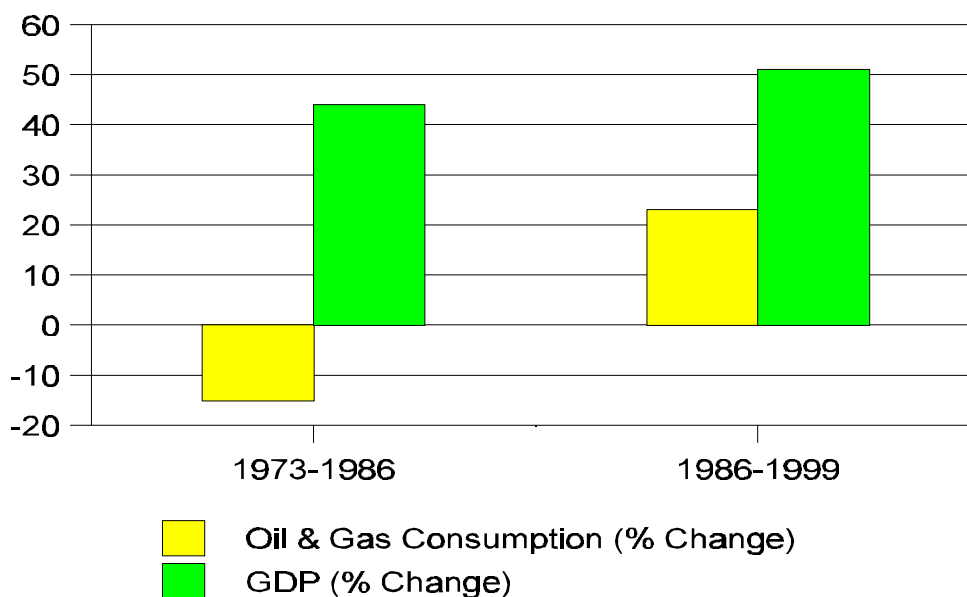
Source: EIA, *Monthly Energy Review*, May 2001, Table 1.9.

Historical statistics show a mixed picture of the relationship. During the 1973-1985 period of high energy prices and interrupted supply, the amount of petroleum and natural gas consumed per dollar of gross domestic product (GDP) declined sharply, but the ratio leveled off after world oil prices collapsed in 1986.

During the period 1986 to 1999, oil and gas consumption increased by about 23%, while GDP increased 51%. This has led to the suggestion that energy consumption must increase about half as rapidly as GDP. However, this suggestion ignores the fact that during the earlier period oil and gas consumption actually declined 15% while GDP was increasing by 44%. (See Figure 13.)

One response is that the high prices and uncertainty of supply during the earlier period effectively “decoupled” energy consumption from economic growth, and that the return to low prices and ample supplies restored the connection. This argument, however, is countered by referring to a third relevant factor: during the early period, strenuous efforts were made to encourage energy efficiency and conservation, including fuel economy standards for automobiles. The relative effect of these measures, compared to the action of market forces, in reducing consumption, is subject to debate, but they were largely abandoned once the price of oil and gas moderated and supply was no longer a problem.

Figure 13. Change in Annual Oil & Gas Consumption & Growth in GDP (percent)



Source: EIA, *Monthly Energy Review*, May 2001, Table 1.9.

Further complicating the interplay of these various factors is the question of timing. It is frequently suggested that the major advances in energy conservation and efficiency in the 1970s were possible because the preceding period had seen rapid growth in consumption with little attention to efficiency or saving. According to this argument, relatively simple and low-cost measures at that time achieved large savings, but further advances would be more difficult and expensive. On the other hand, the history of technology development shows that many advances occur that abruptly make it possible to improve performance and reduce costs beyond anything imagined previously. The effect such advances may have in any one period is largely unmeasurable and completely unpredictable.

In summary, the basic questions remain: Can energy consumption be decoupled from economic growth without the painfully high prices and supply interruptions of the 1970s? How much of the economic boom of the 1990s is attributable to the anti-inflationary effect of declining energy costs? Can a carefully balanced combination of regulation and research reduce energy consumption to environmentally acceptable levels and still maintain vigorous economic growth? Historical analysis of available data offers no conclusive answers to these questions.

A Third Viewpoint. Another view of energy policy emphasizes the volatility of the world oil market, and the influence of the OPEC cartel on production. In this view, consuming nations must realize that restrictions by oil producing governments distort the market in ways that are not always in the interest of consumers. After oil prices were deregulated and the world price of crude collapsed in 1986, the once-

powerful OPEC cartel was viewed as having lost its ability to influence the price in any significant way. However, the effect of relatively minor cutbacks in production in a tight world market in 1999 demonstrated that OPEC continues to be a major influence, and its success in driving up the price of crude so dramatically may tempt its members to extend their activity further.

In the view of these critics, energy policy should be aimed at reducing the power of OPEC to direct the world oil market, or at least to force it to recognize that high oil prices have drawbacks for producers as well as consumers. Encouraging production by non-OPEC members, financing development of alternative fuels and energy sources which may be competitive with high-priced oil, conservation and energy efficiency, and other programs that signal an attack on OPEC dominance and influence, could be compatible with the goals of either the Administration's policy or the previously mentioned alternatives, or both.

Legislative Proposals

While a number of narrowly focused bills have been introduced in the 107th Congress, there is also a movement toward an omnibus energy bill. A comprehensive proposal backed by several Senate Republicans, the National Energy Security Act of 2001 (S. 388), was introduced on February 26, 2001, as was a companion measure, which also included energy tax provisions (S. 389). A Democratic measure, the Comprehensive and Balanced Energy Policy Act of 2001 (S. 597), was introduced on March 22. The accompanying tax measure is titled the Energy Security and Tax Incentive Policy Act of 2001 (S. 596).

On the House side, four bills were reported out by the Energy and Commerce, Resources, Ways and Means, and Science Committees, and the House Rules Committee combined them into a single bill, H.R. 4, the Securing America's Future Energy (SAFE) Act. The House Republican leadership plans to bring it to the House floor before the August recess.

Administration Proposal. As noted above, the Bush Administration has not submitted a formal legislative energy package, but a number of the NEPD report recommendations would require legislation. Among them are:

- Increase funding of the Low Income Home Energy Assistance Program (LIHEAP), using some oil and gas royalty payments to fund the program.
- Double funding of DOE's Weatherization Assistance Program, with an increase of \$1.2 billion over 10 years.
- Reduce and cap emissions of sulfur dioxide, nitrogen oxides, and mercury from electric power generators.
- Establish a "Royalties Conservation Fund" to earmark royalties from oil and gas production in the ANWR for land conservation efforts. (See below.)
- Establish investment tax credits or shortened depreciation life for combined heat and power (CHP) projects.

- Mandate the Secretary of Transportation to review recommending legislation for CAFE Standards.
- Develop possible legislation to promote congestion mitigation technologies and strategies.
- Establish tax credit for fuel-efficient vehicles, including temporary credit for new hybrid or fuel-cell vehicles.
- Authorize exploration and development of the 1002 Area of ANWR.
- Develop legislation to restructure the electric power industry, repeal the Public Utility Holding Company Act (PUHCA) and reform the Public Utility Regulatory Policies Act (PURPA).
- Fund clean coal technology programs at \$2 billion over 10 years.
- Extend permanently the existing research and development tax credit.
- Reform hydropower licensing statutes.
- Review funding and performance of renewable and alternative energy programs and fund at appropriate level.
- Establish tax credits for landfill methane.
- Extend and expand tax credits for wind and biomass.
- Establish new 15% tax credit for residential solar energy property.
- Use bid bonuses on ANWR for alternative and renewable energy R&D.
- Continue ethanol excise tax exemption.

House Bills. The quartet of energy bills reported out of committee the week of July 16 contain some provisions recommended by the NEPD Group, but in some cases go further or differ in details. On July 27 the House Rules Committee combined the four bills, with some changes and additions, into H.R. 4. The main provisions of the bills as reported are described below.

Energy Advancement and Conservation Act (H.R. 2587; Divisions A and E of H.R. 4). Among the provisions in the bill reported by the Energy and Commerce Committee are:

- Establish fuel economy standards for sport-utility vehicles and light trucks between 2004 and 2010 that would save 5 billion gallons of gasoline compared to 2002 standards. (Sec. 201 of H.R. 4.)

- Move expenditures from the \$10 billion Nuclear Waste Fund off-budget (Sec. 301 of H.R. 4).
- Authorize of accelerated Clean Coal Technology programs (Division E of H.R. 4).
- Establish mandatory efficiency requirements for federal buildings (Subtitle B of Title I of Division A of H.R. 4).
- Expand DOE's Weatherization program (Sec. 133 of H.R. 4).
- Expand authorization of LIHEAP (Section 134 of H.R. 4).

Energy Security Act (H.R. 2436; Division F of H.R. 4). The major feature of the Resource Committee's bill is a provision to open the 1002 Area of ANWR (Title V of Division F of H.R. 4). Other features include:

- Establish financial incentives for offshore drilling in central and western Gulf of Mexico (Sec. 6202 of H.R. 4).
- Mandate greater flexibility for royalty-in-kind (RIK) federal royalty payments in oil rather than in cash (Sec. 6232 of H.R. 4).
- Mandate an inventory of coal, geothermal, wind and solar power potential on all federal lands except parks and wilderness areas (Sec. 6102 of H.R. 4).

Energy Tax Policy Act (H.R. 2511; Division C of H.R. 4). Major provisions included in the bill reported out by the Ways and Means Committee are listed below. At press time it was not possible to determine whether all had survived intact in H.R. 4.

- \$3.3 billion tax credits for clean coal technology.
- \$2.8 billion tax credits for non-traditional sources, including shale, tar sands and biomass.
- \$2.1 billion tax credits for fuel cell, hybrid and other low-emission vehicles.
- \$1.6 billion tax credits for energy-efficient home improvements.
- \$992 million to phase out excise tax on diesel fuel used in trains and barges.
- \$958 million deductions for oil and gas exploration expenses.
- \$292 million tax credits for manufacturers of energy-efficient refrigerators and clothes washers.
- \$125 million tax credits for solar energy homeowner purchases, excluding solar swimming pools.

Comprehensive Energy Research and Technology Act (H.R. 2460; Division B of H.R. 4). This bill would authorize numerous energy programs, including several recommended in the Bush energy plan. Major authorizations in the bill as reported by the Science Committee are listed below. At press time it was not possible to determine whether all had survived intact in H.R. 4.

- \$2.1 billion authorization for FY2002-2004 for energy conservation.
- \$2.5 billion authorization for FY2002-FY2011 for clean coal technology.
- \$490 million for FY2002-FY2004 for global climate change programs.
- \$1.68 billion for FY2002-FY2004 for renewable energy.
- \$691 million for FY2002-FY2004 for nuclear energy, including a new DOE Office of Spent Fuel Research.

Senate Bills. Several comprehensive energy bills have been introduced in the Senate, and hearings have been held by the Energy and Natural Resources Committee.

S. 388/S. 389 (Murkowski) National Energy Security Act of 2001. Among the major provisions of this bill are:

- Prescribe leasing guidelines for oil and gas exploration, development and production in ANWR's Arctic Coastal Plain.
- Establish federal grant programs for local government use of alternative fuel vehicles, and for residential renewable energy.
- Direct FERC to approve an Electric Reliability Organization to develop standards for bulk power reliability.
- Repeal PUHCA and amend PURPA.
- Establish tax incentives and credits for oil and gas production, advanced coal technologies, electric power, energy efficiency, alternative fuels, and renewable energy (S. 389).

S. 596 (Bingaman) Energy Security and Tax Incentive Policy Act of 2001. This bill would provide tax incentives for energy efficient property used in business, residential energy systems, electricity facilities and production, commercial applications of advanced clean coal technologies, heating fuels and storage and oil and gas production and petroleum products.

S. 597 (Bingaman) Comprehensive and Balanced Energy Policy Act of 2001. Major provisions of this bill are:

- Establish incentives to expedite construction of a pipeline to bring natural gas from the North Slope of Alaska (not ANWR) to the lower 48 states.

- Mandate the Department of Transportation to develop regulations to increase fuel efficiency of all light duty vehicles, provides more flexibility, but stronger standards than corporate average fuel efficiency, or CAFE.
- Establish an Electricity Reliability Organization.
- Prescribe guidelines governing renewable energy resources, distributed generation facilities, and hydroelectric relicensing.

References

Detailed analysis of many of the proposals and initiatives in current energy legislation can be found in other CRS products, all of which are available from the CRS home page.

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