Briefing Paper
COMMITTEE ON RESOURCES
Oversight Hearing: National Energy Policy

Summary:

On June 6th, 2001, the House Committee on Resources will take testimony concerning proposals in the National Energy Policy report within the Committee's jurisdiction. The Honorable Gale Norton, Secretary of the Interior, is the only witness. The oversight hearing will examine the legislative and administrative proposals in the report so that the Committee can fulfil its responsibilities in shaping energy policy in areas within the Committee's jurisdiction.

Background:

On May 17th, the Administration released the National Energy Policy report which forms the blueprint for its proposed national energy policy. The report, compiled by the National Energy Policy Development Group chaired by Vice President Cheney, identified five specific, national goals necessary to implement its policy: (1) increase conservation by applying existing technologies on a larger scale, (2) modernize existing energy infrastructure by removing regulatory hurdles, expediting permits for new projects and enacting comprehensive electricity legislation that promotes competition, (3) increase energy supplies from diverse sources including fossil fuels, hydropower, nuclear and non-hydro renewable resources in order to reduce dependence on foreign sources of energy, (4) accelerate the protection and improvement of the environment through development and transfer of new technologies, and (5) make energy policy a priority of U.S. trade and foreign policy, through building better relationships with energy producing nations in this hemisphere and preparing for emergency situations at home.

The report concludes that the current energy crisis has developed over many years and cannot be solved by short-term fixes alone and recommends that a new long-term, comprehensive energy policy be implemented. The report also recognizes that as long as U.S. dependency on fossil fuels continues, a comprehensive energy policy should advance environmentally friendly technologies and encourage the use of cleaner energy sources. The Administration report recommends a number of legislative and executive actions to undertake as part of a National Energy Policy.

During the past three months the Committee has conducted a number of oversight hearings that examine some of the areas covered by the report's proposal.

This briefing paper provides additional background on –

- Energy shortages
- Conservation and efficiency
- Assessment of domestic energy resources on public land
- Energy infrastructure on public land
- Constraints on production of energy from public land
- Proposed solutions in the National Energy Policy within the Committee's jurisdiction

Energy Shortages

According to the U.S. Energy Information Administration (EIA), domestic energy production between 1991 and 2000 increased by 2.3 percent over the previous decade while energy consumption increased by 17 percent. Increases in domestic coal, natural gas, nuclear energy and renewable energy production have been largely offset by declines in domestic oil production. As a result, America has met almost all of its rising energy demand during the last decade with increased imports.

Presently, America is trying to meet the energy demand of a dynamic, growing 21st century economy with last decade's supply base and infrastructure. The EIA projects that by 2020 energy consumption will increase by 32 percent. If the energy production and consumption trends of the 1990's continue, the periodic energy shortages and high prices our nation is currently experiencing will soon become chronic. Ultimately, the growth of America's economy will be limited by energy availability undermining our standard of living and national security. If we fail to resolve the energy crisis, California provides a vision of the future – homeowners, farmers and businesses facing soaring electricity prices, rolling blackouts, financial turmoil and recession.

Conservation and Increased Efficiency

Since the energy crisis in the 1970's, energy efficiency has significantly improved. While the economy has grown by 126 percent since 1973, energy usage has only increased by 30 percent, resulting in a savings of 72 quadrillion British thermal units. One third of these savings were the result of shifts in the economy to the service sector. The other two-thirds resulted from the implementation of energy efficiency technologies.

While conservation has helped ensure adequate energy supplies, improved conservation alone cannot close the gap between growing energy demand and lower generation capacity. Recent electricity shortages in California, which is the most energy efficient state in America and which by itself would be the world's sixth largest economy, clearly demonstrate that conservation alone does not provide the energy necessary to propel a vigorous economy.

An Assessment of Domestic Energy Resources

Is the United States running out of energy resources? According to independent experts, America has more than enough energy resources to fuel our economy. Based on recent estimates of oil and gas resources, a sizeable domestic oil and gas industry can be sustained for more than 50 years. Current recoverable reserves of coal should last 270 years at current rates of use. Electricity generated from geothermal power could be increased nearly ten times that of current rates.

Oil and Natural Gas

Oil and natural gas provide nearly 65 percent of the energy used by Americans. The EIA projects that demand for oil and gas will rise well into the foreseeable future, even after factoring in healthy gains in renewable energy supplies (26%) and energy efficiency (29%).

Perhaps the energy resource of greatest concern is natural gas. America faces record high prices and looming shortages of natural gas. Increases in demand are far outpacing production, which has fallen 14 percent since 1973. Natural gas is a North American regional commodity. Except for Canada, America cannot depend on gas imports to meet rising demand.

In the near future, natural gas demand will continue to rise, driven by the increased use of gas to generate electricity. Of the 250,000 megawatts of proposed electric generation capacity additions in the United States, over 95 percent is gas-fired. America is clearly staking its ability to meet increased demand for electricity on having adequate supplies of natural gas.

Natural gas supply has a major effect on farmers. Natural gas is a major component in the manufacture of fertilizers, pesticides and other farm chemicals. For example, natural gas accounts for 70 to 90 percent of the cost of producing a key component of nitrogen fertilizer.

An estimated 60 percent of America's remaining oil and gas resource base is on federal land or the submerged lands of federal waters. Much of this resource is in areas closed to oil and gas development. Most oil and gas experts believe that the eastern front of the Rocky Mountains, Arctic Coastal Plain of Alaska, and submerged lands in the Gulf of Mexico and the Atlantic and Pacific margins have the highest potential for discovery of large accumulations of oil and gas in America.

Coal

America's largest source of domestically produced energy is coal at an estimated 4 trillion tons. Current recoverable reserves are 304.6 billion tons, and should last 270 years at current rates of use. Federal land now accounts for almost 35 percent of total U.S. coal production, and major reserves of low sulfur coal occur in Wyoming, Utah, Montana, Colorado and New Mexico. Coal- fired power accounts for 57.3 percent of the electricity Americans use and typically costs 50 percent less than natural gas or oil. At current prices, coal power is about one-fifth the cost of these other resources.

Hydropower

Hydropower accounts for 7 percent of all U.S. electricity generation. It has remained flat for years, as many of the best locations for hydroelectric facilities have been developed. Moreover, major purposes of dams that generate electricity include irrigation and flood control. Potential to expand electric generation exists in adding turbines to and increasing efficiency in existing

facilities. Balancing the uses of hydro facilities, the effect of drought, and environmental issues are factors that affect hydropower's energy generation potential.

Geothermal Power

Geothermal energy technologies use the heat of the earth for electrical power production, direct-use applications, and geothermal heat pumps. Large portions of the western United States are characterized by high heat flow; thus, this country's geothermal resources are concentrated in the West. Most of these geothermal resources are on public land, which accounts for about 75 percent of the electrical power generated by geothermal resources.

High temperature geothermal systems, greater than 300°F, offer the greatest output and lowest cost electrical generation. Based on the 1978 geothermal assessment by the U.S. Geological Survey, twelve western states have identified or potential high temperature geothermal resources. The total high temperature geothermal resource potential in these states is estimated at 22,000 MW. About 2,800 MW of electricity is currently generated using geothermal energy.

Energy Infrastructure

The National Energy Report finds that the condition of our energy infrastructure, from oil and gas pipelines and electricity transmission lines, to refineries and transportation networks, has not kept pace with the demands that are placed on it. Pipelines transport 66 percent of domestic oil, and nearly all natural gas.

In the Western United States, an estimated 90 percent of oil and natural gas pipelines and electric transmission rights-of-way cross federal lands. The BLM administers 85,000 rights-of-way, including 23,000 for oil and gas pipelines and 12,000 for electric transmission lines. It processes over 1,200 right-of-way applications a year for these systems.

The Trans-Alaska Pipeline System is the most important crude oil pipeline in the nation, and probably the most regulated in the world. It presently carries nearly 20 percent of all the oil produced in the United States, and since 1977 it has safely transported over 13 billion barrels of oil 800 miles from Prudhoe Bay on the Arctic coastal plain of Alaska, south to the Port of Valdez. From there, oil is shipped by tank vessel to the West Coast. About 376 miles of the pipeline crosses federal land, and the federal and state rights-of-way for this pipeline require renewal by 2004. Applications for renewal of the federal right-of-way were recently filed with the Interior Department by the companies that own the pipeline system.

Constraints on Production of Domestic Energy Resources

Energy production from federal lands is significantly impacted by areas that are closed to resource development, failure of federal agencies to complete Environmental Impact Statements (EIS) in a timely manner and permitting delays. In areas where development is allowed, permitting can take many months to complete, and much longer if the agency's land-use plan is "out of date" with respect to anticipating the cumulative impacts of energy resource development.

Oil and Natural Gas

Most of the areas in the United States with the highest potential for discovery of large accumulations of oil and gas are closed to oil and gas development:

- The Rocky Mountains hold huge untapped reserves of natural gas -- an estimated 137 trillion cubic feet, but more than 40 percent of these gas resources are in areas off limits to development.

- The U.S. Geological Survey estimates that 5.7 billion to16 billion barrels of recoverable oil lie beneath Alaska's Arctic Coastal Plain within the Arctic National Wildlife Refuge (ANWR). This oil is currently off limits to development. ANWR could contain the largest oilfield in North America and significantly increase, perhaps even double, America's current oil reserves.

- Essentially all of the Atlantic and Pacific Outer Continental Shelf and nearly all of the eastern Gulf of Mexico are withdrawn from oil and gas leasing through June 30, 2012. The Minerals Management Service, the federal agency responsible for managing our offshore oil and gas resources, believes that the Outer Continental Shelf holds one-half of America's undiscovered oil and gas resources.

In the Powder River Basin in Wyoming, permits for tens of thousands of proposed wells developing coalbed methane (CBM) resources are delayed pending completion of an EIS on a land-use plan amendment. These CBM resources could be available to gas-starved markets in California or the Midwest. The Wyoming Oil & Gas Conservation Commission, which permits wells on state and fee lands, has issued several thousand CBM permits in the Powder River Basin, while the BLM studies. The San Juan Basin of New Mexico and Colorado, an older CBM province, may soon be in the same situation.

Coal

Considerable quantities of high quality coal, on the order of 30 billion tons of minable coal, occur on land managed by the Forest Service (FS). Presently, about 7 percent of national coal production comes from FS land. The recent "roadless area conservation rule" will have a

significant impact on coal production from FS land. There are over 2,500,000 acres of coal-bearing rocks in inventoried roadless areas, about 93 percent of this is in the Rocky Mountain states. The roadless area conservation rule appears to immediately affect active mining areas in Colorado and Utah. Holders of existing federal coal leases are concerned they will be unable to build roads to sink ventilation and escape shafts needed for underground mine expansions. Future coal leasing would effectively be precluded altogether.

Geothermal Power

Many of the constraints on geothermal power development mirror those of energy resource development on public land. New geothermal development requires the timely and reasonable administration of leasing, permitting and environmental reviews by federal land management agencies. However, applications for geothermal leases covering thousands of acres have been awaiting action for years. Permits to site geothermal steam-driven electric generating plants have taken many months or years to process. Environmental reviews are unnecessarily extensive, costly and repetitive. In areas where an EIS has been completed, decisions by federal agencies have been subject to years of delay and appeal.

Proposed Solutions in the National Energy Policy Report

The National Energy Policy report contains a number of recommendations to resolve some of the problems that inhibit energy production from federal land.

Actions Requiring Executive Review Involving the Interior Department

(1) Issue an Executive Order requiring an Energy Impact Statement for any federal regulatory act that significantly affects energy supplies, distribution or use.

(2) Issue an Executive Order that expedites permitting and other actions necessary for energy projects.

(3) Conduct new oil and gas leasing sales in the National Petroleum Reserve-Alaska.

(4) Examine land access and lease stipulation impediments for oil and gas, geothermal, biomass, wind, and solar resources.

(5) Reduce delays in geothermal leasing.

(6) Make hydropower licensing more clear and efficient.

(7) Keep leasing for oil and gas on the Outer Continental Shelf on a predictable schedule.

(8) Use technological advances to protect the environment.

(9) Promote enhance oil and gas production from existing wells through new technology.

Actions Under Resources Committee Jurisdiction Requiring Legislation

(1) Authorize oil and gas development in ANWR.

(2) Direct bonus bids from ANWR into research and development on alternative and renewable energy resources.

Actions Potentially Requiring Both Executive and Legislative Action

(1) Consider economic incentives such as royalty relief to promote development of marginal energy resources.

(2) After Executive review, make changes to appropriate law regarding energy activities and facilities on the Outer Continental Shelf and in the coastal zone.